

NIKITIN, A.K. (Rostov-na-Donu); KUPCHENOV, S.A. (Rostov-na-Donu)

Three-dimensional problem of waves on the surface of a viscous
liquid of infinite depth. Prikl. mat. i mekh. 28 no.3:452-463
My-Je'64 (MIRA 17:7)

1. Rostovskiy univ. institut.

NIKITIN, A.K. (Rostov-na-Donu)

Ship's waves on the surface of a viscous liquid of finite
depth. Prikl. mat. i mekh. 29 no.1:186-191 Ja-F '65. (MIRA 18:4)

L 29849-66 ENT(1)/EWP(m)/ENT(m)/T IJP(c) DS/WW/DJ

ACC NR: AP6013205

SOURCE CODE: UR/0421/66/000/002/0102/0107 43

AUTHOR: Nikitin, A. K. (Rostov-na-Donu); Khapilova, V. S.
(Rostov-na-Donu) B

ORG: none

TITLE: The nonlinear problem of a spherical suspension 7SOURCE: AN SSSR. Izvestiya. Mekhanika zhidkosti i gaza, no. 2, 1966,
102-107

TOPIC TAGS: nonlinear theory, viscous flow

ABSTRACT: The article treats the problem of the steady state motion of an incompressible viscous fluid between two concentric spheres. Into the gap between the spheres fluid is fed in through one opening, and through another opening it is withdrawn. The two concentric spheres are designated A_1 and A_2 , and their radii as r_1 and r_2 ($r_1 < r_2$). In sphere A_2 there are two diametrically opposed openings: opening S_1 , through which fluid is fed, and opening S_2 , through which it is withdrawn. Assuming the motion of the fluid to be axisymmetric and neglecting mass forces, the equations of motion can be written as follows in a spherical system of coordinates:

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L 06077-67 EWT(1)/EWT(m) WW/DJ/GG

ACC NR: AP6030117

(N)

SOURCE CODE: UR/0421/66/000/004/0118/0126

AUTHOR: Gruntfest, R. A. (Rostov-on-Don); Nikitin, A. K. (Rostov-on-Don)

43

ORG: none

8

TITLE: Drag of a viscous fluid

SOURCE: AN SSSR. Izvestiya. Mekhanika zhidkosti i gaza, no. 4, 1966, 118-126

TOPIC TAGS: drag coefficient, fluid viscosity

ABSTRACT: The article considers the problem of the resistance encountered by a system of normal stresses in straight line motion along the surface of a viscous fluid of infinite depth. The problem is solved for the linear case, that is, it is assumed that the amplitudes of the waves are small. In the general case, in a closed form, solutions are obtained for the plane and three dimensional cases. The integrals obtained in both cases are studied by the method of the steady state phase, for bounded and unbounded regions. After an extended mathematical treatment, the article concludes with the derivation of formulas for the wave resistance in both the plane and three dimensional cases. Orig. art. has: 47 formulas and 3 figures.

SUB CODE: 20/ SUEM DATE: 15Dec65/ ORIG REF: 007/ OTH REF: 002

Card 1/1

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NIKITIN, A.K.

~~Treating latex and aqueous dispersions of synthetic rubber and resins. A. K. Nikitin, P. I. Zakharchenko, M. V. Lisitsynov, I. M. Basiev, A. G. Lukomovych, N. S. Churilla, and S. P. Troncharov. U.S.S.R. 105,137, June 26, 1957. Distearoylhexamethylenediamine is added to latex and aq. dispersions of synthetic rubber and resins before treating them in a packed column or other app. to remove the nonpolymerized isomers and to avoid loss of rubber or resin. The diamide, 0.1% based on the rubber, is added as a soln. in an org. or chloroorg. solvent.~~

M. Hosen

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n. K. Tih, A. K.

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Principal lines of technical development of the Soviet synthetic rubber industry. *S. N. NIKRYS, Kautsch. i. Latex, 1957, 10, No. 2, 1-5.*

Production capacity will gradually be switched from the handling of SKD polybutadiene to new and improved general purpose rubbers. The production of the following types of emulsion polymerized rubber will be undertaken or adapted: low temperature, oil extended, silicate filled and silicate-oil extended, carboxylate rubbers, rubbers produced in the presence of cation active emulsifiers, and rubbers with high plasticity. Among the general purpose rubbers SKI (polyisoprene) will assume considerable importance. The future of rubbers produced with metallo-organic catalysts is also of interest. New rubbers are being developed with resistance to high and low temperatures and aggressive media, notably silicon rubbers, butadiene methyl vinyl pyridine rubbers, fluororganic polymers, and butyl acrylate rubbers. This editorial concludes with a discussion of some aspects of output and costs.

