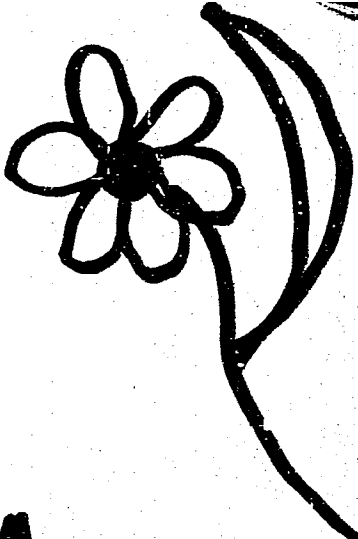


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DUNAYEVSKIY, Vasilii Nikodimovich [Dunaisvs'kyi, V.N.]; PASTUSHENKO, V.O.,  
kand. sel'khoz. nauk, otv. red.; STAROSTENKO, T.H., red.; MATVIICHUK,  
O.A., tekhn. red.

[Erosion control] Borot'ba z erosiieiu hruntiv. Kyiv, 1961. 47 p.  
(Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrain's'koi  
RSR. Ser. 5, no.4) (MIRA 14:8)  
(Soil conservation)

SKORODUMOV, Aleksandr Sergeevich, kand. sel'khoz. nauk; PASTUSHENKO, Vasilii Omufriyevich, kand. sel'khoz. nauk; DUNAYEVSKIY, Vasilii Nikolimovich [Dunayevs'kyi, V.N.], starshiy nauchnyy sotr.; LOGGINOV, B.Y. [Lohhinov, B.I.], prof., doktor sel'khoz. nauk, red.; BLANINA, L.F., red.; KVITKA, S.P., tekhn. red.

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1. Chlen-korrespondent Ukrainskoy akademii sel'skokhozyaystvennykh nauk (for Logginov).

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DUNAYEVSKIY, Ya.I., inzhener-kapitan 3-go ranga

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76-77 S '64. (MIRA 18:7)

DEMIN, A.M., kand. tekhn. nauk; CHERTKOV, V.K.; VASIL'YEV, M.V.,  
kand. tekhn. nauk; YEFIMOV, I.P.; KOKH, P.I.; KMITOVENKO, A.T.,  
dots.; PRISEDSKIY, G.V., inzh.; DUNAYEVSKIY, Yu.N.; VOLOTKOVSKIY,  
S.A., prof., doktor tekhn. nauk; KUR'YAN, A.I., kand. tekhn.  
nauk; MAYMIN, S.R., kand. tekhn. nauk; MIROSHNIK, A.M., kand.  
tekhn. nauk; PETROV, I.P., kand. tekhn. nauk; TURYSHEV, B.F.,  
kand. tekhn.nauk; SHISHKOV, A.I., kand. tekhn. nauk;  
AVERBUKH, I.D., inzh.; VARSHAVSKIY, A.V.; KRYUKOV, D.K.; LUKAS,  
V.A.; MINEYEV, V.A.; SMIRNOV, A.A., otv. red.; LYUBIMOV, N.G.,  
red. izd-va; MAKSIMOVA, V.V., tekhn. red.

[Handbook for the operator and mechanic of open-pit mine equip-  
ment] Spravochnik mekhanika ugol'nogo kar'era. Moskva, Gos.  
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(Coal mining machinery) (Electricity in mining)

DEMIN, A.M., kand. tekhn. nauk; KOKH, P.I.; CHERTKOV, V.K.; VASIL'YEV, M.V., kand. tekhn. nauk; YEFIMOV, I.P.; KMITOVENKO, A.T., dots.; PRISEDSKIY, G.V., inzh.; ~~DINAYEVSKIY, Yu.N.~~; VOLOTKOVSKIY, S.A., doktor tekhn. nauk; KUR'YAN, A.I., kand. tekhn. nauk; MAYMIN, A.I.; MIROSHNIK, A.M.; PETROV, I.P.; TURYSHEV, B.F.; SHISHKOV, A.I.; AVERBUKH, I.D., inzh.; VARSHAVSKIY, A.V.; KRYUKOV, D.K.; LUKAS, V.A.; MINEYEV, V.A.; SMIRNOV, A.A., otv. red.; LYUBIMOV, N.G., red. izd-va; MAKSIMOVA, V.V., tekhn. red.

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bridge. Vop. rud. transp. no.6:43-49 '62. (MIRA 15:8)

1. Semenovsko-Golovkovskiy burougol'nyy raarez. 2. Dnepropetrovskiy  
gorany institut (for Varshavskiy).  
(Transporter bridges)



VARSHAVSKIY, A.M., inzh.; DUMAYEVSKIY, Yu.N., inzh.

Geometric parameters of bearing supports of powerful belt conveyors.  
Izv. vys. ucheb. zav.; gor. zhur. 5 no.3:119-123 '62. (MIRA 15:7)

1. Dnepropetrovskiy ordena Trudovogo Krasnogo Znameni gornyy  
institut imeni Artema. Rekomendovana kafedroy razrabotki  
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Dnepropetrovskogo gornogo instituta.  
(Conveying machinery)

DEMIN, A.M., kand. tekhn. nauk; CHERTKOV, V.K.; VASIL'YEV, M.V.,  
kand. tekhn. nauk; YEFIMOV, I.P.; KOKH, P.I.; KMITOVENKO, A.T.,  
dots.; PRISEDSKIY, G.V., inzh.; DUNAYEVSKIY, Yu.N.; VOLOTKOVSKIY,  
S.A., prof., doktor tekhn. nauk; KUR'YAN, A.I., kand. tekhn.  
nauk; MAYMIN, S.R., kand. tekhn. nauk; MIROSHNIK, A.M., kand.  
tekhn. nauk; PETROV, I.P., kand. tekhn. nauk; TURYSHEV, B.F.,  
kand. tekhn.nauk; SHISHKOV, A.I., kand. tekhn. nauk;  
AVERBUKH, I.D., inzh.; VARSHAVSKIY, A.V.; KRYUKOV, D.K.; LUKAS,  
V.A.; MINEYEV, V.A.; SMIRNOV, A.A., otv. red.; LYUBIMOV, N.G.,  
red. izd-va; MAKSIMOVA, V.V., tekhn. red.

[Handbook for the operator and mechanic of open-pit mine equip-  
ment] Spravochnik mekhanika ugol'nogo kar'era. Moskva, Gos.  
nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1961. 639 p.  
(MIRA 15:3)

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(Coal mining machinery) (Electricity in mining)

VARSHAVSKIY A.M., kand.tekhn.nauk; DUNAYEVSKIY, Yu.N., inzh.

Wear of the working part of a chain and bucket excavator. Izv. vys.  
ucheb. zav.; ger. zhur. 6 no.7:122-131 '63. (MIRA 16:9)

1. Dnepropetrovskiy ordena Trudovogo Krasnogo Znameni gornyy institut  
imeni Artema (for Varshavskiy). 2. Semenovsko-Golovskiy kar'yer (for  
Dunayevskiy).

(Excavating machinery—Testing)  
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DUNAYNE SZOKOL, Ilona; LEPP, Ildiko

Extraordinary weather conditions during the passage of two  
cold fronts. Idojaras 68 no.4:232-236 J1-Ag '64.

DUNAYSKI, L.

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principles for a plane harmonic wave. Opt.i spektr. 11 no.4:  
547-549 0 '61. (MIRA 14:10)

1. Universitet, Brno, Chekhoslovakiya.  
(Electromagnetic theory)

DUNAYSKI, Ladislav [Dunajsky, L.] (Nitra, Chekhoslovakiya)

Phase shift for the p-component of reflected light. Opt. 1  
spektr. 12 no.6:792-793 Je '62. (MIRA 15:5)  
(Reflection (Optics))

DUNAYSKIY, L.

On I.N. Shkliarevskii's article "Phase relations at the  
interface of two media." Opt. i spektr. 17 no.4:636 0 '64.  
(MIRA 17:12)

DUNAYSKIY, V.D., red.; ZABRODSKIY, S.S., red.; TAMARIN, A.I., red.

