

L 61859-65

AM#033657

TABLE OF CONTENTS:

Foreward -- 3
Introduction -- 5

Part I. Basic concepts of airport planning

- Ch. I. Airports for civil aircraft -- 24
- Ch. II. Basic elements of an airfield -- 29
- Ch. III. Technology of airport transport services -- 44
- Ch. IV. Structures in the flying zone -- 56
- Ch. V. Buildings in the service zone -- 83
- Ch. VI. Principles of airport planning -- 116

Part II. Dimensions of the airfield and the approach zone

- Ch. VII. Calculating the dimensions of the parts of the airfield and the approach zone -- 153
- Ch. VIII. Technical specifications for airport planning -- 193

Card 2/3

L 61859-65
AM4033657

Part III. Planning the contours of airfields

- Ch. IX. Land contours needed for airfields -- 200
- Ch. X. Methods and sequence for making vertical contour plans -- 219
- Ch. XI. Determining the extent of earth moving work in airfield construction -- 260

Part IV. Drainage of airfields

- Ch. XII. Basic principles of water drainage on airfields -- 273
- Ch. XIII. Meteorological and hydrologic principles in the design of drainage facilities -- 276
- Ch. XIV. Drainage for take-off and landing strips, runways, and aircraft parking areas -- 296
- Ch. XV. Planning drainage systems for airfields -- 320
- Ch. XVI. Hydrologic and hydraulic design for drainage systems -- 341

Part V. Constructing artificial surfaces for airfields

- Ch. XVII. Types of artificial surfacing -- 355

Cord

L 61859-65
AW4033657

- Ch. XVIII. Rigid surfaces -- 361
- Ch. XIX. Flexible surfaces -- 400
- Ch. XX. Temporary collapsible surfaces -- 421
- Ch. XXI. Sod surfaces for airfields -- 428
- Ch. XXII. Planning unsurfaced landing strips -- 449

Part VI. Design and construction of airfield surfaces

- Ch. XXIII. Effect of aircraft on airfield surfaces -- 463
- Ch. XXIV. Problem of heaving in subsurfaces of airfields -- 487
- Ch. XXV. Design and construction of flexible surfaces -- 533
- Ch. XXVI. Planning the thickness of rigid (concrete) surfaces -- 554

Part VII. Planning airports in complex natural conditions

- Ch. XXVII. Planning airfields in areas of excessive moisture -- 623
- Ch. XXVIII. Special problems of planning airfields in arid regions -- 645

Part VIII. Surveying and drawing up plans for airports

Card 4/5

L 61859-65
AK4033657

- Ch. XXIX. Organization of surveys to determine airfield sites -- 658
- Ch. XXX. Preliminary survey for drawing up prospective site plans -- 663
- Ch. XXXI. Technical survey for drawing up a technical and working plan -- 669
- Ch. XXXII. Geodesic work in the surveys -- 673
- Ch. XXXIII. Engineering-geological surveys -- 684

SUB CODE: AC, GO

SUBMITTED: 16Jul63

NO REF SOV: 034

OTHER: 002

281
Card 3/3

MOGILEVSKIY, Dmitriy Aleksandrovich, dots.; BABKOV, Valeriy
Fedorovich, prof., doktor tekhn. nauk; SMIRNOV, Andrey
Sergeyevich, dots., kand. tekhn. nauk; ABRAMOV, Leonid
Tikhonovich, kand. tekhn. nauk; ZAYTSEV, Filipp
Yakovlevich, kand. tekhn. nauk; ZAPAKHAYEV, Mitrofan
Semenovich, prof., kand. tekhn. nauk; NIKITIN, Sergey
Mikhaylovich, inzh.; DEBERDEYEV, B.S., red.;
GALAFIYONOVA, Ye.N., tekhn. red.

[Survey and design of airports] Izyskaniia i proektirova-
nie aerodromov. [By] A. Mogilevskii i dr. Izd. 2. Moskva,
Avtotransizdat, 1963. 703 p. (MIRA 16:11)
(Airports--Design and construction)

NIKITIN, S. M.

Cotton Finishing

Extensive instillation of chloramine dressing. Part 2. Under conditions of production experience. Tekst. prom., 12, No. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, October 1956, 2 Incl.

NIKITIN, S. M.

Looms

Coordinated method for adjusting looms and pattern setting. Tekst., rom. 12 No. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

NIKITIN, Sergey Mikhaylovich; LARICHEV, V.I., red.; VINOGRADOVA, V.A.,
tekhn. red.

[Indices of industrial production in capitalist countries] Indeksy
promyshlennoi produktsii v kapitalisticheskikh stranakh. Moskva,
Gos. stat. izd-vo, 1958. 105 p. (MIRA 11:9)
(Industrial statistics)

NIKITIN, Sergey Mikhaylovich; RYABUSHKIN, T.V., doktor ekonom. nauk, prof.,
nauchnyy red.; SHENTISIS, Ye.M., red.; PYATAKOVA, N.D., tekhn. red.

[Criticism of the econometric theories of the "planning of a
capitalist economy"] Kritika ekonometrisheskikh teorii "planirovaniia"
kapitalisticheskoi ekonomiki. Moskva, Gosstatizdat, 1962. 148 p.

(MIRA 15:6)

(Economics, Mathematical) (Economic policy)

MIKIFIN, Sergey Nikolayevich, dotsent, kand.tekhn.nauk [deceased]; KAROL',
L.A., kand.tekhn.nauk, red.; SHIMEL'MITS, I.Ya., inzh., red.;
KRITSKIY, S.N., doktor tekhn.nauk, retsenzent; AYVAZYAN, V.G.,
prof., doktor tekhn.nauk, retsenzent; ALEKSANDROVSKIY, Yu.A.,
dotsent, kand.tekhn.nauk, retsenzent; ORLOV, V.A., red.; BORUNOV,
N.I., tekhn.red.

[Principles of calculations connected with hydroelectric power]
Osnovy gidroenergeticheskikh raschatov. Moskva, Gos.energ.izd-vo,
1959. 510 p. (MIRA 12:5)

(Hydroelectric power)

NIKITIN, S.N., inzh.

Determination of latent periods in deformations of pit borders.
Bezop.truda v prom. 2 no.10:7-10 0 '58. (MIRA 11:11)
(Mining engineering)

NIKITIN, S.N., inzh.

Using phonometric equipment for evaluating the stability of
open pit sides. Nauch.dokl.vys.shkoly; gor.delo. no.4:79-86
' 58. (MIRA 12:1)

1. Predstavleno kafedroy gornykh rabot i rudnichnoy ventilyat-
sii Magnotogorskogo gorno-metallurgicheskogo instituta imeni
G.I. Nosova.

(Strip mining) (Mine surveying) (Sound--Measurements)

TIKHOVIDOV, B.D.; NIKITIN, S.N.

Field of use of second-stage rotary compressors in gaseous
mines. Sbor. nauch.trud. KHGI 5:121-129 '58. (MIRA 14:4)
(Air compressors)
(Mining machinery--Pneumatic drives)

NIKITIN, S.N., inzh.

Evaluating the stability of open pit sides by means of a sound-measuring station. Izv.vys.nauch.zav.; gor.zhur. no.6:20-25 ' 58.
(MIRA 12:1)

1. Magnitogorskiy gornometallurgicheskiy institut.
(Strip mining) (Sound--Measurement)

NIKITIN, S.N., Cand Tech Sci -- (diss) "Recognition of the latent stage of deformation of the sides of open pits."

Magnitogorsk, 1959, 20 pp (Min of Higher Education

USSR. Magnitogorsk Mining Metallurgic Inst im G.I. Nosov)

150 copies (RL, 54-59, 11a)

- 47 -

NIKITIN, S.N., inzh.

Acoustical pressure charging of piston compressors. Ger. zhur.
no.9:41-42 S '61. (MIRA 10:7)

1. Khar'kovskiy gornyy institut.

(Compressors)

NIKITIN, S.N., dotsent

Study of slide faults in open pits. Izv. vys. uchen. zav.;
gor. zhur. 5 no.1:50-52 62. (MIRA 6:4)

1. Magnitogorskiy gornometallurgicheskiy institut imeni G. I.
Nosova. Rekomendovana kafedroy otkrytykh rabot Magnitogorskogo
gornometallurgicheskogo instituta.
(Strip mining) (Earth movements)

NIKTIN, S.N., kand.tekhn.nauk

Plotting the expected surface of slide according to the stresses in the pit sides. Ugol' 37 no.1:36-38 Ja '62.
(MIRA 15:2)

(Strip mining)

NIKITIN, S.N., kand.tekhn.nauk; TEREKHOV, V.F., gornyy inzh.; SHVETS,
N.Ya.

Stability of the slopes of the Magnitogorsk strip mine. Gor.zhur.
no.12:6-8 D '63. (MIRA 17:3)

1. Magnitogorskiy gornometallurgicheskiy institut (for Nikitin,
Terekhov). 2. Glavnyy marksheyder gornogo upravleniya Magnito-
gorskogo metallurgicheskogo kombinata (for Shvets).