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GRUNTFEST, R.A.; NIKITIN, A.K.; PODREZOV, S.A. (Rostov-on-Don):

"Waves on the surface of a viscous fluid of infinite depth."

report presented at the 2nd All-Union Congress on Theoretical and Applied
Mechanics, Moscow, 29 Jan - 5 Feb 64.

KULAGIN, S.M.; TARASEVICH, I.V.; NIKITIN, A.M.; KRUPINA, Z.N.

Eradication of Marseilles fever; some observations on Marseilles fever in Sevastopol. Zhur.mikrobiol.epid.i immun. 31 no.8:117-120 Ag '60. (MIRA 14:6)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR, Sevastopol'skoy sanitarno-epidemiologicheskoy stantsii i Sevastopol'skoy veterinarnoy lechebnitsy. (SEVASTOPOL--RICKETTSIAL DISEASES)

KULAGIN, S.M.; TARASEVICH, I.V.; NIKITIN, A.M.; RUBAKIN, P.Y.; KRUPINA, Z.N.

Three years' experience in the eradication of Marseilles fever
in Sevastopol'. Zhur. mikrobiol., epid. i immun. 33. no 12:7-11
D '62. (MIRA 16:5)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN
SSSR, Sevastopol'skoy gorodskoy sanitarno-epidemiologicheskoy
stantsii i Sevastopol'skoy veterinarnoy lechebnitsy.
(SEVASTOPOL—RICKETTSIAL DISEASES—PREVENTION)
(DOGS AS CARRIERS OF DISEASE)

NIKITIN, A. M.

NIKITIN, A. M. -- "The role of the agricultural machine building industry in the development of the national economy." In: "The role of the agricultural machine building industry in the development of the national economy." (Moscow, 1954). P. 1-10. (Russian)

1. Iskra 1954, No. 1 - p. 1-10

C. A. NIKITIN, A.M.

9

Graphitized steel. M. A. Arengol'd and A. M. Nikitin. Tsvyaznyye Prom. 27. No. 1, 20-8(1960).—The flowability of high-C graphitized steel with high silicon content exceeds

the flowability of the usual C steel, the linear contraction is below the contraction of ordinary C steel and lies between 1.6 and 1.7%. The structure of graphitized steel is distinguished from the structure of ordinary high-C steel only by the presence of pptd. free C. The best annealing procedure for abrasion resistance consists of heating to 800-900°, holding 6-7 hrs. at this temp. followed by cooling in the furnace, thus guaranteeing a finely broken up structure, high hardness (240-260 Brinell), and adequate plasticity. The wear resistance of graphitized steel approximates the wear resistance of Hadfield steel and the latter may be replaced by graphitized steel. The presence of graphite in the laminated pearlite structure imparts good antifriction properties to the alloy and makes it a good substitute for non-ferrous alloys. The casting properties of graphitized steel are extremely good due to the low pouring temp. and long solidification time. Because of the small contraction to pearlite, it has less tendency to the formation of heat cracks.

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ANDREYEV, A.M.; NIKITIN, A.M., inzh., retsenzent; PETUKHOVA, G.N.,
red.izd-va; DEMKINA, N.F., tekhn. red.

[Planning and organization of work according to a
schedule; practice of machinery manufacturing enterprises]
Planirovanie i organizatsiia raboty po grafiku; opyt ma-
shinostroitel'nykh predpriatii. Moskva, Mashgiz, 1963.
161 p. (MIRA 17:2)

NIKITIN, Aleksandr Mikhailovich; ANDREYEV, V.P., inzh.-konstruktor,
retsensent; CHLOYAN, M., red.; KARZHAVINA, Ye., tekhn. red.

[Pattern making and design of men's clothing] Konstruirovani
muzhskoi odezhdy. Lipetsk, Lipetskoe knizhnoe izd-vo, 1960. 143 p.
(MIRA 14:12)

1. Vsesoyuznyy Dom modeley (for Andreyev).
(Tailoring—Tables, calculations, etc.)

PETRICHENKO, A.M., inzhener; NIKITIN, A.M., inzhener.

Cast steel crankshafts. Vest. mash.27 no.2:42-46 '47.(MLRA 9:4)
(Crank and crankshafts) (Steel casting)

KONDURCOV, I.A.; GRACHEVA, L.M.; YEGOROV, A.I.; KAMINKER, D.M.; NIKITIN,
A.M.; PETROV, Yu.V.