[Heat and mass exchange in dispersion systems] Teplo- i  
massoobmen v dispersnykh sistemakh. Minsk, Nauka i tekhnika,  
1965. 175 p. (MIRA 18:5)

1. Akademiya navuk BSSR, Minsk. Institut teplo- i masso-  
obmena.



SOV/56-36-6-6/66

21(7)

AUTHORS:

Dunaytsev, A. F., Prokoshkin, Yu. D.

TITLE:

The Reaction  $p + p \rightarrow p + p + \pi^0$  Within the Energy Range From the Threshold to 665 Mev (Reaktsiya  $p + p \rightarrow p + p + \pi^0$  v oblasti energiy ot poroga do 665 Mev)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 6, pp 1656 - 1671 (USSR)

ABSTRACT:

The present paper investigates the angular distribution of neutral pions formed in proton-proton collisions within the range of 400-665 Mev. The paper goes into many details and first discusses the results mentioned in numerous publications dealing with this subject, and deals with the problems connected with the investigations described. Pion angular distribution is determined by means of the angular distribution of  $\gamma$ -quanta (decay  $\pi^0 \rightarrow 2\gamma$ ); the latter is less anisotropic than the angular distribution of pions, and with decreasing pion velocity the anisotropy vanishes rapidly (exponential decrease, see figure 1). The investigations were carried out with an unpolarized proton beam on the six-meter phasotron of the OIYaI. The experimental arrangement is shown by figure 2; proton energy

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The Reaction  $p + p \rightarrow p + p + \pi^0$  Within the Energy Range From the Threshold to 665 Mev

distribution in the beam corresponded to a Gaussian curve with a dispersion equal to  $(2.8 \pm 0.3)$  Mev at maximum proton energy (of Fig 3). In the following, the authors describe the recording apparatus in detail. Figure 4 shows a scheme of the  $\gamma$ -telescope system, the degree of efficiency of which is shown by figure 5 in dependence on the angle. Liquid hydrogen in a cylindrical container made from foam polystyrene as well as polyethylene and graphite (for cross section measurement) (diameter 8 cm, length 25 cm) was used as a target. The most favorable recording conditions were in the range of  $45^\circ < \theta < 145^\circ$ . There follows a detailed description of target properties and control experiments. Measuring results are given by numerous diagrams and some tables, and are discussed in detail. Figure 6 shows the  $\gamma$ -angular distribution on carbon by 665 Mev protons and the distribution curve calculated according to the optical nuclear model (good agreement), and table 1 shows the relative cross sections  $\sigma_{pp}$  in % for various angles and the energies of 665, 560, and 485 Mev, obtained by means of the difference method. Figure 7 shows the  $\gamma$ -angular distribution at 665 Mev measured by means of the difference method and calculated by

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The Reaction  $p + p \rightarrow p + p + \pi^0$  Within the Energy  
Range From the Threshold to 665 Mev

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the method of the least squares (good agreement); figure 8 shows the same at  $E = 485$  Mev. The following chapter of this paper deals with a reduction of the obtained  $\chi$ -distribution to the  $\pi^0$ -meson distribution (Tables 2,3), and the following chapter supplies data concerning measurements of the total cross section, which were carried out within the energy range of 313-660 Mev. Figure 9 shows the dependence of the  $\chi$ -production cross section upon proton energy. At  $\theta = 33^\circ$  and  $E = 660$  Mev the following was obtained:

$$d\sigma_{pC}^{\chi} / d\Omega = (7.6 \pm 0.4) \cdot 10^{-27} \text{ cm/steradian,}$$

$$\sigma_{pp}^{\pi^0} = (3.22 \pm 0.17) \cdot 10^{-27} \text{ cm}^2, \text{ and in the case of a hydrogen target}$$

$(3.4 \pm 0.4) \cdot 10^{-27} \text{ cm}^2$ . A great number of further data is given by tables 4 and 5. The  $\chi$ -yield decreases by more than the 500-fold within the range investigated with a decrease of proton energy. At  $E > 400$  Mev the main contribution to the reaction cross section is given by the resonant transitions; at lower proton energies the non-resonant Ss-transition becomes essential, its

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The Reaction  $p + p \rightarrow p + p + \pi^0$  Within the Energy  
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contribution to the total cross section being  $0.032\eta_{cm}^2 \cdot 10^{-27} \text{cm}^2$   
( $\eta_{cm}$  is the maximum  $\pi^0$ -momentum in the c.m.s.) In conclusion,  
the authors discuss the results obtained and compare the measured  
cross sections of neutral and charged pion production with those  
calculated according to the resonance theory (Figs 10-13); the  
conclusion is drawn that transition with the total angular  
momentum  $J=2$  is preferential. Finally, the authors thank L. I.  
Lapidus, S. L. Mandel'shtam, L. M. Soroko, A. A. Tyapkin, B. M.  
Antonov, Ye. L. Grigor'yev, G. P. Zorin, M. M. Kulyukin, N. A.  
Mitin, O. V. Savchenko and I. V. Tsymbulov for their discussion  
and assistance. There are 13 figures, 5 tables, and 27 refer-  
ences, 13 of which are Soviet.

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy (Joint Institute  
of Nuclear Research)  
SUBMITTED: December 25, 1958

Card 4/4

DUNAYTSEV, A. F., PANTUYEV, V. S., PROKOSHKIN, YU. D., KHACHATURYAN, M. N.,

"Measurement of the Panofisky Ratio by the Method of Gamma-Gamma Coincidents"

paper presented at the Intl Conference on High Energy Physics, Rochester, N.Y.  
and/or Berkly California, 25 Aug - 16 Sep 1960.

85364

S/120/60/000/005/038/051  
E032/E314

24,6900

AUTHORS: Dunavtsev, A.F., Prokoshkin, Yu.D. and  
Tan Syao-Vey

TITLE: Measurement of the Energy of Negative  $\pi^-$ -mesons /9  
Using a Star Detector

PERIODICAL: Pribery i tekhnika eksperimenta, 1960, No. 5,  
p. 133

TEXT: In distinction to the majority of other particles,  $\pi^-$ -mesons produce high-energy stars with high probability towards the end of their range. This phenomenon was used by the present authors in a selective recording of  $\pi^-$ -mesons. The  $\pi^-$ -meson star detector is in the form of a telescope consisting of two scintillation counters in coincidence. The first of these is a usual 100% efficient detector of incident particles. The second counter is used with lower EHT and hence records only large light pulses which are produced in the scintillator when a  $\pi^-$ -meson produces a star in it. On the other hand, the efficiency of recording of  $\pi^-$ -mesons passing right through the scintillator of this counter is negligible. The photomultiplier of the second counter works under highly  
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E032/E314

Measurement of the Energy of Negative  $\pi$ -mesons Using a Star Detector

stabilised conditions. The star detector can be used in the rapid measurement of the range and energy of  $\pi^-$ -mesons (15 min when the intensity of the beam is  $\sim 10^7$  sec<sup>-1</sup>). A typical range-curve for 160 MeV  $\pi^-$ -mesons is shown in Fig. 1. It is clear from this figure that the star detector does in fact detect stars and not just the stopping of particles, i.e. it selectively records  $\pi^-$ -mesons. In fact, if the star detector simply detected the stopping of particles it would be equally efficient for  $\pi^-$ - and  $\mu^-$ -mesons. If this were so, the range curve in the region of large thicknesses would be of the form shown by the dotted curve, which corresponds to the  $\mu^-$ -mesons in the beam (15%). The measured range-curve does not show a maximum in this region.

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EO 32/E314

Measurement of the Energy of Negative  $\pi^-$ -mesons Using a Star Detector

As can be seen from the figure the sensitivity of the star detector to  $\mu^-$ -mesons is at least twenty times smaller than the sensitivity to  $\pi^-$ -mesons. There is 1 figure. X

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy (Joint Institute for Nuclear Research)

SUBMITTED: August 26, 1959

Card 3/3



82413

S/056/60/038/03/11/033  
B006/B014

24.6600

AUTHORS:

Dunaytsev, A. F.; Prokoshkin, Yu. D.