NIKITIN, S.N., kand. tekhn. nauk; Dnepropetrovsk, Inst. inzh. tekhn. i arkh. nauch. tsentr. A.I., gornyy inzh.

Surface deformations of rock mass in the vicinity of
pit sides at the Donskoye Mining and Metallurgical Plant.
17-18 0 '64.

1. Magnitogorskiy kormulets (Dnepropetrovsk, Inst. inzh. tekhn. i arkh. nauch. tsentr. A.I., gornyy inzh. Naumov).

NIKITIN, S.O.; PROKHOROV, V.N.; VASYUKINA, P.M.; BAKAYEV, S.M.

Drying the base and heating the layers of rolled roofing
materials in carrying out roofing work during winter. Rats. 1
izobr. predl. v stroi. no.2:87-90 '57. (MIRA 11:1)
(Drying apparatus) (Roofing--Cold weather conditions)

NIKITIN, S.P.

NIKITIN, S.P.

14(1): 15(6) PHASE I BOOK EXPLOITATION SOV/1499
Teplekhnicheskii spravochnik, t. 2 (Heat Engineering Handbook, Vol. 2) Moscow, Gosenergoizdat, 1956. 672 p. 40,000 copies printed.

Compilers (All instructors of the Moscow Power Institute):
V.V. Lomitskiy, Doctor of Technical Sciences (Deceased);
Ye. Ya. Sobolev, Doctor of Technical Sciences (Deceased);
Director of Technical Sciences; M.I. Glazov, Candidate of Technical Sciences; N.Y. Lavrov, Doctor of Technical Sciences; A.M. Zhukov, Candidate of Technical Sciences; S.M. Golitskiy, Candidate of Technical Sciences; A.M. Sharstuyuk, Candidate of Technical Sciences; A.M. Shklyar, Candidate of Technical Sciences; S.P. Chistyakov, Candidate of Technical Sciences; Ye.G. Dudnikov, Doctor of Technical Sciences; M.I. Bartsh, Candidate of Technical Sciences; Ed.: I.I. Arsenushat; Tech. Ed.: K.P. Voronin, and G.Ye. Lariouov; Yds. of Set: S.G. Gerasinov, Professor; Ya.A. Eagan, Docent; P.D. Lebedev, Professor (Chief, Ed.) and V.V. Lomitskiy, Professor (Deceased).

Card 1/6

Heat Engineering (Con.)

SOV/1499

FOUR: This book is intended for students of power engineering and polytechnical vuzes. It may also be used by engineering and technical personnel engaged in the design, construction and operation of thermal equipment of thermoelectric power stations and industrial plants.

COVER: This is the second volume of a two-volume heat-engineering handbook compiled by a group of professors and docents of the Moscow Power Engineering Institute. This volume deals with thermo-electric power plants, heating and ventilating systems, industrial plant thermal equipment, heat measuring instruments and automatic control of thermal processes. Special chapters are devoted to the design, piping, installation, operation, brief information on the following subjects is given: heat-exchangers, evaporating and fractional furnaces, refrigeration systems and heat pumps, industrial furnaces, gas-turbines, transportation and storage of fuel gases, pumps, fans, compressors, hoisting and transporting mechanisms, and temperature, pressure and flow measuring instruments. Standard graphical symbols for heat-power plant equipment and instruments and also the letter symbols and corresponding dimensions of various engineering quantities are given. Changes in the GOST (All-

Card 2/6

NIKITIN, S.P., kand. tekhn. nauk, dots.

Calculating binetal cables. Rasch. na prochn. no.2:222-232
'58. (MIRA 12:2)

(Electric cables)

AUTHOR: Nikitin, S.P. (Eng. Ser.) SOV 91-58-9-230

TITLE: Adjustment of the commutation of a d.c. generator (Nastroyka kommutatsii generat'ora postoyannogo toka)

PERIODICAL: Promyshlennaya Energetika, 1958^{1/2} No. 9 pp. 8 - 11 (USSR)

ABSTRACT: An SSW d.c. generator of 650 kW, 260 V, 2500 A, 1000 r.p.m. had very bad commutation for a long time without evident cause. The steps that were taken to locate the cause of the trouble are described in detail. As part of the work curves of the sparkless zone of commutation were constructed, an example is given in Fig.1. A special method of doing this adapted to the available loading conditions is described. From examination of this curve it was concluded that a larger air gap was required under the interpoles and that the brush gear should be in the neutral position. The method of calculating the required interpole gap length is given. Iron packing pieces under the interpoles were then replaced by pieces of brass or copper, the brush gear was adjusted and the sparkless zone curve shown in Fig.2 was then determined. Commutation became entirely satisfactory. Oscillograms of section voltage on the commutator before and after adjustment are given in Figs 3 & 4. As the operation was entirely successful, another five generators of the same manufacture were adjusted in the same way. There are 4 figures.

ASSOCIATION: Energokhimprom

1. Generators of d.c. Equipment with commutator brushes

Card 1/1

NIKITIN, S.P., kand. tekhn. nauk

Investigating large shifts in flat spiral springs. Rascheta pruzhiny
no.1015-30 '64. (MIRA 1964)

NIKITIN, S.S.; YAKIMOV, P.I.; BEL'CHENOV, I.A.

Renovation of the covering of the frame of the Volynskaya
tor Plant. Prom.stroi. 41 no.3:6-8 Mr '64. (MIRA 1:1)

NIKITIN, S.S., inzh.; SHTERENZON, M.D., inzh.

Precision of making precast reinforced concrete columns on stands
has been increased. Prom.stroi. 38 no.2:31-32 '60.

(Columns, Concrete)

(MIRA 13:5)

S/137/61/000/111/1-6/123
A060/A101

AUTHOR: Kaplin, A. A., Nikitin, S. S.

TITLE: Assembly of steel structures in the erection of the housing of mill 2500

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 11, 1961, 16, abstract 11090
("Montazhn. i spetsializir. raboty v str-ve", 1961, no. 5, 9-13)

TEXT It is a report about the great variety of cranes used in the assembly of metal structures. According to the assembly plan for the metal structure, the entire housing of the mill was divided into 6 parts with assembly operations lasting 1.5 - 2.5 months for each part. Of special interest is the assembly of riveted crane arches with a 72-m span and weighing 700 tons each. As result of clear organization of the work and the complex mechanization, the efficiency in the assembly of the metal structure constituted 334 kg/day per worker and 1.8 m³ of preassembled reinforced concrete, which is considerably higher than the estimated norms. ✓

V. Pospelkov

[Abstracter's note: Complete translation]

Card 1/1

SPEKTOR, M.D., inzh.; WINITIN, S.S., inzh.; SAFONOVA, L.I., inzh.;
KOLESNICHENKO, V.V., inzh.

Potentials for increasing labor productivity in the assembly
of elements of industrial buildings. Mont. i spets. rab. v
stroitel'stve. 25 no.1:5-8 Ja '63. (MIRA 16:6)

1. Nauchno-issledovatel'skiy institut Akademii stroitel'stva i
arkhitektury SSSR i trest Uralstal'konstruktsiya.
(Industrial buildings--Design and construction)

NIKITIN, S.V.

Forging

Determination of amount of metal used in the process of hot die forging. Avt.
trakt. prom. No. 3, 1952.

9. Monthly List of Russian Accessions. Library of Congress, June 1952 ~~1953~~ Uncl.

NIKITIN, S.V.

Stamp forging steering knuckles for ZIS-150 trucks by the outflow
method. Avt.1 trakt.prom. no.11:24-26 N '55. (MIRA 9:2)

1.Nauchno-issledovatel'skiy institut inzhenernoy tekhniki Avtoprom.
(Sheet metal work)

NIKITIN, S.V.

Automatic turning of camshaft journals. Avt. i prem. no.11:
26-28 N '55. (MIRA 9:2)
(Metal working machinery)

NIKITIN, S. V.

137-58-5-9552

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 104 USSR.

AUTHOR: Nikitin, S. V.

TITLE: Model-testing the Forming Processes Occurring with Forgings of Complex Shape (Modelirovaniye protsessov shtampovki pokovok slozhnoy konfiguratsii)

PERIODICAL: Tekhnol. avtomobilstroyeniya, 1957, Nr 5, pp 31-44

ABSTRACT: The results of experimental extrusion of complex forgings (the steering knuckle of the ZIL-150 car) are presented. The general foundations of the conditions of model-testing and the model-testing of the forging of a knuckle are described. A drawing is presented of an original die, in which wire pick-ups recorded oscillographs of forging stresses, which were then analyzed. Also presented are drawings of standard auto forgings which should, it is proposed, be formed by extrusion.

P.S.

1. Metals--Forging 2. Forgings--Model test results 3. Forgings--Extrusion
4. Stress analysis 5. Metals--Extrusion

Card 1/1

SMUROV, A.M.; NIKITIN, S.V.