Reactor cross section of Pm^{149} burnup and samarium poisoning.
Atom. energ. 19 no.2:188-190 Ag '65. (MIRA 18:9)

L 1862-66 EWT(m)/EPF(n)-2/EWP(t)/EWP(b)
ACCESSION NR: AP5022642

DIAAP/IJP(c) JD/WW/JG/DM
UR/0089/65/019/002/0188/0190
621.039.516.23

AUTHOR: Kondurov, I. A.; Gracheva, L. M.; Yegorov, A. I.; Kaminker, D. M.;
Nikitin, A. M.; Petrov, Yu. V.

51
50
B

TITLE: Reactor burn-up cross section of Pm^{149} and samarium poisoning

SOURCE: Atomnaya energiya, v. 19, no. 2, 1965, 188-190

TOPIC TAGS: samarium, poison effect, nuclear reactor, nuclear technology, neutron capture, capture cross section

ABSTRACT: The authors measured the Pm^{149} burn-up cross section by determining the amount of Pm^{150} produced after Pm^{149} is exposed to a flux of thermal neutrons. This cross section is important because Pm^{149} burn-up determines the amount of samarium produced by promethium decay after reactor shutdown, and an excess of samarium can prevent restarting of the reactor. The radioactive Pm^{149} itself was obtained from their reaction $Nd^{148} (n, \gamma) Nd^{149} \rightarrow Pm^{149}$. The separation of the promethium is briefly described. The radioactive Pm^{149} was exposed to a flux of

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10^{14} neut/cm².sec in the water section of the VVR-M reactor. Measurement of the γ spectrum from the Pm^{149} shows the presence, besides the 285-keV peak due to Pm^{149} , of peaks at 340 and 410 keV with shorter half lives (2.7 h) belonging to Pm^{150} and a 103-keV line belonging to Sm^{153} . The cross section for the capture of thermal neutrons by Pm^{149} is determined from the value of the neutron flux and the ratio of the activities of Pm^{150} and Pm^{149} . The value obtained after correcting for the counting efficiency of the apparatus and other factors is 1700 ± 300 barns for neutrons with $v = 2200$ m/sec. This yields a samarium poisoning cross section of 74500 barns, as against a fuel fission cross section of 582 barns, for a 1.3% yield of promethium during fission. The correction necessary to apply the results to a fast-neutron reactor is briefly discussed. Orig. art. has 3 figures and 5 formulas.

[02]

ASSOCIATION: None

SUBMITTED: 20Jul64

ENCL: 00

SUB CODE: NP

NO REF SOV: 002

OTHER: 006

ATD PRESS: 4/12

Card 2/2 *dy*

L 06587-67 EWP(j)/EWT(m)/EWP(w) IJP(c) EM/RM

ACC NR: AP6029859

SOURCE CODE: UR/0032/66/032/008/0991/0993

AUTHOR: Surkov, A. I.; Monakhov-Il'in, G. P.; Nikitin, A. M.

50
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ORG: All-Union Scientific Research and Construction Design Institute of Metallurgical Machine Building (Vsesoyuznyy nauchno-issledovatel'skiy i proyektno-konstruktorskiy institut metallurgicheskogo mashinostroeniya)

TITLE: Determination of stress in complex thin-walled structures by a photoelastic method *g* *9m*

SOURCE: Zavodskaya laboratoriya, v. 32, no. 8, 1966, 991-993

TOPIC TAGS: stress analysis, photoelasticity, optical material, optical coating, polariscope, epoxy resin, temperature dependence

ABSTRACT: A quantitative stress analysis was made of a metallic part with a photoelastic coating, and of models of complex thin-walled structures made from optically sensitive material. The operation procedure and construction details of a unidirectional polariscope are given. The polariscope was built from a polarization attachment, a PK-6 comparometer, and a KPK or SKK-2 compensator. Tests were made on a steel model of a converter support wheel which was covered with a photoelastic coating composed of 100 parts by wt of ED-6 epoxy resin, 30 parts of maleic anhydride, and 0.156 parts of dimethyl aniline. For a set of given time-temperature setting cycles the elastic modulus

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of the polymerized coating was $40,000 \text{ kg/cm}^2$ and the optical constant was 8.9 kg/cm^2 , for a 2 mm coating and a stress in the steel part of 1000 kg/cm^2 , one strip was formed. A special procedure on a polished glass surface and partially set for 3.5 hr at 80°C . The sheet was then stripped of, bent to fit the metal component, and placed in an oven for final setting of the epoxy. The set coating was glued to the metal with a cold setting adhesive of the following composition: 100 parts by wt of ED-5 epoxy resin, 20 parts of dibutyl phthalate, and 15 parts of polyethylamine. Thin walled models of optically active material were internally covered with a reflecting type coating and stressed in a hydraulic press. This type of study permitted stress measurements to be made on variable thickness cross sections, or on one model for different stress conditions; retesting was done on the same model after annealing. Orig. art. has: 3 figures.

