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GROSHEV, L.V.; DEMIDOV, A.M.; PELEKHOV, V.I.

Gamma-ray spectra generated in neutron capture by heavy nuclei. Trudy Inst.fiz.AN Gruz.SSR 8:81-94 '62. (MIRA 16:2)
(Gamma-ray spectrometry) (Neutrons--Capture)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5

IVANOV, V. A.; PELEKHOV, V. I.

Spectra of internal conversion electrons emitted in the capture of thermal neutrons by Er^{167} and Er^{168}. Izv. AN SSSR. Ser. fiz. 16 no.12:1480-1485 D '62. (MIRA 16:1)

(Internal conversion(Nuclear physics))
(Neutrons—Capture)
(Erbium—Isotopes)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5

GROSHEV, L.V.; DEMIDOV, A.M.; IVANOV, V.A.; LUTSENKO, V.N.; PELEKHOV, V.I.

Level of the Sm^{150} nucleus excited in the (n, γ) reaction. Izv. AN SSSR.Ser.fiz. 27 no.2:216-227 F '63. (MIRA 16:2)
(Samarium isotpes) (Nuclear reactions)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5

GROSHEV, L.V.; DEMIDOV, A.M.; KOTEL'NIKOV, G.A.; LUTSENKO, V.N.; PELEKHOV, V.I.

Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta. Nuclear levels of Rh^{104} excited in the capture of thermal neutrons. Izv. AN SSSR. Ser. fiz. 28 no.7:1118-1123 Jl '64 (MIRA 17:8)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5

GROSHEV, L.V.; DEMIDOV, A.M.; IVANOV, V.A.; LUTSENKO, V.N.; PELEKHOV, V.I.

Gamma rays and internal conversion electrons from the reaction $Hf^{177}(n,\gamma)Hf^{178}$. Izv. AN SSSR. Ser. fiz. 28 no.7: 1244-1254 Jl '64 (MIRA 17:8)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5

S/048/63/027/002/009/023
B104/B180

AUTHORS: Groshev, L. V., Demidov, A. M., Ivanov, V. A., Lutsenko, V. N., and Pelekhov, V. I.

TITLE: The levels of the Sm^{150} nucleus excited by the (n,γ) reaction

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 27, no. 2, 1963, 216 - 227

TEXT: The γ-spectrum of Sm^{150} was investigated with a magnetic Compton spectrometer with a resolution of 0.3% in the range 0.3 - 8 Mev. The spectrum of internal conversion electrons was investigated with a magnetic spectrometer with resolution 0.6%. From the results, represented in two large figures and one table, the level scheme of Sm^{150} is constructed. The levels with 334, 740, 733, 1047, 1071, 1167, 1256 and 1278 kev are discussed in detail and the Sm^{150} level is compared with that of Gd^{152} (Fig. 5). It is shown that corresponding levels of Sm^{150} and Gd^{152} have similar radiation properties. Further the Gd^{152} transition between the

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2^+ levels with 929 and 344 kev have an exaggerated conversion ($\alpha_K = 0.026$) which is more than for the M1 transition. It may be due to the contribution of an E0-transition. The analogous Sm^{150} transitions between the 2^+ levels with 1047 and 334 kev has a conversion factor of $\alpha_K = 0.0074$, which corresponds to a non-forbidden M1 transition. As type $2^+ \rightarrow 2^+$ M1-transitions are forbidden in heavy even-even nuclei, it is assumed that E0 and E2 transitions make a small contribution. There are 5 figures and 5 tables.

Fig. 5. Comparison of the Sm^{150} and Gd^{152} level schemes.