TITLE:

The Reaction  $pn \rightarrow p\pi^0$  at Energies From the Threshold up to 665 Mev

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 38, No. 3, pp. 747-757

TEXT: Of the two nucleon reactions leading to the pion production,

$p + p \rightarrow \pi^0 + p + p$  (1) and  $p + n \rightarrow \pi^0 + d$  (2) the investigation of the latter meets with considerable difficulties. It can be either investigated by having hydrogen nuclei bombarded with neutrons or by experimentally comparing the cross sections of reaction (3)  $p + d \rightarrow \pi^0 + nucleons$ , with those of reaction (1). The authors chose the latter way. Experimental setup and method of measurement had already been discussed in a previous paper (Ref. 11). Bombarding was made with an unpolarized proton beam of the six-meter synchrocyclotron of the CIYA. The arrangement included targets with heavy and

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The Reaction  $pn \rightarrow pn\pi^0$  at Energies From the  
Threshold up to 665 Mev

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ordinary water in thin-walled containers, as well as plates made of light graphite and polyethylene  $(CH_2)_n$ . The angular dependence of the cross section  $\sigma_{pd}^{\pi^0} = (d\sigma_{pd}^{\pi^0}/d\Omega)/(d\sigma_{pC}^{\pi^0}/d\Omega)$  and of the differential cross section of reaction (3) was investigated at proton energies of 665, 560, and 485 Mev; results are compiled in Table 1.  $\theta$  denotes the angle of departure of  $\pi^0$ -quanta in the laboratory system. For other energies the cross section values obtained are given in Table 2, and the total cross sections  $\sigma_{pd}^{\pi^0}$  in Table 3. The values obtained for the total cross section of reaction (2) are compiled in Table 4 for 17 energy values between 290 and 665 Mev. They were found to range from  $(0.011 \pm 0.003)$  to  $(6.3 \pm 0.4) \cdot 10^{-27} \text{ cm}^2$ . The angular distributions of  $\pi^0$ -quanta from the  $\pi^0$  decay (Reaction (3)) were investigated in the energy range 400 - 665 Mev. Fig. 1 shows the angular distribution obtained at 665 Mev. The broken curve was calculated by the method of least squares (Ref. 17). The angular distribution  $f_{pd}^{\pi^0}(\theta)$  shown here is not symmetric around the angle of  $90^\circ$  in the center-of-gravity system, whereas the angular distribution should

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The Reaction  $pn \rightarrow pn\pi^0$  at Energies From the  
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be symmetric for reactions (1) and (2). Asymmetry is explained as being a consequence of pion absorption and of the incident proton. Angular distribution  $f_{pn+pp}^d(\theta)$  obtained from  $f_{pd}^d(\theta)$  is well described by

$f_{pn+pp}^d(\theta) \sim \frac{1}{3} + (0.07 \pm 0.02) \cos^2 \theta$ .  $f_{pd}^d(\theta) \sim \frac{1}{3} + (0.08 \pm 0.02) \cos^2 \theta$  further holds for 665 Mev.  $f_{pn}^d(\theta) \sim \frac{1}{3} + b_p \cos^2 \theta$  generally holds,  $b_p$  are given in

Table 5 for nine energy values. These results are discussed in great detail. The investigation of  $\pi^0$ -meson production in  $pd$ - and  $pn$  collisions made at the same time permits determination of the total cross sections of the reaction  $pn \rightarrow pn\pi^0$ ; a comparison of these cross sections with those of other reactions shows that the condition imposed upon the relation between the total cross sections of various meson-producing reactions by the hypothesis of isotopic invariance is fulfilled with a 10% error. The total cross sections of reaction (2) obtained are in good agreement with those obtained on the strength of the phenomenological theory of resonance by Mandel'shtam. The production of pions in a state with an isotopic spin  $T = 1$  is about twice as intense as it is in states with  $T = 0$ . The angular distribution of  $\pi^0$ -mesons produced in

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nucleon-nucleon collisions at an energy of about 650 Mev was almost isotropic, in contrast with that of charged pions, which is strongly anisotropic (Ref. 18). Fig. 5 shows the angular distribution of  $\pi^0$ -mesons from pn collisions. This difference between uncharged and charged pions contradicts the hypothesis of isotopic invariance. The authors finally thank B. Pontekorvo and B. S. Neganov for a discussion, and I. V. Tsymbulov for his assistance. O. V. Savchenko, A. G. Meshkovskiy, Ya. Ya. Shalamov, and V. A. Shebanov are mentioned. There are 6 figures, 7 tables, and 26 references, 16 of which are Soviet.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: September 18, 1959

X

Card 4/4

DUNAYTSEV, A.F.; PETRUKHIN, V.I.; PROKOSHKIN, Yu.D.; RYKALIN, V.I.;  
← SARANTSEVA, V.R., tekhn. red.

[Testing the conservation of vector current] Proverka so-  
khraneniia vektornogo toka. Dubna, Ob"edenennyi in-t iader-  
nykh issl., 1962. 6 p. (MIRA 15:4)  
(Mesons--Decay)

DUNAYTSEV, A. F., PETRUKHIN, V. I., Yu. D. PROKOSHKIN, and RYKALIN, V. I.

"Charge Exchange of Stopping  $\pi$  Mesons on Bound Hydrogen Nuclei"

report presented at Intl. Conference on High Energy Physics, Geneva,  
4-11 July 1962

Joint Inst. for Nuclear Research  
Lab. of Nuclear Problems

DUNAYTSEV, A.F., PETRUKHIN, V.I., PROKOSHKIN, Yu. D., RYKALIN, V.I.

"Investigation of Pion Beta Decay"

report presented at the Intl. Conference on High Energy Physics, Geneva,  
4-11 July 1962

Joint Institute for Nuclear Research  
Laboratory of Nuclear Problems

DUNAYTSEV, A. F.

" Apparatus for studying rare modes of meson decay."

report submitted for the 1962 International Conference on Instrumentation  
for High Energy Physics at Cern, Geneva, 16-18 July 62.



DUNAYTSEV, A.F.; PETRUKHIN, V.I.; PROKOSHKIN, Yu.D.; RYKALIN, V.I.;  
SARANTSEVA, V.R., tekhn. red.

[Detection of charge-exchange in stopped  $\pi^-$ -mesons on  
nuclei of bound hydrogen] Obnaruzhenie perezariadki ostanoviv-  
shchiksia  $\pi^-$ -mesonov na iadrakh sviazannogo vodoroda.  
Dubna, Ob"edinennyi in-t iadernykh issl., 1962. 4 p.  
(MIRA 15:4)

(Mesons) (Nuclear reactions) (Hydrogen)

~~DUNAYTSEV, A.F.~~; PETRUKIN, V.I.; PROKOSHKIN, Yu.D.; RYKALIN, V.I.;  
SARANTSEVA, V.R., tekhn. red.

[Probability of the decays  $\pi^+ \rightarrow \pi^0 + e^+ + \nu$  and  $\pi^+ \rightarrow \gamma + e^+ + \nu$   
0 veroiatnosti raspadov  $\pi^+ \rightarrow \pi^0 + e^+ + \nu$  i  $\pi^+ \rightarrow \gamma + e^+ + \nu$ .  
Dubna, Ob"edinennyi in-t iadernykh issl., 1962. 6 p.  
(MIRA 15:4)

(Mesons--Decay)

S/056/62/042/002/049/055  
B108/B138

AUTHORS: Dunaytsev, A. F., Petrukhin, V. I., Prokoshkin, Yu. D.,  
Rykalin, V. I.

