

KOTENKO, V.

Gukovo today and tomorrow. Mast. ugl. no. 4:19 '59.  
(MIRA 12:6)

(Gukovo--Coal miners)

KOTENKO, V.

Dispensary for preventive treatment. Mast. ugl. 7 no.8:20 Ag '58.  
(MIRA 11:9)

(Coal miners--Diseases and hygiene)

KOTENKO, V.

KOTENKO, V.

They are becoming qualified workers. Mast.ugl. 6 no.9:25 S '57.  
(MIRA 10:11)

(Coal mines)

TSYGANOV, V.A.; KONEV, Yu.Ye.; FURSENKO, M.V.; IOFINA, E.I.; AL'BERT, M.M.;  
MUSTAFOVA, N.N.; VENKOVA, I.B.; SOLOV'YEV, S.N.; MALYSHKINA, M.A.;  
BOGDANOVA, N.P.; KOTENKO, T.V.; FILIPPOVA, A.I.

Isolation and characteristics of actinomycetes producing the  
antibiotic trichomycin. Antibiotiki 9 no.4:291-296 Ap '64.  
(MIRA 19:1)

1. Leningradskiy nauchno-issledovatel'skiy institut antibiotikov.

BOROVSKIY, E.V.; MALYSHKINA, M.A.; KOTENKO, T.V.; SOLOV'YEV, S.N.

New antifungal antibiotic mycoheptin from the group of non-aromatic heptaenes. Antibiotiki 10 no.9:776-780 S '65. (MIRA 18:9)

1. Leningradskiy nauchno-issledovatel'skiy institut antibiotikov, Gdan'skiy politekhnicheskii institut, Pol'skaya Narodnaya Respublika.

SKIRSTYMONSKIY, A.I.; KRAVETS, Yu.M.; KOTENKO, S.I.; ERLIKH, M.Ya.;  
NIKIFOROV, L.Ye.; BOYARSKAYA, G.V.

Experiment in industrial production of the fodder concentrate  
of vitamin B 12. *Fern.i spirt.prom.* 31 no.1:29-31 '65. (MIRA 18:5)

1. Ukrainkiy nauchno-issledovatel'skiy institut spirtovoy i  
likero-vodochnoy promyshlennosti (for Skirstymonskiy, Kravets,  
Kotenko). 2. Ivan'kovskiy spirtozaved (for Erlich, Nikiforov,  
Boyarskaya).

KOTENKO, P. M. and PLISS, G. S.

Electrotechnical Materials (Elektrotekhnicheskiye Materialy), Handbook of All-Union Standards, Gosenergoizdat, 1950, 565 pp.

KOTENKO, P. M.

Russia (1923- U.S.S.R.) Vsesoiuznyi komitet standartov. Electric wires and cables; collection of All-Union standards Moskva, Gos. energ. izd-vo, 1950. 510 p. (51-20160)

TK3307.R93 1949



KOTENKO, I. M.

PA 24117

USSR/Electricity  
Wire, Copper  
Cables, Copper  
Aug 1947

"Unification of Standards for Round Copper Wire for Electro-Technical Purposes," P. M. Kotenko, Engr., All-Union Committee on Standards, 2 1/2 pp

"Vestnik Elektro-Prornyshlennosti" No 8

The author discusses the various standards which have been established by the Soviet Union for classifying various sizes of copper cable and wire, and points out that due to the rather unwieldy nature of the present system the Committee on Standards should adopt a new method for classifying such cable. He

24117

USSR/Electricity (Contd)  
Aug 1947

presents some basic ideas which if adopted would greatly simplify and improve the present system of classification.

24117

KOTENKO, N.A., ordinator

Changes in the proteins and protein fractions of the blood  
serum in healthy lambs. Veterinariia 42 no.5:80-82 My '65.  
(MIRA 18:6)

1. Stavropol'skiy sel'skokhozyayastvennyy institut.

TEREKHINA, M.T., prof.; BOBYIEVA, Z.I., dotsent; SIPKO, I.I.; KOTENKO, N.  
A., assistant; LYUBIMOV, Yu.A., assistant; ZIBOROVA, V.P., ordi-  
nator

Ultraviolet rays in the practice of merino sheep farming. Veteri-  
nariia 40 no.2:49-51 F '63. (MIRA 17:2)

1. Stavropol'skiy sel'skokhozyaystvennyy institut.

TEREKHINA, M.T., prof.; BOBYLEVA, Z.I., dotsent; SIPKO, I.I., dotsent; LYUBIMOV, Yu.A., assistant; KOTENKO, N.A., ordinator; ZIBOROVA, V.P., ordinator

Disorder of metabolism in cows and the characteristics of dyspepsia in calves. Veterinariia no.12:31-34 D '63. (MIRA 17:2)

1. Stavropol'skiy sel'skokhozyaystvennyy institut.

KOTENKO, M.Ye.

Calculation of a nonsymmetrical attenuator. Avtom., telem.i sviaz'  
4 no.3:34-35 Mr '60. (MIRA 13:7)

1. Starshiy inzhener izmeritel'noy gruppy Vologodskoy distantzii  
signalizatsii i svyazi Severnoy dorogi.  
(Electric resistors)

ACCESSION NR: AP4031191

ENCLOSURE: 01

1 Вид события с электронно-позитронными парами	2 N <sub>полн.</sub> h < 4.0 см	3 Число событий, произошедших в результате различных процессов, включая распады $K^0 \rightarrow 2\pi^0$			4 Число распадов $K^0 \rightarrow 2\pi^0$
		5 N <sub>случ.</sub>	N ( $K^0 \rightarrow 2\pi^0$ )	N <sub>яд</sub> 6	
Six	1	0	0	0	1
Five	8	2	0	0	6
Four	28	8	3	0	17
Three	157	46	17	8	86
Сумма Sum	194	56	20	8	110

\*Convergence parameter h = 2.1 cm.

- 1 - Number of electron positron pairs in event
  - 2 - N<sub>total</sub>, 3 - Number of events resulting from processes other than  $K^0 \rightarrow 3\pi^0$  decays, 4 - Number of  $K^0 \rightarrow 3\pi^0$  decays,
  - 5 - number of random events, 6 - number of nuclear interactions
- Card 3/3

ACCESSION NR: AP4031191

of three or more electron-positron pairs whose vertices are directed approximately towards one point. The calculated probability for the  $K_2^0 \rightarrow 3\pi^0$  decay relative to all  $K_2^0$  meson decay is  $0.2 \pm 0.06$ . This agrees with theoretical predictions (23.6%) obtained by assuming the validity of the  $\Delta T = 1/2$  rule. "The authors are grateful to E. O. Okonov for a discussion of several problems during the planning of the experiment, to Academician V. I. Veksler, I. V. Chuvilo, and the proton synchrotron crew for making the irradiation possible, and also to I. B. Vartazaryan, L. P. Kishinevskaya, N. V. Magradze, and the laboratory group for help in the reduction of the experimental material. Orig. art. has: 1 figure and 1 table.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute, Academy of Sciences, SSSR); Moskovskiy inzhenerno-fizicheskiy institut (Moscow Engineering Physics Institute); Fizicheskiy institut GKAE, Yerevan (Physics Institute GKAE)

SUBMITTED: 25Jan64

DATE ACQ: 07May64

ENCL: 01

SUB CODE: NP

NR REF SOV: 004

OTHER: 001

Card 2/3

ACCESSION NR: AP4031191

S/0056/64/046/004/1504/1507

AUTHOR: Aleksanyan, A. S.; Alikhanyan, A. I.; Gal'per, A. M.; Kavalov, R. L.; Kirillov-Ugryumov, V. G.; Kotenko, L. P.; Kuzin, L. A.; Kuznetsov, Ye. P.; Marzon, G. I.

TITLE: Study of decays of  $K_2^0$  mesons } into three neutral pions

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 4, 1964, 1504-1507

TOPIC TAGS: neutral kaon decay, electron positron pair, kaon three pion decay, inelastic neutron interaction

ABSTRACT: This is an elaboration of an earlier preliminary report (Sb. Voprosy\* fiziki elementarny\*kh chastits. Izd. AN ArmSSR, Yerevan, 1963, p. 324). Some 50,000 stereo photographs were taken and the events classified as  $K^0$ -meson decay were those with 3, 4, 5, or 6 electron-positron pairs directed approximately towards one point, and also V-events. The measure of the convergence of the  $\gamma$  quanta producing the pairs was the maximum distance  $h$  from the point of intersection of the trajectories of the two nearest  $\gamma$  quanta to the trajectories of the other  $\gamma$  quanta. Comparisons of the histograms corresponding to different numbers of prongs indicate that there exist definite physical reasons which lead to the appearance



L 16145-63

ACCESSION NR: AP3005236

Prof. A. I. Alikhanyan for his support of the present work, and to E. P. Kuznetsov and A. M. Gal'per for help with the experiment. They also thank V. M. Mikhaimenko for carrying the calculations used in the comparison of the experimental data with the predictions of the statistical theory. The authors thank R. A. Latsylova and E. G. Novikova for calculations on the electronic computer, and T. G. Chernyshova and G. A. Ignatova for aid in the reduction of the experimental data. We take this opportunity to thank the proton-synchrotron crew for faultless operation. Orig. art. has 4 figures, 4 formulas, and 1 table.