Forces needed for the extrusion of steering knuckles. Avt. prom.
27 no. 4:35-40 Ap '61. (MIRA 14:4)

1. Nauchno-issledovatel'skiy tekhnologicheskii institut avtomobil'noy
promyshlennosti.
(Metalwork) (Automobiles--Steering gear)

NIKITIN, S.P., prof.; MININ, L.S., st. prepod., red.

[Laboratory manual on the strength of materials; Laboratornyi praktikum po soprotivleniiu materialov. 3. izd. Moskva, Mosk. energet. inst. 1964. 115 p.

(SIRA 18:12)

L 37794-66

EWT(d)/EWT(1)/EEC(k)-2/EWP(c)/EWP(v)/T/EWP(k)/EWP(1) IJP(c)

ACC NR: AP6028839

SOURCE CODE: UR/0237/66/000/004/0023/0029

AUTHOR: Puryayev, D. T.; Krivovoyaz, L. M.; Kameneva, P. A.; Nikitin, S. V.;
Butenko, V. M. 49

ORG: none 4

TITLE: Interferometer for inspecting the quality of second order aspherical surfaces of revolution

SOURCE: Optiko-mekhanicheskaya promyshlennost', no. 4, 1966, 23-29

TOPIC TAGS: quality control, optic equipment component, optic instrument, industrial instrument, light reflection

ABSTRACT: The authors describe a Twyman interferometer with a modified working section consisting of the objective lens, the aspherical second order surface to be tested and a spherical mirror. The wave produced by reflection is deformed by four times the magnitude of distortion in the shape of the aspherical surface. The operating principle and optical system of the interferometer are described with the help of diagrams, and some of the design features are discussed. The instrument may be applied in theory to inspection of all types of second order surfaces, although it is basically designed for quality control of concave elliptical, hyperbolic and parabolic as well as convex hyperbolic surfaces. A table is given showing the limiting parameters of surfaces which may be inspected on this instrument. Tests of the experimental model indicate that work should be done on developing an instrument of this type for use under industrial conditions. Orig. art. has: 5 figures, 11 formulas and 1 table. JPRS: 36.5817

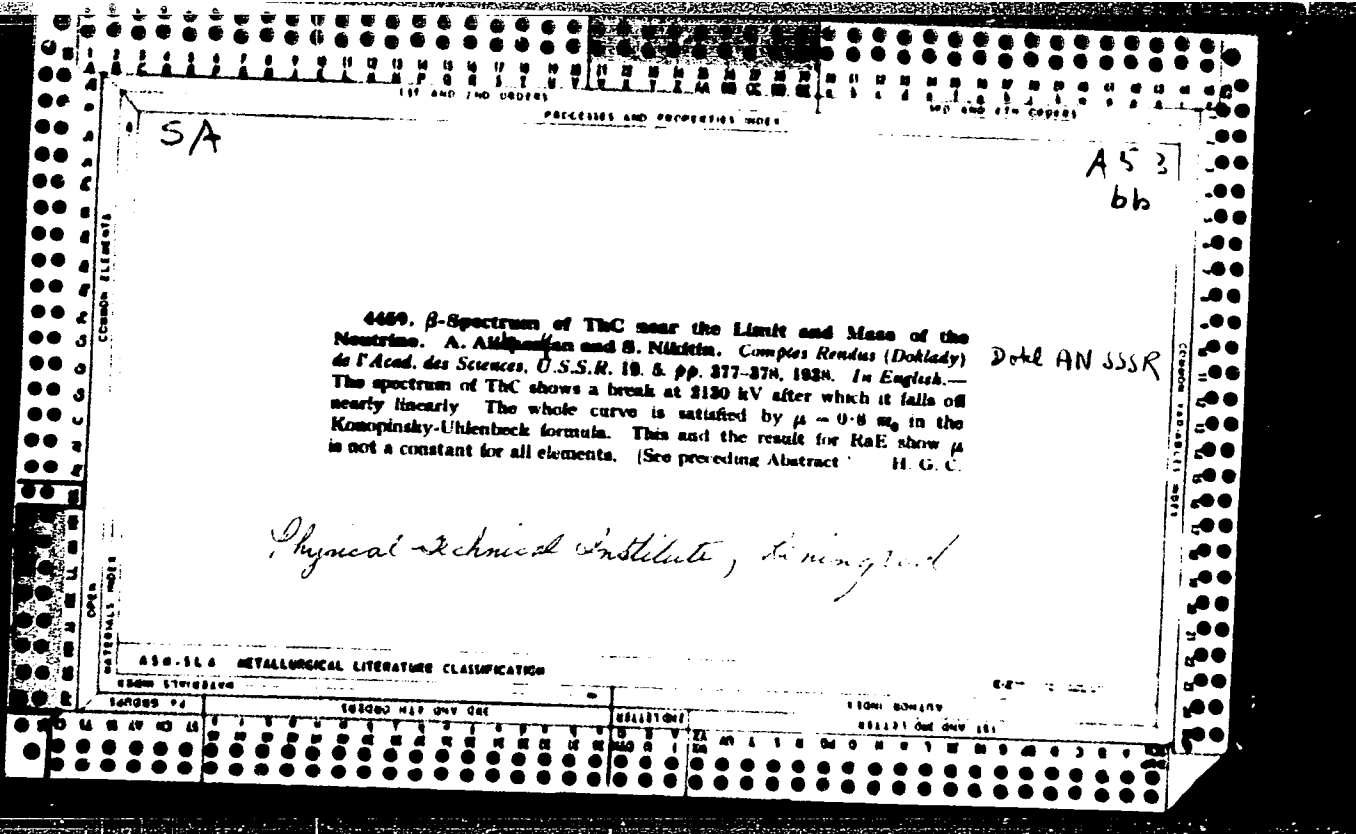
SUB CODE: 17, 05 / SUBM DATE: 20Apr65

Card 1/1 Mh

UDC: 531.715.1

0977

2358



1ST AND 2ND ORDERS 3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

bc A-1

β -Ray spectrum of Ra-C and energy levels of excitation of Ra-C' nucleus. A. L. ALIPIANIAN and S. J. NIKITIN (Compt. rend. Acad. Sci. U.R.S.S., 1938, 21, 28-30).—The β -ray spectrum of Ra-C is studied in the range 300—3175 e.kv. by the magnetic focusing method, and consists of two elementary spectra with upper limits of 3175 and 1600 e.kv. (cf. Ellis and Mott, A., 1933, 1100). F. J. L.

Dokl. AN SSSR

COMMON ELEMENTS

OPEN

MATERIALS INDEX

ASS. S.S.A. METALLURGICAL LITERATURE CLASSIFICATION

FROM SUMMARY

100000 00 100000 MAY 00V 000 10000000 10000000 00V 000

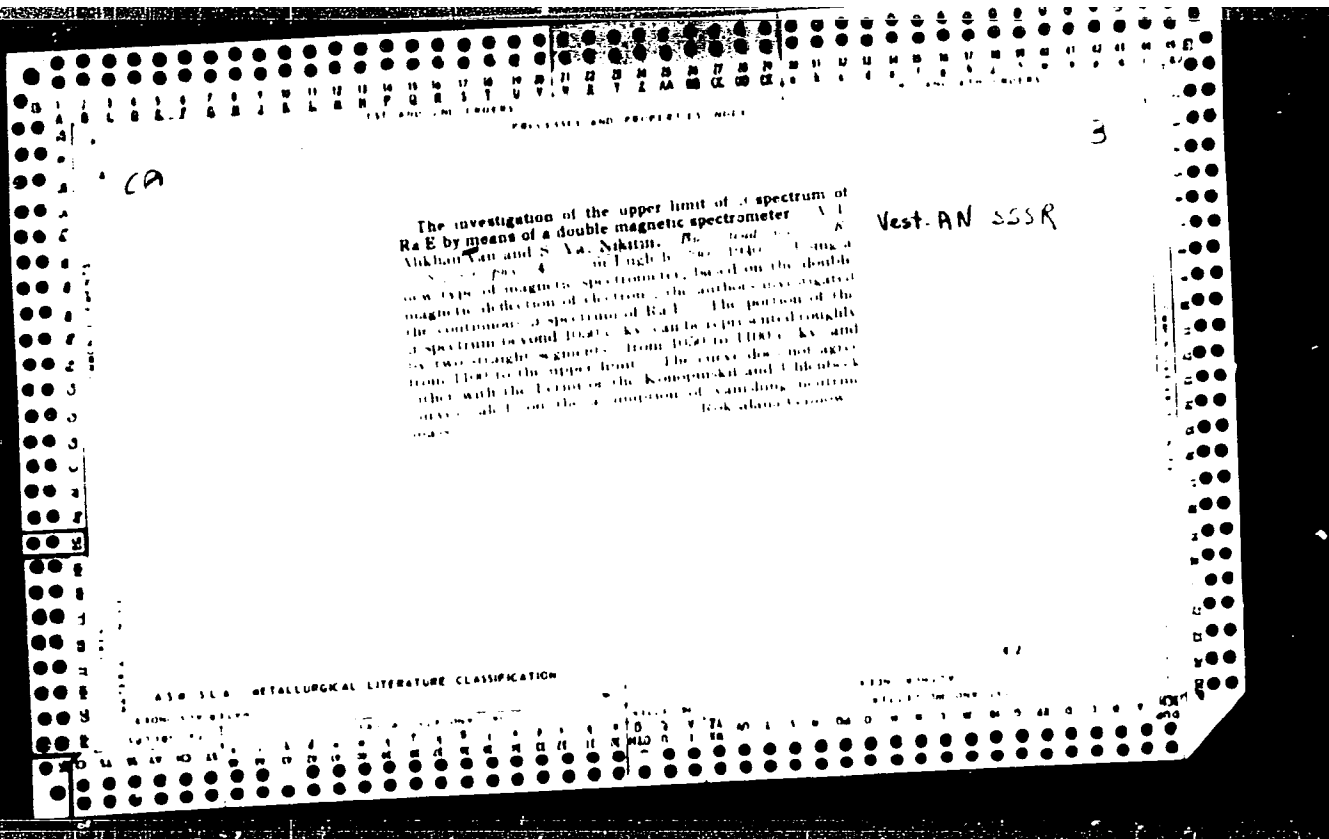
NIKITIN, N.Ya. and ALIKHANYAN, A.I.
Physico-Technical Institute, Leningrad.