TITLE: Experimental estimate of  $\beta$ -decay probability of a  $\pi^+$  meson

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,  
no. 2, 1962, 632 - 635

TEXT: The rare decay mode  $\pi^{\pm} \rightarrow \pi^0 + e^{\pm} + \nu$  is termed  $\beta$ -decay of the pion. Theoretical treatment similar to the Fermi treatment of nuclei has shown that the  $\beta$ -decay probability of a pion is only about  $10^{-8}$  of the probability of the usual muon decay  $\pi^{\pm} \rightarrow \mu^{\pm} + \nu$  (Ya. B. Zel'dovich, DAN SSSR, 97, 421, 1954). One can calculate exactly the probability of that  $\beta$ -decay without regard to strongly interacting particles if the hypothesis of the conservation of the vector current in the theory of universal weak interaction is right:

$w(\pi^{\pm} \rightarrow \pi^0 + e^{\pm} + \nu) = G^2 \Delta^5 / 30 \pi^3$  ( $\hbar = c = 1$ ).  $G$  is the constant of weak vector interaction,  $\Delta$  is the difference between the masses of charged

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Experimental estimate of  $\beta$ -decay ...S/056/62/042/002/049/055  
B108/B138

and neutral pions. Consequently this decay may be a criterion for the correctness of the theory. An experimental arrangement for the determination of the relative probability  $\lambda = w(\pi^{\pm} \rightarrow \pi^0 + e^{\pm} + \nu) / w(\pi^{\pm} \rightarrow \mu^{\pm} + \nu)$  is shown in Fig. 1. Experiments are made with positive pions. The greatest difficulty is the charge exchange of the pions on entering the scintillating material of counter 4. The probability of charge exchange, however, decreases rapidly with energy but its intensity is still higher than that of the sought  $\beta$ -decay by almost three orders of magnitude. One count was recorded during an operating time of about 30 hrs which corresponds to a  $\lambda$  of about  $5 \cdot 10^{-8}$ . But this one count could belong to a  $\beta$ -decay as well as to a charge exchange process. Estimates showed that  $\lambda < 7 \cdot 10^{-8}$ . Calculation of the constant  $G$ , which determines the intensity of  $\beta$ -decay of pions, yielded  $G < 2.5G_{\beta}$ . Consequently  $G$  is essentially not greater than the constant of vector interaction  $G_{\beta} = 1.4 \cdot 10^{-49} \text{ erg} \cdot \text{cm}^3$  as determined from the decay  $O^{14} \rightarrow N^{14*}$ . D. I. Blokhintsev, V. N. Sergiyenko, V. P. Dzhelepov, A. A. Tyapkin, A. A. Logunov,

Card 2/10

Experimental estimate of  $\beta$ -decay ...

S/056/62/042/002/049/055-  
B108/B138

Ya. B. Zel'dovich, S. S. Gershteyn, B. Pontekorvo, and L. I. Lapidus are thanked for help and discussions. There are 3 figures and 8 references: 4 Soviet and 4 non-Soviet. The 4 references to English-language publications read as follows: H. L. Anderson et al. Phys. Rev., 119, 2050, 1960; R. P. Feynman, M. Gell-Mann, Phys. Rev., 109, 193, 1958; E. C. G. Sudarshan, R. E. Marshak, Proc. of Padua conf., 1957; G. Impeduglia et al. Phys. Rev. Lett., 1, 249, 1958.

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: December 9, 1961

Legend to Fig. 1: M - magnetic focusing lens; 1, 2 - scintillation counters of  $\pi^+$  - meson monitor (with  $\Phi\text{Y-33}$  (FEU-33) photomultipliers), 3 - scintillation counter (with 56 AVP photomultiplier), 4 - "stopping detector" counter (FEU-33); 5, 6 - Cerenkov spectrometer (58 AVP);  $\text{CH}_2$  - polyethylene filter for slowing down pion beam; Pb - lead shield.

Card 3/0 3

24,6610

37896

S/056/62/042/005/048/050  
B108/B138AUTHORS: Dunaytsev, A. F., Petrukhin, V. I., Prokoshkin, Yu. D.,  
Rykalin, V. I.TITLE: The probability of  $\pi^+ \rightarrow \pi^0 + e^+ + \nu$  and  $\pi^+ \rightarrow \gamma + e^+ + \nu$  decaysPERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,  
no. 5, 1962, 1421-1424

TEXT: Earlier work (ZhETF, 42, 632, 1962; Nuovo Cim., 22, 5, 1962) showed that, as predicted by theory, the relative beta decay probability of the  $\pi^+$ -meson is indeed very small ( $\sim 10^{-8}$ ). This paper presents more results on the radiative beta decay as observed by a system of scintillation counters and moderation filters. The meson beam varies with time at a period of  $76 \cdot 10^{-9}$  sec. The data obtained are in agreement with theory and confirm the assumption of the conservation of the vectorial current. Exact measurements yielded the relative beta decay probability  $\lambda = (1.1^{+1.0}_{-0.5}) \cdot 10^{-8}$  and the constant of the beta decay intensity  $G = (1.14 \pm 0.37) G_\beta$  where

Card 1/2

The probability of...

S/056/62/042/005/048/050  
B108/B138

$G_{\beta} = 1.40 \cdot 10^{-49} \text{ erg} \cdot \text{cm}^3$  is the vectorial constant of nuclear beta decay  
(R. P. Feynman, M. Gell-Mann. Phys. Rev., 109, 193, 1958). There are  
3 figures.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint  
Institute of Nuclear Research)

SUBMITTED: March 31, 1962 (initially)  
April 13, 1962 (after revision)

Card 2/2

S/056/62/042/006/044/047  
B104/B112

AUTHORS: Dunaytsev, A. F., Petrukhin, V. I., Prokoshkin, Yu. D., Rykalin, V. I.

TITLE: Evidence of the charge exchange of stopped  $\pi^-$  mesons on nuclei of bound hydrogen

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 6, 1962, 1680-1682

TEXT: The charge exchange of  $\pi^-$  mesons stopped in polyethylene was investigated using a device with high time resolution (A. F. Dunaytsev et al., ZhETF, 42, 632, 1962). The device allowed  $\pi^0$  mesons to be recorded more efficiently than had been possible in previous investigations. A 75-Mev  $\pi^-$  meson beam (Fig.) passes through a set of scintillation counters and moderating filters and is stopped in a target (polyethylene, liquid hydrogen). The  $\gamma$ -quanta produced during the decay of  $\pi^0$  mesons emitted by the stop of  $\pi^-$  mesons are recorded by Cherenkov spectrometers. After preliminary experiments with a target of liquid hydrogen the H target was replaced by a polyethylene target. The Card 1/2 2



Evidence of the charge exchange ...

S/056/62/042/006/044/047  
B104/B112

coincidence counting rate remained two orders of magnitude above the background level. When the target was taken out of the beam, the count rate dropped to 1/300. The  $\gamma$ -quanta recorded possessed an energy of 70 Mev. In both spectrometers, the  $\gamma$ -quanta were produced simultaneously. The effect observed was caused by the stop of  $\pi^-$  mesons. When the energy of the  $\pi^-$  mesons was reduced to 65 Mev, the count rate dropped to 1/15. With the use of a graphite target, the count rate reached only 1/50 of that obtained with a polyethylene target. There is 1 figure. ✓

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: April 4, 1962

Fig. Experimental arrangement. (1)-(3) scintillation counters; (5)-(6) Cherenkov spectrometers; (7) scintillation counter in anti-coincidence connection; (8) focusing magnetic lens; (9) polyethylene filter for the moderation of  $\pi^-$  mesons; (M) target; (Pb) lead shield.

Card 2/2 2

DUNAYTSEV, A.F.

[Nanosecond multiple coincidence and anticoincidence circuits on tunnel diodes and transistors] Nanosekundnaia mnogokratnaia skhema sovpadenii i antisovpadenii na tunnel'nykh diodakh i tranzistorakh. Dubna, Ob"edinennyi in-t iadernykh issl., 1963. 13 p. (MIRA 17:7)

S/120/65/000/001/043/072  
E032/E314AUTHORS: Dunaytsev, A.F., Petrukhin, V.I., Prokoshkin, Yu.D.  
and Rykalin, V.I.