ASSOCIATION: Fizicheskii Institut im. P. N. Lebedeva Akademii nauk SSSR  
(Physics Institute, Academy of Sciences SSSR)

SUBMITTED: 02Feb63

DATE ACQ: 06Sept63

ENCL: 00

SUB CODE: PH

NO REF SOV: 014

OTHER: 003

Card 2/2

1. 1514-2 83017285 4770/151

ACCESSION NR: AP3005236

8/0075/53/045/002/0018/0023

AUTHORS: Merron, G. I., Kotenko, L. P.

61  
52

TITLE: Inelastic scattering of 2.66-BeV negative pions by nucleons and carbon nuclei

SOURCE: Zhur. eksper. i teoret. fiz., v. 45, no. 2, 1963, 18-25

TOPIC TAGS: pion nucleon interaction, pion carbon interaction, propane bubble chamber, inelastic cross section, multiplicity distribution

ABSTRACT: The inelastic interaction characteristics of 2.66-BeV pions in propane bubble chamber were studied. It was found that at this energy the  $\pi^-$ -p inelastic cross section is  $24.3 \pm 3.0$  mb. The multiplicity distribution for the secondary charged particles from  $\pi^-$ -p and  $\pi^-$ -n interaction agrees with the predictions of the statistical theory with allowance for isobar formation. The multiplicity distribution of the secondary relativistic particles is the same for interactions with hydrogen and with carbon. It is found that the effective numbers of "quasi-free" protons and neutrons in the carbon nucleus are both close to unity. An attempt was made to study pion resonances in the  $(\pi^-, p) \rightarrow (\pi^-, \pi^+, n)$  reaction for neutron energies below 0.2 BeV. The authors are grateful to

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Elastic scattering of...

S/056/62/042/005/003/050  
B125/B108

SUBMITTED: November 23, 1961

Card 3/3

Elastic scattering of...

S/056/62/042/005/003/050  
B125/B108

the scattering events (with scattering angles of less than  $3^\circ$  in the laboratory system) were not recorded. The total cross section of elastic diffraction scattering amounts to  $\sigma_d = 6.5 \pm 0.8$  mbarn, and the total cross section of all elastic processes to  $\sigma_e = 7.8 \pm 0.9$  mbarn. The absorption cross section is  $\sigma_a = 23.5 \pm 1.7$  mbarn, and the cross section of inelastic interaction is  $\sigma_i = 22.3 \pm 1.7$  mbarn. For a spherical homogeneous nucleon of radius  $R$  and with a purely imaginary refractive index, the values corresponding to a standard deviation of the quantities  $\sigma_d$  and  $\sigma_t$  are respectively  $R = (1.10 \pm 0.09) \cdot 10^{-13}$  cm and  $K = (0.71 \pm 0.19) \cdot 10^{13} \text{ cm}^{-1}$  (which corresponds to a root mean square radius of the proton

$\langle r \rangle = (0.85 \pm 0.07) \cdot 10^{-13}$  cm) and fit well the experimental results. There are 7 figures. The most important English-language reference is: K. W. Lai, L. W. Jones, M. L. Perl. Phys. Rev. Lett., 7, 125, 1961.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR  
(Physics Institute imeni P. N. Lebedev of the Academy of  
Sciences USSR)

Card 2/3

S/056/62/042/005/003/050  
B125/B108

AUTHORS: Kotenko, L. P., Kuznetsov, Ye. P., Merzon, G. I.,  
Sharov, Yu. B.

TITLE: Elastic scattering of  $\pi^-$ -mesons with a momentum of 2.8 Bev/c  
from hydrogen

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,  
no. 5, 1962, 1158 - 1165

TEXT: Elastic scattering of 2.8-Bev/c negative pions from hydrogen nuclei was measured with a propane bubble chamber with zero magnetic field. The 306 two-pronged stars selected for the study originated from relativistic particles which entered the chamber with a scatter of not over  $2^\circ$ .  $60 \pm 8$  of the elastic scattering events of negative pions pertained to stars of type  $1 + 1p$ , and  $13 \pm 5$  to stars of type  $0 + 2p$ . The differential cross section of elastic  $\pi^-$ -p-scattering in the c.m.s. first decreases rapidly from  $d\sigma/d\Omega \approx 15$  mbarn/sterad at  $\cos \psi^* = 1$ , virtually approaching zero asymptotically. All this is indicative of a diffraction character of elastic scattering (small momentum transfer of the incident pion). 9% of

Card 1/3

BANNIK, B.P.; GAL'PER, A.M.; GRISHIN, V.G.; KOTENKO, L.P.; KUZIN, L.A.;  
KUZNETSOV, Ye.P.; MERZON, G.I.; PODGORETSKIY, M.I.; SIL'VESTROV, L.V.

Elastic scattering of 2.8 and 6.8 Bev./c  $\pi^+$ -mesons on carbon.  
Zhur. eksp. i teor. fiz. 41 no.5:1394-1401 N '61. (MIRA 14:12)

1. Ob'yedinennyy institut yadernykh issledovaniy i Fizicheskiy  
institut imeni P.N. Lebedeva AN SSSR.  
(Mesons--Scattering) (Carbon)

ALEKSANYAN, A.S.; ALIKHANYAN, A.I.; VEREMEYEV, M.M.; GAL'PER, A.M.;  
KIRILLOV-UGRYUMOV, V.G.; KOTENKO, L.P.; KUZIN, L.A.; KUZNETSOV, Ye.P.;  
MERZON, G.

Freon 570 liter bubble chamber. Prib. i tekhn. eksp. 6 no. 6:34-  
38 N-D '61. (MIRA 14:11)

1. Fizicheskiy institut AN SSSR,  
(Bubble chamber)

BANNIK, B.P.; GALPER, A.M.; GRISHIN, V.G.; KOTENKO, L.P.; KUZIN, L.A.;  
KUZNETSOV, Ye.P.; MERSON, G.I.; PODGORETSKIY, M.I.; SIL'VESTROV,  
L.V.

Elastic scattering of 2.8 and 6.8 BeV/c negative pions on carbon.  
Dubna, Izdatel'skii otdel Ob"edinennogo in-ta iadernykh issledova-  
nii, 1961. 20 p.

(No subject heading)



Single Scattering of  $\mu^-$ -Mesons on Carbon at  
Energies of 10 - 30 Mev

<sup>82011</sup>  
S/056/60/038/02/12/061  
B006/B011

5 Soviet, 3 British, 1 Indian, and 1 Dutch.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR  
(Institute of Physics imeni P. N. Lebedev of the Academy  
of Sciences, USSR)

SUBMITTED: August 11, 1959

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Single Scattering of  $\mu^-$ -Mesons on Carbon at  
Energies of 10 - 30 Mev

82011  
8/056/60/038/02/12/061  
B006/B011

ascertained, whose angular projection onto the photographic emulsion was greater than  $15^\circ$ . The obtained angular distribution of  $\mu^-$ -mesons is illustrated by a diagram. The two curves show the theoretically calculated course with Coulomb scattering in the case of a finite nucleus (Curve 1, Column 8 in Table 2), and in the case of a point nucleus (Curve 2, Column 9 in Table 2). Finally, considerations concerning "anomalous" scattering are discussed; the cross section for an "anomalous" scattering, if any, cannot exceed  $1.25 \cdot 10^{-28}$  cm<sup>2</sup> per nucleon at a scattering angle  $>45^\circ$ , for scattering through an angle  $>90^\circ$  it cannot exceed  $0.7 \cdot 10^{-28}$  cm<sup>2</sup> per nucleon. Not a single muon decay into three electrons was recorded among all 60,000 stopping events. Hence, the ratio  $(\mu \rightarrow e + \nu + \bar{\nu})/(\mu \rightarrow e+e+e) < 1.7 \cdot 10^{-5}$  is derived. The authors finally thank Professor V. P. Dzheleпов for having rendered the experiments on the synchrocyclotron possible, and furthermore the co-workers of the laboratoriya yadernykh problem OIYaI (Laboratory for Nuclear Problems of the OIYaI), especially N. B. Yedovina and V. G. Svyatkina, as well as A. A. Bednyakov for his assistance. There are 1 figure, 3 tables, and 10 references: *UH*

Card 3/4

Single Scattering of  $\mu^-$ -Mesons on Carbon at  
Energies of 10 - 30 Mev

82014  
S/056/60/038/02/12/061  
B006/B011

$\mu^-$ -tracks were selected for analysis as were longer than 1.5 cm, which corresponds to an energy of over 10 Mev. The  $\mu^-$ -stopping point was identified according to the  $\mu^-e$  decay. Table 1 offers data concerning the flux and the energy spectrum of  $\mu^-$ -mesons. 48,100 ( $\pm 2.3\%$ )  $\mu^-$ -mesons were recorded, whose range was  $>1.5$  cm. The investigated energy range of 10 - 30 Mev corresponded to a muon range of 1.5 - 10 cm in propane, the density of the latter amounting to  $0.4 \text{ g/cm}^3$ . Table 2 gives the numbers of scattering events recorded in angular intervals of  $10^\circ$  each between  $15$  and  $85^\circ$ , and in the interval  $85 - 180^\circ$ . The following columns of the table contain the numbers of events after correction for non-recording, the finite chamber size, the passage from one angular interval to another, the  $\pi^-$ -decay, and the scattering on hydrogen. The correction factors averaged over the angular intervals are compiled in Table 3. The various corrections are discussed in greater detail. Column 7 of Table 2 contains the final numbers of scattering events after the application of all corrections. 204,350 cm  $\mu^-$  tracks were evaluated, which number corresponds to 1260 nuclear path lengths of carbon. In this connection, 263 single scattering events on carbon were

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KOTENKO, C. P.