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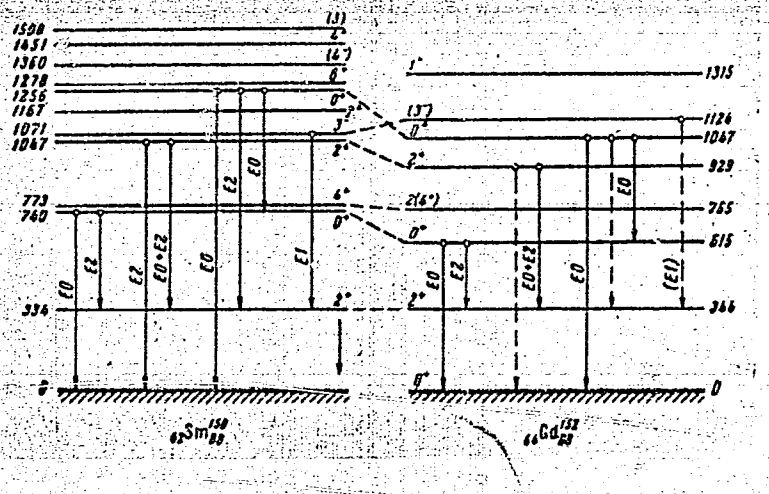
The levels of the Sm^{150} nucleus... S/048/63/027/002/009/023
B104/B180

Fig. 5



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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5

S/903/62/000/000/041/044
B102/B234

AUTHORS: Groshev, L. V., Demidov, A. M., Lutsenko, V. N., Pelekhov, V. I.

TITLE: Radiative properties of the Cd^{114} lower levels

SOURCE: Yadernyye reaktsii pri malykh i srednikh energiyakh; trudy Vtoroy Vsesoyuznoy konferentsii, iyul' 1960 g. Ed. by A. S. Davydov and others. Moscow, Izd-vo AN SSSR, 1962, 548-550

TEXT: The authors investigated the $Cd^{113}(n,\gamma)Cd^{114}$ reaction induced by thermal neutrons and measured the γ-ray spectra in the range 0.3-9.5 Mev as well as the conversion electron spectra in the range 0.3-2 Mev. The measurements were made with a new type of Compton magnetic spectrometer with 0.3% resolution at $h\nu > 2$ Mev and with a special conversion spectrometer with 0.6% resolution. Energies, characteristics and coefficients of the transitions were determined (Table) for emission of γ-quanta (I) and internal conversion electrons (II). The results obtained are discussed on the basis of the vibration model (Phys. Rev. 103, 1035, 1956). It is assumed that the levels 1135, 1207 and 1283 kev form a two-phonon triplet; it is, however, not impossible that the 0^{+} level of 1135 kev is due to the excitation of a

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neutron pair. The 1848-kev level, far away from the triplet, is a 0^+ level (Cohen, Price, Private Communication). The 552, 650 and 1207 kev levels have the reduced E2 transition probabilities of 36, 60 and 0.76 Weisskopf units which agrees with the collective nature of the 2^+-$2^{+'}$ levels according to the vibration model. There is 1 table.

ASSOCIATION: Institut atomnoy energii im. I. V. Kurchatova AN SSSR
(Institute of Atomic Energy imeni I. V. Kurchatov AS USSR)

E, kev	$\alpha_k \cdot 10^4$ I	α_k/α_{L+M} II	
557	4,7*	5	E2
650	3,1	5	
703	3,5	—	E2, or M1, or E2+M1
726	2,3	—	
748	2,4	—	
808	2,6	—	
1135	>20	—	0^+—0^+
1305	>1000	6,5	0^+—0^+

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5

PELEKHOV, V.I.; MALOV, A.F.

Magnetic spectrometer for recording internal conversion electrons emitted in the reaction (r, γ). Izv. AN SSSR. Ser. fiz. 25 no.9:1069-1033 '61. (MIRA 14:8)
(Spectrometer)
(Internal conversion (Nuclear physics))

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5

L 54785-65 EWT(m) Peb DIAAP

ACCESSION NR: AP5013994 UR/0048/65/029/005/0772/0781

AUTHOR: Groshev, L.V.; Demidov, A.M.; Ivanov, V.A.; Lutsenko, V.N.; Pelekhov, V.I.; Shadiyev, N.