TITLE: A detector for stopping mesons

PERIODICAL: Pribory i tekhnika eksperimenta, no. 1, 1965,  
159 - 161

TEXT: The detector is illustrated schematically in Fig. 1. Its properties were investigated with a 75 MeV  $\pi^+$ -beam. The  $\pi$ -mesons pass through the scintillation counters of the beam-intensity monitor (1, 2) and are then retarded by the polythene filter 3. They come to rest in the phosphor of the last counter (5). The system incorporates fast photomultipliers. The mesons are recorded by the fast coincidence circuit. The resolution was somewhat higher than that obtained previously by Dunaitsev et al (Nucl. Instrum., 1960, 6, 11) who have similar results. In order to determine the optimal working conditions an assessment was made of the efficiency of recording of stopping and transmitted  $\pi^+$ -mesons (in the latter case the filter 3 was removed) as a function of the voltage  $V$  on each of the

Card 1/4

S/120/65/000/OOL/043/072  
WC32/E314

A detector for ...

photomultipliers. Thus, the amplitude discrimination was carried out not only in the counter 5, as was done previously but also in the counter 4. In this way, the voltage region, in which the sensitivity of the detector to transmitted mesons decreases rapidly with decreasing  $V$ , while the efficiency of recording of stopping mesons was still very nearly 100%, was determined. The meson-counting rate was then found as a function of the delay  $\Delta t$  of the pulse from counter 5 relative to counter 4 for a number of values of  $V$  in the above region. The form of the resolution curves was found to be quite different for stopping and transmitting  $\pi^+$ -mesons. Hence, the selection coefficient was very sensitive to the delay  $\Delta t$ . Fig. 3 shows the selection coefficient  $K$  (2) and the efficiency of recording of stopping mesons  $\epsilon$  (1) as functions of the delay time  $\Delta t$ . The arrow indicates the working value of the delay. As can be seen, a selection coefficient of the order of 50 may be obtained with an efficiency practically equal to 100%. This compares with  $K = 8$  as reported by Dunaitsev et al. The detector is suitable for the selection of stopping particles in the presence of a large

Card 2/4

S/120/63/000/001/043/072

E032/E514

A detector for ....

background of transmitted particles. It has been successfully used for the effective recording of rare decay modes of stopping  $\pi$ -mesons (Dunaytsev et al - Zh. eksperim. i teor. fiz., 1962, 42, 1421; Phys. Letters, 1962, 1, 138). There are 4 figures.

ASSOCIATION: Ob'yedinenny institut yadernykh issledovaniy  
(Joint Institute for Nuclear Research)

SUBMITTED: April 13, 1962

Card 3/4

A detector for ....

S/120/63/000/001/043/072  
E052/E514

Fig. 4:

Fig. 5:

Рис. 4. Схематическое изображение. 1 — светочувствительный элемент; 2 — источник питания; 3 — подложка; 4, 5 — элементы детектора; 6 — подложка; 7 — источник питания. Ал, С1, С11 — емкости конденсаторов; П1, П2 — переключатель устройства.

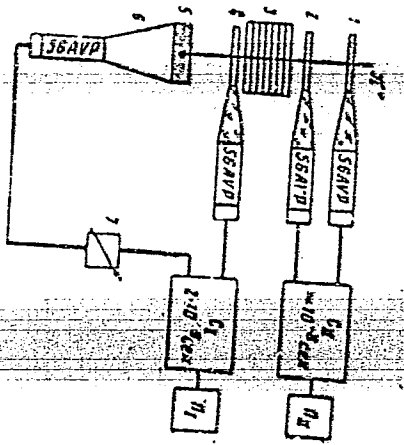
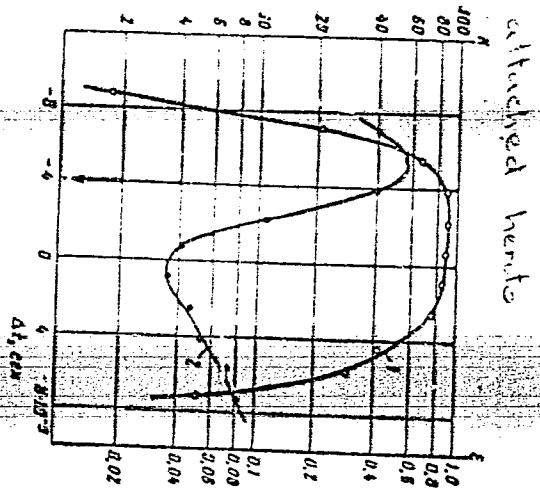


Рис. 5. Зависимость коэффициента отражения  $K$  (2) и эффективности регистрации  $\eta$  (1) от угла падения  $\Delta l$ . Средний угол падения  $\Delta l_0$  более подробно записан.



Card: 4/4

attached hereto

L 17562-65

с/0120/64/000/005/0119/0120

... multiple ...  
... circuit has ...  
... resolution times down to approx. 2 nsec plateau, over 600 v. The author wishes to thank Yu. D. Prokoshkin for discussing the results and helping in the work.  
Orig. art. has: 2 figures.

L 17662-65

ACCESSION NR: AP4047470

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy (Joint Nuclear  
Research Institute)



TOPIC TAGS: coincidence circuit, anticoincidence circuit, tunnel diode, pulse shaper

15

The circuit has a nanosecond resolution and is capable of operating at a rate of 100 Mc/sec.

ADSG02154

Ob'yedinennyy institut yadernykh issledovaniy (OIANI) Institute

ACCESSION NR: AP4042373

S/0056/64/047/001/0084/0091

AUTHORS: Dunaytsev, A. F.; Petrukin, V. I.; Prokoshkin, Yu. D.;

ACCESSION NR: AP4042373

ments were made with the synchrocyclotron of the laboratory of nuclear problems OIYAI at the end of 1962. The experimental setup and the adjustment of the apparatus are described. The measurements lasted 500 hours and involved the passage of  $4 \times 10^{10}$  pions. The apparatus was recalibrated by means of pulsed light sources every two hours. The values obtained for the constants  $G$  and  $G\beta$ , which characterized the beta decay of the pion and the nucleon, were found to be approximately the same,  $G = (1.03 \pm 0.11) G\beta$ , which is also in agreement with the data obtained at CERN (P. Depommier et al., Phys. Lett. v. 5, 61, 1963). The energy spectrum of the positrons produced in pion beta decay agrees with that calculated on the basis of the vector-current conservation hypothesis. "In conclusion we thank G. P. Zorin, V. I. Orekhov, A. V. Revenko, N. N. Khovanskiy, V. A. Cherny\*kh, L. N. Andrianova and her co-workers, N. B. Yedovina, N. M. Kovalev, and K. A. Baycher and his co-workers for help in producing the apparatus and with the investigation. We are grateful to Kim Ge Fa, E. V. Nyagu, Z. F. Prokoshkina, and M. Sgonova for

2/5

ACCESSION NR: AP4042373

scanning and processing the photographs." Orig. art. has: 8  
figures and 3 formulas.