S/056/60/038/02/12/061  
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24.6900

AUTHORS: Alikhanyan, A. I., Kirillov-Ugryumov, V. G.,  
Kotenko, L. P., Kuznetsov, Ye. P., Samoylov, A. V.TITLE: Single Scattering of  $\mu^-$ -Mesons on Carbon at Energies of  
10 - 30 Mev 79PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,  
Vol. 38, No. 2, pp. 387 - 393

TEXT: The authors investigated the single  $\mu^-$ -meson scattering on carbon with a propane bubble chamber and compared the experimental results with theory. The chamber had a size of 370·104·100 mm. The  $\mu^-$ -mesons used for irradiation originated from the decay of  $\pi^-$ -mesons from the synchrocyclotron of the Ob'yedinenny institut yadernykh issledovaniy (Joint Institute of Nuclear Research). The 150-Mev  $\pi^-$ -mesons had been produced in the inner beryllium target of this synchrocyclotron. The experimental setup is briefly described. On an average 3 - 4  $\mu^-$  stopping points were recorded per photograph (with Industar-23 lenses), or a total of about 60,000. On interpreting the pictures, such

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SOV/120-59-1-9/50

Determination of the Masses and Momenta of Charged Particles from  
Multiple Scattering in a Propane Bubble Chamber

and it was shown that in order to determine the momenta of mesons to 15% at 100 Mev, 25 cm of track in propane is sufficient, while for 200 Mev protons the track length is 50 cm. There are 4 tables, 2 figures and 4 references, of which 2 are Soviet and 2 English.

ASSOCIATION: Fizicheskiy institut AN SSSR (Physics Institute,  
Academy of Sciences USSR)

SUBMITTED: February 12, 1958.

Card 2/2

SOV/120-59-1-9/50

AUTHORS: Kirillov-Ugryumov, V. G., Kotenko, L. P., Kuznetsov, Ye. P.,  
Samoylov, A. V.

TITLE: Determination of the Masses and Momenta of Charged Particles  
from Multiple Scattering in a Propane Bubble Chamber.

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 1, pp 44-47 and  
1 plate (USSR)

ABSTRACT: 246 photographs of particle tracks which came to rest in  
the bubble chamber (Ref.2) were examined. The tracks were  
analyzed by measuring the multiple scattering by the chord  
method suggested by Goldschmidt-Clermont et al (Ref.1). To  
determine the masses the formula given by Olbert et al (Ref.  
1) was employed. The following results were obtained:

$m = (268 \pm 23)m_e$	$t = 2 \text{ cm}$	312 angles
$m = (263 \pm 37)m_e$	$t = 1 \text{ cm}$	132 angles
$m_\mu = (196 \pm 25)m_e$	$t = 1 \text{ cm}$	132 angles
$m_p = (1973 \pm 184)m_e$	$t = 2 \text{ cm}$	288 angles

To determine the momenta Olbert's formulae were used (Ref.1)

Card 1/2

The Elastic Scattering of  $\pi^+$ -Mesons on Carbon at Energies of 5 + 22 MeV

SOV/56-35-5-45/56

and 13 references, 4 of which are Soviet.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR  
(Physics Institute imeni P. N. Lebedev of the Academy of  
Sciences, USSR)

SUBMITTED: July 10, 1958

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SOV/56-35-5-45/56

The Elastic Scattering of  $\pi^+$ -Mesons on Carbon at Energies of 5 - 22 MeV

of pions to the plane of the film in the photographic camera. Of the 5675 pions 75 were scattered round an angle (within the energy interval investigated), the projection of which is greater than  $15^\circ$ . After Coulomb (Kulon) scattering was taken into account, 31 nucleary scattered particles remained. The corrections taken into account when determining the nuclear scattering on carbon are given. A table contains the elastic scattering cross sections of pions determined by the authors of the present paper as well as by other authors. At energies of 8 - 22 MeV the cross sections found have the same values within the error limits as the elastic scattering cross sections at 33 MeV. At 5 - 8 MeV the scattering cross section increases quite considerably. Within this energy range the wavelength of the pion already exceeds the dimensions of the carbon nucleus. An analysis of the cross section energy dependence and of the angular distributions will be published later. The authors thank Professor A. I. Alikhanyan for the interest he displayed in this work, and Professor V. P. Dzelepov for making it possible to carry out measurements on the phasotron of the Institute for Nuclear Research. There are 1 table

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21(7)

SOV/54-35-5-45/56

AUTHORS: Kirillov-Ugryumov, V. G., Kotenko, L. P., Kuznetsov, Ye. P.,  
Sergeyev, P. M.

TITLE: The Elastic Scattering of  $\pi^+$ -Mesons on Carbon at Energies of  
5 + 22 MeV (Uprugoye rasseyaniye  $\pi^+$ -mezonov na uglerode pri  
energiyakh 5 + 22 MeV)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958,  
Vol 35, Nr 5, pp 1300-1302 (USSR)

ABSTRACT: For their measurements the authors used a propane bubble chamber having a volume of 750 cm<sup>3</sup>. This chamber was irradiated on the phasotron of the Ob'yedinennyy institut yadernykh issledovaniy (Joint Institute for Nuclear Research) with a beam of positive pions. The energy interval investigated corresponds to the residual ranges of from 0.125 to 2 g/cm<sup>2</sup> of pions in propane. The pions were ascertained by the  $\pi \rightarrow \mu \rightarrow e$  decay when being slowed down in the working substance. A total of 5675 photographs of photon traces was dealt with. Formation of stars by pions at from 5 to 22 MeV was not investigated, the inelastic scattering of positive pions is only inconsiderable at these energies. The authors determined the angular projections of the single scattering.

Card 1/3

The Angular Anisotropy in a  $\pi^+ - \mu^+ - e^+$  -Decay,  
Measured in a Propane Bubble Chamber

SOV/56-34-5-0/61

SUBMITTED: December 12, 1957

1. Radioactive substances--Decay    2. Propane bubble chambers  
--Applications    3. Proton bombardment--Applications

Card 4/4

The Angular Anisotropy in a  $\pi^+ \rightarrow \mu^+ + e^+$  Decay,  
Measured in a Propane Bubble Chamber

SOV/56-34-5-8/61

graphic emulsions is equal to  $a = -0,283 \pm 0,023$ . The distribution of the angles between the meson momenta in the  $\pi^+ \rightarrow \mu^+$  decay is isotropic. In an appendix to this paper the relation between the spatial distribution of the angles and the distributions of the projections of the angles upon the planes of the  $\mu^+ \rightarrow e^+$  decays and of the  $\pi^+ \rightarrow \mu^+ + e^+$  decays is calculated. The authors thank Professor V.P. Dzhelepov who enabled them to carry out their experiments on the phasotron of the Ob'-yedinennyy institut yadernykh issledovaniy. Further, the authors thank B.A. Dolgoshein for his valuable discussions; L.A. Kuzin, A.V. Samoylov and F.M. Sergeyev for their participation in the evaluation of the experimental results and A.A. Bednyakov for his help in the experiments at the phasotron. There are 6 figures, 1 table, and 14 references, 4 of which are Soviet.

ASSOCIATION: Fizicheskiy institut im. P.N. Lebedeva Akademii nauk SSSR  
(Physics Institute imeni P.N. Lebedev, AS USSR)

Card 3/4

The Angular Anisotropy in a  $\pi^+ - \mu^+ - e^+$  -Decay,  
Measured in a Propane Bubble Chamber

SOV/56-34-5-3/61

angles between the initial momenta of the positive myon and of the electron for 6670  $\pi^+ - \mu^+ - e^+$  -decays. The experimental distribution is well approximated by the above mentioned formula. The coefficient A, which is found from the relation "(backward/forward)", was equal to  $A = -0,22 \pm 0,03$ . The results of the measurements discussed in this paper lead to the following conclusions: 1) When the energy of the electrons which are produced in the  $\mu^+ - e^+$  -decay increased, also the angular anisotropy increases. This fact is not inconsistent with the theory of the two-component neutrino. The coefficient A in the distribution of the angles between the momenta of the myon and the electron is equal to  $A = -0,22 \pm 0,03$ . (This coefficient A was found by recording of the  $\pi^+ - \mu^+ - e^+$  -decays in a propane chamber). The value of this parameter, averaged over 5 investigations with propane chambers (after taking into account a correction due to the depolarization) is equal to  $a = -0,28 \pm 0,03$ . This value nearly coincides with the value of the parameter averaged over 9 investigations with photographic emulsions. The mean value of the results of the measurements with propane bubble chambers and with photo-

Card 2/4

AUTHORS: Alikhanyan, A. I., Kirillov-Ugryumov, SOV/56-34-5-8/61  
V.G., Kotenko, L. P., Kuznetsov, Ye. P., Popov, Yu. S.

