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FAYNGOL'D, Samuil Isaakovich; TSYSKOVSKIY, V.K., nauchn. red.;
SEGAL', Z.G., ved. red.

[Synthetic cleaning compounds from petroleum and shale stock]
Sinteticheskie moiushchie sredstva iz neftianogo i slantsevogo syr'ia. Leningrad, Nedra, 1964. 286 p. (MIRA 17:5)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

FREYDIN, B.G.; TSYSKOVSKIY, V.K.

Effect of the temporary cessation of the oxidation reaction of paraffins on its further development. Zhur. prikl. khim. 36 no.11:2552-2554 N '63. (MIRA 17:1)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYSHEVSKIY, S.V.

AUTHOR: 1) KAPLAN, A.S. and TSYSHEVSKIY, S.V. 2) LEVINZON, Kh PA - 2428

TITLE: From Foreign Publications on Metallurgy:
1) On the Reasons of Insufficient Plasticity of Chromium Steels with a High Content of Chromium. (O prichinakh neudovletvoritel'noy plastichnosti vysokokhromistykh staley, Russian)
2) Mechanical Aging and the Plasticity of Ingot Steel. (Mekhanicheskoye stareniye i plastichnost' myagkoy stali, Russian)

PERIODICAL: Stal', 1957, Vol 17, Nr 3, pp 284 - 286 (U.S.S.R.)
Received: 5 / 1957 Reviewed: 5 / 1957

ABSTRACT: 1) This is the discussion of an article from the review "Chaleur et Industrie", 1956, Nr 366. A steel with a chromium content of less than 15 % becomes brittle when heated to 450 - 500° on which occasion destruction occurs at the granular limits. Brittleness increases with an increase of the chromium content and disappears at 850° with subsequent rapid cooling. Nicral M and Nicral S steels with 13 and 24 % Cr and 1,5 and 1,8 % Si respectively were investigated. The brittleness caused by the sigma - phase and that caused by the increase of the grain was investigated. Brittleness disappears in the interval between 150 - 400°. In form of castings or semi-finished products these steels have large grains.

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1) On the Reasons of Insufficient Plasticity of Chromium Steels with a High Content of Chromium. PA - 2428
2) Mechanical Aging and the Plasticity of Ingot Steel.

Therefore sharp changes of temperature have to be avoided. When heated to 1150 - 1200° during rolling there are also big grains which are crushed on the occasion of deformation. There is no increase of the corn on the occasion of the cooling. The same applies for the tubes. The tempering of the ginished products has to be carried out at 850° (which is above the temperature at which the sigma - phase is formed. (3 illustrations)

2)Mechanical aging and the plasticity of ingot steel. The paper by B.B.Hundy is discussed; Report British Iron and Steel Research Association, 1955, MW/E. The part played by carbon is very small and therefore the author confines himself to the stabilization of hydrogen by means of the addition of relative quantities of aluminium. (2 illustrations)

ASSOCIATION: Not given.
PRESENTED BY:
SUBMITTED:
AVAILABLE: Library of Congress.

Card 2/2

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

112-2-3739

Translation from: Referativnyy Zhurnal, Elektrotekhnika, 1957, Nr 2, p. 177 (USSR)

AUTHORS: Tsyss, V. N., Drobnin, V. F., Nikitin, A. I., Savchenko, A.I.

TITLE: An Instrument for Measuring the Electrical Conductivity of Fused Salts (Pribor dlya opredeleniya elektroprovodnosti rasplavlennykh soley)

PERIODICAL: Sb. nauch. tr. Kazakhsk. gorno-metallurg. in-t., 1956, Nr 11, pp. 166-170

ABSTRACT: The instrument consists of a Kohlrausch bridge fed by an audio-frequency oscillator and a zero-adjustment instrument consisting of an amplifier and a visual tuning indicator. A micro-screw and a signal device consisting of an auxiliary electrode and an indicating lamp ensure accurate submersion of the two operating electrodes. Circuit diagrams are given and operating procedure is described.

N.I.V.

Card 1/1

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

NI, L.P.; GOL'DMAN, M.M.; BUNCHUK, L.V.; KUCHANSKAYA, O.F.; TSYSS, N.N.; PONOMAREV, V.D.

Behavior of iron hydroxide in an alkali medium during autoclave treatment. Trudy Inst. met. i obog. AN Kazakh. SSR 12:9-15 '65. (MIRA 18:10)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

11e

CA Tsyss, Ye. F.

Influence of sodium chloride on pathogenic leptospirae in a medium containing albumin. F. E. Tsyss. *Veterinariya* 27, No. 12, 33-3(1950). In an albumin medium the presence of (2%) NaCl reduced the count of leptospirae in 2 hrs. (from 30-40 to 15-40), but no state of lysis was noticed after 48 hrs.; a 4% soln. caused complete, or partial lysis in 24 hrs.; 6%—in 4 hrs.; and 8%—in 2 hrs. (30-40 to 1-6). Three strains of leptospirae were used. B. G.

1951

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

"A Sanitary Appraisal of the Meat from Animals Sick with Leptospirosis" Sch. Zap. Vitebsk. Vet. Inst, 12, 1954, pp 1 3-1 5

The carcasses and internal organs of animals infected with leptospirosis were examined. The disease was of the acute, subacute, and atypical types. The author found leptospira in the blood, lymphatic glands, liver, kidneys, and lungs at all stages of the disease; therefore it follows that the meat of animals which were infected by swallowing the leptospira with their fodder can spread the disease. (RZhBiol, No 2, 1954)

SO: Sum. 432, 12 May 55

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYSS, Yevgeniy Feliksovich

[Leptospirosis in farm animals] Leptospiroz sel'skokhoziaistvennykh zhivotnykh. Minsk, Gos.izd-vo BSSR, 1957. 61 p. (MIRA 10:12)
(Leptospirosis)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

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TSYSS, YEVGENIY FELIKSOVICH

Leptospiroz, Sel'skokhozyaystvennykh Zhivotnykh (Leptospirosis, Swine Herders' Disease, in Farm Animals) Minsk, Gos. Izd-vo BSSR, 1957. 61 (2) p. illus., Diagrs., Tables. "Literatura": p. (63)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYSSINA, D.G., inzhener.

Operation of PZ-156 distance protection on load currents and GMB high-frequency protection during nonsynchronous switching. Elek.sta. 27 no.1:56-57 Ja '56. (MLRA 9:6)
(Electric relays)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTAVA, Ye.; STRONZHKA, Vl

Chronaximetric analysis of cases of difficult formation of motor conditioned reflexes in man. Zhur. vys. nerv. deiat. 13 no.6:987-994 N-D '63. (MIRA 17:7)

1. Kafedra fiziologii cheloveka Meditsinskogo instituta, Lyublin, Pol'sha.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

ISYTAVA, Ye. [Gytawa, J.]; STONZHKA, V. [Stazka, W.]

Symmetrical activity of the brain hemispheres; based on data of chroanaximetric studies. Zhur. vys. nerv. deiat. 14 no. 4:595-601 Jl-Ag '64. (MIRA 17:12)

1. Department of Human Physiology, Lublin School of Medicine, Poland.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTKO, M.

Oil field progressive workers. Neftianik 1 no.12:27 D '56. (MIRA 12:3)

(Petroleum industry)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

PERTSOV, V.; BABAYAN, A.; SYROVATSKIY, A.; TSYTKO, M.

In the oil regions of our country. Neftianik 6 no.2:30-32 F '61. (MIRA 14:10)

(Petroleum industry)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

Tsy tko, S. P.

C-5

Category : USSR/Nuclear Physics - Nuclear Reactions

Abs Jour : Ref Zhur - Fizika, No 3, 1957, No 6053

Author : Tsytko, S. P., Antuf'ev, Yu.P.
Inst : Physical-Technical Institute, Academy of Sciences, Ukraine SSR.
Title : Resonances in Reactions of Proton Capture by Silicon Isotopes

Orig Pub : Zh. eksperim. i teor. fiziki, 1956, 30, No 6, 1171

Abstract : A study of the reaction Si (p, γ) P is reported. The investigations were carried out with an electrostatic generator and the proton energy ranged from 500 to 2600 kev. Twenty-six new resonances were found. The values of the proton energies, corresponding to these resonances, are given. The reactions were identified by investigating the yield of the positron-active isotopes P^{29} and P^{30}. Nine resonances, apparently, can be attributed to the Si^{30} (p, γ) P^{31} reaction. The remaining resonances have not yet been identified.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

GONCHAR, V.Yu., LVOV, A.N., TUTAKIN, P.M., TZYTKO, S.F., AND VAL'TER, A.K.

(Phys. Tech, Inst. Acad. Sci. Ukr SSR)

"Polarization of γ Radiation from the Si^{30} $(p,\gamma)p^{31}$ Reaction,"

paper submitted at the All-Union Conf. on Nuclear Reactions in Medium and Low Energy Physics, Moscow, 19-27 Nov 57.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTKO, S.P.

89-10-16/36

AUTHORS Tutakin P.M., Tsytko S.P., L'vov A.N., Valter A.K., Gonchar Yu.V.

TITLE The Polarization of γ-Radiation Occuring in the Reaction $Si^{30}(p,\gamma)P^{31}$. (Polyarizatsiya γ-izlucheniya, voznikayuzhchego v reaktsii $Si^{30}(p,\gamma)P^{31}$. - Russian)

PERIODICAL Atomnaya Energiya, 1957, Vol 3, Nr 1o, pp 336-338 (U.S.S.R.)

ABSTRACT The γ-radiation observed with the decay of the excited state with 8,2 MeV energy (J=3/2) in P^{31} into the ground state (J=1/2+) is distinctly polarized.
From the experimentally found angular distribution of the photo-protons there follows (R-1)= -0,51 or R=0,49.
The γ-transition 8,2 MeV belongs to the M_1-type and therefore the level must have 8,2 MeV, spin and parity 3/2 +.
The angular distribution of the 8,2 MeV -γ-transition has the form $\omega(\vartheta) \sim 1 - a_2 \cos^2 \vartheta$ with $a_2 = -0,34 \pm 0,12$, from which it follows that the 8,2 MeV must be a mixture of $M_1 + E_2$.
There are 3 figures and 1 Slavic reference.