ASSOCIATION: Ob"yedinenny\*y institut yaderny\*kh issledovaniy  
(Joint Institute of Nuclear Research)

SUBMITTED: 14Feb64

ENCL: 02

SUB CODE: NP

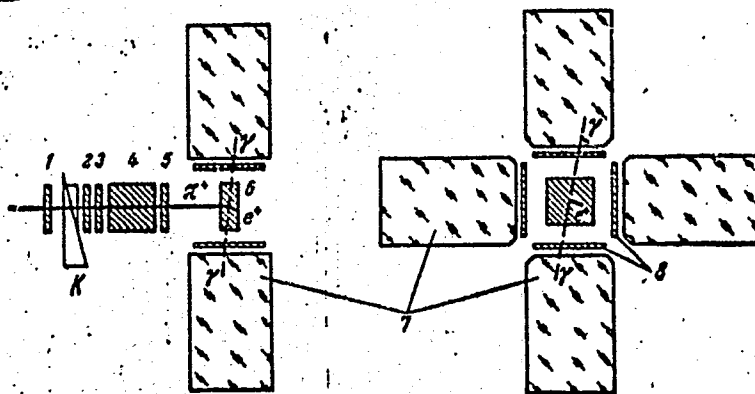
NR REF SOV: 008

OTHER: 010

3/5

ACCESSION NR: AP4042373

ENCLOSURE: 01

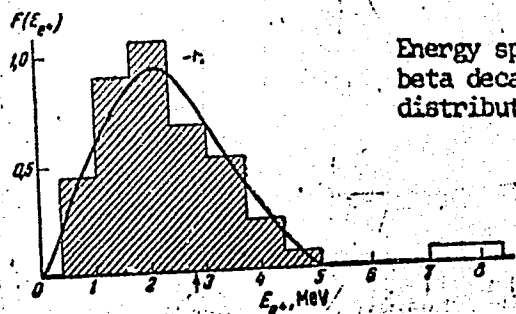


Experimental setup. 1 - 6) scintillation counters, 7) Cerenkov total absorption spectrometers, 8) anticoincidence scintillation counters, K - decelerating filter,

Card 4/5

ACCESSION NR:  $\rho$ 4042373

ENCLOSURE: 02



Energy spectrum of positrons produced in pion beta decay. Arrow - position of positive muon distribution maximum

Card 5/5

Card 1/2

"The authors wish to thank G. P. Zozin, A. V. Revenko, and N. N.

ENCL. 00

ATU 05 B

DUNAYVITSEV, B.I.

YELANTSEV, B.V.; DUNAYVITSEV, B.I.

Effect of prolonged application of hearing aids on hearing acuity. Vest. otorinol., Moskva 15 no.5: 12-18 Sept-Oct 1953

(OJML 25:5)

1. Professor for Yelantsev; Candidate Medical Sciences for Dunayvitser. 2. Of the Clinic for Diseases of the Ear, Throat, and Nose (Director --Prof. B.V. Yelantsev), Kazakh Medical Institute, Alma Ata.



DUNAYVITSER, B.I., kandidat meditsinskikh nauk

Effectiveness of application of hearing aids in hearing disorders. Vest.oto-rin. 16 no.2:36-40 Mr-Apr '54. (MLBA 7:6)

1. Iz kliniki bolezney ukha, gorla i nosa (dir. prof. B.V. Yelantsev) Kazakhskogo meditsinskogo instituta.

(HEARING AIDS,

\*effectiveness in hearing disord.)

DUNAYVITSER, B.I., Kandidat meditsinskikh nauk

Clinical aspects of fitting hearing aids. Vest.oto-rin 17  
no.3:45-48 My-Je '55. (MLRA 8:9)

1. Iz kliniki bolezney ukha, gorla i nosa (zav.-prof. B.V.  
Yelantsev) Kazakhskogo meditsinskogo instituta.  
(HEARING AIDS,  
clin.aspects)

DUNAYVITSER, B.I., kandidat meditsinskikh nauk

Chondroma of the trachea. Vest. oto-rin. 17 no.6:69 N-D '55.

(MLRA 9:2)

1. Iz kliniki bolezney ucha, gorla i nosa (zav.-prof. B.V. Yelantsev)  
Kazakhskogo meditsinskogo instituta imeni V.M. Molotova.

(TRACHEA--TUMORS)

**DUNAYVITSER, B.I., kandidat meditsinskikh nauk**

Prevention of cicatricial constrictions of the esophagus by early bougienage. Zdrav.Kazakh. 16 no.8:28-31 '56. (MIRA 10:1)

1. Iz kliniki bolezney ukha, gorla, nosa (sav. - professor B.V. Yelantsev) Kazakhskogo gosudarstvennogo meditsinskogo instituta imeni V.M.Molotova.

(BOUGIES)      (ESOPHAGUS--WOUNDS AND INJURIES)

EXCERPTA MEDICA Sec.11 Vol.10/10 Oto-Rhino-Laryngo Oct57  
DUNAYVIZER B.I.

1858. DUNAYVIZER B.I. Alma-Ata. \*Surgical tactics in cases of instrumental trauma of the oesophagus (Russian text)  
VESTN. OTO-RINO-LARING. 1957, 2 (22-25)

Seven cases of perforations of the oesophagus caused by surgical instruments are reported. In all cases purulent mediastinitis developed. Surgical intervention (mediastinotomy) was performed on five patients; four of them recovered. The author believes that if the middle part of the thoracic portion of the oesophagus is injured, collar mediastinotomy will cure mediastinitis. This operation is best tolerated by the patient and technically is most convenient for the surgeon. Only when the supradiaphragmatic portion of the oesophagus is perforated will transdiaphragmatic mediastinotomy be more convenient. (XI, 9<sup>6</sup>)

DUNAYVITSER, B.I., kand.med.nauk

Using atropin and adrenaline in tonsillectomy. Vest.oto-rin.  
19 no.6:96 N-D '57 (MIRA 11:3)

1. Iz kliniki bolezney ukha, gorla i nosa (sav.-prof. B.V.Yelantsev)  
Kazakhskogo meditsinskogo instituta.  
(TONSILS--SURGERY) (ADRENALINE) (A. ROPIN)

DUNAYVITSER, B.I., dotsent

Clinical aspects of malignant tumors of the nasopharynx. Zhur. ush.,  
nos. i gorl. bol. 21 no.3:17-19 My-Je '61. (MIRA 14:6)

1. Klinika bolezney ukha, gorla i nosa Semipalatinskogo meditsin-  
skogo instituta.

(NASOPHARYNX---CANCER)

DUNAYVITSER, B. I., dotsent

Pedal for remote control of an electric suction apparatus. Vest.  
otorin. no.3:79-80 '61. (MIRA 14:12)

1. Iz kliniki bolezney ukha gorla i nosa Semipalatinskogo meditsinskogo  
instituta.

(OTOLARYNGOLOGY—EQUIPMENT AND SUPPLIES)



DUNAYVITSER, B.I., dotsent

Laryngostroboscopic observations on vocal students. Zhur. ush.,  
nos. i gorl. bol. 21 no.5:50-56 3-0 '61. (MIRA 15:1)

1. Iz kliniki bolezney ukha, gorla i nosa (zav. - dotsent B.I.  
Dunayvitser) Semipalatinskogo meditsinskogo instituta.  
(LARYNGOSTROSCOPE) (VOCAL CORDS...DISEASES)

DUNAYVITSER, B.I., dotsent

Multiple lesions of the cerebrocranial nerves in malignant tumors of the nasopharynx in children. Vest. storin. no.1: 95-97'63. (MIRA 16:9)

1. Iz kliniki bolezney ucha, gorla i nosa (zav. - dotsent B.I.Dunayvitser) Semipalatinskogo meditsinskogo instituta. (NASOPHARYNX--CANCER) (NERVES, CRANIAL--DISEASES) (CHILDREN--DISEASES)

DUNAYVITSER, B.I.

Some side reactions and the masking effect of penicillin therapy in  
otogenic intracranial complications. Zhur.ush., nos. 1 gorl. bol.  
24 no.5:22-25 S-0 '64. (MIRA 18:3)

1. Klinika bolezney ukha, gorla i nosa Semipalatinskogo meditsin-  
skogo instituta.

DUNAYVITSER, V.I., dotsent

Apparatus for the electrical dental drill for vibromassage of  
the auditory ossicles. Vest.otorin. 23 no.1:87 Ja-F '61.  
(MIRA 14:2)

1. Iz kafedry bolezney ukha, nosa i gorla (zav. - dotsent V.I.  
Dunayvitser) Semipalatinskogo meditsinskogo instituta.  
(OTOSCLEROSIS) (OTOLARYNGOLOGY—EQUIPMENT AND SUPPLIES)

DUNCA, Sever, chim.