TITLE: The Angular Anisotropy in a  $\pi^+ \rightarrow \mu^+ + e^+$  -Decay, Measured in a Propane Bubble Chamber (Uglovaya anizotropiya pri  $\pi^+ \rightarrow \mu^+ + e^+$  -raspade, izmerennaya v propanovoy puzyr'kovoy kamere)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol. 34, Nr 5, pp. 1101-1109 (USSR)

ABSTRACT: The authors investigated the angular anisotropy in a  $\pi^+ \rightarrow \mu^+ + e^+$  -decay with discrimination of the decay electrons with respect to energy. These decays were recorded by a propane bubble chamber. This chamber was irradiated in a beam of positive pions on the phasotron of the Ob'yedinennyy institut yadernykh issledovaniy (United Institute of Nuclear Research). The positive pions were produced by 660 MeV protons on an external polyethylene target. The authors give a short description of the measuring device. They measured the projections of the solid angles between the momenta of the positive myon and the electron on the plane of the film in the photographic camera. In this case the distribution  $dN \sim [1 + a(\pi^2/16)\cos\varphi]d\varphi$  is to be used. A figure gives the distributions of the projections of the

Card 1/4

56-1-50/56

The Angular Distribution of Positrons in the  $\pi^+ - \mu^+ - e^+$ -Decay in Propane

distribution of the decay electrons is illustrated in a diagram. This distribution can be approximated sufficiently well by a function written down here. The ratio (number of electrons emitted in the angular interval  $90 - 180^\circ$ )/(number of electrons emitted in the interval  $0 - 90^\circ$ ) is 1,19. This corresponds to a coefficient  $A = -0,22 \pm 0,03$  in the expression  $(1 + A \cos \vartheta)$  for the distribution of the solid angles. The angles in the last-mentioned ratio were related to the direction of the projection of the initial impulse of the positive myons. There are 2 figures, and 5 references, 2 of which are Slavic.

**ASSOCIATION:** Physical Institute imeni P. N. Lebedev AN USSR (Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR)

**SUBMITTED:** October 25, 1957

**AVAILABLE:** Library of Congress

Card 2/2

KOTENKO L.V.

56-1-50/56

**AUTHORS:** Alikhanyan, A. I. , Kirillov-Ugryumov, V. G. , Kotenko, L. P. ,  
Kuznetsov, Ye. P. , Popov, Yu. S.

**TITLE:** The Angular Distribution of Positrons in the  $\pi^+ - \mu^+ - e^+$  - Decay  
in Propane (Uglovoye raspredeleniye pozitronov pri  $\pi^+ - \mu^+ - e^+$ -  
raspade v propane)

**PERIODICAL:** Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1958, Vol. 34,  
Nr 1, pp. 253 - 254 (USSR)

**ABSTRACT:** The measurements discussed here are also important from the stand-  
point of the suitability of propane for measurements of the pheno-  
mena of angular correlations which are of the same nature as the  
 $\mu$ -e-decays. The authors in this connection think of an extensive  
use of propane bubble-chambers. The best arrangement is illustrated  
by a figure. A bubble chamber with the volume (7,2 x 6,5 x 16)cm<sup>3</sup>  
was irradiated in a polyethylene-target with a beam of positive  
pions with the energy 175 MeV in the phasotron of the United Insti-  
tute for Nuclear Research (Ob'yedinennyy institut yadernykh issle-  
dovaniy). Altogether 8000 photographs were taken on which 6670  
 $\pi^+ - \mu^+ - e^+$ -decays were determined. The authors determined the  
angular distribution for the projections of the spatial angles to  
the plane of the photoplate. The experimentally determined angular

Card 1/2

KOTENKO, h. P.

INSTRUMENTATION: BUBBLE CHAMBER

"Rectangular Bubble Chamber With 750 cc Volume and Plate", by L.P. Kotenko, Yu.S. Popov, Ye.P. Kuznetsov, Physics Institute imeni P.N. Lebedev, Academy of Sciences USSR, Pribory i Tekhnika Eksperimenta, No 1, January-February 1957, pp 36-39.

Description of the construction and of the operating conditions of the bubble chamber. The dispersion in the number of bubbles on the tracks of relativistic particles turns out to be proportional to the square root of the number of bubbles. It is possible to separate in the chamber particles whose ionizing ability differs by 30%.

Reference is made to work by Glaser (Physical Review, 1952, 87, 665; Physical Review, 1953, 92, 517), Glaser and Rahn (Physical Review, 1955, 97, 474), Parmentier and Schweinin (Review of Scientific Instruments, 1955, 26, 954), and Steinheimer (Physical Review, 1952, 88, 151).

Card 1/1



KOTENKO, L.P.

Scintillation proportional counter investigation of the ionizing capacity of cosmic rays at an altitude of 3200 m. Izv.AN SSSR Ser. fiz.19 no.5:525-532 S-O '55. (MLRA 9:4)

1.Fizicheskiy institut imeni P.N.Lebedeva Akademii nauk SSSR.  
(Cosmic rays) (Nuclear physics)

USSR/Human and Animal Physiology. Digestion. The Intestines.

T-7

Abs Jour: Ref Zhur-Biol., No 12, 1958, 55766.

Author : Ryabova, L.A., Kotenko, L.F.

Inst : University of Odessa.

Title : The Dynamics of Radioactive Phosphorus Absorptions  
by the Gastrointestinal Tract in Rabbits.

Orig Pub: Nauch. yezhegodnik. Odessk. un-t, 1956; Odessa,  
1957, 235-236.

Abstract: The absorption of  $P^{32}$  from  $NaHP^{32}O_4$  or  $Na_3P^{32}O_2$  solutions, which were administered to rabbits through the stomach fistula or internally during electrically induced sleep or during a hexonal narcosis was retarded for the first 25 minutes after  $P^{32}$  was introduced. Changes in absorption dynamics according to the state of the central nervous

Card : 1/2

YEVSTAF'YEV, A.G., kand.tekhn.nauk; LEVIKOV, P.M.; KOTENKO, L.A.;  
BELENOV, Ye.A.

Characteristic process parameters of continuous washing of the fraction  
boiling in the 140-145<sup>0</sup> range. Koks i khim. no. 5:39-41 '61.

(MIRA 14:4)

1. Moskovskiy institut khimicheskogo mashinostroyeniya (for Yevstaf'yev,  
Belenov). 2. MKGZ (for Levikov). 3. Tsentral'nyy nauchno-issledovatel'-  
skiy institut kompleksnoy avtomatizatsii (for Kotenko).  
(Coke industry--By-products) (Benzene)

68-1-12/22

On the Operating Conditions of Benzole and Carbon Disulphide Columns  
of a Rectification Plant.

ASSOCIATIONS: MIKhm and Bagleyskiy Coke Oven Works (Bagleyskiy  
koksokhimicheskiy zavod)

AVAILABLE: Library of Congress

Card 2/2

KOTENKO, L.A.

68-1-12/22

AUTHORS: Yevstaf'yev, A.Ye., Candidate of Technical Sciences,  
and Kotenko, L.A., and Sorokin, M.M.

TITLE: On the Operating Conditions of Benzole and Carbon Disulphide Columns of a Rectification Plant (O rezhime raboty benzol'noy i serouglerodnoy kolonn teekha rektifikatsii)

PERIODICAL: Koks i Khimiya, 1958, no.1, pp. 47 - 49 (USSR)

ABSTRACT: Possible improvements in the operation of carbon disulphide and benzole columns in a continuous raw benzole distillation plant designed by Giprokoks are discussed. During investigations of the possibilities of automation of the above plant carried out by members of the Moscow Institute of Chemical Machine Building (Moskovskiy institut khimicheskogo mashinostroyeniya) and the Bagleyskiy Coke Oven Works (Bagleyskiy koksokhimicheskiy zavod), a considerable difference was observed in the operating conditions of the above two columns on the Bagleyskiy Works (Tables 3 and 4) and similar columns on the Yasinovka and Zaporozh'ye Coke Oven Works and the Moscow Gas Works (Moskovskiy koksogazovyy zavod) (Tables 1 and 2). It is pointed out that the use of operating conditions developed for the Bagleyskiy Works would improve the response of an automatic control and secure the stability of the process, as well as increasing the throughput of the above columns and obtain some saving in the consumption of steam, water and electric power. There are 4 tables and 1 figure.

Card 1/2

KARCHAGINA, Ye.A.; STRELETS, N.M.; SHNEYDER, F.A.; GAMEYEVA, Z.S.;  
KRIVKO, A.N.; KOTENKO, K.I.; AGHAYEVA, R.V.; GAYVORONSKAYA, N.M.