SUBMITTED June 2o, 1957
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Tsytko, S.P.

82137
S/058/60/000/02/12/023

24.6520

Translation from: Referativnyy zhurnal, Fizika, 1960, No. 2, pp. 68-69, # 3042

AUTHORS: Tsytko, S. P., Antuf'yev, Yu. P.

TITLE: Gamma-Resonances in the Reactions of Proton Capture by Silicon Isotopes and Energy Levels of the Nucleus

PERIODICAL: Tr. Sessii AN UkrSSR po mirn. ispol'zovaniyu atomn. energii. Kiyev, AN UkrSSR, 1958, pp. 70-76

TEXT: The reaction of the capture of protons by Si isotopes within the range of energies of up to 1 Mev was studied. The monoenergetic protons were obtained in an electrostatic generator with two accelerating tubes, at the exit of which electrostatic and magnetic analyzers were installed. The measurements were carried out with thick and thin targets made of naturel Si and also with thin targets made of separated isotopes. With an accuracy of $\pm$ 0.05% the position of 9 resonances was determined on the thick natural target at the proton energies of 695; 717; 753; 775; 801; 831; 895; 940 and 980 kev. In the case of Si^{28} (p, γ)P^{29} reactions not a single resonance was detected. In the case of Si^{29} (p, γ)P^{30} reaction only the resonances observed earlier (Milani, S., Cooper, I. N.,

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Gamma-Resonances in the Reactions of Proton Capture by Silicon Isotopes and Energy Levels of the Nucleus

Harris, Phys. Rev., 1955, Vol. 99, p. 645) were detected. On the basis of the data on the γ-resonances of P^{31}, the energy values of the following P^{31} levels were obtained: 7.655; 7.783; 7.898; 7.983; 8.027; 8.049; 8.073; 8.103; 8.165; 8.210; 8.246 Mev.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

Tsy TKo, S.P.

9(314) PHASE I BOOK EXPLOITATION SOV/2746

Akademiya nauk USSR. Fiziko-tekhnicheskiy institut

Elektrostaticheskiye generatory; sbornik statey (Electrostatic Generators; Collection of Articles) Moscow, Atomizdat, 1959. 255 p. 4,100 copies printed.

Ed. (Title page): A. K. Val'ter, Member, Academy of Sciences, USSR; Ed. (Inside book): Z. D. Andreyenko; Tech. Ed.: N. A. Vlasova.

PURPOSE: This collection of articles may be useful to scientists and engineers working with high-voltage electrostatic generators.

COVERAGE: The authors discuss the construction and operation of a number of electrostatic generators developed in the USSR and describe methods of generating negative hydrogen ions. They discuss the operation of accelerating tubes and present methods of stabilizing accelerator voltages. No personalities are mentioned. References appear at the end of some articles.

Belyayev, V. Kh., A. K. Val'ter, K. K. Chernyavskiy and S. P. Tsytko. High-voltage Vertical-Horizontal Electrostatic Generator 90

The authors discuss the construction and operation of an electrostatic generator with a cross-shaped steel boiler and two horizontal tubes and describe the advantages of such a design over horizontal and vertical types of generators. There are 25 references: 8 Soviet, 13 English, 1 French and 1 Danish.

Val'ter, A. K., A. Ya. Taranov, L. I. Pivovar, Ya. M. Fogel', V. Kh. Belyayev and S. P. Tsytko. 5-Mev Horizontal Overcharging Electrostatic Generator 193

The authors discuss the principle of operation and construction of a FG-5 type electrostatic generator and describe methods of ion acceleration and overcharging. They also explain the operation of an ion-beam focusing system and briefly discuss the stabilization and measurement of generator voltages. There are 4 references: 3 Soviet and 1 English.

Val'ter, A. K., and A. A. Tsygikalo. Experience Acquired in the Design, Testing and Operation of a 4-Mev Vertical Electrostatic Accelerator Developed by FTI AN UkrSSR 200

The authors discuss the construction and requirements of a 4-Mev vertical electrostatic accelerator developed by FTI AN UkrSSR and present the results of a study of insulating materials for the accelerator and the accelerating tube. They also discuss the results of testing of the accelerator and its components and present current and voltage characteristics. There are 12 references: 8 Soviet, 3 English and 1 French.

Malyshev, I. F., F. G. Zheleznikov and G. Ya. Roshal'. Experience Acquired in the Development of Industrial Types of Electrostatic Generators 224

The authors discuss the construction and operation of a EG-2.5 million-volt electrostatic generator and its components and present the results of testing. They also briefly describe the operation of a EG-5-1 type 4-5 million volt electrostatic generator developed by OKB in 1956. There are 9 references: 4 Soviet (including 1 translation) and 5 English.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

ACCESSION NR: AP4024050 S/0048/64/028/002/0271/0274

AUTHOR: Val'ter, A.K.; Kopanets, Ye.G.; L'vov, A.N.; Tsy*tko, S.P.

TITLE: Radiative proton capture by Mg^{26} at proton energies from 2.0 to 2.3 MeV [Report, Fourteenth Annual Conference on Nuclear Spectroscopy held in Tbilisi 14 to 22 Feb 1964]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.28, no.2, 1964, 271-274

TOPIC TAGS: radiative proton capture, decay scheme, Al^{27} decay, Al^{27} levels, Al^{27}, Mg^{26}

ABSTRACT: Radiative proton capture by Mg^{26} at proton energies below 2 MeV was investigated earlier by the authors (Izv.AN SSSR.Ser.fiz.27,No.10,1963; Ibid.27,No.11, 1963) and by P.M.Endt and C.Van der Leun (Nucl.Phys.34,No.1,1962). As a result of these studies there was obtained information on the levels in Al^{27} in the excitation energy range from 8.0 to 10.2 MeV. The only information available on the levels in the 10.2 to 11.5 MeV range was obtained from a study of elastic scattering of protons by Mg^{26} (A.I.Popov, P.V.Sorokin, V.E.Storizhko and A.Ya.Taranov,Izv.AN SSSR, Ser.fiz.26,1074,1961). Hence in the present work there were investigated the γ-rays

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ACCESSION NR: AP4024050

from the $Mg^{26}(p,\gamma)Al^{27}$ reaction at proton energies from 2.0 to 2.3 MeV in order to obtain information on the characteristics of the levels in Al^{27} in the 10.2 to 10.5 MeV excitation energy range. The source of protons for the experiments was the electrostatic generator of the Physico-technical Institute (Academy of Sciences USSR) (A.K.Val'ter and A.A.Tsygikalo, Pribory i tekhnik eksperim.4,3,1957). The isotopic Mg^{26} target was prepared in an electromagnetic separator by the method of knocking Mg^{26} ions into a tantalum backing. For measuring the excitation function the γ-ray detector was an NaI(Tl) crystal coupled to an FEU-42 photomultiplier. The γ-ray spectrum was investigated by means of the scintillation spectrometer described by Yu.P.Antuf'yev et al (Izv.AN SSSR,Ser.fiz.25,261,1961). The excitation function recorded for the reaction is shown in Fig.1 of the Enclosure. The fifteen observed resonances are characterized in a table; another table gives the results of analyses of the γ-spectrum for six of the resonances. The decay scheme for the six investigated resonance levels is shown in Fig.2 of the Enclosure. The spin assignments arrived at for some of the levels are given in this figure. "The authors express their gratitude to M.I.Gusev for preparing the Mg^{26} targets and to Yu.A.Kharchenko and the personnel servicing the electrostatic accelerator." Orig.art.has: 3 figures and 2 tables.

Card 2/5

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

ACCESSION NR: AP4024050

ASSOCIATION: none

SUBMITTED: 14Oct63 DATE ACQ: 08Apr64 ENCL: 02

SUB CODE: NS NR REF SOV: 007 OTHER: 002

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APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTKO, S.P.

~~INOPIN, Ye.V.~~

AUTHOR: Varshalovich, D. SOV/53-65-[illegible]

TITLE: The VIII Annual Congress of Nuclear Spectroscopy (VI[illegible] yezhegodnoye soveshchaniye po yadernoy spektroskopii

PERIODICAL: Uspekhi fizicheskikh nauk, 1958, Vol 65, Nr 4, pp. 721 - 722 (USSR)