New methods of analysis used in the laboratory of the Turda Glass  
Factory. Industria usoara ll no.2:92-93 F '64.

DUNCHENKO, I. A.

42111 DUNCHENKO, I. A. , MURASHENKOV, V. A. - rezul'taty geofiziche-sknkh issledovaniy v 1944 g. na listvyanskommestorozadeniantrapitov gorlovskogo kamennougol'nogo yasseyna. Trudy geol. -issled. byuro (m-vo ugol'noy prom-stizap. r-nev SSSR. geol. razvedochupr) v. 4, 1948.

SO: Letopis' Zhurnal'nykh Statey, Vol. 47, 1948.

DUNCHENKO, I.A.; SOLODOVA, Ye.P.

Gamma-gamma logging of boreholes in prospecting for coal.  
Prikl. geofiz. no.26:138-144 '60. (MIRA 14:3)  
(Radioactive prospecting) (Coal)

FEDYNSKIY, V.V., doktor fiziko-matem. nauk, red.; SHIROKOV, A.S., red.; KO-  
VALEVA, A.A., red.; GRATSIANOVA, O.P., nauchn. red.; BORISOV, A.A.,  
nauchn. red.; FEDYUK, V.I., nauchn. red.; KOTLYAREVSKIY, B.V.,  
nauchn. red.; POMERANTSEVA, I.V., nauchn. red.; MOZZHENKO, A.N.,  
nauchn. red.; LOZINSKAYA, A.M., nauchn. red.; SHNEYERSON, M.B.,  
nauchn. red.; BOGDANOV, A.Sh., nauchn. red.; NIKITSKIY, V.Ye., nauchn.  
red.; KUDYMOV, B.Ya., nauchn. red.; PETROV, L.V., nauchn. red.; KOMA-  
ROV, S.G., nauchn. red.; GORBUNOV, G.V., nauchn. red.; DUNCHENKO, I.A.,  
nauchn. red.; FEL'DMAN, I.I., nauchn. red.; POMETUN, D.Ye., nauchn.  
red.; BEKMAN, Yu.K., ved. red.; VORONOVA, V.V., tekhn. red.

[Status and prospects for developing geophysical methods for mineral  
prospecting] Sostoianie i perspektivy razvitiia geofizicheskikh meto-  
dov poiskov i razvedki poleznykh iskopaemykh; materialy. Pod red. V.V.  
Fedynskogo. Moskva, Gos. nauchno-tekhn. izd-vo nef. i gorno-toplivnoi  
lit-ry, 1961. 623 p. (MIRA 14:11)

1. Nauchno-tekhnicheskaya geofizicheskaya konferentsiya, Moscow, 1959.
2. Ministerstvo geologii i okhrany neдр SSSR (for Fedynskiy, Petrov).  
(Prospecting--Geophysical methods)



KOMAROV, S.G.; PETROSYAN, L.G.; PER'KOV, N.A.; FEL'DMAN, I.I.;  
DUNCHENKO, I.A.; KORZHEV, A.A.; SOKHRANOV, N.N.;  
CHUKIN, V.T.; BASIN, Ya.N.; KARGOV, F.A.; MUKHER, A.A.;  
FEDOROVA, L.N., red.; BYKOVA, V.V., tekhn. red.

[Technical instructions on conducting geophysical explorations in boreholes] Tekhnicheskaya instruktsiya po provedeniyu geofizicheskikh issledovaniy v skvazhinakh. Moskva, Gosgeoltekhizdat, 1963. 297 p. (MIRA 17:2)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy geologicheskyy komitet. No. 2. Kollektiv rabotnikov sektora promyslovoy geofiziki Vsesoyuznogo nauchno-issledovatel'skogo instituta geofizicheskikh metodov razvedki (for Komarov, Petrosyan, Per'kov, Fel'dman, Dunchenko, Korzhev, Sokhranov, Chukin, Basin). 3. Sotrudniki Otdela geofiziki Gosudarstvennogo geologicheskogo komiteta SSSR (for Kargov). 4. Glavnoye upravleniye geologii i okhrany neдр pri Sovete Ministrov RSFSR (for Mukher).

FERDINAND, Ya.M.; MEDYUKHA, G.A.; KUCHERENKO, R.A.; DUNCHENKO, Ye.P.  
STROKOVA, Ye.I.; SHCHEGLOVA, L.A.; PYASETSKAYA, Ye.A.;  
DEMENT'YEVA, A.I.; ZOLINA, L.T.

Epidemiological effectiveness of the systematic use of the typhoid  
bacteriophage for chronic bacterial carriers. Sov. med. 24  
no. 5:128-130 My '60. (MIRA 13:10)

1. Iz Rostovskogo-na-Donu instituta epidemiologii, mikrobiologii  
i gigiyeny.

(TYPHOID FEVER) (BACTERIOPHAGE)

DUNCHEV, N.

Device for cleaning locomotive smoke pipes. pl 84.

TRANSPORTNO DELO. Vol. 8, no. 4, 1956

Sofia, Bulgaria

SOURCE: East European Accessions List (EEAL) Library of  
Congress, Vol. 6, No. 1, January 1957

GRABOVSKIY, A.M.; ~~DUNCHEVSKIY, G.M.~~; PASOV, M.S.; BABICHENKO, A.S.;  
BASHIN, S.Ya.

Mechanization of the process of degreasing and washing of natural  
bristles. Kozh.-obuv. prom. no.3:32-35 Mr '59.

(MIRA 12:6)

(Bristles--Cleaning) (Washing machines)

DUNCHIK, V.N.

DUNCHIK, V.N.

Erroneous application of gastrointestinal anastomoses. Khirurgia,  
Moskva No.5:59-61 May 50. (GLML 19:4)

DURCHIK, V.N., kand.med.nauk, GEXHMAN, B.S., kand.med.nauk

The problem of patent urachus. Urologia 23 no.3:61-63 My-Je '58  
(MIRA 11:6)

1. Iz kafedry urologii (nach. - zaslyzhennyy deyatel' nauki  
general-mayor med. sluzhby prof. A.I. Vasil'yev [deceased]  
Voyenno-meditsinskoy akademii imeni S.M. Kirova.

(URACHUS,

patent, case reports (Rus))

DUNCHIK, V.N., kand.med.nauk (Leningrad)

Lithiasis in the tunica testis. Urologia 23 no.4:61-62 J1-Ag '58  
(MIRA 11:8)

(TESTES, calculi  
mechanism of form. (Rus))

DUNCHIK, V.N., dotsent

Comperative evaluation of some surgical interventions in varicocele.  
Zdrav. Tadzh. 8 no.3:12-16 My-Je '61. (MIRA 14:6)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - zasluzhennyy doyatel'  
nauki dotsent Z.P.Khodzhayev) Stalinabadskogo medfstituta imeni  
Abuali ibni Sino.

(VARIOCOCELE)



DUNCHIK, V.N., dotsent

Fixation of the testis with a capron net in varicose dilation of the spermatic cord veins. Urologia no.5:64 '61.

(MIRA 14:11)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - zaaluzhemyy deyatel' nauki Z.P. Khodzhayev) Stalinabadskogo meditsinskogo instituta.

(VARICOCELE) (TESTICEL—SURGERY) (NYLON—THERAPEUTIC USE)

DONCHIK, V.N., dotsent

Calculi of the urinary bladder in children in Tajikistan.  
Trudy Tadzh. med. inst. 59:139-142 '67. (MIRA 17:8)

Some problems of the diagnosis and treatment of nephrolithiasis  
in children. Ibid. 143-151 (MIRA 17:8)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - zasluzhennyy  
deyatel' nauk Z.P. Khodzhaev) Tadzhikskogo gosudarstvennogo  
meditsinskogo instituta imeni Abual'lon-Sino.