Effectiveness of the compound treatment of chronic dystrophic  
polyarthrititis in miners at Sochi-Matsesta Health Resort at various  
seasons of the year. Vop. kur., fizioter. i lech. fiz. kul't.  
24 no.6:503-506 N-D '59. (MIRA 15:1)

1. Iz sanatoriya imeni S. Ordzhonididze v Sochi (dir. D.A.Bershadskiy)  
nauchnyy rukovoditel' - prof. M.M.Shikhov).  
(ARTHRITIS) (MINERS...DISEASES AND HYGIENE)

GAL'TSOV, A.D.; DENISYUK, I.N.; LEVANDOWSKIY, S.N.; LOSEV, A.G.; PEZIK, M.O.; PETROCHENKO, P.F.; SAVOS'KIN, N.M.; TRUBITSKIY, G.R.; KHISIN, R.I.; KHROMILIN, V.A.; ALEKSEYEV, S.S., retsenzent; GAL'PERIN, L.I., retsenzent; GRANOVSKIY, Ye.N., retsenzent; ZAKHAROV, N.N., retsenzent; KVASHNIN, S.A., retsenzent; KEREKESH, V.V., retsenzent; KOTENKO, I.N., retsenzent; LIVSHITS, I.M., retsenzent; LERNER, G.V., retsenzent; NEVSKIY, B.A., retsenzent; NOVIKOV, V.F., retsenzent; RAZAMAT, E.S., retsenzent; SERGEYEV, A.V., retsenzent; STEFANOV, V.P., retsenzent; TOLCHENOV, T.V., retsenzent; FEDOTOV, F.G., retsenzent; VOL'SKIY, V.S., red.; STRUZHESTRAKH, Ye.I., red.; USPENSKIY, Ya.K., red.; SEMENOVA, M.M., red.izd-va; MODEL', B.I., tekhn.red.

[Handbook for work-norm experts in machine manufacture] Spravochnik normirovshchika-mashinostroitelia v 4 tomakh. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry. Vol.1. [Fundamentals of technical normalization] Osnovy tekhnicheskogo normirovaniia. 1959. 676 p. (MIRA 12:12)

(Standardization)

KOTENKO, I.I., assistant

Antibiotic therapy for young farm animals with salmonellosis and colibacillosis. Veterinariia 39 no.11:69-71 N '62. (MIRA 16:10)

1. Khar'kovskiy zooveterinarnyy institut.



OSTASHEVSKIY, A.G.; OBRAZTSOV, V.P.; KOTENKO, I.I.

Biological properties of staphylococci isolated from animals in some diseases. Vop. pit. 19 no.3:69-73 My-Je '60. (MIRA 14:3)

1. Iz kafedry mikrobiologii i veterinarno-sanitarnoy ekspertizy (zav. - zasluzhennyy deyatel' nauki USSR prof. M.V.Revo) Khar'kovskogo veterinarnogo instituta.

(STAPHYLOCOCCUS)

(VETERINARY MEDICINE)

(MEAT INSPECTION)

KOTENKO, I.I., aspirant; ROTOV, V.I., prof., nauchnyy rukovoditel' raboty

Eliminating the enzootic occurrence of salmonellosis in calves.  
Veterinariia 41 no.8:34-35 Ag '64.

(MIRA 18:4)

1. Khar'kovskiy zooveterinarnyy institut.

L 7655-66

ACC NR: AP5025045

permeability of the ferrite backings is less than that of the magnetic circuit and the part material. Orig. art. has: 1 diagram. 0

SUB CODE: 14,20/ SUBM DATE: 29Apr63

Card 373

L 7655-66 EWT(d)/EWP(e)/EWP(y)/T/EWF(k)/EWP(h)/EWP(l)/ETC(m) WM  
ACC NR: AP5025045 SOURCE CODE: UR/0286/65/000/016/0087/0087

AUTHORS: Borshchenko, Ye. I.; Kotenko, G. I.; Pogodin, V. I.

ORG: none

TITLE: Method for contactless measurement of the roughness of a conducting surface and a device for its accomplishment. Class 42, No. 173959

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 87

TOPIC TAGS: *magnetic circuit, metal surface, Hall generator, galvanometer, galvanometry, magnetic field*

ABSTRACT: This Author Certificate presents a method for contactless measurement of the roughness of a conducting surface according to the total magnetic flux passing through a galvanomagnetic detector. To increase the sensitivity of the integral measurement, an electric current is passed through the part. The magnetic field of the current interacts with the magnetic field of the detector, and the monitored parameter is determined according to the resulting value of the Hall emf. The device for measuring the roughness of a conducting surface, including small linear displacements of the surface, contains a magnetic circuit with a ferrite junction placed in the gap and a galvanomagnetic detector (see Fig. 1).

Card 1/3

UDC: 531.717.8:621.3

Card 2/3

ACC NR: AR7004304

SOURCE CODE: UR/0271/66/000/011/A019/A019

AUTHOR: Borshchenko, Ye. I.; Kotenko, G. I.

TITLE: Analog elements designed with galvanomagnetic sensors

SOURCE: Ref. zh. Avtomat. telemekh. i vychisl. tekhn., Abs. 11A147

REF SOURCE: Tr. Leningr. in-t aviats. priborostr., vyp. 46, 1966, 112-118

TOPIC TAGS: analog element, Hall generator, Gauss generator, galvanomagnetic effect

ABSTRACT: The problem is considered of using the galvanomagnetic Hall and Gauss (magnetoresistive) generators for building analog elements intended for simplest mathematical operations. By combining series and opposition connections of the generators, the operation of algebraic summation becomes possible. A galvanomagnetic bridge-type multiplier designed with Gaussian generators is considered in detail, and results of its testing are reported. The galvanomagnetic analog elements can deliver stable operation indefinitely and can be designed as miniature standardized modules. Possible applications of such analog elements are listed. Five figures.  
T. R. [Translation of abstract]

SUB CODE: 09 20

Card 1/1

UDC: 621.398.694:621.376

L 23415-66

ACC NR: AP6004137

-190°C it is established that the transition from ductile (fibrous) to brittle fracture (at +20°C) is not accompanied by any significant decrease in strength: if the loading is applied uniformly, the rated rupture stresses remain above the yield point. This implies that the ductile-to-brittle transition temperature is far from always dangerous. The critical temperature at which rated strength sharply decreases (in the above case, -70°C) is several tens of degrees lower than the transition temperature, and for most grades of low-carbon and low-alloy steels this critical temperature is below -60°C. This means that when in natural state (in the form of structural elements at normal temperatures of the atmosphere) these steels are sufficiently resistant to brittle cracking. Work hardening and the attendant aging, however, may markedly enhance the brittleness of steel and displace the threshold of rated strength in the direction of positive temperatures, as established by preliminary 10% plastic deformation of notched specimens with their subsequent furnace aging at up to +250°C for 2 hr. Thus, preliminary deformation at 100-250°C causes particularly marked embrittlement: the critical temperature of transition from ductile to brittle fracture rises nearly 100°C as compared with metal in natural state. Orig. art. has: 3 tables, 6 figures.

SUB CODE: 11, 13/ SUBM DATE: 06Jul65/ ORIG REF: 004/ OTH REF: 006

Card

2/2 dda

L 23415-56 EWT(d)/EWT(m)/EWP(w)/EWA(d)/EWP(v)/I/EWP(t)/EWP(k) IJP(c) JD/HM/AM/

ACC NR: AP6004137 (N) SOURCE CODE: UR/0125/66/000/001/0034/0039 EM

AUTHOR: Zhemchuzhnikov, G. V.; Girenko, V. S.; Kareta, N. L.; Kotenko, E. V. 56  
53  
B

ORG: Institute of Electric Welding im. Ye. O. Paton, AN UkrSSR (Institut elektro-  
varki)

TITLE: Effect of stress concentrators on the strength of steel following preliminary  
deformation and aging 10

SOURCE: Avtomaticheskaya svarka, no. 1, 1966, 34-39

TOPIC TAGS: stress concentration, low carbon steel, low alloy steel, plastic de-  
formation, metal aging, brittleness

ABSTRACT: The brittle cracks arising in metal structure under the action of static  
loads in most cases originate from structural or technological stress concentrators  
and hence in recent years special attention has been paid to research into the effect  
of notching on brittle strength. This is particularly important considering that work  
hardening due to the welding, straightening or overloading of the structural elements  
and the concomitant aging of the metal, although it greatly affects the susceptibility  
of steel to geometric stress concentrators, has previously been relatively uninvest-  
igated although it is an important factor in structural strength. On the basis of  
tensile tests of notched specimens of rimmed low-carbon sheet steel at from +30 to  
10

Card 1/2

UDC: 621.791.762:539.56:669.140

KOTENKO, D.I.

Leads and workers of a communist shop. Mashinostroitel' no.3:38-40  
Mr '61. (MIRA 14:3)

1. Nachal'nik resorno-pruzhinnogo tsekha Moskovskogo avtomobil'nogo  
zavoda imeni I.A. Likhacheva.  
(Moscow--Automobile industry)



KAS'YANOV, A.N.; BURDOV, A.; PODKOPAYEV, V.M.; KOTENKO, B.;  
SAMARYANOV, M.B.

In the Soviet Union. Veterinariia 39 no.10:92-96 0.'62.  
(MIRA 16:6)

(Veterinary medicine)

~~KOTENKO, A.N.~~; PESENKO, A.V.; PUSHEIN, P.I., redakter; KANDYKIN, A.Ye.,  
tekhnikheskiy redakter.

[Re-equipping meter switching locomotives and railroad meter cars  
to operate on liquid gas] Pereoborudovanie meterozov i avtoezhin  
dlia raboty na zhizhennom gaze. Moskva, Gos.transp.zhel-dor.isd-vo  
1952. 64 p. [Microfilm]. (MIRA 9:6)  
(Locomotives) (Railroad metercars)

*KOTENKO, Andrey Dymat'yevich*

KOTENKO, Andrey Ignat'yevich, glavnyy inzhener; TSYGANKOV, I.I.,  
nauchnyy red.; GURVICH, B.A., red.; PYATAKOVA, N.D., tekhn.red.