ABSTRACT: The 8th Congress of Nuclear Spectroscopy took place in Leningrad from January 27 to February 3, 1958. It was attended by 300 scientists from the USSR, further by scientists from China, France, Poland, Czechoslovakia, Hungary, Eastern Germany, Yugoslavia, and the Mongol Democratic Republic. 4 main lectures and about 90 reports were heard. The main lectures dealt with problems concerning nuclear models, the α- and β-decay, γ-radiation, internal conversion, and nuclear isomerism. B.S.Dshelepov, Corresponding Member, Academy of Sciences, USSR, opened the conference. Lectures were held by: V.Yu. Gonchar, Ye. V. Inopin, S.P.Tsytko (FTI,AS UkrSSR) on light nuclei and generalized nuclei models; L.K. Peker (BAN SSSR-Library AS USSR), Yu.M.Shirokov (MGU-Moscow State University), L.A.Sliv (LFTI-Leningrad Physical-Technical Institute) et al. on levels in Mg^{24}, Mg^{25} and Al^{25}; D.G. Alkhazov, A.P.Grinberg, G.M.Gusinskiy, K.I.Yerokhina and I.Kh.Lemberg (LFTI) on having found no rotational levels at E<1 MeV in Cr, In, and Mn nuclei. The same research workers also reported on the discovery of vibrational γ-levels in W^{182}, W^{184}, W^{186}- nuclei by means of the method of the Coulomb (Kulon) excitation at $E_{exc} \sim 1$ MeV. L.K.Peker (BAN SSSR) gave a survey report: "Concerning Some Particulars in Vibrational Levels of Deformed Nuclei". Lectures were held also by: D.F.Zaretskiy (AN SSSR - AS USSR) on radiation transitions in deformed nuclei with the spin = 1/2; V.S. Shpinel' 2 NIFI MGU (2nd Scientific Research Institute of Physics, Moscow State University) on the level displacement and the probability of corresponding β - and γ - transitions in odd nuclei; D.F.Zaretskiy (AN SSSR - AS USSR) on the influence of the spin-orbital coupling upon the magnetic moments of the nuclei, A.I.Baz' (AN SSSR -AS USSR) on the existence of light nuclei with high neutron or proton excess; V.A.Kravtsov (LPI-Leningrad Polytechnic Institute) on the formation of nucleon pairs in nuclei; L.L. Gol'din, A. D. Piliye, G.N.Novikova, K.A.Ter-Martirosyan (TTL AN SSSR) on alpha decay on rotational levels of odd nuclei; V.G. Nosov (AN SSSR - AS USSR) on alpha decay of nonspherical nuclei (survey); A.I.Alikhanov, G.P.Yeliseyev, V.A.Lyubimov, V.V.Ershler (TTL AN SSSR) on polarisation measurements at electrons emitted in the β-decay of Tm^{170}, Lu^{177}, Ag^{196}, Sm^{153}, Re^{186} (ΔI= 0,1,Δx= -1) as well as in that of Sr^{90} and Y^{90} (ΔI= 2,Δx= -1); V.P.Rudakov (AN SSSR - AS USSR) on measurements of the (β-γ) angular correlations in Ba^{139}-decay; N.A.Burgov and Yu.V.Terekhov (TTL AN SSSR) on investigations of the electron-neutron correlations and the resonance scattering of γ-radiation; B.K.Kerimov and I.M.Nadzhafov (MGU-Moscow State University) on the bremsstrahlung of longitudinally polarized electrons; A.I.Mukhtarov and Yu.S. Perov (MGU) on the effective cross section of the scattering of polarized electrons and positrons at polarized electrons; Ya.E.Chudars and I.Ya.Taurs (Riga) on the determination of the intensity of the components of the complex β-spectrum according to the Fermi diagram; I.M.Band, L.H.Zyryanova, and Yu.P.Suslov, LGU (Leningrad State University) on the computation of the probability of the permitted and of the forbidden capture of electrons by a nucleus.

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Tsytko, S.P.

21 (7), 21 (8)

AUTHOR: Rudakov, V. P. SOV/89-7-1-18/26

TITLE: IX All-Union Conference on Nuclear Spectroscopy (IX Vsesoyuznoye soveshchaniye po yadernoy spektroskopii)

PERIODICAL: Atomnaya energiya, 1959, Vol 7, Nr 1, pp 76-78 (USSR)

ABSTRACT: The IX All-Union Conference was held from January 26 to February 2, 1959 at Khar'kov. More than 300 participants heard 100 lectures, the most important of which dealt with the following fields. Nuclear Theory. General problems of β-decay. A. S. Davydov (MGU): Theoretical classification of low-energy excited nuclear states. L. K. Peker: Deformed nuclei. S. I. Birbrair, L. K. Peker, L. A. Slav (LFTI): Quadrupole oscillations of deformed nuclei. Ya. V. Ivanin, V. V. Sanchar, S. P. Tsytko (KhFTI): Calculation of the ft-values with matrix elements for β-transitions by means of the generalized nuclear model. S. T. Belyayev (IAE): Consideration of pair-correlation in nuclei. A. F. [illegible] (IAE): The application of the superconductivity model to nuclei for the purpose of calculating their moments of inertia. P. E. Nemirovskiy (IAE): Problem of the neutron stability of nuclei. G. A. Sheroginskiy (IAE): The present stage in the theory of β-decay. V. V. [illegible], V. K. Grigoriyev, V. A. Tsypin, Yu. V. Trebukhovskiy (IAEP): Measurement of the angular correlation between electron and neutrino in the decay of the neutron. V. M. Lobashev, V. A. Nazarenko, L. I. Rusinov (LFTI): Measurement of the correlation between the transversal electron polarization and circular polarization of γ-quanta occurring in the decay of Sc^{46} and Co^{60}. Decay Schemes. γ-radiation of Nuclei. Yu. V. Anufriyev, A. K. Valter, Yu. V. Gonchar, Ye. I. [illegible], A. N. L'vov, P. M. Tutakin, S. P. Tsytko, P. V. Sorokin, A. S. Neyzbko, I. Ya. Malakhov, I. [illegible] (Fiziko-tekhnicheskiy Khar'kovskiy institut (Physico-technical Institute, Khar'kov)): The $Si^{28,29,30}(p,\gamma)$, $Ne^{20}(p,\gamma)$, $S^{32-34}(p,\gamma)$, $Ar^{40}(p,\gamma)$ and $N^{14}(p,\gamma)$ reactions. D. G. Alkhazov, A. P. Grinberg, G. M. Gusinskiy, M. Kh. Lemberg, V. V. Rozhdestvenskiy, K. A. [illegible] of the Leningradskiy fiziko-tekhnicheskiy institut (Leningrad Physico-technical Institute): Investigation of the Coulomb excitation of the lower levels of some nuclei during their bombardment by multiply charged ions (C, N, O, and Ne). A. V. Kalyagin, A. N. Murin, V. I. Fokrovskiy, V. I. Yakovlev (RIAN): New isotopes Tu^{161}, Ho^{153}, Ho^{155} and Ho^{157}. B. S. Dzhelepov, V. I. Serkiyenko (LGU): Decay schemes of some neutron-deficient isotopes, set up on the basis of measurements of the coincidence of the internal conversion electrons. Spectroscopy Engineering. B. S. Dzhelepov, M. P. Ivanov, V. I. Kazarnov, V. O. Chumin (RIAN): α-spectrometer with double focusing. S. A. Fabrikant, Z. V. Kapustin, A. G. Zelenkov, A. P. Naiov, Yu. Ya. Shcherbin (IAE): Improved α-spectrometer. [illegible] P. Barshuk, [illegible] Belrich, V. I. Dolyashkin, V. A. [illegible] (IFAN UkrSSR): Magnetic spectrograph for heavy charged particles. The representatives of the Ministerstvo radiotekhnicheskoy promyshlennosti (Ministry of the radio-engineering industry) gave a report about new multipliers. The Conference was closed by B. S. Dzhelepov, who stressed the fact that nuclear tables and reference works ought to be published much more quickly in order to be of real use to the experimenter.

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21(7) SOV/48-23-2-13/20

AUTHORS: Val'ter, A. K., Gonchar, V. Yu., L'vov, A. N., Tsytko, S. P.

TITLE: Investigation of γ Rays Caused by Proton Bombardment of an Ne^{20}-containing Target (Issledovaniye γ-luchey, voznikayushchikh pri bombardirovke protonami misheni, soderzhashchey Ne^{20})

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 2, pp 228-234 (USSR)

ABSTRACT: In a short introduction a decay scheme of the lower levels of the nuclei Ne^{21} and Na^{21} is given according to data contained in references 1-3 and 4-6, 7. In the present paper the characteristics of the level 3.57 Mev in the Na^{21} nucleus were investigated in detail in the reaction $Ne^{20}(p,\gamma)Na^{21}$. The authors measured the radiation yield in dependence on the energy of the bombarding particles (Fig 1).10 resonances were found. The energies and experimental width of these resonances are given in table 1. Furthermore, the authors studied the β activity of the same target with energies corresponding to the resonance, as well as the γ spectrum of all 10 resonance energies. All measurement results are listed in table 1. It follows from the evaluation of all data obtained that the

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resonance energy with the proton energy 1175 kev corresponds to the reaction $Ne^{20}(p,\gamma)Na^{21}$. The energy of the corresponding γ-radiation amounts to 3.60 Mev. According to the calculation of mass defect with the proton energy 1175 kev the same value 3.58 Mev is determined. Accurate investigations have shown that this 3.60 Mev γ line corresponds to the transition into the ground state. The angular distribution of dipole and quadrupole γ transitions was calculated and compared to values obtained by experiments. In addition, spin and parity of the 3.58 Mev level of Na^{21} were determined to be $5/2^+$. There occurs a dipole transition $5/2^+ \longrightarrow 3/2^+$ (Table 5). The authors thank M. I. Guseva for production of the Ne^{20} target and Ye. V. Inopin for discussion of the results obtained. There are 4 figures, 5 tables, and 17 references, 4 of which are Soviet.

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SOV/48-23-7-11/31

24(5),21(7)

AUTHORS: Val'ter, A. K., Gonchar, V. Yu., L'vov, A. N., Tsytko, S. P.

TITLE: The Investigation of Low-lying Levels of the Isotope Cl^{33} by Means of the Reaction $S^{32}(p,\gamma)Cl^{33}$ (Issledovaniye nizkolezhashchikh urovney Cl^{33} pri pomoshchi reaktsii $S^{32}(p,\gamma)Cl^{33}$)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 7, pp 835-838 (USSR)

ABSTRACT: The introduction indicates some papers on the lower levels of the Cl^{33}-nuclei, pointing out the paper by Meyerhof and Lindstrom (Ref 3) in which the multiple β-decay on the 2.9 Mev-level is attributed to a positive parity. To check this assumption, the authors carried out the experiments described in this paper. The electrostatic precision generator of 4 Mev of the FTI AS UkrSSR was used for this purpose. In the measurement of the γ-yield, resonances were found at 583 and 590 kev, as well as a half-life of 2.3 sec, which agrees with the known data. Further, the scheme of γ-transitions shown in figure 2 was established by the authors by means of the

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The Investigation of Low-lying Levels of the Isotope Cl^{33} by Means of the Reaction $S^{32}(p,\gamma)Cl^{33}$ SOV/48-23-7-11/31

γ-spectrum. The angular distribution of the γ-rays in the reaction $S^{32}(p,\gamma)Cl^{33}$ was measured, and the results are shown in table 1 and figures 3 and 4. From these results, conclusions concerning the spin and the character of transitions are made, and it is shown that the spin and the parity of the 2.850 Mev-level is equal to $5/2^+$. With the level scheme shown in figure 2, conclusions are made concerning the spin, parity and energy of the next level. Finally, the authors thank M. I. Gusev for the preparation of the S^{32}-target, and Ye. V. Inopin for his interest in the work, Yu. P. Antuf'yev and Ye. G. Kopanets for the execution of the measurements, as well as A. A. Tsygikalo and Yu. A. Kharchenko who secured the work at the generator. There are 4 figures, 1 table, and 9 references, 4 of which are Soviet.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk USSR (Physico-technical Institute of the Academy of Sciences, UkrSSR)

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21(10)

AUTHORS: Guseva, M. I., Inopin, Ye. V., Tsytko, S. P. SOV/56-36-1-1/62

TITLE: Penetration Depth and Distribution Character of Atoms Injected Into a Si^{30} Isotope Target (Glubina proniknoveniya i kharakter raspredeleniya vbitykh atomov v izotopnoy misheni Si^{30})

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 1, pp 3-9 (USSR)

ABSTRACT: In their introduction, the authors discuss several investigations carried out previously in this field as e.g. by Bohr (Bor) (Ref 1) and Nielson (Nil'sen) (Ref 2). viz. theoretical investigations of the penetration depth and the distribution function of target atoms in the base layer; experimental data were obtained from proton and α-particles scattering tests (Ref 3), resonance capture of protons (Ref 2) and by means of tagged atoms (Ref 4).