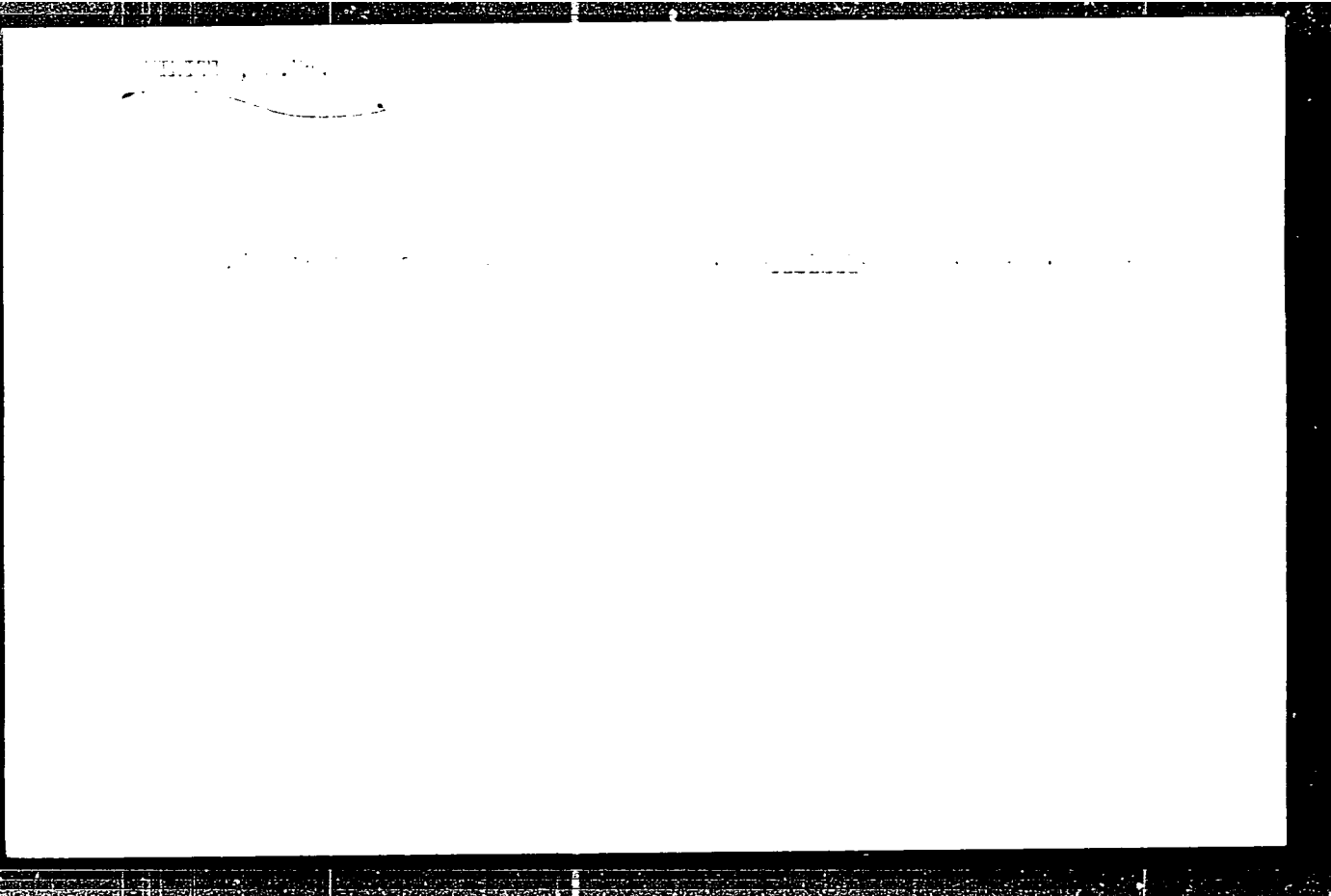
The authors are grateful to the Ministry of Higher Education of the USSR for the financial support of their work.

3

Investigation of the β -spectrum of Ra E near its upper
limit by means of a double magnetic spectrometer A
I. Altkhan'yan and S. Ya. Nikitina. *J. Phys. U.S.S.R.* Zhur. Fiz.
3, 243-60(1940)(in English).—See C. I. 55, 3895
R II

Luzko-Lokhanchikov Institute U.S.S.R., Leningrad





zika

NIKITIN, S. Ya.

"On the Highly Ionizing Particles in the Soft Component of Cosmic Rays,"
Zhur. fiz., ~~66~~, No. 1, Vol. IX, 1945 p. 51

Phys. Tech. Inst., AS USSR

NIKITIN, S. Ya.

"Highly Ionizing Particles in Soft Component of Cosmic Rays," Zhur. fiz., p.167,
No.3, Vol. IX, 1945

NIKITIN, S. Ya.

"An Investigation of the Absorption of Cosmic Rays in a Strong Magnetic Field
at 3250 Meters Above Sea Level," Zhur. fiz., 10, No.3, 1946

Inst. Phys. Problems, AS USSR

NIKITIN, S.

PA 13T91

USSR/Particles
Ionization

Feb 1947

"Investigation of the Ionization Spectra of Cosmic-ray Particles and the Existence of Particles With Mass Between the Mesotrons and Protons," S. Nikitin, 3 pp

zhurn. Fiz
"Jour Physics USSR" Vol XI, No 2

Further investigation of the ionization power of cosmic-ray particles begun in 1944. Measurements by two groups of self-quenching Geiger-Mueller counters.

13T91

USSR/Nuclear Physics - Cosmic Radiation Jul 48
Nuclear Physics - Particles, Elementary

PA 9/49T77

"The Existence of Particles Having Mass Larger
Than the Mass of Mesotrons," S. Ya. Nikitin,
Acad Sci USSR, 26 pp

"Zhur Eksper 1 Teore Fiz" Vol XVIII, No 7

Apparatus was developed and studies made on ionizing
ability of cosmic ray particles at 3,200 m above
sea level. Among soft components, three groups
were detected whose ionizing ability was greater
than that of mesotrons. Based on their ionizing
ability and trajectory, estimates were made of

9/49T77

USSR/Nuclear Physics - Cosmic Radiation Jul 48
(Contd)

their mass. Data obtained was as follows: 300-
500, 700-1,100, and 2,000-3,500 m. Number of
these particles was only about 15% of number of
mesotrons.

NIKITIN, S. YA.

9/49T77

NIKITIN, S.

USSR/Nuclear Physics - Ionization

21 Jun 53

"Dependence of Relative Primary and Full Ionization of μ -mesons on energy," G. P. Yeliseyev, V. K. Kosmachevskiy and V. A. Lyubimov

DAN SSSR, Vol 90, No 6, pp 995-998

Criticize previous works by Western scientists as unreliable; and present spectra, obtained by two different methods, of, respectively, primary (cf. S. Nikitin, ZhETF 18 (1948)) and full ionization for μ -mesons and a method for analyzing measurements of ionization, which authors consider most accurate. Indebted to A. I. Alikhanov and A. S. Kronrod. Presented by Acad A. I. Alikhanov 22 Apr 53

269T90

Nikitin, S. Ya.

USSR/ Nuclear Physics - Proton dispersion

Card 1/1 Pub. 22 - 22-63

Authors : Selector, Ya.M.; Nikitin, S. Ya.; Bogomolov, E.G.; and Zombkovskiy, S.M.

Title : Dispersion of protons with protons of 460-560-660 Mev of energy

Periodical : Dokl. AN SSSR 99/6, 967-970, Dec 21, 1954

Abstract : Experiments were conducted with proton dispersion by protons of 460, 560, and 660 Mev of energy. The phasetron of the Institute of Nuclear Problems was used as a proton generator. Proportional counters and a plain counter were used as proton registering devices. Paraffine and carbon discs were used as a diffuser and a carbon controlling diffuser, respectively. The experimental set-up and the equipment is described. The results obtained are presented in the form of graphs. Eight references; 1-USSR (1950-1954). Diagrams; graph.