[More reinforced concrete for Moscow builders; practices of the  
No.5 Factory producing reinforced concrete components under the  
Main Moscow Division for Reinforced Concrete] Bol'she zhelezobetona stroikam Moskvy; iz opyta raboty zavoda No.5 zhelezobetonnykh izdelii Glavmoszhelezobetona. Moskva, Gos.isd-vo lit-ry po stroit.materialam, 1957. 69 p. (MIRA 11:1)

1. Zavod No.5 zhelezobetonnykh izdeliy Glavmoszhelezobetona. (for Kotenko).  
(Moscow--Reinforced concrete)

VEKSER, N.A.; VERESHCHAGA, Ye.A.; KOTENKO, A.I.; Prinsipal uchastiyes:  
VORONIN, A.V.

Effect of additional alloying and heat treatment on the  
physicomechanical properties of wheel steel. Sbor.trud.  
UNIIM no.11:334-343 '65.

(MIRA 18:11)

ACCESSION NR: AP4045024

at -50C. The length of the abrasion path varied from 500-7000 mm, depending on the time and rate of abrasion. The samples were washed carefully in alcohol, dried at +60C and weighed, the difference in weight being a measure of the degree of abrasion. It was found that the surface of the samples shows cracks after prolonged cooling. The dependence of the degree of abrasion and coefficient of friction on the rate of abrasion and pressure is plotted. It is concluded that the friction of Kapron on a steel disk with a lubricant at positive temperatures results in slight abrasion in all cases. The same was observed for the abrasion of bronze on steel. On abrading Kapron with steel without a lubricant at positive temperatures, the abrasion was slightly higher than that with a lubricant. The abrasion of bronze samples with a lubricant was high compared to the abrasion of Kapron without a lubricant or that of bronze with a lubricant. On abrading Kapron with steel with and without a lubricant at low temperature ( - 50 C), the abrasion values and coefficients of friction differed only slightly from one another and approached the values obtained at positive temperatures. After maintaining Kapron samples at a low temperature (-50C) for 10 or 20 days, their antifriction properties decreased (the coefficient of friction and abrasion increased), but the antifriction properties of bronze remained almost unchanged. Orig. art. has: 5 figures.

Card

2/3

ACCESSION NR: AP4045024

S/0191/64/000/009/0041/0043

AUTHOR: Yevdokimov, Yu. A., Kotenko, A. F., Popov, M. S.

TITLE: The effect of low temperature on the antifriction properties of polycaprolactam

SOURCE: Plasticheskiye massy\*, no. 9, 1964, 41-43

TOPIC TAGS: polycaprolactam, polyamide, friction, abrasion, lubricant, low temperature lubrication, Kapron

ABSTRACT: Since the antifriction properties of polyamides at low temperature have not been investigated thoroughly so far, the abrasion and the coefficients of friction of Kapron on steel, with and without lubricants, were investigated at 20-25C without preliminary cooling of the samples, at 20-25C with preliminary cooling at -50C for 10 and 20 days, and at -50C, first under a constant specific pressure of 30 kgs/cm<sup>2</sup>, at different rates of abrasion (0.25, 0.5, 0.99 and 1.95 m/sec.) and then at a constant abrasion speed of 0.5 m/sec. and different pressures: 10, 30, 50 and 75 kgs/cm<sup>2</sup>. Cylindrical polycaprolactam and bronze samples were used. A steel disk was used as the abradant. The investigations were carried out on a lathe equipped with a device which permitted adjustment of the load and temperature required for the sample and the setting of the moment of friction. The tester is illustrated. The experiment took 60 min. at room temperature and 20 min.

Card 1/3

YEVDOKIMOV, Yu.A., kand.tekhn.nauk, dotsent; KOTENKO, A.F., kand.tekhn.nauk,  
dotsent; CHERENKEVICH, V.A., kand.tekhn.nauk

Mechanical and antifriction characteristics of secondary capron.  
Izv.vys.ucheb.zav.; mashinostr. no.8:79-88 '62. (MIRA 15:12)

1. Rostovskiy institut inzhenerov zheleznodorozhnogo transporta.  
(Nylon--Testing)

KOTENKO, A.F.

Intermediate relay of a new design. Ptitsevodstvo 9 no.10:  
29 0 '59. (MIRA 13:2)

1. Zaveduyushchiy inkubatoriyem Krayushkinskogo sovkhosa,  
Altayskogo kraya.  
(Incubators) (Electric relays)



KOTENKO, A.F., kandidat tekhnicheskikh nauk.

Investigation of the cause of incorrect placement of pairs of  
wheels and an axle during locomotive repair. Trudy RIIZHT  
no.17:86-94 '53. (MLRA 9:6)  
(Car wheels) (Locomotive--Repairs)

YEVDOKIMOV, Yu.A., kand.tekhn.nauk; KOTENKO, A.F., kand.tekhn.nauk

Effect of an abrasive medium on antifriction properties of  
capron sliding bearings. Vest.mashinostr. 43 no.8:46-48  
Ag '63. (MIRA 16:9)

(Plastic bearings--Testing)

KOTENKO, A.D.; TKHORIVSKIY, A.M.

First-year students of a pedagogical institute study techniques  
of measurement. Politekh. obuch. no.8:67-68 Ag '59.  
(MIRA 12:10)

1. Pedagogicheskiy institut, g. Vinnitsa.  
(Measuring instruments)

MEL'YANOVSKIY, P.A.; MIKHAYLENKO, S.A.; KOTENKO, A.A.

Bridge for measuring specific inductive capacitance of  
highly absorbing media in the radio frequency band. Prib.  
i tekhn.eksp. 6 no.4:92-95 J1-Ag '61. (MIRA 14:9)

1. Khar'kovskiy politekhnicheskii institut.  
(Bridge circuits)

KOTENKO, A., glavnyy inzhener

Using flow-line equipment in making precast reinforced concrete panels. Stroitel' no.3:6 Mr '59. (MIRA 12:6)

1.Zavod zhelezobetonnykh izdeliy No.5 Glavmospromstroymaterialov.  
(Concrete slabs) (Asembly-line methods)

KOTENKO, A.

KOTENKO, A.

Prestressed reinforced floor sections with oval hollows. Stroi.  
mat. 3 no.7:13-14 JI '57. (MIRA 10:10)

1. Glavnyy inzh. Moskovskogo zavoda zhelezobetonnykh izdeliy No.5.  
(Prestressed concrete)

KOTENKO, A., glavny inzhener; MALINOV, L.

More reinforced concrete from the same floor space. Stroi. mat.,  
izdel. i konst. 1 no.10:25-28 0 '55. (MLRA 9:1)

1. Moskovskiy zavod zhelezobetonnykh izdeliy No.5 (for Kotenko).  
(Reinforced concrete)

ZIMIN, P.A., kand.tekhn.nauk; TELEGIN, V.Ya., inzh.; POTENIN, B.A., inzh.

Mechanization of the manufacture of reinforcement for the Moscow  
television center tower. Mont. i spets. rab. v stroi. 23 no.9:  
21-23 S '61. (MIRA 14:9)

1. Nauchno-issledovatel'skiy institut stroitel'noy promyshlennosti.  
(Moscow--Television--Transmitters and transmission)  
(Concrete reinforcement)



GOLIK, N.I., prof.; CHERNYSHEVA, L.N.; TARASOVA, M.M.; SAMSONOVA, Z.V.;  
KOTENEVA, V.M.; MOGIL'NAYA, V.Z.

Analysis of clinical and pathomorphological materials on multiple  
sclerosis from 1946 to 1957. Sbor. trud. Kursk. gos. med. inst.  
no.13:258-262 '58. (MIRA 14:3)

1. Iz kliniki nervnykh bolezney (zav. - prof. N.I.Golik) Kurskogo  
gosudarstvennogo meditsinskogo instituta.  
(MULTIPLE SCLEROSIS)

KOTENEVA, T.V.