The aim of the present paper is the investigation of the penetration depth of Si^{30}-ions into copper- and tantalum backings in dependence on the backing material and ion energy, as well as the investigation of Si^{30} atom distribution in the surface layer of the backing. Estimation of data is possible by

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means of the reaction $Si^{30}(p,\gamma)P^{31}$. All measurements with this reaction were carried out on a silicon target with 940 keV protons.

First, the preparation of the isotope target is described. The silicon isotope was electromagnetically precipitated (ion current 30 μA) on to the tantalum- or copper backing (14 mm diameter, 0.2-0.5 mm thickness)(see also references 5,6). Four such targets were produced, 3 of which with Cu- and one with Ta- backing. Preparation data are given by table 1. In the next paragraph the authors describe the investigation method, which is based, in principle, on measuring the γ-yield in the case of resonance at E_p = 940 keV in the above-mentioned reaction. Width, shape, and height of the resonance peak were determined (Fig 2). This resonance peak was measured by means of the electrostatic precision generator of the FTI AN USSR (Physical-Technical Institute, AS UkrSSR). The γ-yield was measured on a NeJ(Tl)-crystal by means of the photomultiplier FEU-19. A block scheme of the experimental arrangement is shown by figure 1. Results are given by diagrams and in table 2. Figure 3 shows the γ-yield of the reaction $Si^{30}(p,\gamma)P^{31}$ for

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Penetration Depth and Distribution Character of Atoms Injected Into a Si^{30} Isotope Target SOV/56-36-1-1/62

2 targets with copper backing, figure 4 shows the depth distribution function of Si^{30}-ions in a tantalum backing. The authors obtained the following results:

1) The penetration depth of Si^{30}-ions in tantalum in the case of an ion energy of 25 keV was experimentally determined as amounting to 30 mkg/cm^2, which agrees well with theory.

2) The distribution of the silicon atoms which penetrated into the tantalum backing is similar to the distribution following from the diffusion theory for thermal neutrons.

3) In a layer of 30 mkg/cm^2 2 silicon atoms correspond, on the average, to each tantalum atom, which indicates a considerable deformation of the tantalum lattice and the existence of an intermetallic $TaSi_2$-compound.

4) The experimentally determined penetration depth of silicon atoms in copper is 3 to 4 times greater than that calculated on the basis of Nielson's formula and smaller than that following from the theory developed by N. Bohr.

The authors finally thank K. D. Sinel'nikov and A. K. Val'ter for the interest they displayed in the work and for their discussions, and they also express their gratitude to Yu. P. Antuf'-

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Penetration Depth and Distribution Character of Atoms Injected Into a Si^{30} Isotope Target SOV/56-36-1-1/62

yev, V. Yu. Gonchar, A. N. L'vov, P. M. Tutakin, and Ye. G. Kopanets for taking part in measurements, and, finally, they express their thanks to A. A. Tsygikalo and his collaborators. There are 4 figures, 2 tables, and 9 references, 6 of which are Soviet.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk Ukrainskoy SSR (Physico-Technical Institute of the Academy of Sciences, Ukrainskaya SSR)

SUBMITTED: October 5, 1957, (initially) and September 15, 1958, (after revision)

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TSYURUPA, N.N.

Disperse phase distribution according to particle size. Koll.zhur. 26 no.1:117-125 Ja-F '64. (MIRA 17:4)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I.Mendeleyeva, kafedra kolloidnoy khimii.

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SHINKORENKO, S.F., kand.tekhn.nauk; LIBEFORT, Yu.I., inzh.; KRUTIY, V.V., inzh.; CHERNYY, I.I., inzh.; TSYURYUPA, A.D., inzh.; GRAZHDANTSEV, I.I.

Setting up departments of secondary treatment in ore dressing plants of the Nikopol'-Marganets Trust. Gor.zhur. no.4:68-71 Ap '64. (MIRA 17:4)

1. Mekhanobrchermet (for Shinkorenko, Libefort, Krutiy, Chernyy, TSyuryupa). 2. Trest Nikopol'-Marganets (for Grazhdantsev).

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TSYTKO, S.P.

"Radiative Capture of Protons"

report submitted for the 2nd USSR Conference on Nuclear Reactions at Low and Intermediate Energies, Moscow, 21-28 July 1960.

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AUTHORS: Autuf'yev, Yu. P., Val'ter, A. K., Gonchar, V. Yu., Kopanets, Ye. G., L'vov, A. N., and Tsytko, S. P.

TITLE: An Investigation of the Levels of the Cl^{35} Nucleus

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 7, pp. 877-885

TEXT: This paper was read at the 10th All-Union Conference on Nuclear Spectroscopy, which took place from January 19 to January 27, 1960 at Moscow. The authors studied the levels and the quantum characteristics of the Cl^{35}-nucleus by means of the reaction $S^{34}(p,\gamma)Cl^{35}$. The excitation function, the spectrum, and the angular distribution of the γ-rays were measured. The investigations of the S^{34} target were carried out by means of a monochromatic proton beam accelerated to 4 Mev in the electrostatic generator of the FTI AS UkrSSR. The γ-rays were recorded by means of a CsI(Tl) crystal. When studying the excitation function, γ-quanta with $E_\gamma > 1.5$ Mev were recorded. In the Table, the proton energies are given,

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at which γ-resonance was observed; also given are the relative intensities of the resonance peaks and the energies of the excited Cl^{35} levels. For the purpose of studying the spectra and the angular distributions of the γ-rays, the authors used a monocrystal scintillation spectrometer. On the basis of the data obtained, the authors suggest the Cl^{35} transition scheme shown in Fig. 5. Resonances in the case of four proton energies (E_p) are discussed in detail. The resonance at E_p = 848 kev corresponds to the 7.196 Mev Cl^{35} level, for which a γ-transition to the 1.22 Mev level occurs with a probability of 95%, and a γ-transition to the ground state of Cl^{35} occurs with a probability of not more than 5%. For the 7.196 Mev level, $1/2^+$ is presumed. The resonance at E_p = 890 kev corresponds to the 7.236 Mev of the level of the Cl^{35}. The γ-spectrum indicates a transition from this level to the ground state. Also transitions to the 1.22-Mev level are possible. For the 7.236-Mev level, $5/2^+$ is assumed. Resonance at E_p = 929 kev corresponds to the 7.274-Mev level, from which transitions to the ground state (70%) and to the 1.22-Mev level (30%) occur. For this level, a spin of 1/2 is assumed, but here a more exact investigation is necessary. The authors carried out preparatory measurements of the spectra

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and of angular asymmetry of the γ-rays for the resonances at E_p = 881, 1024, and 1214 kev. By a further investigation of the angular distributions and correlation of the γ-cascade transitions, the problems arising in this connection are expected to be cleared. The authors thank M. I. Guseva for producing the S^{34} target, and A. A. Tsyrikale and Yu. A. Kharchenko for work carried out on the accelerator. There are 5 figures, 1 table, and 8 references: 4 Soviet and 4 US.

ASSOCIATION: Khar'kovskiy fiziko-tekhnicheskiy institut Akademii nauk USSR (Khar'kov Institute of Physics and Technology of the Academy of Sciences, UkrSSR)

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Tsytko, S. P.

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TSYTKO, S.P.

S/048/60/024/007/008/011
B019/B060

AUTHORS: Valter, A. K., Antufyev, Yu. P., Gonchar, V. Yu., L'vov, A. N., Kopanets, Ye. S., Tsytko, S. P.

TITLE: A Study of the K^{41} Levels With the Aid of the $Ar^{40}(p,\gamma)K^{41}$ Reaction /?

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 7, pp. 871-874

TEXT: This is the reproduction of a lecture delivered at the 10th All-Union Conference on Nuclear Spectroscopy held in Moscow from January 19 to 27, 1960. The investigations described were carried out by using an electrostatic precision generator serving for the proton acceleration. The thin Ar^{40} target was prepared in an electromagnetic separator. The excitation function of the reaction was measured by a scintillation counter provided with a CsI(Tl) crystal. A proton current integrator serving for measuring the proton beam hitting the target. Fig. 1 shows the excitation function of the reaction under investigation in the proton energy range

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of 1085 - 1130 kev. Resonances were identified at 1092, 1107.5, 1114.5, and 1125 kev proton energies. The most intensive resonances occurred at 1092 kev and 1107.5 kev and their gamma spectrum was investigated. Fig. 2 is a graph depicting the soft and the hard part of the gamma spectrum of resonance at 1107.5 kev. These spectra are thoroughly discussed and the authors suggest a decay scheme of the excited K^{41} levels (Fig. 3), which also indicates the spins for some levels. The authors thank M. I. Guseva for having prepared the targets. There are 5 figures and 17 references: 6 Soviet, 5 US, and 1 Canadian.

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

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

S/048/61/025/002/010/016
B117/B212

AUTHORS: Antuf'yev, Yu.P., Gonchar, V. Yu., Kopanets, Ye. G., L'vov, A. N., and Tsytko, S. P.