Institution:

Presented by: Academician A.I. Alikhanov, November 4, 1954

NIKITIN, S. Ya.; GALANINA, H. D.; IGNAT'YEV, K. G.; OKOROKOV, V. V.; SUKHORUCH-
KIN, S. I.

[Measuring total neutron cross sections of isotopes in uranium-233, uranium-235, plutonium-239 by the flickering beam method]
Izmerenie polnykh neitronnykh sechenii izotopov urana-233, urana-235, plutoniia-239 metodom migaiushchego puchka; doklady, predstav-
lennye SSSR na Mezhdunarodnuiu konferentsiiu po mirnomu ispol'zo-
vaniu atomnoi energii. Moskva, 1955. 10 p. [Microfilm]

(Nuclear physics) (Uranium) (Plutonium)

(MIRA 9:3)

MINI, T. Y., M. A. J. ., M. ALL A.A.

"number of mission ... per ... capture ... chemical ... in ...
... and ...", ...
... Geneva, Switzerland, ...

W. H. R.
... ..

"A heavy-water ..."
... ..

ALIKHANOV, A.I.; VLADIMIRSKIY, V.V.; NIKITIN, S.Ya.

[Measuring the effective number of secondary neutrons in U^{233} , U^{235} , and Pu^{239} in the thermal energy region of neutrons] Izmerenie effektivnogo chisla vtorichnykh neutronov urana-233, urana-235 i plutoniia-239 v oblasti teplovykh energii neutronov. Moskva, 1955. 11 p. (Doklady predstavlennye SSSR na Mezhdunarodnuiu konferentsiiu po mirnomu ispol'zovaniyu atomnoi energii) (MIRA 14:7)
(Neutrons—Capture) (Uranium—Isotopes) (Plutonium—Isotopes)

NIKITIN, S. Ya.; SMOLYANKIN, V. T.; KOLGANOV, V. Z.; LEBEDEV, A. V.; LOMKATSI,
G. S.

[Dispersion of slow neutrons into ortho- and para-deuterium] Ras-
seianie medlennykh neutronov na orto- i para-deiterii; doklady,
predstavlenyye SSSR na Mezhdunarodnuu konferentsiiu po nizkoi
ispol'zovaniu atomnoi energii. Moskva, 1955. 12 p. [Microfilm]
(Deuterium) (Nuclear physics) (MLRA 9:3)

ALIKHANOV, A.I.; VLADIMIRSKIY, V.V.; NIKITIN, S.Ya.; GALANIN, A.D.;
GAVRILOV, S.A.; BURGOV, N.A.

[Heavy water experimental reactor for physical research] Opytnyi
fizicheskii reaktor s tiazhelei vodoi. Moskva, 1955. 15 p.
(MIRA 14:7)

(Deuterium oxide)

(Nuclear reactors)

NIKITIN, S. Y., SMOLYANKIN, V. T., KOLGANOV, V. Z., IEREDV, A. V. and LOMKASY, G. S.

"Scattering of Slow Neutrons by Ortho- and Para-Deuterium," a paper presented at the Atoms for Peace Conference, Geneva, Switzerland, 1965

NIKITIN, S. Ya.

5-1-1950

The effective number of secondary electrons as a function of the energy of the captured primary electrons. I. S. Ya. Nikitin, A. I. Babitskiy, K. G. Izrael'ev, and N. D. Pletchinskii. *Soviet Atomic Energy, Ser. B, Nucl. Sci. Sect. B*, 1955, 87-99 (English summary 106-7).—The results of measurements of the capture of slow neutrons by the transistor method and of the fission by counting the secondary electrons were used to det. the energy function of secondary electrons ν_{eff} . $\nu_{eff} = \nu \sigma_f / \sigma_c$, where ν = the no. of secondary electrons in the act of fission, σ_f and σ_c are the fission cross section and the capture cross section, resp. A 128-channel neutron time-of-flight selector was used together with a cyclotron. ν , σ_f , and ν_{eff} were measured in the energy interval from 0.0084 to 11.33 e.v.; the neutrons were traced by aid of a ZnS screen with an Ag activator.

Both σ_f and σ_c show a no. of resonances. For several levels the fission width Γ_f and the radiation width Γ_γ were detd.; the Γ_f showed wide variations. The method used to find ν_{eff} does not take into consideration any self-shielding of the sample, thus the value ν_{eff} could be obtained as the av. for several resonance levels. The ratio ν_{eff}/ν_{th} for the thermal region varies for different groups of resonances for U^{235} 0.85-1.08, for U^{238} 0.8-0.9, for Pu^{239} 0.85-1.15. II. S. Ya. Nikitin, P. A. Krupchitskii, and V. P. Belkin. *Izv. Akad. Nauk S.S.S.R. Ser. Fiz. Mat. Nauk*, 1955, 99-106 (English summary, 107).—The ratio of the ν_{eff} for neutrons of intermediate energies to that for the thermal energies was measured for U^{235} . The intermediate energy spectrum contained neutrons from 0.5 to 1000 e.v. This spectrum was obtained by a neutron-energy transformer consisting of a D_2O tank and a B-lab lattice. A U block at the bottom of the tank served as source of neutrons. It was irradiated by thermal neutrons from the vertical exptl. channel of the D_2O research reactor. The tank also contained neutron detectors, i.e. fission chambers lined with U^{235} and a proportional counter lined with B. During the measurements the fission chamber was shielded by cylindrical B filters and the counter by U^{235} filters. The thermal neutron spectrum was obtained in the tank after removal of the B-lattice. The ratio $\nu_{eff}^{measured}/\nu_{eff}^{theory}$ was 1.02 ± 0.03 . The excess of the fission cross section of U^{235} was 3.32 ± 0.02 .

W. J. (S)

ML

NIKITIN, S. Ya

1100f-RML

Med

4

1972
THE SCATTERING OF PROTONS WITH ENERGIES 400-600 MEV ON PROTONS S. Ya Nikitin, Ya M. Selezor, E. O. Bogomolov, and S. M. ~~...~~ (Academy of Sciences of the U.S.S.R., Moscow). Nuovo cimento (10) 5, 1269-81 (1955) Dec. (in English)

(p-p) scattering is studied with protons obtained from the synchrocyclotron of the Institute for Nuclear Problems of the Academy of Sciences of the USSR. The scattering cross section and the angular distribution have been measured in the interval of energies from 400 up to 600 Mev. The results show that practically up to proton energies of 460 Mev the scattering cross section is isotropic. In the interval 500 to 640 Mev it is markedly anisotropic. A discussion of the results obtained is given. (auth)

Emly

NIKITIN, S. Ya.

See Scattering of protons by protons of 460-660 m.e.v. energy. S. Ya. Nikitin, Ya. M. Selektor, E. G. Bogomolov, and S. M. Zolotarevskii. *Bull. Acad. Sci. U.S.S.R.* 19, 503-17(1955) (Engl. translation) —See C.A. 50, 7815i.
B. M. B.

5/9/1957
4
MS

VLADIMIRSKIY, V.V.; KOMAR, Ye.G.; MINTS, A.L.; GOL'DIN, L.L.; KOSHKAREV,
D.G.; MONOSZON¹, N.A.; NIKIFIN, S.Ya.; RUBCHESKIY, S.M.; SKACH-
KOV, S.V.; STEEL'TSOV, N.S.; TARASOV, Ye.K.

Basic characteristics of the projected 50-60 Bev proton accelera-
tor with alternating-gradient focusing. Atom.energ. no.4:31-33
'56. (MLRA 9:12)

(Particle accelerators) (Protons)

NIKITICH, S.I.

9-111

✓ Number of fission neutrons per captured thermal neutron
 in uranium-233, uranium-235, and plutonium-239. A. I.
 Alikhanov, V. V. Vladimirov, and S. I. Nikitich (Acad. Sci.,
 U.S.S.R.) *Proc. Intern. Conf. Peaceful Uses Atomic Energy,*
Geneva, 1955 4, 301-4 (1956), cf. preceding and following
abstrs.—By using a heavy-water reactor implantation
 method for U²³³, U²³⁵, and Pu²³⁹ the respective ν_{eff} values
 were 2.36, 2.12, and 2.03 in the complete lattice and 2.44,
 2.12, and 2.08 (uncor. for Pu²⁴⁰) when a 35-cm. radius "ther-
 mal pit" free of U²³⁸ was left around the exptl. channel.

3

Jack L. Balluff

emb

R. K. T. W. 5. 571

GRIGORYEV, V.K., NIKITIN, S.Ya., PUSHKIN, Ye.V., TREBUNOVSKIY, Ye.,
VIKHNEVSKIY, M.Ye., YERGAKOV, V.A. (Acad. Sci. USSR)

"Polarization of Electrons in the β -Decay."