Use of a colorimeter-nephelometer in the analysis of readily  
soluble salts. Trudy NIIGA 98:130-138 '59.  
(MIRA 13:5)

(Salts--Analysis)

15-57-2-1796

. Systematic Chemical Analysis of Clays (Cont.)

separating carbonate and acid minerals.  
Card 8/8

G. A. G.

15-57-2-1796

## . Systematic Chemical Analysis of Clays (Cont.)

are transferred by water into a small beaker of 50 ml-100 ml and are evaporated to 2-5 ml. An identical quantity of methyl or ethyl alcohol and 1-2 drops of methyl orange are added. K is precipitated by a freshly-prepared solution of tartaric acid with aniline, adding the reagent until the color of the indicator does not change to yellow and until there is no change on further addition. The precipitate is left standing for two hours, is filtrated through a dense sand paper filter, and is washed four times with alcohol. The filter, containing the precipitate, is placed in a beaker; the precipitate is dissolved in 40-50 ml of distilled water; two drops of phenolphthalein are added and the solution is titrated with 0.02-normal NaOH until a light-rose color is obtained. The reagent for precipitation of K is prepared as follows: two g of tartaric acid are dissolved in 50 ml of H<sub>2</sub>O; 0.8 g of freshly-distilled aniline is added, and, by adding alcohol, the volume of the solution is brought to 100 ml. The author also describes the methods for determining the composition of variable cations as well as of

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15-57-2-1796

## Systematic Chemical Analysis of Clays (Cont.)

the solution, a 2 percent alcohol solution of orthohydroxyquinoline is added until the liquid above the precipitate turns yellow. Then ammonia is added until precipitation ceases; afterwards the solution is placed over a burner, heated almost up to boiling and left standing for two hours at room temperature; the precipitate is passed into a dense filter, and washed with hot water at first, and then with cold water until the wash water is perfectly colorless. The filtrate and wash waters are evaporated to dryness in a platinum or porcelain dish, dried in an oven at 300° to 350°. The ammonium salts are decomposed. The remaining salts in the bowl are dissolved in water. Small coals are separated from this solution by filtration, washed with water, and evaporated with several drops of  $H_2SO_4$  (1:1). On a burner or a retort heater, the excess of  $H_2SO_4$  is carefully eliminated and the remainder is baked in a muffle at first at 400°, and then at 700°-800° until the weight becomes stable. In the obtained amount of sulfates of alkaline elements, K is determined by the method of using tartaric or perchloric acids.  $Na_2SO_4 + K_2SO_4$   
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15-57-2-1796

## Systematic Chemical Analysis of Clays (Cont.)

yellow. The beaker is taken from the burner; then, with constant stirring an excess ammonium (1:2) is added, in a quantity equal to one-third the volume of the solution. After standing 12 hours, the solution with the precipitate is stirred; it is then left standing for a while, after which the precipitate is filtered through a dense filter and washed by 2 to 2.5 percent ammonia solution until a negative reaction for  $\text{Cl}^-$  is obtained in the wash water. The filter with the precipitate is placed in a suspended platinum crucible, dried in an oven, charred over a burner, and afterwards baked at  $1100^\circ$  until the weight becomes stable. To determine the total alkali and potassium, 100 ml of the solution is placed in a beaker with capacity of 150 ml-200 ml and evaporated until dry over a covered heating plate. The contents of the beaker are then transferred with a small glass rod into a platinum or porcelain bowl; ammonium salts are decomposed over a retort heater at  $300^\circ$  to  $350^\circ$ . The residue of the salts in the bowl is dissolved in water, passed through a filter into a beaker -- separating out small pieces of cinders and the filtrate is condensed to 20 ml. To separate Mg from  
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15-57-2-1796

## Systematic Chemical Analysis of Clays (Cont.)

ammonium nitrate until a negative reaction for  $\text{Cl}^-$  is obtained. After the separation of sesquioxides, the filtrate is concentrated to 50 ml to 100 ml, acidified by  $\text{HCl}$ , and, after it has been heated to  $70^\circ$  to  $80^\circ$ , an excess of hot  $(\text{NH}_4)_2(\text{COO})_2$  is added. The solution is then slowly neutralized by 10 percent ammonia. The beaker is covered by a watch glass and left standing for not less than six hours; it is then passed through a dense filter, washed through by water containing ammonium oxalate until a negative reaction for  $\text{Cl}^-$  is obtained. The precipitate is reduced to ashes and baked at  $1000^\circ$  until the weight becomes stable. The filtrate, obtained when determining  $\text{CaO}$ , is transferred into a measuring flask of 250 ml. Then 100 ml is taken out of it and evaporated to 50 ml; several drops of methyl red are added and the solution is acidified with  $\text{HCl}$  until an acid reaction is obtained; an excess (5-10 ml) of 5 percent solution of sodium ammonium acid phosphate is added and heated close to the boiling point. The hot solution is neutralized by adding ammonia drop by drop until the rose-colored indicator shades into  
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15-57-2-1796

## . Systematic Chemical Analysis of Clays (Cont.)

small bowl with the dry residue is covered by a watch glass and HCl (1:2) is introduced through a pipette into the solution until the evolution of CO<sub>2</sub> ceases; then the solution is evaporated on a water bath until dry; the dry residue is left in a boiling bath for one to two hours; 10 ml HCl (1:2) is added; the small bowl is covered with a watch glass and is left in the bath for 10 to 20 minutes; after adding hot distilled water, the material is then passed through a small ashless filter. The residue is washed with hot water that has been acidified by HCl, then with clean hot water until a negative reaction for Cl<sup>-</sup> is obtained. The precipitate is reduced to ashes and baked in a suspended crucible at 1000° until the weight becomes stable. The filtrate is evaporated to a small volume together with the wash waters that were obtained after the determination of SiO<sub>2</sub>. One to two drops of methyl orange are added and then 2.5 percent NH<sub>4</sub>OH, drop by drop, until the rose-colored indicator shades into yellow. The solution is brought to the boiling point; the precipitate is filtered out and washed with hot distilled water containing

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15-57-2-1796

## Systematic Chemical Analysis of Clays (Cont.)

carbonate ion, 25 ml of the filtrate is taken and put into a flask of 100 ml capacity; 3 ml of 0.05-normal HCl is added; the solution is boiled for five minutes and cooled in a stream of cold water; then 3 ml of 0.05-normal solution of potassium iodate and 2 ml of 10 percent potassium iodide are added; the flask is covered and put in a dark place for 1 hour and 15 minutes. The separated I is back-titrated by 0.02-normal solution of thiosulfate in the presence of starch. The quantity of  $\text{HCO}_3$  is found according to the formula  $e = (a - b)c \cdot 0.00305 \cdot d$ , where  $a$  is the number of milliliters of thiosulfate consumed by back-titration of I in a blank test;  $b$  is the number of milliliters of the same reagent, necessary for the back-titration of I in this test;  $d$  is the correction factor of HCl normality. To determine  $\text{Cl}^-$ , 25 ml of the extract is taken, transferred to a small beaker; the chlorides are titrated by 0.02- to 0.05-normal  $\text{AgNO}_3$  in the presence of 1 ml of 10 percent solution of  $\text{K}_2\text{CrO}_4$ , until the solution turns red-brown. One ml of 0.02-normal  $\text{AgNO}_3$  solution corresponds to 0.000709 g Cl. To determine  $\text{SiO}_2$ , the

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15-57-2-1796

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 2,  
pp 94-95 (USSR)

AUTHOR: Koteneva, T. V.

TITLE: Systematic Chemical Analysis of Clays (Skhema  
ratsional'nogo khimicheskogo analiza glinistyykh porod)

PERIODICAL: Tr. N.-i. in-ta geol. Arktiki, 1956, Vol 86, pp 186-  
196

ABSTRACT: The author works out a system of analysis dealing with  
sedimentary deposits which consists of the following.  
A powdered sample weighing 50 g to 100 g is wetted by  
a 60 percent alcohol solution (1 g of mineral to 5 ml  
of solution), is mixed well, thoroughly shaken for 5  
to 10 minutes, passed through a dense paper filter in  
a vacuum.  $\text{CO}_3^{2-} + \text{HCO}_3^-$ ,  $\text{Cl}^-$  and the dry residue con-  
taining  $\text{SiO}_2$ ,  $\text{R}_2\text{O}_3$ ,  $\text{Ca}^{2+}$ ,  $\text{Mg}^{2+}$ ,  $\text{Na}^+ + \text{K}^+$ ,  $\text{K}^+$ ,  $\text{SO}_4^{2-}$ ,  
are determined in the filtrate. To determine the

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KOTENEVA, N.V.

Conference of workers of the canning and vegetable dehydration industry.  
Kons.i ov.prom. 15 no.8:46 Ag '60. (MIRA 13:8)  
(Canning industry) (Vegetables, Dried)

**KOTENEV, Ye.Z.**

Remarks on V.N. Karpov's article, "Improving the electrical equipment of the MP-21 screw press." Masl.-shir.prom. 21 no.3:39-40 '56.  
(MLRA 9:8)

(Electric motor)

17( .

SOV/177-58-7-23/28

AUTHOR: Kotenev, Ya.P., Lieutenant-Colonel of the Medical Corps

TITLE: Treatment of Patients Suffering From Epidermophytia of the Feet With ASD

PERIODICAL: Voenno-meditsinskiy zhurnal, 1958, Nr 7, pp 86-87 (USSR)

ABSTRACT: Since 1955, in the Soviet Union, epidermophytia has been treated with the preparation ASD in complex with other medicines. The author reports on his investigations of patients suffering from the dishydrotic, squamous, intertriginous and the complex pyogenic forms of the epidermophytia which were treated with ASD of the fractions Nr 2 and Nr 3. Because of its sharp disagreeable odor, fraction Nr 2 went out of use. With fraction Nr 3, good results were obtained in all forms of epidermophytia. In combination with other medicines, it considerably shortens the healing process.

Card 1/1

*KOTENEV, M.*  
**KOTENEV, M.**

Model platform used in studying traffic regulations. Za rul. 16  
no.1:9 Ja '58. (MIRA 11:1)  
(Traffic regulations--Study and teaching)

**KOTENEV, M.**

BAULIN, M., kandidat tekhnicheskikh nauk, starshiy преподаvatel'; YERSHOV, B.,  
prepodavatel'; POSTNIKOV, N., преподаvatel'; KOTENEV, M., prepo-  
vatel'.