TITLE: A double-crystal spectrometer and its application in studying (pγ) reactions

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25, no. 2, 1961, 261-264

TEXT: The present paper was read at the 11th Annual Conference on Nuclear Spectroscopy (Riga, January 25 to February 2, 1961). The authors describe a double-crystal spectrometer with a universal hookup. This makes it possible to use the unit as a coincidence spectrometer and summation spectrometer. The hookup was designed in the fiziko-tekhnicheskiy institut AN USSR (Institute of Physics and Technology of AS UkrSSR) and was used for one year to investigate a number of (pγ) reactions. Fig. 1 shows the circuit diagram of the unit. Two NaI(Tl) crystals, having a diameter of 70 mm, were used as counters; one of them as 60 mm high, and its energy resolution was 11% for 661-kev gamma rays, the other was 40 mm high, but had an energy

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resolution of 14% for gamma rays with the same energy. Besides, 40 mm-high NaI(Tl) crystals with a diameter of 40 mm and a resolution of 9% have been used. The crystals were attached to the photomultiplier of the type ФЭУ-16 (FEU-1B). The latter was designed by Khlebnikov. The crystals themselves are mounted on a truntable and thus may be adjusted at any angle with respect to each other and the proton beam after modulation the pulses of the ninth dynode of the photomultiplier had a duration of 3 sec and flat peaks. They are amplified by linear amplifiers which have a maximum amplification factor of 100. This amplification may be varied by means of a stepped attenuator. The pulses of the fast-coincidence circuit are emitted from the plates of the photomultiplier. They are modulated by a short circuited delay line (5 mPK-50 (RK-50) cable). Thus, per coincidence circuit a pulse duration of $5 \cdot 10^{-8}$ sec is obtained. A tube of the type 6A3П (6A3P) has been used for the coincidence circuit. The discharge of the latter starts the multivibrator which generates the driving pulse that is transmitted to the pulse-height analyzer of the type AИ-100-1 (AI-100-1). Such a circuit has been described in Ref. 3. The output of the second linear amplifier is fed to the input of the pulse-height analyzer via the limiter and an additional amplifier with an amplification factor of 5. The ana-

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lyzer is opened in the case of synchronized pulses of both photomultipliers. After leaving the linear amplifier the pulses have a specific height. A pulse can be transmitted from the photomultiplier via this amplifier which controls the scanning of the electron-beam tube. In this case, a coincidence spectrum is obtained from the other photomultiplier in which part of the total gamma-ray spectrum is separated. It is also possible to transmit a pulse which is equal to the sum of the pulses in both photomultipliers. In this case, a gamma spectrum is obtained in which the sum of the radiation energy attains the given value. In order to illustrate the operation of a spectrometer, test results for a constant Co^{60} source and for a nuclear reaction of $Al^{27}(p\gamma)Si^{28}$ are discussed. Within $\pm$ 15%, the experimental data for the first case agree with the calculated values. For the second case, a much more accurate spectrum has been obtained than with a single-crystal spectrometer. The circuit diagram of the spectrometer may also be used for a Compton spectrometer, and the pulse-height analyzer is also opened by a pulse of a Compton gamma quantum scattered through a certain angle. In addition, it may also be used as spectrometer for total absorption, if the circuit is closed at the presence of a scattered quantum. Apart from the feeding tubes, the circuit consists of 28 more tubes. There are 3 figures

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

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B117/B212

AUTHORS: Antuf'yev, Yu. P., Val'ter, A. K., Gonchar, V. Yu., Kopanets, Ye, G., L'vov, A. N., and Tsytko, S. P.

TITLE: Radiative proton capture by the S^{34} isotope

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25, no. 2, 1961, 265-269

TEXT: The present paper was read at the 11th Annual Conference on Nuclear Spectroscopy (Riga, January 25 to February 2, 1961). The authors have investigated the radiative proton capture by S^{34} at a 1214-kev resonance energy. The gamma spectra were analyzed by means of a single-crystal spectrometer, a coincidence spectrometer, and a summation spectrometer. Based on the values obtained, the authors state that the transition of the 7.5-Mev resonance level proceeds only cascade-like over an intermediate level. The energies of the gamma rays in the cascade are 3.17 and 4.38 Mev. A direct transition to the ground state may have a relative intensity of less than 0.5%. The angular distribution of gamma rays was measured for rays with 4.38 Mev and 3.17 Mev at an angular interval of 0-150 degrees on both sides

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of the proton beam. Test data and calculated data were intercompared. They were in best agreement when the spins of the resonance- and intermediate levels were equal to 7/2. The value of the gamma-gamma correlation, measured with the summation spectrometer, corresponds (within the limit of error) to the calculated value, which fact confirms a spin of 7/2. An analysis of the relative transition probability from the resonance level to the ground state and the intermediate state with a spin of $3/2^+$ and $7/2^{\pm}$, respectively, leads to the conclusion that the parity of the resonance and intermediate levels must be negative, and that the transition from the resonance level to the ground state must be -M2. The presence of one more level with the spin $7/2^-$ near 7.55 Mev, which corresponds to a resonance level, cannot be explained by single-body excitation on a shell- or generalized model. It may be assumed therefore thatthis level corresponds to a two-body excitation. A comparison of the values obtained experimentally for the width of the resonance level with those calculated according to a single-body model confirmed this assumption. The authors determined the absolute yield of gamma rays from a thick S^{34} target and found it to be $2.56 \cdot 10^{-9} \pm 15\%$ per each proton decay. The authors thank M. I. Guseva for preparing the isotopic targets, A. A. Tsygikalo, Yu. A. Kharchenko, and the personnel of the electrostatic generator for the smooth operation of the latter.

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VAL'TER, A.K.; TSYTKO, S.P.; ANTUF'YEV, Yu.P.; KOPANETS, Ye.G.; L'VOV, ~~A.N.~~

Studying the levels of P^{31} by the aid of the $Si^{30}(p,\gamma)P^{31}$ reaction. Izv. AN SSSR. Ser. fiz. 25 no.7:854-861 Jl '61. (MIRA 14:7)

1. Fiziko-tekhnicheskiy institut AN USSR.
(Phosphorus--Isotopes) (Silicon--Isotopes)
(Nuclear reactions)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

VAL'TER, A.K.; ANTUF'YEV, Yu.P.; KOPANETS, Ye.G.; L'VOV, A.N.; TSYTKO, S.P.

Quantum characteristics of the 6.847 Me. level of P^{30} observed in the reaction $Si^{29}(p,\gamma)P^{30}$. Zhur. eksp. i teor. fiz. 41 no.5:1449-1453 N '61. (MIRA 14:12)

1. Fiziko-tekhnicheskiy institut AN Ukrainskoy SSR.
(Nuclear reactions) (Phosphorus)
(Silicon—Isotopes)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTKO, S. P.

"A survey of experimental data on radiative capture of protons for a wide range of atomic nuclei and on the structure of light nuclei"

Report presented at the Conference on Nuclear Reactions produced by light nuclei, Dubna, December 1962.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

S/903/62/000/000/040/044
B102/B234

AUTHOR: Tsytko, S. P.

TITLE: Radiative capture of protons and the spectroscopy of light nuclei

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, 525-535

TEXT: The author reviews the present experimental possibilities and methods in (p,γ) spectroscopy, thus continuing L. V. Groshev's review on the (n,γ) reaction. For the general problems on the (p,γ) reaction reference is made to P. M. Endt (Physica, XXII, 1062, 1956); here mainly the results obtained on (p,γ) reactions with light nuclei in the Fiziko-tekhnicheskiy institut AN USSR (Physicotechnical Institute AS UkrSSR) are discussed (cf. Sb. "Yadernyye reaktsii pri malykh i srednikh energiyakh" - Nuclear reactions at low and medium energies, Izd-vo AN SSSR, 1958; Izv. AN SSSR, ser. fiz., XXIII, no. 7, 835, 1959; Pribory i tekhnika eksperimenta, no. 5, 112, 1957). The results obtained in the named Institute with Ne^{20},

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Radiative capture of protons and... S/903/62/000/000/040/044
B102/B234

$Si^{28,29,30}$, $Sr^{32,34}$, Ar^{40} and Na^{21}, $P^{29,30,31}$, $Cl^{33,35}$ and K^{41} are particularly described. The results indicate that the (p,γ) reaction analysis is a very suitable method for studying the nuclear level structure. There are 11 figures and 13 references.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN USSR (Physicotechnical Institute AS UkrSSR)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

S/048/62/026/009/003/011
B125/B186

AUTHORS: Val'ter, A. K., Antuf'yev, Yu. P., Kopanets, Ye. G., L'vov, A. N., and Tsytko, S. P.

TITLE: Decay scheme of the 8.92-Mev state and quantum characteristics of the lower levels of the K^{41} nucleus

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 9, 1962, 1137-1142

TEXT: In continuation of an earlier paper by A. K. Val'ter et al. (Izv. AN SSSR, Ser. fiz., 24, no. 7, 891 (1960) on the reaction $Ar^{40}(p\gamma)$ the 1107.5 kev resonance is studied. The proton beam from the electrostatic generator of the FTI AN USSR was made to strike the target through a collimating system. Ar^{40} ions were "knocked" into the tantalum backing of such targets. Fig. 1 shows the hard part of the spectrum taken by a γ-spectrometer with an NaI(Tl) crystal. The peaks R, A, B, C, and D of the soft part are at 0.5; 0.6; 1.0; 1.3, and 1.6 Mev. The spectrum of Fig. 3 was taken by a coincidence spectrometer with two crystals. The

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

lines A, B, C, D coincide with the hard part of the spectrum. The anisotropy $\alpha = (W(90^\circ)-W(0^\circ))/W(90^\circ)$ of the angular distribution of the γ-rays at 7.9; 7.3; 6.3; 1.6 and 1.0 Mev is 0.48; -0.54; +0.14 and +0.05, respectively. There is no transition between the 8.92-Mev resonance level and the ground state. Most of the transitions coming from the resonance level have the same probability. The 2.6-Mev state passes to the ground state rather indirectly over the 1.0-Mev level or over the 1.6-Mev level. The line intensity ratio $I_D/I_A \simeq 1$ remains almost constant from $E_\gamma = 6.0$ to $E_\gamma = 6.3$. Then it decreases rapidly to ~ 0.22 with $E_\gamma \sim 6.8$ and ~ 0.16 with $E_\gamma \sim 7.6$ Mev. The levels with 1.0 and 1.3; 1.6 and 2.6 Mev are formed according to the scheme of Nillson S. P., Danske Mat. fys. medd., 29, No 16 (1955) by single-particle excitation when an unpaired proton passes onto states with $1/2^-$, $7/2^-$, $3/2^-$ and $5/2^-$. The 8.92-Mev resonance level occurs when a proton in the state $g_{9/2}$ with $\Omega = 3/2^+$ is captured. For the levels 1.0; 1.6; 6 and 8.82 Mev the spins and parities $1/2^-$, $3/2^-$, $5/2^-$, and $3/2^-$ are the most probable. These values are also compatible with the shell model having a strong jj-coupling. There are 6 figures and 2 tables.

