

L 11952-85

ACCESSION NR: AP-046390

ENCLOSURE: 02

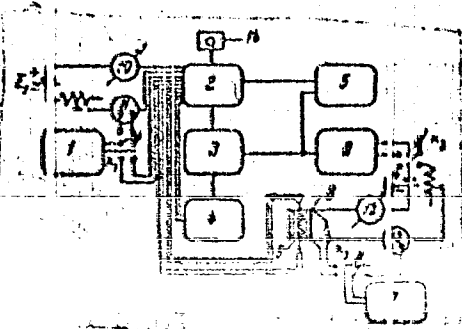


Fig. 2. Block diagram of measuring set-up.

- 1 - potentiometer, 2 - commutation block,
- 3 - scaler, 4 - generator, 5 - scaler,
- 6 - scaler, 7 - potentiometer, 8 - sample,
- 9 - thermometer, 10, 12 - microammeter,
- 11, 13 - standard resistor, 14 - commutation block, k - switch

Card 1/5

L 21139-66 EWT(1)/EWT(a)/EWP(w)/T/EWP(t) JD  
 ACC NRI AP6001588 (N) SOURCE CODE: UR/0120/65/000/006/0178/0183

AUTHOR: Stetsenko, P. N.; Avksent'yev, Yul. I.

ORG: Physical Faculty, MGU (Fizicheskiy fakul'tet MGU) 57

TITLE: Outfit for measuring the specific heat of metals and alloys at very low temperatures 14 9.11 55 18

SOURCE: Pribory i tekhnika eksperimenta, no. 6, 1965, 178-183

TOPIC TAGS: specific heat, low temperature specific heat, calorimeter, metal, temperature instrument, heat measurement 21, 411-5

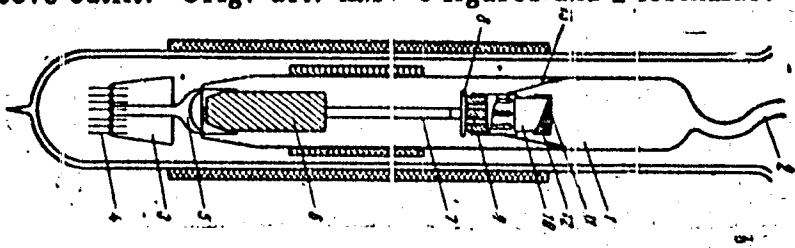
ABSTRACT: An outfit is described for measuring specific heat of metals and alloys at 0.20-1.5K, the temperatures below 1K being achieved by adiabatic demagnetization of a lump of a paramagnetic salt which contacts the test specimen. The specific heat was measured by determining the rate of temperature variation for a known supplied power. A glass calorimeter (see figure below) was used in the measurements. Vial 1 exhausted through tubing 2 is closed by glass block 3 carrying electrical lead-ins. Block 6 held by support 5 is made from chromium-potassium

Card 1/2 UDC: 536.631:536.483 2

L 23139-66

ACC NR: AP6001588

alum. Other parts: 7 - cool duct; 8 - specimen holder; 9 - superconducting bridge; 10 - specimen; 11 - thermometer; 12 - heater; 13 - centering quartz guys. A special electronic device with a sensitivity of  $5 \times 10^{-6}$  K/cps was developed for recording the temperatures involved (circuit diagrams and some data supplied); see B. Sandlin et al., Rev. Sc. Instr., 1959, v. 30, p. 659. An electronic switch was used for measuring time intervals and automatically switching the circuits. Specific heat of molybdenum vs. temperature (0.3-1.1K) is reported as an example of measurements (with an error of  $\pm 3\%$ ) made by the above outfit. Orig. art. has: 6 figures and 2 formulas.



Calorimeter for measuring specific heat near 1K temperature

SUB CODE: 20, 14/ SUBM DATE: 09Jan65/ OTH REF: 005

Card 2/2 PB

L-07114-67 EWT(m)/EWP(t)/EII IJP(c) ID/HW  
 ACC NR: AP6029108 SOURCE CODE: UR/0048/86/030/006/0962/0963

AUTHOR: Stetsenko, P.N.; Avksent'yev, Yu.I. 65  
64  
B

ORG: Moscow State University im. M.V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: <sup>1 2 7</sup> Hyperfine interactions in Ni<sub>3</sub>Mn alloy [Report, All-Union Conference on the Physics of Ferro- and Antiferromagnetism held 2-7 July 1965 in Sverdlovsk] III

SOURCE: AN SSSR, Izvestiya. Seriya fizicheskaya, v. 30, no. 6, 1966, 962-963

TOPIC TAGS: specific heat, nickel alloy, manganese alloy, magnetic field, hyperfine interaction

ABSTRACT: The purpose of the work was to evaluate the effective field at the Mn<sup>55</sup> nuclei in Ni<sub>3</sub>Mn alloy with a view towards determining the character of the hyperfine interactions, i.e., the influence of the ambience (nearest neighbors) on the fields at the nuclei in this ordering alloy. The values of the specific heat were determined in the low temperature range from 0.3 to 1.5°K; the lowest temperatures were realized by the technique of demagnetizing a paramagnetic salt in contact with the specimen. The equipment and procedure have been described in an earlier article by the authors (Zhur. eksperiment. i teor. fiz., 47, 806, 1964). The specimens were prepared by melting of the components in an atmosphere of argon in an induction furnace. The measurement results (C<sub>p</sub> versus T) are presented graphically. It is assumed that at very low temperatures C<sub>p</sub> = γT + αT<sup>-2</sup>, where α is the hyperfine interaction constant, for determi-  
 Card 1/3

AVIAFHOV, G.

Work of the shock brigades continues. Avt.transp. 40 no.1:53 Ja  
'62. (PIRA 15:1)  
(Tiflis--Motor vehicles--Maintenance and repair)

AVIAKHOV, G.

Training highway transport workers in economics. Avt.transp.  
40 no.3:62 Mr '62. (MIRA 15:2)  
(Highway transport workers)

AVLAKHOV, G.

Technical study room at a motor-vehicle repair plant. Avt.  
transp. 40 no.5:52 My '62. (MIRA 15:5)

1. Neshtatnyy korrespondent zhurnala "Avtomobil'nyy transport".  
(Tiflis—Motor vehicles--Technological innovations)

AVLAKHOV, G.

Shop of communist labor. Avt.transp. 4 no.8:54 Ag '62. (MIRA 16:4)  
(Tiflis--Motor vehicles--Maintenance and repair)



AVLAKHOV, G.

Patriotic deeds of Georgian tire-repair workers.  
Avt.transp. 40 no.11:54-55 N '62. (MIRA 15:12)

1. Neshtatnyy korrespondent zhurnala "Avtomobil'nyy transport".  
(Georgia-Times, Rubber-Retreading and recapping)

AVLAKHOV, G.

Innovators in motor-vehicle repair shops. Avt.transp. 41  
no.1:7 Ja '63. (MIRA 16:2)  
(Georgia—Motor vehicles—Maintenance and repair)

AVLAKHOV, G.

Information. Avt. transp. 41 no.6:59 Je '63. (MIRA 16:8)

BONDAR', N., tekhnik-mekhanik; GONCHARENKO, V.; ANDREYEV, V.; AVLAKHOVA, A.