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

RUSSIAN SA.

DIATROPTOV, D.B., KOLGANOV, V.Z., LEBEDEV, A.V., MIKHIL, S.Ya.,
SMOLYANKIN, V.T., And SOKOLOV, A.P., (Acad. Sci. USSR)

"Slow Neutrons Scattering by Ortho- and Para-Tritium."

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

NIKITIN, S. Ya., BOGOMOLOV, E.G., ZO'BKOVSKIY, S.M., SELEKTOR, Ya.M.

"Elastic Scattering of Protons with an Energy of 660 MeV by Protons at Small Angles," paper presented at CERN Symposium, 1956, appearing in Nuclear Instruments, No. 1, pp. 21-30, 1957

VLADIMIRSKIJ, V.V.; KOMAR, Je.G.; MINC, A.L.; GOL'DIN, L.L.; KOSKAREV, D.C.;
MONOSZON, N.A.; NIKITIN, S.Je.; RUBCINSKIJ, S.M.; SKACKOV, S.V.;
STREL'COV, N.S.; TRASOV, Je.K.; MEDONOS, S., inz. [translator]

Main characteristics of the planned proton accelerator for 50-60
BeV energy with sharp focusing. Jaderna energie 3 no.2:56-57 F '57.

NIKITIN, S. Y., YERCAKOV, V. A., GRIGOR'YEV, V. K., VISHNEVSKIY, M. S.,
E. V. PUSHKIN, and TREBURNOVSKIY, Ye. V., AS USSR, Moscow

"On the Polarization of Electrons, in β -Decay," Journal
of Nuclear Physics, Amsterdam, No. 4, pp. 246-247, 1957.

SOV-120-5-1-4/83

AUTHORS: Kolganov, V. L., Lobodov, A. V., Nikitin, S. Ya. and
Smolyankin, V. T.

TITLE: A Liquid Hydrogen Bubble Chamber (Zhidkovodorodnaya
puzyr'kovaya kamera)

PERIODICAL: Priroda i Tekhnika Eksperimenta, 1958, Nr 1, p 51-54
(USSR)

ABSTRACT: The construction of a working liquid hydrogen bubble chamber is described. The volume is 1 litre and the diameter 10 cm. The chamber was designed as a pilot experiment to obtain information which would be useful in the design of a much larger one. A section through the chamber is shown in Fig.1. The working volume of the chamber and the hydrogen reservoir are completely separated. The closed working volume of the chamber is surrounded by a hydrogen bath connected to the hydrogen reservoir. In this way good screening of the chamber from thermal radiation is achieved and the problem of temperature stability is simply resolved by the stabilisation of the pressure in the reservoir. An important feature of the chamber is the method of mounting of the glass

Card 1/3

SOV-120-58-1-4/43

A Liquid Hydrogen Bubble Chamber.

walls of the chamber. This is illustrated in Fig.2. The Pyrex windows are mounted on copper washers as shown in the latter figure and this was found to be very satisfactory. The method of illumination is described and is illustrated in Fig.3. A typical oscillogram of the working cycle is shown in Fig.4. The chamber can be kept at the lower pressure for 30 to 40 milliseccs but this time can be varied. The re-establishing of the pressure to the upper value takes approximately 15 milliseccs. Normally, the upper pressure is 7 atm and the lower 3 atm. A series of photographs was also taken with pressure reductions down to 1 to 2 atm. Special experiments have shown that the sensitive time is not less than 40 milli secs. The repetition frequency of the working cycle is about 7 to 10 cycles per minute. Fig.5 shows a photograph of tracks obtained in the neutron beam of a synchrocyclotron obtained in studies of Υ -meson formation in n-p collisions. The following persons collaborated: A. N. Yersnov, N. A. Zubkov, V. A. Beketov, Ye.F. Lokhanova,

Card 2/3

SOV-120-58-1-4/43

A Liquid Hydrogen Bubble Chamber.

N. I. Makarov, A. P. Sokolov, G. S. Lomkatsi, G. I. Blinov
and Yu. S. Krestnikov. There are 5 figures, no tables and
9 references, of which 6 are English, 3 Soviet.

SUBMITTED: July 3, 1957.

1. Bubble chambers--Design
2. Bubble chambers--Materials
3. Bubble chambers--Performance
4. Hydrogen (Liquid)--Applications
5. Neutrons--Detection

Card 3/3

SOV-120-56-1-6/43

AUTHORS: Belonogov, A. V., Zel'dovich, A. G., Kolganov, V. Z.,
Landsberg, L. G., Lebedev, A. V., Nikitin, S. Ya.,
Smolyankin, V. T., Sokolov, A. P.

TITLE: A Photographic Setup for Large Hydrogen Bubble Chambers
(Sistema fotografirovaniya dlya bol'shikh vodorodnykh
puzyr'kovykh kamer)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1958, Nr 1, pp 38-41
(USSR)

ABSTRACT: A photographic setup for hydrogen bubble chambers of large dimensions is quite different from that for Wilson and diffusion chambers. In particular, a gas bubble in liquid hydrogen scatters light mainly in the forward direction, most of it between 0 and 10°, say (cf Fig.1) so that it is impossible to photograph the tracks at 90° to the incident light as is done in the usual chambers. For small bubble chambers the photographs may be taken with direct transmission in which the source of light is on the one side of the chamber and the photographic camera on the other (Refs.3-5). However, it is very difficult to use this system with a large hydrogen chamber since it is desirable not to employ large glasses as it is difficult to mount these on the main body of the chamber. The present

Card 1/3

SOV-120-58-1-6/43

A Photographic Setup for Large Hydrogen Bubble Chambers.

authors have therefore developed a method of illuminating and photographing on one side of the chamber only. This method was tried on the working hydrogen chamber described in Ref. 5 (this issue) and is shown in Fig. 2. The back wall of the chamber was in the form of a spherical mirror, at the centre of curvature of which the source of light was placed. The light reflected from this mirror is focussed back again at the source and does not enter the objective of the photographic camera (B in Fig. 2). The light which after reflection is scattered by the bubbles does enter the photographic camera and gives rise to the track images (Fig. 3, facing p. 39). The main disadvantage of this method is that in addition to the real images one gets the virtual images as well but these can be recognized by inspection or by a measurement of track co-ordinates by means of 2 stereo-photographs (the virtual image lies behind the mirror). A calculation of the scattered light as a function of angle

Card 2/3

SOV-120-58-1-6/43

A Photographic Setup for Large Hydrogen Bubble Chambers.

the result of which is shown in Fig.1, is given in a mathematical appendix. There are 5 diagrams, no tables and 7 references, of which 4 are English and 3 Soviet.

SUBMITTED: June 3, 1957.

1. Bubble chambers--Equipment
2. Particles--Photographic analysis
3. Photography--Applications

Card 3/3

19/12 - 01-10-1950

AUTHORS: Koljanzov, V. Z., Lebedev, A. V., Mikheev, G. Y.,
Sokoljankin, V. T. and Sobolev, A. P.

TITLE: A Liquid Deuterium Bubble Chamber (Puzyn'nyj kamera s
zhidkim deuterijem)

PERIODICAL: Fizika i matematicheskie nauki, 1950, no. 4, p. 50 and
1 plate (USSR)

ABSTRACT: In Ref. 1 the authors described a method by which it was
made to discover whether it is possible to use deuterium as a
liquid in the chamber. Two difficulties were kept
in mind. First, it was supposed that the presence of β -active
tracer in the chamber (10⁻⁸ to 10⁻⁹%) could lead to a large
number of short tracks in the liquid and thus produce a con-
siderable background. Experiments conducted in a liquid
chamber have been unsuccessful precisely for this reason
(Ref. 2). Secondly, the critical pressure of deuterium
(15.5 atm) is considerably higher than the critical pressure
for hydrogen (12.8 atm). It is well-known (Ref. 3) that the

Card 1/3

SOV/120-58-4-6/30

A Liquid Deuterium Bubble Chamber

normal superheating of the liquid is effected [takes place] when the pressure in the chamber up before expansion is equal to two-thirds of the critical pressure. This condition may be easily satisfied if the chamber and the bath is filled with liquid deuterium. However, if the bath is filled with liquid hydrogen and the chamber with liquid deuterium, then it is impossible to obtain pressures greater than 8 atm in the chamber. For this reason it was feared that on expansion the superheating of the deuterium would be insufficient and the liquid would be insensitive to radiation. Experiments made to elucidate all these points have shown that it is possible to use deuterium as the working liquid in the bubble chamber without any special purification. The construction and operation of the deuterium chamber is similar in many ways to that of the hydrogen chamber. The bath was cooled down to liquid nitrogen temperature and was filled with liquid hydrogen. The chamber was then filled with technical deuterium which was not specially purified to remove tritium. The pressure in the hydrogen bath was increased to 12.4 atm and was kept at that level. After the thermal equilibrium between the chamber and the bath was

Card 2/3

SOV/120-58-4-6/30

A Liquid Deuterium Bubble Chamber

reached, an expansion of the working volume was carried out. In the absence of radioactive sources in the vicinity of the chamber no tracks or bubbles appeared in the working volume. When a Co^{60} source was placed near the chamber, pictures similar to that shown in Fig. 1 were observed after expansion. L.G. Landsberg and N.I. Makarov are thanked for their help in the experiment. There is 1 figure, no tables and 3 references, 2 of which are Soviet and 1 English. The authors also express their thanks to B.N. Dmitrievskaya, director of the hydrogen liquefaction station of the Laboratory of Nuclear Physics Problems (Laboratoriya yadernykh problem) of OIYAI, and to N.B. Delone who supplied the deuterium.