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Decay scheme of the 8.92-Mev ... S/048/62/026/009/003/011
B125/B186

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk USSR (Physicotechnical Institute of the Academy of Sciences UkrSSR)

Fig. 1. γ-ray spectrum studied with a "single-crystal" spectrometer (hard part).

Fig. 3. γ-ray spectrum studied with the aid of a "summing" spectrometer.
Fig. 5. Scheme of the levels of the K^{41} nucleus
Table 2. Possible values of the level spins.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

S/048/62/026/009/003/011
B125/B186

Decay scheme of the 8.92-Mev ...

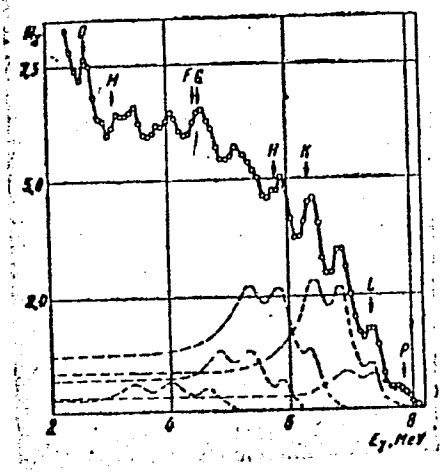
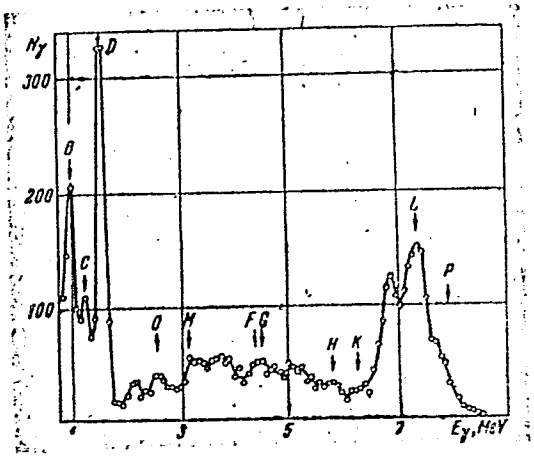


Fig. 1

Fig. 3



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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

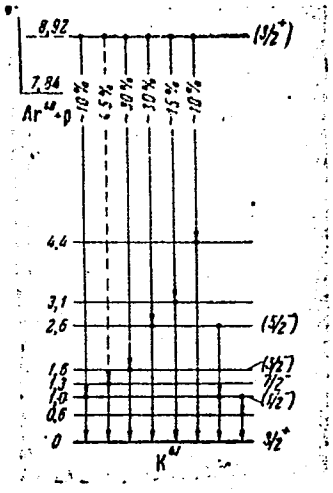

Fig. 5

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

Table 2

$I_{pea} = 5/2$							$I_{pen} = 5/2$						
E^*, MeV	I			$\delta^2 = \frac{I_{L=2}}{I_{L=1}}$			E^*, MeV	I			$\delta^2 = \frac{I_{L=2}}{I_{L=1}}$		
1,0	1/2	—	5/2	0,03	—	0	1,0	3/2	—	7/2	0,04	—	0
1,6	—	3/2	—	—	0,01	—	1,6	—	5/2	7/2	—	0,03	0,1
2,6	1/2	—	5/2	0	—	0,09	2,6	3/2	—	7/2	0	—	0,03

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTKO, S. P.

S/056/62/042/002/013/055
B102/B138

AUTHORS: Antuf'yev, Yu. P., Val'ter, A. K., L'vov, A. N., Kopanets, Ye. G., Tsytko, S. P.

TITLE: Investigation of the resonances in the reaction $Si^{29}(p,\gamma)P^{30}$

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 2, 1962, 386-391

TEXT: The relative gamma quantum yield of the reaction $Si^{29}(p,\gamma)P^{30}$ was measured in the range $1.3 < E_p < 1.55$ Mev. Of the five resonances detected, those at E_p = 1375 and 1500 kev were studied in detail; the others were at 1308, 1330, and 1470 kev. For the 1375-kev resonance, related to the 6.892-Mev level of the P^{30} nucleus and the 1500-kev resonance (7.014-Mev level), the spectra and the gamma-quantum angular distributions were determined. The parameters of the gamma lines of these spectra were determined numerically and the decay schemes (Figs. 5, 6) are given. For the most intense line (6.20 Mev) of the 1375-kev resonance spectrum the angular asymmetry of the angular distribution $W = 1 + A\cos^2\vartheta$ (dipole

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γ-transition) was measured as $A = [W(0^\circ) - W(90^\circ)]/W(90^\circ) = -0.63 \pm 0.05$. The corresponding value, $A = 1.07 \pm 0.10$ was measured for the most intense gamma line (2.83 kev) of the 1500-kev resonance spectrum. The values of the level parameters J^π and T are discussed. There are 6 figures, 3 tables, and 5 references: 3 Soviet and 2 non-Soviet. The two references to English-language publications read as follows: P. M. Endt et al. Phys. Rev. 95, 580, 1954; C. Van der Leun, P. M. Endt. Phys. Rev. 110, 89, 1958.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk Ukrainskoy SSR (Physicotechnical Institute of the Academy of Sciences Ukrainskaya SSR)

SUBMITTED: August 17, 1961

Figs. 5 and 6. Decay schemes and gamma transitions from the resonance levels 6.892 and 7.014 kev, respectively.

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TSYTKO, S P

SOV/6536

PHASE I BOOK EXPLOITATION

Val'ter, A. K., F. G. Zheleznikov, I. F. Malyshev, G. Ya. Roshal', A. N. Serbinov, A. A. Tsygikalo, and S. P. Tsytko

Elektrostaticheskiye uskoriteli zaryazhennykh chastits (Electrostatic Accelerators of Charged Particles) Moscow, Gosatomizdat, 1963. 301 p. 4700 copies printed.

Ed. (Title page): A. K. Val'ter, Academician, Academy of Sciences of the UkrSSR.

Ed.: A. V. Gorokhovskiy; Tech. Ed.: N. A. Vlasova.

PURPOSE: This book is intended for scientists, students, engineers, and technicians developing, utilizing, or studying high-potential engineering and acceleration of charged particles.

COVERAGE: This textbook on electrostatic generators is devoted chiefly to electrostatic accelerators intended for nuclear research.

Card 1/8

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

Sections 1—3 of Ch. I are written by A. K. Val'ter; Section 4 of Ch. I and Chs. II, V, and VII are written by A. A. Tsygikalo; Ch. III, by A. N. Serbinov; Ch. IV, by S. P. Tsytko; and Ch. VI, by I. F. Malyshev, F. G. Zheleznikov, and G. Ya. Roshal'. There are 182 references: 73 Soviet and 109 non-Soviet.

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2. Application of accelerated particles for the investigation of atomic nuclei 8
3. Comparative evaluation of linear, cyclic, and electrostatic accelerators within the range of moderate energies 21
4. Application of electrostatic generators and accelerators in industry 31

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

VAL'TER, A.K.; KOPANETS, Ye.G.; L'VOV, A.N.; TSYTKO, S.P.

Interpretation of the levels of the odd-odd P^{30} nucleus according to Nilsson's model. Izv.AN SSSR.Ser.fiz. 27 no.2: 228-231 F '63. (MIRA 16:2)

1. Fiziko-tekhnicheskiy institut AN UkrSSR.
(Phosphorus isotopes) (Nuclear models)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

S/048/63/027/002/011/023
B104/B180

AUTHORS: Val'ter, A. K., Kopanets, Ye. G., L'vov, A. N., and Tsytko, S. P.

TITLE: Investigation of the γ-radiation corresponding to the 1308 kev resonance in the $S^{29}(p,\gamma)P^{30}$ reaction

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 27, no. 2, 1963, 232 - 234

TEXT: The 1308 kev resonance was investigated using monoenergetic protons and a scintillation γ-spectrometer. The total characteristic of the NaI(Tl) crystal (70 mm diam., 50 mm high) was determined in careful preliminary studies so as to analyze the complicated γ-spectrum reliably. Fig. 1 shows a part of the spectrum corresponding to the resonance. From this spectrum and from the angular distribution of the γ-radiation the decay scheme shown in Fig. 2 was constructed, which corresponds to earlier published data (Tsytko, S. P., Antuf'yev, Yu. P., Zh. eksperim. i teor. fiz., 30, no. 6 (1956)). The most curious result is that the state with 2.94 Mev, with 2^+, decays by a γ-transition with 10% higher probability to the first

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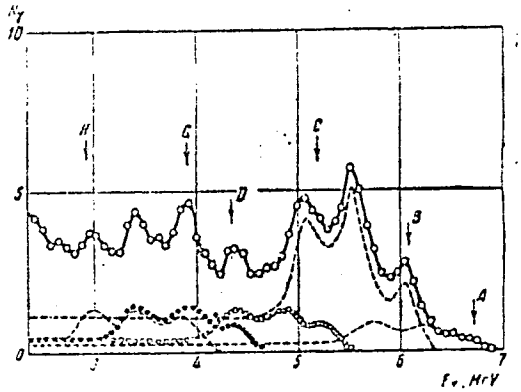
excited level than to the ground state. There are 2 figures and 1 table.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk USSR (Physico-technical Institute of the Academy of Sciences UkrSSR)

Fig. 1. Hard section of the γ-spectrum corresponding to the 1308 kev resonance.