Editor's mail. Okhr.truda i sots.strakh 5 no.10:32-33 0 '62.  
(MIRA 15:11)

1. Remontno-mekhanicheskiye masterskiye tresta "Ukrgazneftestroy",  
Kiyev (for Bondar'). 2. Tekhnicheskij inspektor Severo-Osetinskogo  
oblastnogo soveta professional'nykh soyuzov, g. Ordzhonikidze (for  
Goncharneko). 3. Starshiy inzh. po tekhnike bezopasnosti Stroytresta  
No.159, Tashkent (for Andreyev). 4. Predsedatel' gorodskogo komiteta  
professional'nogo soyuza meditsinskikh rabotnikov, g. Yalta (for  
Avlakhova).

(INDUSTRIAL HYGIENE)

L 2790-66 EWT(m)/EWP(t)/EWP(h)/EWA(h) JJ  
ASC NR: AP5028527 SOURCE CODE: UI/0286/65/000/020/0118/0118

AUTHORS: Yegorov, V. I.; Avlasenko, G. A.; Poluyanchik, P. G.; Feygin, Z. S.;  
Abramov, Yu. M. 38

ORG: none

TITLE: Apparatus for ultrasonic cleaning of parts. Class 49, No. 175806

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1965, 118

TOPIC TAGS: ultrasonic equipment, pneumatic device

ABSTRACT: This Author Certificate presents an ultrasonic cleaning apparatus with a periodically indexing carousel with radial spokes which carry holding fixtures for the parts. The spokes are located above perimetrically placed baths with ultrasonic transducers in their bottom sides. To provide universal application, the indexing mechanism of the carousel contains a pneumatic cylinder with a loose-fitting top which supports the spokes and a set of rollers (see Fig. 1). The latter interact with stationary inclined pawls.

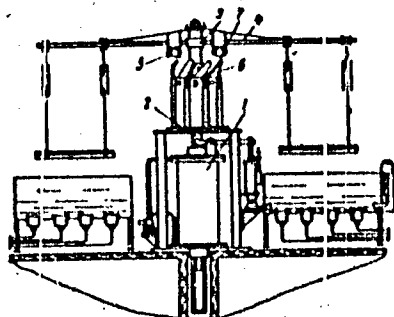
Card 1/2

UDC: 621.9.048 6.9.06  
2

L 9790-66

ACC NR: AP5028527

Fig. 1. 1 - Pneumatic cylinder; 2 - rod;  
3 - cover; 4 - spokes;  
5 - rollers; 6 - pawls;  
7 - inclines.



Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 20Feb63

PC  
ord 2/2

AVLASENKO, Yu., inzh.

Coal travels through pipes. Mast. ugl. 9 no. 9:10 S'60.  
(MIRA 13:1G)

(Hydraulic mining) (Mine haulage)

KOVALEVSKIY, M., inzhener; AVLASENKO, Yu.

Automatization of skip hoisting. Mast. ugl. 2 no. 10:9 0 '53. (MLRA 6:10)  
(Mine hoisting)



VLASSENKO, Yu., inshener.

New equipment for combatting coal dust. Mast. ugl. 3 no. 2:7 P '54.  
(MIRA 7:3)

(Mine dusts) (Coal mining machinery)

AVLASENKO, Yu., inzhener.

Automatic ventilating door. Mast.ugl. 3 no.5:13 My '54. (MLRA 7:6)  
(Mine ventilation)

AVLAS'ENKO, Yu. G.

KOVALEVSKIY, M.M.; AVLAS'ENKO, Yu.G.

Distance control of auxiliary operations in hoisting skips  
in the mines of the Stalinugol' Combine. Ugol' 29 no.7:40-42 J1 '54.  
(MIRA 7:7)

1. Kombinat Stalinugol'.  
(Mine hoisting) (Remote control.)

AVLASENKO, Yuriy Georgiyevich; KOVALEVSKIY, Mikhail Michaylovich; SNA-  
GOVSKIY, Ye.S., redaktor; SABITOV, A., tekhnicheskii redaktor

[Automatic and remote control of stationary machinery in mines]  
Avtomatizatsiia i distantsionnoe upravlenie shakhtnymi statsionar-  
nymi ustanovkami. Moskva, Ugletekhnizdat, 1955. 182 p.

(MIRA 9:3)

(Remote control.) (Automatic control) (Mining machinery)

*А. А. Мадвинская, Г. Б. Д'якова, Ю. Г. Авиасенко*

AVIASENKO, Yuriy Georgiyevich; D'YAKOVA, G.B., red. izd-va; MADVINSKAYA, A.A.,  
tekhn. red.

[Automatic water-emptying equipment for mines] Avtomaticheskaya  
shakhtnaya vodootlivnaya ustanovka. Moskva, Ugletekhizdat, 1957,  
42 p. (MIRA 11:7)

(Mine pumps) (Automatic control)

AVLASENKO, Yu., inzh.

New technology. Mast. ugl. 8 no.7:6 J1 '59.

(MIRA 12:10)

1. Proizvodstvenno-tekhnicheskij otdel Stalinskogo sovmarkhosa.  
(Donets Basin--Hydraulic mining)

AVLASENKO, Yuriy Georgiyevich [Avlasenko, IU.H.]; KOCHERGA, M., red.;  
GUSAROV, K. [Gusarov, K.], tekhn.red.

[Hydraulic mining machinery in Donets Basin mines] Gidro-  
mekhanizatsiia na shakhtakh Donbasu. Kyiv, Derzh.vyd-vo  
tekhn.lit-ry URSR, 1960. 54 p. (MIRA 13:8)  
(Donets Basin hydraulic mining--Equipment and supplies)

AVLASENKO, Yuriy Georgiyevich; KOVALEVSKIY, Mikhail Mikhailovich;  
CHUMACHENKO, T., red.; SHAFETA, S., tekhred.

[Automatic control of mine systems] Avtomatizatsiia shakhtnykh  
ustanovok. Izd.2., (dop. i perer. Kiev, Gos.ind-vo tekhn.lit-ry  
USSR, 1960. 458 p. (MIRA 14:6)  
(Coal mines and mining--Equipment and supplies)  
(Automatic control)



AVLASENKO, Yu.G., inzh.

Improving the haulage system on mine surfaces. Shakht. stroi. 6  
no.3:18-19 Mr '62. (MIRA 15:3)

1. Donetskii sovnarkhoz.  
(Mine haulage--Equipment and supplies)

AVLASENKO, Yu.G., inzh.; DOLGOCHEV, F.M.

Hydraulic pressure conveying with pressure-suction coal pipes.  
Ugol' Ukr. 6 no.6:15-18 Je '62. (MIRA 15:7)  
(Hydraulic conveying)

AVLASENKO, Yu.G.

Ukrainian conference on the reorganization of coal mines. Ugol'.  
prom. no.4:49-50 J1-Ag '62. (MIRA 15:8)  
(Ukraine—Coal mines and mining)

AVLASENKO, Yu. G., gornyy inzh.

Justification of the use of hydraulic machinery in coal mines.  
Ugol' Ukr. 6 no.10:25-28 0 '62. (MIRA 15:10)

1. Donetskij sovet narodnogo khczyaystva.

(Hydraulic mining)

AVTASHENKOV, V. N., Col. Maj

Listed as author of article, "The Utilization of Searchlights in Night Firing," which appeared in Artilleriyakly Zhurnal, No 8, 1954, Sovetskaya Armiya, Group of Soviet Forces, Germany, 18 Aug 54.

SO: SIP 291, 2 Dec 1954

AVLASOVA, N.M.; GORBLYSHEV, N.V.

Irregular granulometric composition makes possible the use of  
fine sands in making asphalt concrete mixes. Avt.dor. 23  
no.6:11-13 J<sub>e</sub> '60. (MIRA 13:6)  
(Sand) (Concrete)

7

GORELYSHEV, N. V.; BAGDASAROV, S. M.; LOBZOVA, K. Ya.; LYUBAVTSEVA,  
T. N.; AVLASOVA, N. M.; FAYNBERG, E. S.