SUBMITTED: October 26, 1957

Card 3/3

NIKITIN, Sergey Ya.

"Automatic Measuring Device for Bubble Chamber Picture Data Reduction"

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

Institute of Theoretical and Experimental Physics, Moscow, USSR

VLADIMIRSKIY, V.V.; NIKITIN, S.Ya.

International conference on high-energy accelerators and
devices. Prib.i tekhn.eksp. no.1:147-150 Ja-F '60.
(MIRA 13:6)
(Particle accelerators) (Cloud chambers)

S/120/61/000/001/009/062
E032/E114

AUTHORS: Aynutdinov, M.S., Zombkovskiy, S.M., Nikitin, S.Ya.
and Selektor, Ya.M.

TITLE: A 25 cm Diameter Liquid Hydrogen Bubble Chamber

PERIODICAL: Pribory i tekhnika eksperimenta, 1961, No.1, pp.35-39

TEXT: A description is given of a liquid hydrogen bubble chamber having a working diameter of 25 cm and a depth of 10 cm. The chamber is operated in a constant magnetic field of 14000 oe (5% uniformity over working region). The expansion is carried out by means of stainless steel bellows, 10 cm in diameter. About 12 litres of liquid hydrogen are necessary in order to cool the chamber from the liquid nitrogen temperature to the liquid hydrogen temperature. The time necessary to cool the chamber from room temperature down to 20 °K is about 24 hours, and under dynamic conditions (expansion after each 14 sec) the liquid hydrogen consumption is 2 to 2.5 litres/hour. The upper and lower pressure on expansion is 5.5 and 1.5 atm respectively. The corresponding temperature of the chamber and the hydrogen bath is 27 °K and 26.5 °K, respectively.

Card 1/2

S/120/61/000/001/009/062
EC32/E114

A 25 cm Diameter Liquid Hydrogen Bubble Chamber

The bubble chamber has been used in the π -meson beam of the 7 GeV machine of the Joint Institute of Nuclear Studies, (Ob'yedinennyi institut yadernykh issledovaniy). A detailed sectional drawing of the device is given.

Acknowledgements are expressed to V.A. Beketov and A.P. Besschetniy for developing parts of the chamber and to V.T. Smolyankin and A.A. Sokolov for valuable advice. There are 4 figures and 4 references: 1 Soviet and 3 non-Soviet.

SUBMITTED: February 5, 1960

Card 2/2

S/120/61/000/002/001/042
E032/E114

AUTHOR: Nikitin, S.Ya.
TITLE: Modern methods of analyzing bubble chamber photographs.
(A review)

PERIODICAL: Pribory i tekhnika eksperimenta, 1961, No.2, pp. 5-13

TEXT: This is a review article based on 8 published references. The review begins with the description of the UCRL apparatus described by H. Bradner and F. Solmitz (Ref.1) and the CERN apparatus described by J. Goldschmidt-Clermont, G. von Dardel et al. (Refs. 2-4). Two Soviet devices are briefly described. They are the projector with automatic track following developed at the Institut teoreticheskoy i eksperimental'noy fiziki AN SSSR (Institute of Theoretical and Experimental Physics, AS USSR) under the direction of S.Ya. Nikitin and V.N. Moiseyev. The second instrument is the projector at the Ob'yedinennyy institut yadernykh issledovaniy (Joint Institute for Nuclear Research) which was developed by S.M. Korenchenko's group. These instruments have been described in the Proceedings of the

Card 1/2

S/120/61/000/002/001/042
E032/E114

Modern methods of analysing bubble chamber photographs. (A review)
International Conference on High Energy Accelerators and
Instrumentation (CERN 1959).

There are 9 figures and 8 English references (two of Soviet
origin).

SUBMITTED: January 21, 1961

Card 2/2

AYNUTDINOV, N. S.; NIKITID, S. Ya.; SELEKTOR, Ya. M.; ZOMKOVSEY, S. M.

"Investigation of Resonance States in Df - Ne²⁰ System."

Report presented at the Int. Conference on High Energy
Physics, Genova, 4-11 July 1962

NIKITIN, S. YA.

95

8/089/62/013/006/019/027
B102/B186

AUTHORS: G. T. and M. R.

TITLE: Nauchnaya konferentsiya Moskovskogo inzhenerno-fizicheskogo instituta (Scientific Conference of the Moscow Engineering Physics Institute) 1962

PERIODICAL: Atomnaya energiya, v. 13, no. 6, 1962, 603 - 606

TEXT: The annual conference took place in May 1962 with more than 400 delegates participating. A review is given of these lectures that are assumed to be of interest for the readers of Atomnaya energiya. They are following: A. I. Leypunskiy, future of fast reactors; A. A. Vasil'yev, design of accelerators for superhigh energies; I. Ya. Pomeranchuk, analyticity, unitarity, and asymptotic behavior of strong interactions at high energies; A. B. Migdal, phenomenological theory for the many-body problem; Yu. D. Fifevskiy, deceleration of medium-energy antiprotons in matter; Yu. M. Kogan, Ya. A. Iosilevskiy, theory of the Mössbauer effect; M. I. Ryazanov, theory of ionisation losses in nonhomogeneous medium; Yu. B. Ivanov, A. A. Rukhadse, h-f conductivity of subcritical plasma;

Card 1/4

36

S/O89/62/013/006/019/027
B102/B186

Nauchnaya konferentsiya...

Ye. Ye. Lovetskiy, A. A. Rukhadze, electromagnetic waves in nonhomogeneous plasma; Yu. D. Kotov, I. L. Rozental', the origin of fast cosmic muons; Yu. M. Ivanov, muon depolarization in solids; V. G. Varlamov, Yu. M. Grashin, B. A. Dolgoshein, V. G. Kirillov-Ugryumov, V. S. Roganov, A. V. Samoylov, μ^- capture by various nuclei; V. S. Demidov, V. G. Kirillov-Ugryumov, A. K. Ponomov, V. P. Protasov, F. M. Sergeev, scattering of π^- mesons at 5 - 15 Mev in a propane bubble chamber; S. Ya. Nikitin, M. S. Aynutdinov, Ya. M. Selektor, S. M. Zombkovskiy, A. F. Grashin, muon production in π^+p interactions; B. A. Dolgoshein, spark chambers; N. G. Volkov, V. K. Lyapidevskiy, I. M. Obodovskiy, study of operation of a convection chamber; K. G. Finogenov, production of square voltage pulses of high amplitudes; G. N. Aleksakov, problems of color vision; V. K. Lyapidevskiy, relation between number of receivers and number of independent colors; Ye. M. Kudryavtsev, N. N. Sobolev, M. I. Tizengausen, L. N. Tunitskiy, F. S. PAYSULOV, determination of the moment of electron transition of oscillator forces and the widths of the Schumann-Runge bands of molecular oxygen; B. Ye. Gavrilov, A. V. Zharikov, V. I. Rayko, decomposition of the volume charge of intense ion beams; Ye. A. Kramer-Ageev, V. S. Troshin, measurement of neutron spectra; G. G. Doroshenko, new methods of fast-neutron recording; V. I. Ivanov, dosimetry terminology; R. M. Voronkov, Card 2/4

37893

S/056/62/042/005/044/050
B108/B138

24.6700

AUTHORS: Aynutdinov, M. S., Zombkovskiy, S. M., Nikitin, S. Ya.,
Selektor, Ya. M., Grashin, A. F.

TITLE: π^- - π interaction in π^- -p collisions at 7.2 Bev

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,
no. 5, 1962, 1413-1415

TEXT: In order to collect information on pion multiple production the authors studied 7.2-Bev π^- -p collisions using a liquid hydrogen chamber in a magnetic field. The distribution of $\pi^- + p \rightarrow p + \pi^- + \kappa^0$ events according to the square of the pion total energy ω has a narrow peak at $\omega^2 \sim 30$. This is attributed to participation of spin 1 ρ -mesons in the reaction $\pi^- + p \rightarrow p + \rho^- \rightarrow p + \pi^- + \pi^0$. The production cross section of ρ^- -mesons is ~ 1 mbarn. The scattering cross section $\sigma_{\pi\pi}$ for primary momenta of 2.8 Bev/c is about 300 ± 100 mbarn for $\omega^2 = 20-30$. There are 2 figures.

Card 1/2

n-n interaction in...

S/056/62/042/005/044/050
B108/B138

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki (Institute
of Theoretical and Experimental Physics) J.