Fig. 1



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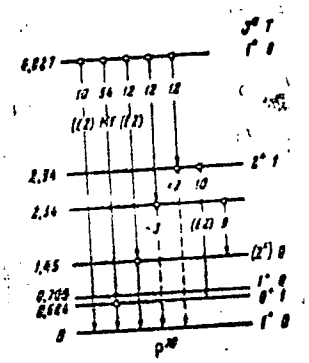
Investigation of the γ-radiation...

Fig. 2. Decay scheme of the P^{30} resonance level with an excitation energy of 6.827 Mev (E_p = 1308 kev).

Fig. 2



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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

L 11635-66 EWT(m)/EWA(h)

ACC NR: AP5025[illegible] SOURCE CODE: UR/0368/65/002/008/0402/0406

AUTHOR: Koval', A. A.; Kopanets, Ye. G.; Korda, Yu. S.; Sukhotin, L. N. (Voronezh State University); Tsytko, S. P.

ORG: none

TITLE: Excitation function of the reaction $S^{36}(p\gamma)Cl^{37}$ in the interval E_p = 1.4--2.1 Mev

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 2, no. 8, 1965, 402-406

TOPIC TAGS: sulfur, chlorine, excitation spectrum

ABSTRACT: To obtain new experimental data on the excited states of Cl^{37}, which are quite scanty, the authors attempted to use the hitherto unobserved radiative proton capture reaction $S^{36}(p\gamma)Cl^{37}$, in which the energy release is Q_m = 8.401 ± 0.009 Mev. A thin isotopic S^{36} target sufficiently enriched to make radiative capture of a proton by S^{36} observable, was prepared in an electromagnetic separator by knocking S^{36} ions into a tantalum base. The method of preparing such targets was described by M. I. Guseva (PTE, No. 5, 112, 1952). The target was approximately 3 kev thick at a proton energy on the order of 2 Mev. The proton source was the 4-Mev electrostatic accelerator of the Physicotechnical Institute of the Ukrainian Academy of Sciences. The proton current to the target amounted to 8--10 μa during the course of the experiment, and was monitored with a current integrator. The monitor was a 70 x 50 mm NaI(Tl)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

L 11838-66

ACC NR: AP5028025

crystal. The excitation function of the reaction $S^{36}(p\gamma)Cl^{37}$ was measured in the incoming-proton energy interval 1.4--2.1 Mev at 90° to the proton beam. It is deduced from the measurements that the resonances observed correspond to the Cl^{37} resonance levels produced in the reaction $S^{36}(p\gamma)Cl^{37}$. The positions of the resonances and the corresponding excitation energies of the Cl^{37} nucleus are tabulated. Authors thank M. I. Guseva for preparing the isotopic S^{36} target, Yu. A. Kharchenko for operation of the accelerator, and I. P. Kolodyzhnyy and I. M. Bespalov for help with the measurements. Orig. art. has: 1 figure and 1 table.

SUB CODE: 20/ 07/ SUBM DATE: 07Sep65/ ORIG REF: 003/ OTH REF: 005

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

L 21134-66 EWT(m) DIAAP

ACC NR: AP6011988 SOURCE CODE: UR/0048/65/029/005/0800/0802

AUTHOR: Val'ter, A. K.; Kopanets, Ye. G.; Tsytko, S. P.

ORG: Physicotechnical Institute, AN UkrSSR (Fiziko-tekhnicheskiy institut AN UkrSSR)

TITLE: Measurement of linear polarization of 1.97-MeV gamma rays in the reaction Ar sup 36 (p,p' gamma)Ar sup 36 [The paper was presented at the 15th Annual Conference on Nuclear Spectroscopy and Atomic Nuclear Structure held in Minsk from 25 January to 2 February 1965]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 5, 1965, 800-802

TOPIC TAGS: gamma ray, argon, chlorine, potassium, radioisotope, even even nucleus

ABSTRACT: The first level of the Ar^{36} nucleus with energy of 1.97 MeV was observed in reactions Cl^{35}(p gamma) Ar^{36} and K^{39}(p gamma) Ar^{36}. The spin and parity of this level were not found experimentally, although it was assumed that by analogy with other even-even nuclei it was most probably that I sup pi = 2+. As a consequence of this assumption the gamma-transition from the first level to the ground state should be pure E2-radiation. This has been confirmed by the authors experimentally. This article describes the experiment and gives calculations, results, and conclusions. The authors thank M. I. Gusevaya for preparing the target isotopes Ar^{36}, and also I. P. Kolodyazhnyy for assistance during the carrying-out of the measurements. Orig. art. has: 3 figures. [JPRS]

SUB CODE: 20, 18, 07 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 006

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

L 21135-66 EWT(m) DIAAP

ACC NR: AP6011989 SOURCE CODE: UR/0048/65/029/005/0803/0807

AUTHOR: Val'ter, A. K.; Kopanets, Ye. G.; Tsytko, S. P.

ORG: Physicotechnical Institute, AN UkrSSR (Fiziko-tekhnicheskiy institut AN UkrSSR)

TITLE: Al sup 27 nucleus energy levels with excitation energies of 10.495 and 3.95 MeV [The paper was presented at the 15th Annual Conference on Nuclear Spectroscopy and Atomic Nuclear Structure held in Minsk from 25 January to 2 February 1965]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 5, 1965, 803-807

TOPIC TAGS: aluminum, gamma radiation, magnesium, excited nucleus

ABSTRACT: This work describes the study of the gamma-radiation due to reaction Mg sup 26 (p gamma) Al sup 27 at E sub p = 2298 keV. The experiments and apparatus are described elsewhere. The authors thank M. I. Gusevaya for preparing the Mg sup 26 target isotopes and also I. P. Kolodyazhnyy for assistance during the carrying-out of the measurements. Orig. art. has: 4 figures and 1 table. [JPRS]

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 003 / OTH REF: 008

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APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

KOPANETS, Ye.G.; KOVAL', A.A.; SUKHOTIN, L.N.; TSYTKO, S.P.

Levels of the Cl^{35} nucleus with excitation energies between 8.2 and 9.2 Mev. Izv. AN SSSR. Ser. fiz. 29 no.7:1201-1206 Jl '65. (MIRA 18:7)

1. Fiziko-tekhnicheskiy institut AN UkrSSR.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

VAL'TER, A.K.; KOPANETS, Ye.G.; TSYTKO, S.P.

Measurement of the linear polarization of 1.97 Mev. gamma rays in the reaction Ar^{36} (p, p' γ) Ar^{36}. Izv. AN SSSR.Ser. fiz. 29 no.5:800-802 My '65.

Levels of the Al^{27} nucleus with excitation energies of 10.495 and 3.95 Mev. Ibid.:803-807 (MIRA 18:5)

1. Fiziko-tekhnicheskiy institut AN UkrSSR.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

VAL'TER, A.K.; KOPANETS, Ye.G.; L'VOV, A.N.; TSYTKO, S.P.

Inelastic scattering of protons by Ar^{36} nuclei. Izv. AN SSSR. Ser. fiz. 28 no.7:1137-1139 Jl '64 (MIRA 17:8)

Radiative capture and inelastic scattering of protons by Mg^{26} nuclei. Ibid.:1140-1144

1. Fiziko-tekhnicheskiy institut AN UkrSSR.

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SOV/6536

PHASE I BOOK EXPLOITATION

Val'ter, A. K., F. G. Zheleznikov, I. F. Malyshev, G. Ya. Roshal', A. N. Serbinov, A. A. Tsygikalo, and S. P. Tsytko

Elektrostaticheskiye uskoriteli zaryazhennykh chastits (Electrostatic Accelerators of Charged Particles) Moscow, Gosatomizdat, 1963. 301 p. 4700 copies printed.

Ed. (Title page): A. K. Val'ter, Academician, Academy of Sciences of the UkrSSR.

Ed.: A. V. Gorokhovskiy; Tech. Ed.: N. A. Vlasova.

PURPOSE: This book is intended for scientists, students, engineers, and technicians developing, utilizing, or studying high-potential engineering and acceleration of charged particles.

COVERAGE: This textbook on electrostatic generators is devoted chiefly to electrostatic accelerators intended for nuclear research.

Card 1/8

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Sections 1—3 of Ch. I are written by A. K. Val'ter; Section 4 of Ch. I and Chs. II, V, and VII are written by A. A. Tsygikalo; Ch. III, by A. N. Serbinov; Ch. IV, by S. P. Tsytko; and Ch. [illegible], by I. F. Malyshev, F. G. Zheleznikov, and G. Ya. Roshal'. There [illegible] 182 references: 73 Soviet and 109 non-Soviet.

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1. Short outline of the development of electrostatic generators 5
2. Application of accelerated particles for the investigation of atomic nuclei 8
3. Comparative evaluation [illegible] linear, cyclic, and electrostatic accelerators within th[illegible]nge of moderate energies [illegible]
4. Application of electro[illegible]tic generators and accelerators in industry 31

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

VAL'TER, A.K.; KOPANETS, Ye.G.; L'VOV, A.N.; STEGNER, A.; TSYTKO, S.P.

Study of the reaction $Mg^{26}(p,\gamma)Al^{27}$ at proton energies ranging from 1.8 to 2 Mev. Izv. AN SSSR. Ser. fiz. 27 no.11:1419-1426 N '63. (MIRA 16:11)

1. Fiziko-tekhnicheskiy institut AN UkrSSR. 2. Institut yadernykh issledovaniy, Varshava, Pol'skaya Narodnaya Respublika (for Stegner).

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

VAL'TER, A. K.; KOPANETS, Ye. G.; L'VOV, A. N.; TSYTKO, S. P.

"Inelastic Scattering of Protons by Nuclei Ar^{36}."

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

KhFTI (Ukrainian Physico Technical Inst, Khar'kov)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

VAL'TER, A. K.; KOPANETS, Ye. G.; L'VOV, A. N.; TSYTKO, S. P.

"Radiative Capture and Inelastic Scattering of Protons by Nuclei of Mg^{26}."