Laying rough-surfaced asphalt-concrete pavements. Avt. dor. 25  
no.10:4-6 0 '62. (MIRA 15:10)

(Pavements) (Asphalt concrete)

AVLASOVA, Natal'ya Mikheylovna; GORELYSHEV, Nikolay Vasil'yevich; CHVANOV, V.G., red.; NIKOLAYEVA, L.N., tekhn. red.

[Dependence of the structure and characteristics of asphalt concrete upon its proportioned components.] Zavisimost' struktury i svoistv asfal'tobetona ot dozirovaniia komponentov. Moskva, Nauchno-tekhn. izd-vo M-va avtomobil'nogo transp. i shosseinykh dorog RSFSR, 1960. 32 p. (MIRA 14:6)

(Asphalt concrete)



VE/TSMAN, M.I., kand. tekhn.nauk; GEZENTSVEY, L.B., kand. tekhn.  
nauk; GORELYSHEV, N.V., kand. tekhn. nauk; KOZLOVA, Ye.N.,  
kand. tekhn. nauk; AVLASOVA, N.M., inzh.; KHANINA, TS.G.,  
inzh.

[Instruction on the construction of asphalt-concrete pave-  
ments] Instruktsiia po stroitel'stvu dorozhnykh asfal'to-  
betonnykh pokrytii (VSN 93-63). Moskva, Transport, 1964.  
132 p. (MIRA 17:10)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy proizvodstven-  
nyy komitet po transportnomu stroitel'stvu. Gosudarstven-  
nyy vsesoyuznyy dorozhnyy nauchno-issledova l'skiy institut.

AVLAVIDOV, T.

Treatment of malaria with chloroquine (aralen). Suvrem.med.,  
Sofia 6 no.2:110-111 1955.

1. Iz Okruzhnata nanepidstantsia - gr. Stalin (gl.lekar:  
L.Pukhovska).  
(CHLOROQUINE, therapeutic use,  
malaria)  
(MALARIA, therapy,  
chloroquine)

AVLAVIDOV, T.

Results of malaria control in the Stalin region. Suvrem.med.,  
Sofia 6 no.7:67-75 1955.

1. Iz Okruzhnata sanepidstantsia v gr. Stalin (gl.lekar:  
L.Pukhovska).

(MALARIA, prevention and control,  
in Bulgaria)

AVLAVIDOV, T.

Transmission of lambliasis. Suvrem. med., Sofia 7 no.8:  
44-47 1956.

1. Iz Okruzhnata sanepidstantsia -- Varna. (Glav. lekar:  
L. Pukhovska).  
(GIARDIASIS, in inf. and child  
statist.)

AVLAVIDOV, T.; KOVCHAZOV, G.

Results of the eradication of taeniasis in Varna District,  
Bulgarian People's Republic. Med. paraz. i paraz. bol. 34 no.5:  
572-575 S-O '65 (MIRA 19:1)

1. Otkruzhnaya sanitarno-epidemiologicheskaya stantsiya, Varna.  
Submitted June 9, 1965.

HYDROCARBONS, N I

AID P - 1338

Subject : USSR/Mining

Card 1/1 Pub. 78 - 1/30

Author : Avloshenko, N. I.

Title : Improvements in planning and financing of drilling works

Periodical : Neft. khoz., v.32, #12, 1-6, D 1954

Abstract : The analysis of existing methods of the planning of drilling work is presented with suggestions for improvement in the correct estimation of speed and cost of drilling. The effects of repairs, "stand by" losses and increased well depth on estimated annual cost and time of drilling are discussed.

Institution: None

Submitted : No date

AVLAVIDOV, T

Soviet, Religion, Vol. 6, no 6, November 63

#213  
10-2-63

1. "All in the name of the Party - the Party of the People's Unity and the Party of the Workers" (see article in this issue).
2. "The Party of the Workers is the Party of the Workers" (see article in this issue).
3. "The Party of the Workers is the Party of the Workers" (see article in this issue).
4. "The Party of the Workers is the Party of the Workers" (see article in this issue).
5. "The Party of the Workers is the Party of the Workers" (see article in this issue).
6. "The Party of the Workers is the Party of the Workers" (see article in this issue).
7. "The Party of the Workers is the Party of the Workers" (see article in this issue).
8. "The Party of the Workers is the Party of the Workers" (see article in this issue).
9. "The Party of the Workers is the Party of the Workers" (see article in this issue).

AVLAVIDOV, T.P.

On toxoplasmosis among some population groups in the Varna  
Region. Suvr. med. 13 no.4:18-23 '62.

1. Iz Okruzhnata sanepidstantsia - Varna (Gl. lekar Iv.  
Todorov).

(TOXOPLASMOSIS)



AT 50000, 100000, 150000

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73  
A9

IDENTIFICATION OF THE SOURCE OF THE INFORMATION  
RECEIVED (100000, 150000, 200000, 250000, 300000, 350000, 400000, 450000, 500000, 550000, 600000, 650000, 700000, 750000, 800000, 850000, 900000, 950000, 1000000)

100 P. TABLES.

BIBLIOGRAPHICAL FOOTNOTES.

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Synthesis and study of  $\alpha$ -bromoacrylic esters. Uzb. khim.  
zhur. 7 no.5:50-55 '63. (MIRA 17:2)

1. Institut khimii polimerov AN UzSSR.

SOV 112-57-9-19287

Translation from: Referativnyy zhurnal, Elektrotehnika, 1957, Nr 9,  
pp 193-194 (USSR)

AUTHOR: Avlyanova, K. A.

FILE: Automation and Telemechanics on Large Main Irrigation Canals  
(Avtomatizatsiya i telemekhanizatsiya na krupnykh magistral'nykh  
i positel'nykh kanalakh)

PERIODICAL: Sots. s. kh. Uzbekistana, 1956, Nr 11, pp 28-30

ABSTRACT: Within the next few years, the irrigation system in the Golodnaya Steppe will be reconstructed. New canals will be built, equipped with automatic and telemechanic means, which should cut personnel and operating costs and improve water distribution. In applying automation and telemechanical means to irrigation canals, it is recommended that head intake structures be equipped with automatic water-operated gates in dams, wasteways and head regulators of irrigation canals, and that line operating hydrostructures of the main canal be equipped with isolated outlets. In the first case, the necessary

Card 1/2

AVLYANOVA, N.A.

Improving the regulation of water distribution in irrigation canals.  
Vop. pidr. no. 27-61 '61. (MIRA 15:4)  
(Irrigation canals and flumes) (Remote control)  
(Automatic control)

AVLYANOVA, K.A.

Automatic control and remote control equipment in vertical wells.  
Vop. gidr. no.16:66-84 '63.

(MIRA 17:11)

1. AVKOCHKIN, A.V.
2. USSR (600)
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7. New automatic apparatus in the textile industry. Ivancva, Oblastnoe izd-vo 1952

9. Monthly List of Russian Accessions, Library of Congress, March, 1953. Unclassified.

AVMOCHKIN, A.V.

Universal regulator of warp moisture. Tekst. prom. 17 no.7:43-46  
Jl '57. (MIRA 10:9)  
(Yarn--Testing) (Cotton--Drying) (Automatic control)

AVMOCHKIN, Aleksandr Vasil'yevich; IVANOV, P.P., red.; PANKRATOV, A.I.,  
tekh. red.