TITLE: Levels of erbium 168 excited by neutron capture /Report, 15th Annual Conference on Nuclear Spectroscopy and the Structure of the Atomic Nucleus held in Minsk, 25 Jan-2 Feb 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.29, no.5, 1965, 772-781

TOPIC TAGS: gamma ray spectrum, neutron capture, erbium, internal conversion

ABSTRACT: The gamma rays between 0.5 and 8 MeV from the $Er^{167}(n,\gamma)$-Er^{168} reaction were investigated with a magnetic Compton spectrometer with a resolution of 0.3% for gamma ray energies above 2 MeV. The spectrometer has been described elsewhere (L.V.Groshev, A.M.Demidov, V.N.Lutsenko and A.F.Malov, Izv. AN SSSR, Ser. fiz. 24, 791, 1960). The

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5

L 54785-65

ACCESSION NR: AP5013994

sample was Er_2O_3 with the natural isotopic composition, to which Er^{167} contributes 90% of the slow neutron capture cross section. Possible origins of the gamma rays are discussed and it is concluded that those with energies above 5760 keV but not between 6185 and 6242 keV can be confidently assigned to Er^{166}. Nineteen such gamma rays are tabulated; there are also tabulated 13 gamma rays with energies between 5000 and 5760 keV of which the origin is in doubt and 23 with energies below 1400 keV which are ascribed to Er^{168}. The estimated errors of the energy measurements range from 2 to 8 keV. The measured relative intensities were converted to absolute intensities by normalizing the total radiated energy to the neutron binding energy. Conversion electron measurements are presented for 21 transitions with energies below 1400 keV. The conversion electron measurements for transitions with energies below 1000 keV were taken from earlier work (V.A.Ivanov and V.I.Pelekhov, Izv.AN SSSR, Ser.fiz.26,1480,1962) and those for higher energy transitions were measured with the same technique. Conversion coefficients were obtained for 19 of the transitions and multipolarities were assigned. A level and transition dia-

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L 54785-65

ACCESSION NR: AP5013994

gram encompassing 19 levels below 1996 keV and 47 transitions was derived for Er^{168}. This diagram and the reasons for some of the spin and parity assignments are discussed in considerable detail. The energy of the level into which the neutron is captured was found to be 7766 ± 4 keV. Orig.art.has: 2 figures and 6 tables.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: NP

NR REF SOV: 005 OTHER: 007

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5

S/048/62/026/008/003/028
B163/B104

AUTHORS: Groshev, L. V., Demidov, A. M., Lutsenko, V. N., and Pelekhov, V. I.

TITLE: Spectra of γ-rays and internal conversion electrons from the reaction $Cd^{113}(n\gamma)Cd^{114}$

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 8, 1962, 979 - 992

TEXT: The γ-spectra in the energy range from 0.4 to 9.5 Mev were measured in a magnetic Compton spectrometer giving a resolution of 0.3% for energies above 2 Mev and of 0.6% at E_γ = 1 Mev, described earlier by Groshev et al. (Izv. AN SSSR. Ser. fiz., 24, 791 (1960)). The spectrum of internal conversion electrons in the energy range from 20 kev to 3 Mev was measured in a magnetic beta spectrometer with a resolution of 0.6% at $E_e > 300$ kev and of 1% at lower electron energies, described earlier by Pelekhov and Malov (Izv. AN SSSR. Ser. fiz. 25, 1069 (1961)). The energy levels of Cd^{114} are of interest for investigating the lower levels in even-even nuclei. To measure the γ-spectrum, a metallic cadmium target consisting of the natural