"Excited States of the Nucleus Al^{27}."

reports submitted for all-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22 Feb 64.

KhFTI (Ukrainian Physico Technical Inst, Khar'kov)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTLENOK, A., inzh.; TSINMAN, A., inzh.; SHVARTSMAN, G., inzh.; SVITKIN, M., inzh.

Window units made of wood wastes. Na stroi.Ros. 4 no.6:20-21 Je '63. (MIRA 16:6)

(Windows) (Wood waste)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTOVICH, O.A., inzh.

The rigidity of prestressed metal beams. Prom. stroi. 40 no.9:48-52 '62. (MIRA 15:11)
(Beams and girders)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTOVICH, N.A. & M. I. SUMGIN

RT-1210 (Principles of mechanics of frozen grounds) Preface and Chapter I (pp. 5-36)

from:
OSNOVANIIA MEKHANIKI MERZLYKH GRUNTOV. Moscow- Leningrad, 1937.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTOVICH, Nikolay Aleksandrovich

Calculation of the Settling of Foundations, Leningrad-Moscow, 1941

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTOVICH, N. A.

"To the Theory of the Equilibrium of Water in Frozen Grounds," Iz. Ak. Nauk SSSR, Geograf. i geofiz., No. 5-6, 1945

Obruchev Inst. Freezing, AS USSR

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTOVICH, NIKOLAY ALEKSANDROVICH

Technology

Depth for laying the foundation of low buildings in relation to seasonal freezing of the ground. Moskva. Izd-vo Akademii nauk SSSR. 1946.

Monthly List of Russian Accessions, Library of Congress, September 1952. UNCLASSIFIED

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

14(10) SOV/112-59-4-6757

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 4, p 51 (USSR)

AUTHOR: Tsytovich, N. A., and Zakharov, O. Z.

TITLE: Determining the Continuous Resistance of Clays to Deformations by Means of a Spherical Punch

PERIODICAL: Tr. Gidroproyekta, 1948, Nr 1, pp 65-73

ABSTRACT: Studying the time-variation of adhesive forces in clays by the method of embossing a spherical punch can be done under field conditions. Methods for testing four designs of instruments for the above tests are described: a lever-type single-stem instrument, a single-stem instrument with a direct application of load to the punch stem, a three-stem ball-type instrument for short-time testing, and the same instrument for continuous testing.

Yu.M.S.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTOVICH, N. A.

Technology

Mechanics of soils, Moskva, 1951.

Monthly List of Russian Accessions, Library of Congress, December 1952, UNCLASSIFIED

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTOVICH, N.A., professor.

Foreword. Mat.po lab.issl.merzl.grunt.1:3-4 '53. (MLRA 7:2)

1. Nauchnyy rukovoditel' chlen-korrespondent Akademii nauk SSSR.
(Frozen ground)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTOVICH, N.A.

Laboratory research concerning grozen ground. Mat.po lab.issl. merzl.grunt.1:5-12 '53. (MLRA 7:2)
(Frozen ground)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

Name	Title of Work	Nominated by
Tsytovich, N.A.	"Mechanics of Soils" (student manual, 3rd edition)	Moscow construction engineering Institute imeni V. V. Kuyb/shev

SO: W-30604, 7 July 1954

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTOVICH, N.A., nauchnyy rukovoditel'

Some general problems of research methods on the Physical and mechanical properties of frozen ground. Mat.po lab.issl.merzl. grunt. no.2:5-15 '54. (MIRA 8:8)

1. Chlen-korrespondent AN SSSR
(Frozen ground)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTOVICH, N.A., nauchnyy rukovoditel'

Directions for determining the cohesive strength of frozen ground. Mat.po lab.issl.merzl.grunt. no.2:162-175 '54. (MIRA 8:8)

1. Chlen-korrespondent AN SSSR.
(Frozen ground)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTOVICH, N. A.

USSR/ Scientific Organization

Card 1/1 : Pub. 124 - 21/38

Authors : Tsytovich, N. A., Memb. Corresp. of Acad. of Sc. USSR

Title : Office of the commission on structural problems

Periodical : Vest. AN SSSR 8, 86-87, Aug 1954

Abstract : Meeting on coordination of work programs for the newly established Office of the Commission on Structural Problems at the Acad. of Sc. USSR.

Institution : .....

Submitted : .....

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

SHUSHERINA, Ye.P. ; TSYTOVICH, N.A., nauchnyy rukovoditel'

[Study of modifications in the physical and mechanical properties of soils resulting from freezing and subsequent thawing; dissertation for the degree of candidate of geological and mineralogical sciences] Issledovanie izmenenii fizikomekhanicheskikh svoistv gruntov v resul'tate ikh promerzaniia i posleduiushchego ottaivaniia; dissertatsiia na soiskanie uchenoi stepeni kandidata geologo-mineralogicheskikh nauk. Moskva, Akad. nauk SSSR, 1955. 185 p. (MIRA 11:11)

(Soil physics)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTOVICH, N.A.

AID P - 1804

Subject : USSR/Hydraulic Engineering Construction

Card 1/1 Pub. 35 - 16/17

Author : Tsytovich, N. A. and Berezantsev, V. G.

Title : V. V. Sokolovskiy. Statika sypuchey sredy (Status of a Friable Medium). Gostekhizdat, 1954. 2-e izd

Periodical : Gidr. stroi., v.24, no.1, 46-47, 1955

Abstract : The authors review the second edition of this monograph which deals with the theory of strength and deformation of a substance composed of friable materials or loose particles. Critical remarks are made on the over-conciseness of some chapters but the book is considered a valuable addition to publications on soil mechanics.

Institution: None

Submitted : No date

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTOVICH, N.A.

AID P - 1757

Subject : USSR/Hydraulic Engineering Construction

Card 1/1 Pub. 35 - 16/21

Author : Tsytovich, N. A.

Title : More on crane transporting of concrete (Letters from readers)

Periodical : Gidr. stroi., v.24, no.2, p.44-45, 1955

Abstract : Maximum crane delivery capacity is discussed. Different types of cranes are mentioned. The use of conveyer belts and conduits for speed delivery is emphasized.

Institution: None

Submitted : No date

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTOVICH, N.A.

AID P - 1760

Subject : USSR/Hydraulic Engineering Construction

Card 1/1 Pub. 35 - 19/21

Author : Tsytovich, N. A.

Title : Conference on forecasting of settling of installations

Periodical : Gidr. stroi., v.24, no.2, 46-47, 1955

Abstract : As results of the conference with over 500 participants, the following statements should be noted: the lack of prognosis impedes computations of foundation construction; the recording settling in existing installations is necessary; methods of computing applied at present still leave some questions unanswered. The next problems include: the establishing of a method defining the compressive strength of soil; study of improved slabs and girders for foundations; and a better coordination between research on soil mechanics and construction practice.

Institution: None

Submitted : No date

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

VYALOV, S.S.; TSYTOVICH, N.A.

Binding properties of frozen ground. Dokl.AN SSSR 104 no.4:527-529 O '55. (MIRA 9:2)

1.Chlen-korrespondent AN SSSR (for TSytovich). 2.Institut merzlotovedeniya imeni V.A.Obrucheva Akademii nauk SSSR.
(Frozen ground)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTOVICH, N. E.

TSYTOVICH, N. E. --"A Study of the Role of Cyclopentane Hydrecarbons in the Process of Aromatization of Petroleum Fractions on a Chrome-Aluminum Catalyst." Moscow, 1956. (Dissertation for the Degree of Candidate in Chemical Sciences.)

So.: Knizhnaya Litopis', No 7, 1956.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

SOV/124-57-4-4640

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 4, p 110 (USSR)

AUTHOR: Tsytovich, N. A.

TITLE: On Methods of the Calculation of Beams and Slabs Resting on a Compressible Foundation (O metodakh rascheta balok i plit na szhimayemom osnovanii)

PERIODICAL: Sb. tr. Mosk. inzh.-stroit. in-ta, 1956, Nr 14, pp 5-11

ABSTRACT: A brief survey of existing methods for the calculation of beams and slabs resting on a compressible (elastic) foundation. The calculation models of foundations are subdivided into three groups: 1) A model based upon the theory of local elastic deformations (the Winkler model); 2) a model based on the theory of an elastic half-space (the Proctor, et al, model); 3) special models of an elastic foundation designed so as to take into consideration such factors as the compressibility, tangential stresses, etc. The principle and calculation method relative to each model are described in general terms, and the limits of applicability of various theories are given. Various problems associated with the improvement and refinement of the calculation models of compressible foundations are outlined, also

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SOV/124-57-4-4640

On Methods of the Calculation of Beams and Slabs Resting on a Compressible (cont.)

computational methods therefor.

V. P. Shubin, S. M. Mulin

Card 2/2

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001757320015-0

TSYTOVICH, N.A.

CARD 1 / 2 PA - 1996

SUBJECT USSR / PHYSICS
AUTHOR CYTOVIC,N.A.
TITLE On the Determination of the Interlinking Forces of Coherent Soils by the Ball-Impression Test.
PERIODICAL Dokl.Akad.Nauk 111, fasc.5, 965-968 (1956)
Issued: 1 / 1957

At first the disadvantages of the method of investigation hitherto employed are pointed out. The ball-impression test suggested by the author in 1947 as a method for the determination of the interlinking forces of plastic frozen soils was found to be very promising in connection with the hydraulic structure erected on the rivers Volga and Kama also for the investigation of interlinking forces of connected clayish soils. The author describes this method as being the most simple, as theoretically well found, and as offering great possibilities for the investigation of interlinking forces and the relaxation in time. This applies in the case of soils of natural structure as well as for naturally (artificially ?) settled soils. With this method the amount of the interlinking forces is determined from the results obtained by measuring the remanent depth of indentation of a spherical stamper with the diameter D under the effect of a constant stress P. If interlinking in the case of ideally coherent bodies, according to SAINT VENANT, is connected in a simple manner with the limit of resistance or stability (on the occasion of compression), it applies that $c = \alpha P/\pi Ds$. Here c denotes the interlinking force, α - a proportionality coefficient. For α the value $\alpha = 0,176 \sim 0,18$ may be taken for

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