DUNCHIK, V.N., dotsent

Fourth All-Union Urological Conference. Zdrav. Tadzh. 9 no.1:  
60-64 Ja-F '62. (MIRA 15:4)

1. Glavnyy urolog Tadzhikskoy SSR.  
(UROLOGY--CONGRESSES)

L 00288-66 FCC

ACCESSION NR: AP5023858

RU/0033/64/000/006/0334/0342

AUTHOR: <sup>44,55</sup>Todorov, T. (Professor) (Sofia); <sup>44,55</sup>Lingova, St. (Research associate) (Sofia); <sup>44,55</sup>Peyev, B. (Senior assistant) (Sofia); <sup>44,55</sup>Stefanov, St. (Senior research associate) (Sofia); <sup>44,55</sup>Dundakov, P. (Research associate) (Sofia)

TITLE: Microclimate of vineyards on cascade cultures over southward slopes

SOURCE: Idojares, no. 6, 1964, 334-342

35  
32  
5

TOPIC TAGS: meteorology, climatic condition, microclimatology, climatic influence

ABSTRACT: <sup>12-44,55</sup>[Russian article; authors' Hungarian summary, abbreviated] The effects of cascade-strip cultivation on vineyards over southern slopes located in an anti-cyclonic weather zone at a Northern latitude of 42°25', altitude over sea level of 150 m., and a slope of 14°, upon the microclimate were investigated. The differences between cascade-strip and non-cascade cultivation were significant and the cross-section of the cascades was also influential. The differences and the factors responsible for these were discussed. Orig. Art. Incl.: 11 tables.

Card 1/2

L 00286-66

ACCESSION NR: AP5023858

ASSOCIATION: *Vysshiy sel'skokhozyaystvennyy institut im. Georgiya Dimitrova,*  
Sofia (Higher School of Agriculture)

SUBMITTED: 00

ENCL: 00

SUB CODE: ES

NR REF SCV: 012

OTHER: 011

JPRS

*SW*  
Card 2/2

RUMANIA

576.312.38:576.8.093.35

ANDONOV, P. and DUNDAROV, S., of the Institute of Epidemiology and Microbiology (Institutul de Epidemiologie si Microbiologie), Sofia.

"Methods for the Preparation of Clones of Cellular Lines on Primary Cultures of Human Embryonic Fibroblasts."

Bucharest, Studii si Cercetari de Inframicrobiologie, Vol 17, No 4, 66, pp 269-273.

Abstract: The authors describe a technique for preparing clones of human and animal cellular lines by growing on a substrate consisting of a primary culture of human embryonic fibroblasts. Since living cells are used as substrate, favorable conditions are obtained for the development of clones over a relatively long period. The method described is simple and can be used in any laboratory.

Includes 2 figures, 2 tables and 2 references, of which one Russian and one American. -- Manuscript submitted 20 October 1965.

1/1

DUNDEROV, Nada; KATIC, Pavle

Periods without precipitations in Vojvodina. Zbor prir Mat  
srp 24:153-162 '63.

1. Poljoprivredni fakultet, Novi Sad.

DREZGIC, Petar, prof., dr.; KATIC, Pavle; DUNDEROV, Nada

Effect of meteorological conditions on the growth and yield of wheat in the northern regions of the Serbian Socialist Republic in the years 1963/64. Idojaras 68 no.5:270-280 S-0 '64.

1. Scientific Research Institute of Agriculture, Novi Sad.
2. Director, Scientific Research Institute of Agriculture, Novi Sad (for Drezgic).



PEROVIC, Ljub. M.

Workers management in postal, telegraph, and telephone collectives.  
PTT Zajed 4 no.3:26-28 My-Je '62.

DUNDICH, G.

Making starch and molasses from corn. Prom.koop.no.2:21-22 P '56.  
(NLRA 9:7)

1. Predsedatel' pravleniya arteli "Kharchevik".  
(Corn-Starch) (Molasses)

DUNDICH, M.S.: Master Chem Sci (diss) -- "Investigation of the oxides of lead".  
Chernovtsy, 1958. 13 pp (Min Higher Educ Ukr, SSR, Chernovtsy State U), 150  
copies (KL, No 1, 1959, 114)

68265

SOV/81-59-10-34185

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Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 10, p 51 (USSR)

AUTHOR: Dundich, M.S.

TITLE: The Study of the Pb-O<sub>2</sub> System by the Method of Thermography

PERIODICAL: Nauk. zap. Chernivets'k. un-t, 1958, Vol 34, pp 103-106 (Ukrainian)

ABSTRACT: The thermographic investigation of PbO<sub>2</sub>, Pb<sub>3</sub>O<sub>4</sub> and PbO has been carried out. The thermograms were made in a nitrogen atmosphere. The thermogram of PbO of the rhombic modification has an endothermal effect at 480 - 490°C pertaining to the transition into the tetragonal form. On the thermogram of PbO of tetragonal modification this transition is not observed. The thermogram of Pb<sub>3</sub>O<sub>4</sub> has 2 endothermal effects: the dehydration at 100°C and the formation of the rhombic modification of PbO at 620°C. The thermogram of PbO<sub>2</sub> has 3 endothermal effects: the loss of water (~100°C), the formation of Pb<sub>3</sub>O<sub>4</sub> (~400°C) and the formation of PbO (~620°C). ✓

A. Zolotarevskiy

Card 1/1

On calculation of the width of the forbidden zone and some highly  
complex semiconductors. D. I. Belvtskiy.  
D. P. BELOTSKIY

Physico-chemical investigations of some cross sections in the systems  
Cd-In-Sb; Cd-Zn-Sb; Zn-Sb-Bi; Cd-Sb-Bi. D. P. Belotkiy, M. S. Dundich,  
I. N. Antonov.

Report presented at the 3rd National Conference on Semiconductor Compounds,  
Kishinev, 16-21 Sept 1963

DUNDIN, Yu.K.

Natural contacts between the forest and the steppe in the far southeast of the European part of the U.S.S.R. Vest. Mosk. un. Ser. 6: Biol., pochv. 17 no.4:60-66 JI-Ag '62. (MIRA 15:9)

1. Kafedra geobotaniki Moskovskogo universiteta.  
(Russia, Southern—Forest ecology)

DUNDIN, Yu.K.

General features of the formation of natural forest edges in  
the far southeast. Trudy Od. un. 152. Ser. geol. i geog. nauk  
no.9:121-127 '62. (MIRA 17:6)

DUNDIN, Yu.K.

Repeated vegetative growth of spiraea. Bot.zhur. 48 no.2:271 F '63.  
(MIRA 16'4)

1. Moskovskiy gosudarstvennyy universitet.  
(Spiraea)



GURANOV, I.A.; DUNDIN, Yu.K.; KUCHEROV, Ye.V.

Distribution and resources of globe thistle in Bashkiria.  
Nauch.dokl.vys.shkoly; biol.nauki no.4:129-132 '65.

(MIRA 18:10)

1. Rekomendovan: kafedroy geobotaniki Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.

DUNDO, O.P.

Quaternary sediments in the upper Velikaya Valley. Trudy NIIGA  
105:145-151 '59. (MIRA 13:5)  
(Velikaya Valley (Russia, Northern)--Geology, Stratigraphic)

BARDIN, V.I., aspirant; DUNDO, O.P., mladshiy nauchnyy sotrudnik;  
KONOVALOV, G.V., mladshiy nauchnyy sotrudnik

Brief geomorphological characteristics of mountains in Queen  
Maud Land. Inform.biul.Sov.antark.eksp. no.30:9-12 '61.  
(MIRA 14:12)

1. Moskovskiy gosudarstvennyy universitet (for Bardin).
  2. Nauchno-issledovatel'skiy institut geologii Arktiki (for Dundo).
  3. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut (for Konovalov).
- (Queen Maud Land--Physical geography)

DUNDOV, Dimitur, inzh.

Impressions from the furniture industry in Rumania. Durvomebel prom  
5 no.1:28-30 Ja-F '62.

1. DIP "23dekemvri", Sofia.