[Automatic instruments in the textile industry] Avtomaticheskie pribory v tekstil'nom proizvodstve. Ivanovo, Ivanovskoe knizhnoe izd-vo, 1961. 296 p. (MIRA 15:4)  
(Textile industry) (Automatic control)



ВВНАПОВ, В.

Single stand pipe for discharging tanks. Neftianik 6 no.3:22  
Mr '61. (MIRA 14:10)

1. Glavnyy inzh. Tashkentskoy neftebazy.  
(Tanks)

AVHAIPOV, V.

Industrial and technological conference of young engineers in Omsk,  
Neftianik 2 no.4:33 Ap '57. (MLJA 10:5)  
(Omsk--Petroleum engineering)

AVNAPOV, V.A.

From work practices of efficiency promoters of the Tashkent tank  
farm. Neft.khoz.34 no.6:62-63 Je '56. (MLRA 9:9)  
(Tashkent--Petroleum--Storage)

AVNAPOV, V.A.

Discharging gasoline having high vapor tension from tank cars in the summertime. Neftianik 5 no.5:22-23 My '60. (MIRA 13:6)

1. Ispolnyayushchiy obyazannosti glavnogo inzhenera Tashkentskoy neftebazy Glavneftesnaba.  
(Gasoline) (Tank cars)

AVNAPOV, V.A.

Work practice of a tank farm. Neftianik 6 no.7:16-17 J1 '61.  
(MIRA 14:7)

1. Ispolnyayushchiy obyazannosti glavnogo inzhenera Tashkentakoy  
neftebazy.

(Petroleum--Storage)

AVNAPOV, V.A.

On the Tashkent tank farm. Neftianik 7 no.6:30 Je '62.  
(Tashkent region--Tanks) (MIRA 15:8)

YA.KH. AVNERC

"Results of Testing Tubes of Types 6N1p, 6N2P, 6N3P, 6Zh1P, 6P1P, 6P3S, and 6Kh2P under Conditions Equivalent to the Simultaneous Effect of Increased Ambient Temperature and Reduced Atmospheric Pressure" from Annotations of Works Completed in 1955 at the State Union Sci. Res. Inst. of Radio Engineering Ind.

So: B-3,080,964

AVNERS, Ya, Ye.; GONCHAEVSKIY, L.A.

Electronic acceleration transmitters. Priborostroenie no. 5:29-30  
My '57.

(Electronic instruments)

(MIRA 10:6)



AVDONIN, V. P.

AVDONIN, V. P.: "A study of the  $(\gamma, n)$  and  $(\gamma, f)$  reactions for the  $^{232}\text{Th}$  using the radiochemical method with  $\gamma$ -quantum energies up to 13 million electron-volts." In higher education U.S.S.R. Leningrad order of Labor of Order of Merit Technological Institute Leningrad Soviet. Leningrad, 1956 (Dissertation for the degree of Candidate in Chemical Sciences)

See: 'Knizhnaya letopis', No 24, 1956

KOLMINOV, O.V.; AVONKOVA, Z.V.

Electronic absorption spectra of phenyl derivatives of elements of the groups IV and V as dependent on the potentials of the nuclei. Zhur.fiz.khim. 36 no.10:2228-2230 0 '62. (MIRA 17:4)

1. Fiziko-khimicheskiy institut imeni Karpova.

AVORYKINA, K. V.  
Forestry Inst. Acad. Sci.

"Illumination Under the Canopy of Certain Types of Broad-Leaved Forests (North-Western Caucasus)." Dok. AN 56, No. 4, 1949.

MAZHEYKA, I.[Mazeika, I.]; AVOTA, L.; SOKOLOV, G.; GILLER, S.

Distribution of electron density in heterocyclic systems with  
two adjacent nitrogen atoms. Part 1: Dipole moments of some  
pyridazine derivatives. Zhur. ob. khim. 34 no.10:3380-3385  
0 '64. (NIRA 17:11)

1. Institut organicheskogo sinteza AN Latvyskoy SSR.

AUTHORS: Baytsur, A.I., ~~Avotin, A.I.~~, Bakal, M.Sh. and  
Samofal, S.F., Engineers

SOV/97-58-11-3/11

TITLE: Precast Reinforced Concrete Constructions Used for  
Underground Sections of Industrial Buildings (Sbornyye  
zhelezobetonnyye konstruksii v podzemnykh kommunikats-  
iyakh promyshlennykh sooruzheniy)

PERIODICAL: Beton i Zhelezobeton, 1958, Nr 11, pp 414-417 (USSR)

ABSTRACT: At present precast reinforced concrete segments forming wells  
are used for the underground parts of industrial buildings.  
At the same time the construction serves as shuttering. The  
excavating work and the sinking of the well is fully mechanised.  
This type of construction is used in the underground parts of  
the Stalinskiy metallurgicheskiy zavod (Stalin Metallurgical  
Works) and Almaznyanskiy ferrosplavnyy zavod (Almaznyanskiy  
Ferro-alloy Factory) and designed by the Giprostal' Institute,  
Khar'kov. Figure 1 shows cross-section and plan of the  
underground part of the Stalin Metallurgical Factory. It has  
a cylindrical structure, 28 m deep and 25 m in diameter.  
The segmental

Card1/3

SOV/97-58-11-3/11

Precast Reinforced Concrete Constructions Used for Underground Sections of Industrial Buildings.

slabs have thin reinforced concrete walls with flanges on all sides and one rib in the centre. The circular floor slabs serve as additional strutting for the well. They are supported on columns so that no weight from the floors is transmitted onto the outer wall. The precast reinforced concrete segments (Fig.3) have the following dimensions: 3.13 x 0.99 x 0.65 m; weigh up to 3 t, and are made of concrete mark 300 with welded mesh reinforcement. The segments are calculated to withstand a maximum loading of 40 tons/m<sup>2</sup>. The wall of the segmental slab has a thickness of 15 cm. The ribs are 15 x 65 mm in cross section. The slab of the segment is provided with 2 openings of 63.5 mm in diameter which are used for placing the grout between the wall and the excavation. The segments are bolted together with bolts for which 41 mm diameter openings are provided in the ribs. Waterproofing is obtained by addition of 2% to 3% sodium aluminate to this concrete back-filling. The latter has a thickness of 15 to 20 cm. Fig.4 illustrates the process of construction.

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Precast Reinforced Concrete Constructions Used for Underground  
Sections of Industrial Buildings. SOV/97-58-11-3/11

The ground is first excavated and an in-situ reinforced concrete wall is constructed. The segments are then fixed to the underside of this retaining wall forming a ring. Further segments are added as soon as the excavation makes this possible. The construction of a skiphole for the Almaznyanskiy Ferre-Alloy factory is shown in Fig. 5. Details of this underground structure are also given. Advantages of this construction consist in the possibility of being able to use precast units, to mechanise all labour, saving time, reduction in the volume of excavation, and a considerable saving in reinforcement. There are 5 figures.

Card 3/3

AVOTIN, P. G.

Raising ships from river bottoms 2. dop. izd. Moskva, Izd-vo Narkomrechflota SSR,  
1945. 110p. 49-56790

VKL491.A8 1945

1. Salvage



AVOTIN, P. G., jt. au.

The theory and organization of merchant ships Moskva, Morskoi transport, 1948. 407 p.  
50-38215

VM600.016

AVOTIN, Yu.P. (Leningrad)

Studying the topic "Concept of atomic structure." Fiz. v shkole  
22 no.3:92-95 My-Je '62. (MIRA 15:7)  
(Atomic theory—Study and teaching)

AVOTIN-PAVLOV, K. Ya.