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mixture of isotopes was bombarded with thermal neutrons. In the γ spectrum 132 lines were resolved, containing 37% of the total energy released by the neutron capture. To measure the internal conversion spectrum a cadmium oxide target of 0.8 mg/cm^2 thickness, enriched to 85% Cd^{113} on an aluminum backing foil was used. This spectrum contained 36 lines up to energies of 1.7 Mev. The energies, relative intensities, and internal conversion coefficients of the lines were tabulated. From these data, a level scheme was constructed assuming that the relatively intense lines with energies above 5 Mev correspond to transitions from the initial state formed by the neutron capture to the lower nuclear levels. The binding energy of the last neutron in Cd^{114} was found to be 9041 ± 3 kev. The characteristics of lowest levels at 558, 1134, 1209, 1283, 1306, 1364, 1732, 1841, 1958 kev above the ground state are discussed. The lowest of these levels are well known from earlier Coulomb excitation, β decay and (dp) reaction experiments. The 1306 kev conversion line is thought to correspond to a $0^+ - 0^+$ transition from the 1306 kev level to the ground state and the 1305 kev γ line is thought to belong to another level. For the levels at 1134 and 1209 kev the ratios of reduced branching probabilities are consistent with calculations for vibration models. It is concluded that the 1730, 1841, and

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Spectra of γ-rays and ... S/048/62/026/008/003/028
B163/B104

1958 kev levels have the characteristics 4^+, 1^+ and 3^- respectively. The squared transition matrix elements for the first 30 transitions from the initial state to the lower levels are given in a table. For the first 20 transitions they are low, but for the next 10 transitions to excitation levels above 3 Mev the squared matrix elements are much larger. There are 5 figures and 6 tables.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5

PELEKHOV, N.I., inzh.

Using a gantry and a tower crane at the same time in building an industrial shop. Nov. tekh. mont. i spets. rab. v stroi. 21: 18-19 Je '59. (MIRA 12:8)

1. Stroitel'no-montazhnoye upravleniye No.8 tresta Zaporozhalyuminstroy. (Cranes, derricks, etc.) (Precast concrete construction)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5

PELEKHOV, N.P.

Bending die with rocking supports. Mashinostroitel' no.8:22 Ag '62. (MIRA 15:8)

(Bending machines)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5

PELEKHOV, S.

5643. PELEKHOV, S. Propaganda Paredovogo Opyta V Sel'sk Okhozyay Stvennom Proizvodstve./_Temeleutskaya Mts_/Kishinev, Gosizdat Moldavii, 1954, 14s. 1[illegible] (Glav. Upr. s.-Kh. Propagandy 1 Nauki Mskh Mssr. B-Chka Kolkhornika) 3000 Ekz 10 k /_55-1179_/ p. 630018 (47.75)

SO: Knizhaya, Letopis, Vol. 1, 1955

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5

PELEKHOV, S.

7711. PELEKHOV, S. - Propaganda peredovogo opyta v sel'skokhozyaystvennom proizvodstve (temeleutskaya mts vertyuzhan rayona). Kishinev, Gosizdat moldavii, 1954. 15 s. 16sm. (Glav. upr. s.-kh propagandy i nauki m-va sel'skogo khozyaystva moldav. SSR. B-KA kolkhoznika). 3.000 ekz. 10 K.--Na moldav. yaz.-(55-3279) 63.0018 (47.75)

SO: Knizhnaya Letopis', Vol. 7, 1955

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5

GROSHEV, L.V.; DEMIDOV, A.M.; IVANOV, V.A.; LUTSENKO, V.N.; [illegible], V.I.

Energy levels of Gd^{156} and Gd^{158}. Dokl. AN SSSR 141 no.1:59-[illegible] N '61. (MIRA 14:11)

1. Predstavleno akademikom L.A. Artsimovichem.
(Gadolinium--Isotopes)
(Quantum theory)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5

GROSHEV, L.V.; DEMIDOV, A.M.; LUTSENKO, V.N.; PELEKHOV, V.I.

Spectra of γ-rays and internal conversion electrons from the reaction $Cd^{113}(n\gamma)Cd^{114}$. Izv. AN SSSR. Ser. fiz. 26 no.8: 979-992 Ag '62. (MIRA 15:11)
(Gamma-ray spectrometry) (Cadmium--Isotopes)
(Electrons)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5

GROSHEV, L.V.; DEMIDOV, A.M.; IVANOV, V.A.; LUTSENKO, V.N.
PELEKHOV, V.I.