Aiding young automobile workers. "Automobile construction." V.I. Anokhin. Reviewed by M. Baulin, B. Ershov, N. Postnikov, M. Kotenev. Avt. transp. 32 no. 11: 40-41 N '54. (MIRA 8:3)  
(Automobiles--Design and construction)(Anokhin, V.I.)

KOTENEV, I. V. (Moskva); SHAL'NEV, K. K. (Moskva)

Cavitation near the hub and pressure fluctuations in a  
turbine draft pipe. PMTF no.2:59-71 Mr-Ap '62.  
(MIRA 16:1)

(Hydraulic turbines) (Cavitation)



31245

S/207/61/000/005/004/015  
D237/D303

Influence of constructional ...

ment. There are 18 figures and 7 references: 6 Soviet-bloc and 1 non-Soviet-bloc.

SUBMITTED: July 8, 1961

Card 3/3

X

Influence of constructional ...

31245  
S/207/61/000/005/004/015  
D237/D303

clusions were reached: In the case of the rotor with a non-perforated hub, the main cavitation will be that of the hub in places badly machined (uneven surface), while in case of a perforated hub (perforations leading to the outlet), the most dangerous will be the cavitation of the mouths of the openings. When the outflow is normal, the cavitation zones break up into separate bubbles, but in the case of rotating outflow, the zones coalesce into vortices which approach the axis of rotation of fluid in the outflow tube and follow a spiral path around the axis. The authors recommend that in order to avoid or minimize the adverse effects of cavitation on the performance of the turbine, (a) the hub finish should be better, (b) perforated hub should be avoided or if that is unavoidable, then the ratio of the surface of cross-section of the space between the driving wheel and inner diameter of the rotor to the surface of the openings which is equal to or greater than unity, should be avoided, (c) low placing of the outflow tube should be preferred, and an investigation of the stability of cavitation vortices in such a tube should be advantageous. Yu.N. Solov'yev and V.A. Yartsev are mentioned for their help in conducting the experi-

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31245

S/207/61/000/005/004/015  
D237/D303

26.2120

AUTHORS: Kotenev, I.V., and Shal'nev, K. (Moscow)

TITLE: Influence of constructional changes of a radial-axial hydroturbine on its cavitation

PERIODICAL: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 5, 1961, 26 - 38

TEXT: This is a report on the experimental work done on the turbine PO (RO)-82, and the author's aim was to investigate the variation of cavitation characteristics of the rotor with constructional changes. The work was performed at the Hydro-Turbine Laboratories of the Vsesoyuznyy nauchno-issledovatel'skiy institut gidromashinostroyeniya (All-Union Scientific Research Institute of Hydraulic Machinery). Cavitation zones were photographed and basic magnitudes describing the work of the turbine were reduced to the head  $H = 1\text{ m}$  and diameter of the rotor  $D = 1\text{ m}$ . The results were represented as: 1) Photographs of zones of cavitation, 2) Tables, 3) Universal characteristics, 4) Comparison graphs. The following con-  
Card 1/3

X

KOTENEV, Ivan Vasil'yevich, insh.; ORAKHELASHVILI, M.M., kand.tekhn.  
nauk, retsentsent; KULIKOV, P.Ye., insh., red.; AVSHAROVA,  
Ye.G., red.isd-va; ML'KIND, V.D., tekhn.red.

[Improvement in the performance of Kaplan turbines in  
agricultural hydroelectric power plants] Uluchshenie ra-  
boby propellernykh turbin sel'skikh gidroelektrostantsii.  
Moskva, Gos.nauchno-tekhn.isd-vo mashinostroit.lit-ry, 1959.  
116 p. (MIRA 12:9)  
(Hydraulic turbines) (Hydroelectric power plants)

124-11-12718

The Variable-Pitch-Vane Hydraulic Turbine with Self-Regulating Runner (continued)

The forces and moments arising in the regulating mechanism were measured. The hydromechanical part of the unit was also tested for varying load conditions, wherein the self-regulating runner was tested alongside with regulators of various type (Woodward type with linearly acting oil-type servomotor).

D.-G. A. Butayev

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124-11-12718

## The Variable-Pitch-Vane Hydraulic Turbine with Self-Regulating Runner, (continued)

of the turbine. The constancy of that flow direction permits the establishment of a sensing foil at a constant angle in the downstream flow.

Any change in the flow direction downstream of the runner is used as a primary impulse for the regulatory cycle and as an energy source for the displacement of the sensing foil which then serves as the prime mover for the power and speed regulator of the turbine.

An experimental turbine equipped with a PL-70 type runner was set up and extensively tested on the large test stand for turbines at the All-Union Institute for Hydraulic Machinery Engineering (Vsesoyuznyy institut gidromashinostroyeniya). An investigation of the influence of the shape of the sensing foils on the turbine efficiency showed that profile-shaped foils, placed at some distance from the casing, are preferable; a loss of 1.5 percent in efficiency was found.

The runaway speed of a self-regulating turbine is lower than that of the more customary type.

The overspeed required to actuate the blades in closing sense is 0.2 percent for  $\varphi = 0^\circ$ , 2 percent for  $\varphi = -10^\circ$ , and 10 percent for  $\varphi = -20^\circ$ . The underspeed required to actuate the blades in the opening sense is 1 percent for  $\varphi = 0^\circ$ , 2.5 percent for  $\varphi = -10^\circ$ , and 5 percent for  $\varphi = -20^\circ$ .

Card 2/3

KOTENEV I.V.

124-11-12718

Translation from: Referativnyy Zhurnal, Mekhanika, 1957, Nr. 11, p. 56 (USSR)

AUTHOR: Kotenev, I. V.

TITLE: The Variable-Pitch-Vane Hydraulic Turbine with Self-Regulating Runner.  
(Povorotnolopastnaya gidroturbina s samoreguliruyemym rabochim kolesom)

PERIODICAL: Tr. Vses. n.-i. in-ta gidromashinostr., 1956, Nr 19, pp. 149-188

ABSTRACT: In 1952-1953 a development and investigation were made of a type of variable-pitch-vane turbine equipped with a new regulating device, wherein the pitch of the blades is controlled by a mechanism actuated by a sensing foil immersed in the stream downstream of the runner.

The self-regulating runner permits a simple and inexpensive realization, for hydroelectric stations of limited size, of a transition from propeller-type turbines to variable-pitch-blade turbines. Such a transition is made desirable by a possible 10 to 20-percent increase in energy utilization and improves operational features in general.

The self-regulation of the runner of a variable-pitch-blade type turbine is based on the conservation of the mean directional angles of the flow exiting from the runner blades at all regulatory regimes

Card 1/3

KOTENEV, I.V., inzhener.

Investigation of draft tubes and form of the runner chamber  
for axial-flow hydraulic turbines. Trudy VIGM no.19:128-148  
'56. (MLRA 10:2)

(Hydraulic turbines)



SOV/112-57-5-9965

Studies of New Shapes of Turbine Casing and Draft Tube That Raise Turbine . . . . .

with an expanded throat of the turbine casing, the following advantages may be gained: cutting the volume of construction work at the Stalingrad Hydroelectric Station; improving cavitation conditions in operating the second-line turbines at the Kuybyshev Hydroelectric Station; making possible, at the Kakhovka Hydroelectric Station, the use of a draft tube of normal ( $1.915D_1$ ) instead of low ( $1.56D_1$ ) height by raising the axis mark of the runner by 2-3 m. Both low and high draft tubes with various turbine casings of the Kakhovka Hydroelectric Station were investigated by VIGM, and the conclusion was drawn that a larger casing throat would be equally beneficial in both cases.

A.A.B.

8 (6)

SOV/112-57-5-9965

Translation from: Referativnyy zhurnal. Elektrotehnika, 1957, Nr 5, p 47 (USSR)

AUTHOR: Kotenev, I. V.

TITLE: Studies of New Shapes of Turbine Casing and Draft Tube That Raise the Turbine Efficiency (Issledovaniya novykh form turbinnoy kamery i vsasyvayushchey truby, povyshayushchikh k. p. d. turbiny)

PERIODICAL: Tr. 2-go nauch.-tekhn. soveshchaniya po proyektir. i str-vu gidroelektrostantsiy. M.-L., 1956, pp 264-267

ABSTRACT: The possibility is pointed out of increasing turbine efficiency by 1-3% by increasing the diameter of turbine-casing throat from  $0.945D_1$  to  $0.97-0.98-1.0D_1$ . However, this is accompanied by a poorer turbine cavitation index. To eliminate this drawback, VIGM, in their investigations of wide-throat turbines, reduced the blade load by increasing the number of blades. This resulted in improved cavitation index over the entire range of discharges. It is pointed out that, with an appropriate increase in the number of blades and

Card 1/2

KOTENEV, I V

USSR/Engineering--Turbine construction

Card 1/1 : Pub. 128--2/33

Authors : Kotenev, I. V.

Title : ~~Effect of the form of the operating-rotor housing of a rotating-blade type hydraulic turbine on its energy and cavitation properties~~

Periodical : Vest. mash. 34/8, 11-16, Aug 1954

Abstract : An account is given of experiments directed towards increasing the coefficient of useful action by giving the proper form to the housing of a turbine rotor. It was found that enlarging the throat of the rotor housing slows down the flow and improves the cavitation coefficient. Technical data compiled from experimentation are presented. Drawings; illustrations; graphs; tables.

Institution : .....

Submitted : .....