USSR/Biology - Spontaneous Transmutation Sep/Oct 52

"Generation of Spruce by Pine," K. Ya. Avotin-Pavlov

"Agrobiologiya" No 5, pp 30-35

Describes among other cases, a 100-year-old pine tree with spruce branches growing from its trunk. The author, basing his assumptions on the T.D. Lysenko theories of the effects of changes in environment, discards the possibility of spontaneous grafting, and attributes the phenomenon of the generation of a plant of a different species to a morphological process in the vegetative part of the parent plant organism.

235T9

AVOTIN-PAVLOV, K. Ya.; BANDERS, V. L.

Propagation of birches by means of lignified twigs. Dokl. AN SSSR, 84, No. 4, 1952.

SO: MLRA. October 1952.

USSR/Forestry - General Problems.

K-1

Abs Jour : Ref Zhur - Biol., No 5, 1958, 20096

Author : Avotin-Pavlov, K.Ya.

Inst : -

Title : The Formation of New Characteristics in Crossed Tree Species.

Orig Pub : Agrobiologiya, 1957, No 4, 156-157.

Abstract : Description is given of a case of new characteristics having formed in the hybrids of *Populus candicans* X *P. trichocarpa*, obtained in 1952 by Schlenker at the Wuerttemberg Experimental Forestry Station. The hybrids had principally intermediate characteristics between their parents. Two hybrids had characteristics completely absent in the initial species. One of them had the leaves on the main shoot nearly like a churn dasher in appearance with several internodes shortened. On the second specimen there were peculiar spiny excrescences, spread over

Card 1/2

- 21 -

USSR/Forestry - Forest Crops.

K.

Abstr Jour : Ref Zhur - Biol., No 15, 1958, 68027

Author : Avotins-Pavlovs, K.

Inst : Latvian Agricultural Academy

Title : Accelerated Determination of Pine Seed Germination.

Orig Pub : Tr. Latv. s.-kh. akad., 1957, No 6, 405-407.

Abstract : Experiments were conducted in the forestry department of the Latvian Agricultural Academy to accelerate seed sprouting. Before the seeds were placed in the sprouter, a 0.3-0.5 mm. slice was cut off the thin end. As a result the same percentage of these seeds had germinated in 9 days as of untreated seeds in 15 days. This method (developed by I.A. Kupriyanov) is recommended for production, but only if sterile conditions can be guaranteed.

Card 1/1

AVOTIN-PAVLOV, K. Ya., kand. sel'skokhoz. nauk (Riga)

Planting in clusters in the afforestation of heathlands in  
Latvia. Agrobiologia no.1:120-125 Ja-F '64 (MIRA 17:8)

AUTHORS: Avotina, M. P., Sumbayev, O. I. SOV/48-22-7-24/26

TITLE: Precision Measurement of the Energies of  $\gamma$ -Lines at 1,17 and 1,33 MeV From  $\text{Co}^{60}$ , at 482 keV From  $\text{Hf}^{181}$ , and at 158 and 208 keV From  $\text{Au}^{199}$  (Pretzionnyye izmereniya energiy  $\gamma$ -Linii 1,17 i 1,33 MeV  $\text{Co}^{60}$ ; 482 keV  $\text{Hf}^{181}$ ; 158 i 208 keV  $\text{Au}^{199}$ )

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya fizicheskaya, 1958, Vol. 22, Nr 7, pp. 879 - 882 (USSR)

ABSTRACT: A basic source of error in the measurements of the wavelengths (energies) with the two-meter crystal diffraction spectrometer of the VNIIM (Refs 1,2) are the elastic and inelastic deformations in the measuring triangle. Scale deviations from linearity caused by deformations are particularly dangerous. In order to eliminate the influence of deformable mechanical joints an optical reading system was built. Its principal layout is exposed. The errors connected with the deformation and the inaccuracy of the sine measuring mechanism were completely eliminated. The mean square deviation in the measurements amounted to  $\pm 0,005$  mm amounted to 0,006 mÅ. The wavelength of the line of at 412 keV from  $\text{Au}^{198}$  is assumed as

Card 1/3



Precision Measurement of the Energies of  $\gamma$ -Lines at SOV/48-22-7-24/26  
1,17 and 1,33 MeV From  $\text{Co}^{60}$ , at 482 keV From  $\text{Hf}^{181}$ , and at 158 and 208 keV  
From  $\text{Au}^{199}$

$\lambda = 30,105 \pm 0,003 \text{ m}\text{\AA}$  (obtained in reference 3 at the crystal diffraction spectrometer of Du Mond). The constant  $k$  of this apparatus is found to be  $0,58862 \pm 0,00007 \text{ m}\text{\AA} \text{ mm}^{-1}$ . The measurements of the wave lengths of the lines of 1,17 and 1,33 MeV from  $\text{Co}^{60}$  and of 482,0 keV from  $\text{Hf}^{181}$  are given. The lines of 158 and 208 keV from  $\text{Au}^{199}$  are not within the range of optical reading (240 - 1500 keV). In this case the measurement is performed by varying the position of the source carrier and that of the crystals on calibrated millimeter scales.  $\text{Au}^{199}$  was produced by an irradiation of  $\text{Au}^{197}$  with thermal neutrons by a double subsequent neutron capture:

$\text{Au}^{197}(\text{n}\gamma) \text{Au}^{198}(\text{n}\gamma) \text{Au}^{199}$ . The lines from  $\text{Au}^{199}$  occurred simultaneously with the line of 412 keV from  $\text{Au}^{198}$ , which was used as identification line. The second and the third order of these lines furnished reference points at energies, which amount to 1/2 or 1/3 of the ground energy. Thus it was possible to determine a possible nonlinearity and to eliminate it.

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Precision Measurement of the Energies of  $\gamma$ -Lines at SOV/48-22-7-24/26  
1,17 and 1,33 MeV From  $\text{Co}^{60}$ , at 482 keV From  $\text{Hf}^{181}$ , and at 158 and 208 keV  
From  $\text{Au}^{199}$

There are 2 figures, 5 tables, and 8 references, 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.Mendeleyev)

Card 3/3

AUTHORS: Avotina, M. P., Grigor'yev, Ye. P., 20-119-6-20/56  
~~Zolotavin, N. V., Kratsik, E.~~

TITLE: The Radiation From  $Tb^{160}$  (Izlucheniye  $Tb^{160}$ )

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 6,  
pp. 1127-1130 (USSR)

ABSTRACT: The continuous spectrum, the spectrum of conversion electrons and the spectrum of photoelectrons from radioactive  $Tb^{160}$  was measured by the authors by means of a spectrometer with double focussing. The sample was produced by irradiation of chemically pure  $Tb_2O_3$  with slow neutrons. The continuous spectrum was examined by means of a source with a thickness of  $\sim 1 \text{ mg/cm}^2$ , which was produced by coating  $Tb_2O_3$  on a mica base with a thickness of  $\sim 1,5 \text{ mg/cm}^2$ . The results of the measurements are compiled in a table. The conversion spectrum was measured by means of sources with a thickness of from 4 to 5  $\text{mg/cm}^2$ . 19 lines were found, pertaining to 11 transitions to  $Dy^{160}$ . These results are also compiled in a table.