Spectra of gamma rays and internal conversion electrons emitted in (n,γ) reactions on gadolinium isotopes. Izv. AN SSSR. Ser. fiz. 26 no.9:1119-1133 S '62. (MIRA 15:9)
(Internal conversion (Nuclear physics))
(Gamma rays--Spectra) (Gadolinium--Isotopes)

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33005
S/641/61/000/000/032/033
B102/B138

5.5310

AUTHORS: Groshev, L. V., Demidov, A. M., Pelekhov, V. I.

TITLE: Determination of slight gadolinium and samarium impurities by gamma spectrum analysis with (n, γ) reactions

SOURCE: Krupchitskiy, P. A., ed. Neytronnaya fizika; sbornik statey. Moscow, 1961, 348-353

TEXT: Thermal neutron capture gamma rays can, in certain circumstances, be used for quantitative determination of rare-earth impurities, provided a magnetic Compton spectrometer of high resolution is available. The impurities to be determined must have large, and the substance in which they are contained, small, σ_n and B_n values. σ_n is the thermal neutron capture cross section and B_n is the binding energy of the last neutron. The method was tested by determining Sm and Gd impurities in other rare-earth substances. The minimum concentrations which can be determined with a Compton γ-spectrometer of 2 % resolution are given in the table. The 6.74- and 7.22-Mev lines, which are characteristic of Gd and Sm, have energies above the B_n value of most of the rare earths. Several spectra

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33004
S/641/61/000/000/031/033
B102/B138

26.2246

AUTHORS: Groshev, L. V., Demidov, A. M., Pelekhov, V. I.

TITLE: Spectra of γ-rays accompanying thermal neutron capture by Mo, Nd, Ho, Tu and La nuclei

SOURCE: Krupchitskiy, P. A., ed. Neytronnaya fizika; sbornik statey. Moscow, 1961, 335 - 347

TEXT: This is a continuation of previous investigations of thermal (n,γ)-reactions (c.f. Groshev et al., Lecture at First Geneva Conference 1955); experimental apparatus and arrangement have already been described. This paper gives the results in great detail. Mo: A specimen of 1.4 kg total weight, consisting of disks 55 mm in diameter, was used to measure the spectrum in the 0.3-10 Mev range. Up to 80 % of the thermal neutrons were captured by Mo^{95}. Nd: Range 0.3 to 9 Mev, 200-g specimen of Nd_2O_3. 77 % of the spectrum is due to γ-transitions of Nd^{144}. The binding energy, B_n, of the last neutron in Nd^{144} was found to be 7.80 ± 0.02 Mev. Ho: Range 0.3 to 7.5 Mev, 50-g specimen of Ho_2O_3. The

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239910001-5

L 01812-67 EWT(m)

ACC NR: AP6035635

SOURCE CODE: UR/0089/66/020/005/0434/0435

AUTHOR: Abrams, I. A.; Pelekis, L. L.; Taure, I. Ya.

ORG: none

36
B

TITLE: Measurements of large γ-radiation doses and fluxes by means of photoactivation of isomeric nuclear states

SOURCE: Atomnaya energiya, v. 20, no. 5, 1966, 434-435

TOPIC TAGS: gamma radiation, radiation dosimetry

ABSTRACT: A method for measuring large γ radiation doses by detecting the exit γ' in reactions of the type $A(\gamma,\gamma')A^m$ is described. The results of an experiment using gamma-activation analysis along with standard well-type crystal detectors are outlined. Since the isomer method does not involve destruction of the material, it lends itself to repeated use. Orig. art. has: 3 formulas. [NA]

SUB CODE: 18,06 / SUBM DATE: 21 Aug 65 / ORIG REF: 001 / OTH REF: 001

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UDC: 541.15

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