SUBMITTED: March 5, 1962

Card 2/2

S/056/62/042/006/014/047
B104/B102

AUTHORS: Aynutdinov, M. S., Zombkovskiy, S. M., Nikitin, S. Ya.,
Selektor, Ya. M.

TITL: The elastic scattering of 7.2-Bev π^- mesons by protons

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,
no. 6, 1962, 1495-1498

TEXT: The elastic scattering of the mesons was measured in a liquid-hydrogen bubble chamber (25 cm diameter) placed in a magnetic field of 13.5 koe. The chamber was exposed to a beam of external π^- mesons from the proton-synchrotron of the Ob'yedinenny institut yadernykh issledovaniy (Joint Institute of Nuclear Research). The meson beam was produced in an internal beryllium target, focussed by four quadrupole lenses, analyzed by the magnetic field according to the momentum, and directed to the entrance of the bubble chamber. The meson energy had a Gaussian distribution with a half-width of 0.8 Bev. From 10 to 25 mesons were recorded for each expansion. From 13,700 photographs, 1619 events of πp interactions were found; whereof 192 were identified as

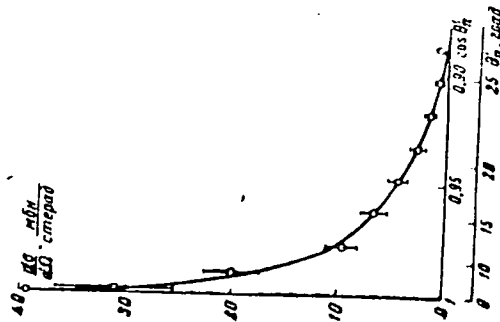
Card 1/3

The elastic scattering of ...

S/056/62/042/006/014/047
B104/B102

SUBMITTED: January 30, 1962

Fig. 2. Angular dependence of the elastic scattering cross section.



Card 3/3

S/055/62/043/004/055/06:
2104/3196

AUTHORS: Aynutdinov, N. S., Zombkovskiy, S. M., Nikitin, S. Ya.,
Selektor, Ya. M., Snulyachenko, V. N.

TITLE: $\pi\pi$ -interaction during multiple pion production in
 np -collisions

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43,
no. 4(10), 1962, 1543-1546

TEXT: $\pi\pi$ -interaction was studied on 7.2 Bev primary π^- -mesons whose
velocity distribution was Gaussian with a half width of 0.6 Bev.
13,000 photographs were taken from a 29 cm wide liquid-hydrogen bubble
chamber placed in a magnetic field of 13,500 gauss. The reactions

$$\pi^- + p \rightarrow 2\pi^- + 2\pi^+ + n + k\pi^0, \quad (1)$$

$$\pi^- + p \rightarrow 3\pi^- + 3\pi^+ + n + k\pi^0, \quad (2)$$

were studied. k is the known number of π^0 -mesons. The reactions

Card 1/2

$\pi\pi$ -interaction during multiple ...

8/056/02/043/004/000/000
3104/0106

$$\pi^0 \rightarrow \rho^+ \pi^- \rightarrow \pi^+ \pi^- \rightarrow \rho^0 \pi^0$$

$$\pi^0 \rightarrow \rho^0 \pi^0 \rightarrow 2\pi^0 \rightarrow \rho^0 \pi^0$$

were excluded by identifying the pions from their momenta and by estimating the ionization. The number of possible combinations

$(\pi^+\pi^-, \pi^-\pi^+, \pi^+\pi^0, \pi^-\pi^0)$ as functions of the effective masses have sharp maxima at the mass values of 0.33, 0.44, 0.50, 0.70, 0.99. Evidently, there are resonances at these mass values in the systems with two pions. It is proved that one and the same pion is not involved in two decays. It is concluded that in systems with equal mass values, but with different isotopic spins and mechanical spins, there exist two resonance systems. This means that in the case of strong interaction there is a degeneracy with respect to the two spins. There are 2 figures and 1 table.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki Akademii Nauk SSSR (Institute of theoretical and experimental Physics of the Academy of Sciences USSR)

SUBMITTED: June 30, 1962

Class 2/1

S/056/63/044/002/004/065
B102/B186

AUTHORS: Aynutdinov, M. S., Zombkovskiy, S. M., Nikitin, S. Ya.,
Selektor, Ya. M., Shulyachenko, V. N.

TITLE: Multiple production of pions in 7.2 Bev π^-p collisions

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44,
no. 2, 1963, 413-420

TEXT: The authors here continue previous investigations (ZhETF, 1963, 1961) in which they had shown that the resonances observed in inelastic πp collisions (cf. e.g. Phys. Rev. Lett., 6, 624, 628, 1961) play an important part in multiple pion production. Now the angular and momentum distributions of pions and protons are investigated for inelastic πp interactions of various multiplicities. The resonances arising in three- and four-pion systems are also studied, and the results are compared with the statistical theory. The measurements were made in a liquid-hydrogen bubble chamber positioned in a magnetic field of 13.5 koe. The π^- beam was obtained from the inner Be target of a proton synchrotron. The mean beam energy was 7.2 Bev, the π^- momentum distribution was Gaussian with a

Card 1/2

NIKITIN, S. Ye., inzh.

Investigating factors affecting the injection process in a high-speed diesel engine. Trudy NADI no.25:120-159 '60. (MIRA 13:10)
(Diesel engines)

NIKITIN, S.Ye., asst. prof.

Increasing the speed of power-plant diesel engine 4. 7. 1961.
ribes. zav.; mashinost. no. 2111-129 161. K. 1961

... improvement in the efficiency of the engine.

NIKITIN, T.I.; SMYSHLYAYEVA, T.N.

Tower cranes for general overhaul of apartment houses in Moscow.
Gor.khoz.Mosk. 30 no.5:19-22 My '56. (MLRA 9:8)

1. Glavnyy inzhener tresta no. 1 Upravleniya kapital'nogo remonta zhilykh domov Mosgorispolkoma (for Nikitin); 2. Nauchnyy sotrudnik Akademii komunal'nogo khozyaystva (for Smyshlyayev).
(Apartment houses--Maintenance and repair)
(Cranes, derricks, etc.)

USSR/General and Special Zoology. Insects. Insect P
and Mite Pests. Fruit and Berry Crop Pests.

Abstr Jour : Ref Zhur-Biol., No 20, 1956, 92257

Author : Mikitin, T. F.

Inst : -

Title : Effective Method of Controlling Currant
Pests.

Orig Pub : S. kh. Sovlzh'ya, 1957, No 12, 84

Abstract : In controlling the currant sawfly meth,
3-year long experiments showed the high
degree of effectiveness of applying 50 g
of 25 percent HCCH dust per bush at each
application twice by dusting into the soil.
This was done in spring, before the swelling
of the buds (i. e., prior to the emergence

Card : 1/2

46

1948, p. 139-140

Medical Physical culture ...

1948, p. 139-140

So: ... (International ...)

NIKITIN, T. R. and PRIBILOV, K. N.

Meditsinskii Kontrol Za Fizicheskim Vospitaniem i Lechebnaia Fizicheskaia Kultura
(Medical Control in Physical Training and Medical Physical Culture), 307 p.,
Medgiz, Moscow, 1951.

ACC NR: AP6018233

(A)

SOURCE CODE: UR/0416/66, 00/002/0073/0078

AUTHOR: Nikitin, V. (Lieutenant General; Member of Technical Service)

ORG: None

TITLE: The glorious past and new missions of the fuel supply service

SOURCE: Tyl i snabzheniya s retskikh vooruzhennykh sil, no. 2, 1966, 73-78

TOPIC TAGS: liquid fuel, petroleum fuel, fuel storage, POL pipe, pipeline transportation system, lubricant, ~~military personnel~~, PETROLEUM INDUSTRY

ABSTRACT: The history of the Fuel Supply Service from its inception in 1936, through World War II, and to the present is reviewed in brief. The increase in fuel consumption in the Soviet Armed Forces is emphasized by the comparison citing fuel consumption in one month of World War II as equal to the consumption by all Soviet military actions from 1937 to 1940. World War II stimulated improvements and demanded new petroleum products, improved aviation gasoline, tank fuel and lubricants, and led to broader planning and controls in the supply of fuel and lubricants. A system of fuel reserves for the front and reserve was established. The postwar period has seen further growth in the Fuel Supply Service and in the last ten or twelve years the POL supply system has undergone a basic change. Improvements in POL and POL research have resulted in viscous oils for winter use, and other,

Card 1/2

ACC NR: AP6018233

similar, products. Modern storage techniques have been developed as have improved pumping methods, and the field pipeline delivery of POL is an other example of progress. Mobile pump equipment, mobile pipeline transports, and rubber reinforced and impregnated tanks are among other innovations. Mention of the many officers who have played a role in the improvements made in the Fuel Supply Service are included, as are shortcomings and need for improvements. Orig. art. has: 3 figures.

SUB CODE: 15,21/SUBM DATE: None

Card 2/2