Card 1/3

The Radiation From Tb<sup>160</sup>

20-119-6-20/56

The general form of the  $\beta$ -spectrum is illustrated by a figure. The lines pertaining to the transitions to Dy<sup>160</sup> with the energies 878 and 965 keV are double. These two transitions were also investigated in the decay of Tb<sup>160</sup>. The line corresponding to the transition with the energy 877 keV is either a single line or its weak component is so soft, that it cannot be separated from the harder line. The relative intensities of the  $\gamma$ -transitions were determined by division of the areas covered by the respective lines by the corresponding coefficient of photoelectronic absorption. The authors compared the relative intensities of some radioactive isotopes (e. g. J<sup>131</sup>, Sb<sup>124</sup>) known from publications with the intensities obtained on the basis of the measurements of the photo lines. For the discussed measurements the internal diameter of the source amounts to 0,3 mm. Therefore it should be possible to determine correctly the relative intensities in a wide energy range. The authors attempted the separation of the line 967 keV

Card 2/3

S/048/60/024/03/12/019  
B006/B014

AUTHORS: Grigor'yev, Yu. P., Avotina, N. P.

TITLE: A Comparison Between the Theory of <sup>19</sup>Nonaxial Nuclei and Experiment

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 3, pp. 324-335

TEXT: The article under review was read at the Tenth All-Union Conference on Nuclear Spectroscopy (Moscow, January 19 - 27, 1960). The theory of deformed nuclei put forward by Bohr and Mottelson is in close agreement with experimental results within the ranges  $150 < A < 190$ , and  $A > 122$ , especially concerning the theoretical prediction of transition probability ratios. Near the limits of this range (for  $\text{Sm}^{152}$ ,  $\text{Gd}^{154}$ ,  $\text{Os}^{186}$ ,  $\text{Os}^{188}$  and  $\text{Os}^{190}$ ), however, experimental observations partly deviate from theoretical predictions considerably. A. S. Davydov, G. F. Filippov, and V. S. Rostovskiy (Refs. 6-9) developed a theory of rotational levels of even-even nuclei based on the assumption that the

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A Comparison Between the Theory of  
Nonaxial Nuclei and ExperimentS/O48/60/024/03/12/019  
B006/B014

nuclei have a non-axisymmetric equilibrium shape. The deformation parameter  $\gamma$  is between  $0^\circ$  and  $60^\circ$ . These two limits correspond to the cases of axial symmetry.  $\gamma = 30^\circ$  describes the maximum of deviation from axial symmetry (ellipsoid of revolution). The conclusions to be drawn from this theory are discussed here, and it is shown that experimental results (concerning the nuclei on the edges of the above-mentioned range of atomic weight) may be better described by corrections to level energies based on this theory. Davydov and Filippov derived formulas for determining the level energy as functions of  $\gamma$ ; here, the energy is given in units of  $\hbar^2/4B\beta^2$ . The respective functions  $E = f(\gamma)$  for a series of elements as compared to experimental results are given in Fig. 1 ( $B$  is the inertia parameter,  $\beta$  the deformation parameter). The formulas for the energies of  $2^+$ ,  $5^+$ , and  $3^+$  levels are given by equations (1), (2), and (3). The theory of nonaxial nuclei permits a determination of the probabilities of  $E2$  transitions between all rotational levels. These probabilities are functions of  $\gamma$ . Equations (9)-(11) give three such formulas. Theoretical transition probabilities are compared with experimental values in Figs. 2 and 3. Next, the

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Card 2/4

A Comparison Between the Theory of  
Nonaxial Nuclei and Experiment

S/048/60/024/03/12/019  
B006/B014

authors discuss the portions of E2- and M1 multipoles in  $2_2^+ \rightarrow 2_1^+$  transitions which result from Davydov's theory. The second part of the present paper deals with a comparison between theoretical relations and experimental results. Theoretical corrections to the level energies for 15 nuclei are contained in Table 1. The transition probability ratios for several E2 transitions are discussed, and the intensity ratios

$\delta^2 = \frac{I(E2)}{I(M1)}$  for  $2_2^+ \rightarrow 2_1^+$  transitions resulting from Davydov's theory are

given and compared with experimental results (Table 2). Experimental data on nuclei the spectra of which may be explained by the theory of nonaxial nuclei, are supplied in a table attached to this paper. In conclusion, it is noted that Davydov's theory gives an exact definition of certain nuclear-spectroscopic data. The authors thank L. K. Peker and M. A. Listengarten for their assistance and interest. There are 3 figures, 3 tables, and 78 references, 16 of which are Soviet.

Card 3/4

✓C

A Comparison Between the Theory of  
Nonaxial Nuclei and Experiment

S/048/60/024/03/12/019  
B006/B014

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

✓C

Card 4/4



24.6820  
21.6000

31282  
S/589/61/000/053/002/006  
D051/D113

AUTHORS: Avotina, M.P.; Cstromukhova, G.P.

TITLE: Device for absolute measurements (in roentgens) of X-ray radiation from 20 to 60 kv

SOURCE: USSR. Komitet standartov, mer i izmeritel'nykh priborov. Trudy institutov Komiteta, no. 55 (115), Moscow, 1961. Issledovaniya v oblasti izmereniya ioniziruyushchikh izlucheniya, 35-41

TEXT: The design and theory of a device for calibrating X-ray dosimeters within an excitation voltage range from 20 to 60 kv are given. The device, which was built in 1959 at VNIIM, shows a measuring error of  $\pm 1.5\%$ . It consists of the following basic parts: a feeding and a measuring installation, a calibration bench with a small table for chamber installation, and a standard ionization chamber of the plane-parallel type. The latter consists of measuring, potential, and protection electrodes. It was

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31282  
S/589/61/000/055/002/006  
D051/D113

Device for absolute measurements...

found that a 30 mm long measuring electrode surrounded by a 50 mm thick protection electrode at a distance of 40 mm between potential and measuring electrodes, are most suitable. The chamber is placed in a three-layer casing of brass, lead and aluminum, the ionization currents being measured with a Townsend compensation system. The device permits measuring currents from  $10^{-9}$  to  $10^{-12}$  a with an error of  $\pm$  (0.5~~±~~1.0)%. The feeding installation consists of a set of dry batteries, a relay, and a switchboard. In an idle state, the chain of serially connected batteries is disconnected by sections of 400 v each. Serial connection of all sections guarantees potential differences of up to 4500 v. An P~~YM~~-7 (RUM-7) X-ray apparatus with a 1-5ПВ-1-60 (1-BPV-1-60) X-ray tube serves as radiation source. Various aspects of the standard chamber for verifying the uniformity of the electrical field in the measurement volume and for selecting the optimum distance between the potential and the measuring electrodes are described. The measurement of the volt-ampere characteristics showed that for dose rates of 50,000 r/min, the saturation current in the chamber is obtained by applying a potential of 4400 v. The device

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39211

S/263/62/000/007/013/014  
1007/1207

AUTHOR: Avotina, M. P. and Cstromukhova, G. P.

TITLE: Absolute measurement (in roentgen units) of X-rays having an intensity range of 20-60 kv

PERIODICAL: Referativnyy zhurnal. otdel'nyy vypusk. Izmertel'naya tekhnika, no. 7, 1962, 52, abstract 32.7.348 "Tr. in-tov kom-ta standartov, mer i izmerit. priborov pri Sov. Min SSSR", no. 55 (115), 1961, 35-41

TEXT: A system, designed at the VNIIM-Vsesoyuzniy nauchno-issledovatel'skii institut metrologii im. D. I. Mendeleeva (All-Union Scientific Research Institute of Metrology im. D. I. Mendeleev) for measuring X-rays of an intensity from 20 to 60 kv (in roentgen units). The system consists of a reference ionization chamber, feeding and electrometric devices and a graduation bench with table for fastening the measuring chamber. The plan-parallel chamber comprises measuring, voltage and protection electrodes. Since the ionization capacity of soft X-rays is subject to marked variations on their path from the inlet diaphragm to the center of the measuring electrode as well as along it, a minimum admissible distance was established between the electrode and the diaphragm. The length of the electrode was reduced to 30 mm. A special protection electrode, designed to equalize the electric field, enveloped the measuring electrode at 4 points. The ionization currents are measured by means of the Townsend compensating device containing the CF-1-M

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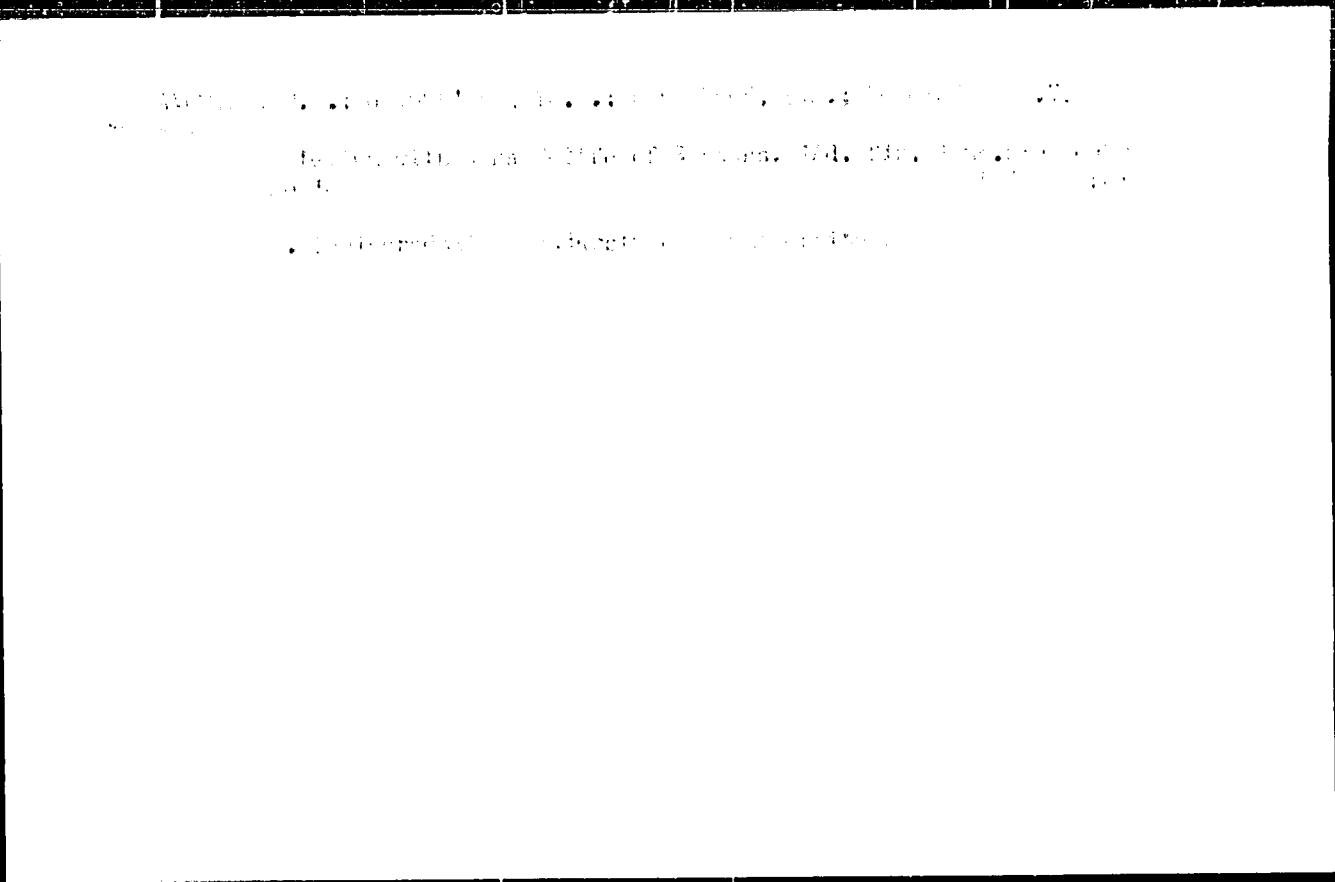
Absolute measurement...

S/263/62/000/007/013/014  
1007/12:07

(SG-1-M) type electrometer. The device permits measurements of currents from  $10^{-9}$  to  $10^{-12}$  Amp with an accuracy of  $\pm 0.5$  to  $1.0\%$ . The radiation source in the ionization chamber is a PYM-7 (RUM-7) X-ray unit provided with a 1-БПВ-60 (1-BPV-60) tube in which the radiation outlet window is covered with a 1 mm beryllium cover. The final part of this report deals with the problem of graduation of working dosimeters for X-rays having an intensity range from 20 to 60 kv. There are 4 figures, 1 table and 1 reference.

[Abstracter's note: Complete translation.]

Card 2/2



AVOTINA, M.P.; GRIGOR'YEV, Ye.P.; DZHELEPCOV, B.S.; ZOLOTAVIN, A.V.

Auger electrons from  $\text{Er}^{160}$  and  $\text{Ho}^{160}$ . Izv. AN SSSR. Ser. fiz. 29 no.7;  
1098-1102 J1 '65. (MIRA 18:7)

1. Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo  
gosudarstvennogo universiteta.

L 23017-66 EWT(m)/EPF(n)-2/IMP(t)/EWA(h) ID/WW/JA

ACC NR: AP6014823

SOURCE CODE: UR/0367/65/001/006/0958/0960

AUTHOR: Avotina, M. P.; Grigor'yev, Ye. P.--Grigoryev, E. P.; Dzhelapov, B. S.; <sup>52</sup>  
Zolotavin, A. V. <sub>B</sub>

ORG: Leningrad State University (Leningradskiy gosudarstvennyy universitet)

TITLE: Three-hour activity of lutetium <sub>7</sub>

SOJRCE: Yadernaya fizika, v. 1, no. 6, 1965, 958-960

TOPIC TAGS: lutetium, isomer, tantalum, proton

ABSTRACT: The presence of the isomer <sup>21</sup>Lu<sup>176m</sup> among the products of the deep splitting of tantalum by 660 MEV protons is confirmed. The L<sub>II</sub>-, L<sub>III</sub>-, M<sub>II</sub>-, M<sub>III</sub>-, and N-line intensities of the 88.37 ± 0.03 KEV transition in Hf<sup>176</sup> were measured. The authors thank K. Ye. Gromov for discussions of the results; N. A. Lebedev for the separation of the lutetium particles; V. Ye. Ter-Nersesyan and G. A. Mironov for assistance with the measurements. The work was carried out at the Joint Institute of Nuclear Research. Orig. art. has: 1 figure and 1 table. [Based on authors' Eng. abst.]

[JPRS]

SUB CODE: 20 / SUBM DATE: 28Dec64 / ORIG REF: 005 / OTH REF: 003

Card 1/1 *plu*

L 25763-66 EWT(m) DIAAP JD/JG

ACC NR: AP6016390

SOURCE CODE: UR/0048/65/029/057/1098/1102

AUTHOR: Avotina, M. P.; Grigor'yev, Ye. P.; Dzhelopov, B. S.; Zolotavin, A. V. 51  
B

ORG: Scientific Research Physics Institute, Leningrad State University (Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo gosudarstvennogo universiteta)

TITLE: Auger electrons of Er sup 160 and Ho sup 160

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 7, 1965, 1098-1102

TOPIC TAGS: erbium, holmium, radioactive decay, dysprosium, proton, tantalum, spectrometer, radioisotope, electron

ABSTRACT: This article is a description of an experiment intended for further investigation of the proposed existence of a second excited level of  $Ho^{160}$ . In the experiment the K-capture during the decay of  $Er^{160}$  was determined according to the intensity of Auger K-LL-electrons of holmium and dysprosium occurring during the decay of  $Er^{160}$  and  $Ho^{160}$ . The  $Er^{160}$  was obtained by irradiation of tantalum with protons with an energy of 660 Mev and subsequent chemical and chromatographic separation of the products of the reaction. The measurements were made on a  $\beta$ -spectrometer with double focusing at an angle of  $\pi\sqrt{2}$ . The measurements were made 50-70 hours after separation of the erbium fraction from the rare earths; therefore, a state of dynamic equilibrium was set up.

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L 25763-66

ACC NR: AP6016390

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during the time of the experiment between the various isotopes making up the decay chain. Analysis of the results shows that in spite of the high degree of accuracy in the determination of the intensity of Auger electrons, it is not possible to draw any conclusions regarding the nature of electron capture in  $\text{Er}^{160}$ . It is stated, however, that the results of the experiment do not contradict the earlier conclusion that it is necessary to introduce a second excited level of  $\text{Ho}^+$  with the characteristics  $0^+$  and  $1^+$ . It is concluded that the  $1^+$  level must be close to the basic state of  $\text{Ho}^+$ , and apparently the decay of  $\text{Er}^{160}$  takes place at this level. Orig. art. has: 3 figures, 2 formulas, and 3 tables. [JPRS]

SUB CODE: 20, 18 / SUEN DATE: none / ORIG REF: 004 / OTH REF: 002

Card 2/2 CC

L 31404-66 EWT(m)

ACC NR: AP6022576

SOURCE CODE: UR/0048/66/030/003/0530/0553

AUTHOR: Avotina, M. P.; Grigoryev, Ye. P.; Dzhelepov, B. S.; Zolotavin, A. V.; Sergeyev, V. O.

57  
50  
B

ORG: Scientific Research Physics Institute, Leningrad State University (Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo gosudarstvennogo Universiteta)

TITLE: Decay of Ho sup 160 <sup>1/2</sup> This paper was presented at the 16th Annual Conference on Nuclear Spectroscopy and Nuclear Structure held in Moscow 26 Jan-3 Feb 1966/7

SOURCE: AN SSSR. Izvestiya, Seriya fizicheskaya, v. 30, no. 3, 1966, 530-553

TOPIC TAGS: spectrometer, radioactive decay, nuclear physics conference, conversion electron spectrum, beta spectroscopy, particle accelerator target, synchrocyclotron, rare earth element, chromatography,

ABSTRACT: This is partly a review and partly an experimental paper reporting a continuation of work on the decay of  $Er^{160} + Ho^{160*} + Ho^{160}$  under improved conditions for studying the conversion electron spectrum. The study was carried out with two modernized, high-resolution, double focussing beta spectrometers: one with an equilibrium orbit of 140 mm; and the other, 500 mm. The  $Ho^{160*}$  and  $Ho^{160}$  samples were obtained from the isotope  $Er^{160}$ . A tantalum target was irradiated by 660 mev protons for 1.5 to 8 hrs. in a synchrocyclotron, and the rare earth group was separated chemically and then fractionated in a chromatographic column.

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ACC NR: AP6022576

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Extensive information was gathered on the conversion electron spectrum of  $\text{Er}^{160} + \text{Ho}^{160}$  and is presented in a 3-page table which shows transition energies, conversion lines,  $I_e$ , multipolarity of the gamma transition, conversion coefficient, gamma ray intensity, total intensity of the transition, and position of the transition in the decay scheme. Detailed data is also given on many  $\text{Dy}^{160}$  levels and transitions, and three rotational bands are established. Experimental results are compared with theory and the results of other authors. The multipolarity and intensity of the isomeric transition of  $\text{Ho}^{160}$  is discussed, as well as the quantum characteristics of its levels, positron decay, and electron capture. The authors thank K. Ya. Gromov and Zh. T. Zhelev for their interest and assistance, L. K. Peker and V. G. Solov'ev for discussing the results, N. A. Lebedev for the chemical isolation of  $\text{Er}^{160}$ , and G. A. Mironov and M. I. Govtsov for help with the measurements. Orig. art. has: 8 figures and 10 tables. [JPRS]

SUB CODE: 20, 18/ SUBM DATE: none/ ORIG REF: 018/ OTH REF: 012

Card 2/2 CC

AVOTS, A.

GENERAL

PERIODICALS: VESTIS, No. 5, 1958

AVOTS, A. The question of the preparative obtaining of new ganglio-  
blockaders, pentapyrrolidinium and tetrapiperidinium. In Russian. p. 79

Monthly list of East European Accessions (EEAI) LC, Vol. 8, No. 2  
February 1959, Unclass.

AVOTS, A.

MIRKHENSHTEYN, A., akademik, Geroy Sotsialisticheskogo Truda; KAL'NIN'SH, A. [Kalnips A.], akademik; STRADIN'SH, P. [Stradins, P.], akademik; SUDRABKALN, Yan [Sudrabkalns, Jānis], narodnyy poet Latvyskoy SSR MELBARDIS, K., khudozhnik; LAPIN'SH, A. [Lapips, A.], narodnyy khudozhnik Latvyskoy SSR; YUROVSKIY, Yu., narodnyy artist SSSR; AVOTS, A., fotolyubitel'; VARDAUNIS, E., khudozhnik, zaslužhennyy deyatel' iskusstv Latvyskoy SSR; GAYLIS, V., kinooperator; RIDZENIYEKS, V., fotograf; KALNYN'SH, E. [Kalnins, E.]; LOGANSON, R. [Iohanson, R.], stareyshiy master khudozhestvennoy fotografii; RIEKSTS, Ya. [Rieksts, J.], fotograf; LERKH, Yu.; FEDOSEYEV, B., fotograf; REYKHMAN, E., zaslužhennyy deyatel' kul'tury Latvyskoy SSR; GROBMAN, Ya. [Grobman, J.], fotograf; OZOLS, Ya. [Ozols, J.], fotograf; TIKNUS, B., fotograf; FADEYEV, Ye., fotograf; RAKE, I., fotograf; BERZTIS, A., fotograf; RAKE, K., fotograf; UPIT, V., fotograf; SHADKHAN, M., fotolyubitel'; RITERS, G., fotolyubitel'.

Organize a society of Soviet photographers! Sov.foto 18 no.4:77 Ap '58.  
(MIRA 11:6)

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S/192/62/003/005/002/003  
D267/D308

AUTHORS: Kaluskiy, Z.L., Avoyan, R.L. and Struchkov, Yu.T.

TITLE: X-ray diffraction investigation of diferrocenyl, its derivatives and terferrocenyl

PERIODICAL: Zhurnal strukturnoy khimii, v. 3, no. 5, 1962, 599-602

TEXT: The primary purpose of the research was to confirm the structural formulas attributed to these compounds on the basis of the method of preparation and of the chemical and spectrum properties. The following compounds were subjected to X-ray diffraction analysis: diferrocenyl, bis-1-(1'-chloroferrocenyl), bis-1-(1'-ethylferrocenyl), bis-1-(1'-acetylferrocenyl), bis-1-(1'-carbomethoxyferrocenyl), and terferrocenyl (or: 1,1'-diferrocenylferrocene). Their molecules were found to be centrally symmetrical, which bears out the coplanarity of the two cyclopentadiene rings. The tabulated results provide the following data: structural formula and molecular weight, description of crystals, space group, cell parameters,

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