SUB CODE: 13/ SUBM DATE: none/ ORIG REF: 002/ OTH REF: 002

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Card 2/2

MIKITIN, A. N., (Grad Stud)

Dissertation: "An Investigation of the Process of Breaking-In Cylinders When Engines Are Running on Lubricants of Various Viscosities." Cand Tech Sci, Moscow Automobile Highway Inst imeni V. M. Molotov, 25 Jun 54. (Vechernyaya Moskva, Moscow, 16 Jun 54)

SO: SUM 318, 23 Dec 1954

NIKITIN, A.N.

PHASE I BOOK EXPLOITATION

SOV/3825

Belikov, Vasilii Nikolayevich, and Aleksandr Nikitich Nikitin

Sborka aviatsionnykh dvigateley; uchebnoye posobiye (Assembly of Aircraft Engines; a Textbook) Moscow, Oborongiz, 1959. 129 p. Errata slip inserted. 4,300 copies printed.

Sponsoring Agencies: Moscow. Aviatsionnyy institut imeni Sergo Ordzhonikidze; Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya RSFSR.

Ed.: K.I. Grigorash; Tech. Ed.: V.P. Rozhin; Managing Ed.: A.S. Zaymovskaya, Engineer.

PURPOSE: This textbook is intended for students in vuzes and tekhnikumms. It will be of interest to engineers and technicians in the aircraft engine industry.

COVERAGE: This is the standard text for a course on the assembly of aircraft engines. The book contains basic information on planning and organizing the assembly of aircraft engines as far as technical operations and precision are concerned. It describes the necessary preliminary operations and indicates the basic joints and connections. Diagrammatic examples illustrate the assembly of

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Assembly of Aircraft Engines (Cont.)

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component engine parts. Materials on the assembly of engines with centrifugal compressor were prepared by senior instructor M.Ye. Levit. The authors thank V.I. Sivkov and M.I. Yevstigneyev. There are 16 references: 17 Soviet and 1 English.

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S/147/61/000/002/012/015
E081/E135

AUTHORS: Aleksandrov, V.P., Loginov, V.Ye., and Nikitin, A.M.
 TITLE: Investigation of the residual stresses in the surface layer on machining heat resistant and titanium alloys
 PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Aviatcionnaya tekhnika, 1961 No.2, pp. 125-135

TEXT: The paper is a continuation of previous work (Ref.3: A.V. Podzey, V.Ye. Loginov, N.N. Novikov, Stanki i instrument No.6, 1958 and Ref.5: V.P. Aleksandrov, B.N. Zolotykh, Izvestiya AN SSSR, OTN No.6, 1958). Experiments are described on specimens of the nickel based alloy NI-437 (EI 437) and the titanium alloy VT2-1 (VT2-1) to determine the stresses in the surface layer resulting from working the material. Electrical strain gauges were used to measure the stresses and the alloy specimens were subjected to different amounts of grinding using an abrasive wheel with and without cooling by flow of emulsion or carbon dioxide. Another set of specimens was subjected to electro erosion grinding using three different types of pulse generators with pulse durations of 1.5, 100 and 1000 μ sec. The following conclusions are drawn from the

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Investigation of the residual stresses... S/147/61/000/002/012/015
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experimental results. Plane grinding of both alloys by an abrasive wheel and by electro-erosion produces residual tensile stresses. The nature of the distribution of these stresses shows that their formation is connected basically with the high temperature gradient. The results of the tests of grinding by an abrasive wheel can be summarized thus: 1) with increasing depth of cutting, the magnitude of the residual stresses and the depth of their penetration both increase; 2) with increasing "coefficient of lapping" K_2 , the magnitude of the surface stresses rapidly diminishes and the maximum stress occurs under the surface layer; 3) the introduction of flow cooling, especially by carbon dioxide (in the grinding of the alloy VTZ-11) appreciably influences the lowering of temperature under the surface layer, resulting in a twofold increase in the depth of penetration of the maximum residual stresses.

The results of the electro-erosion grinding tests led to the following conclusions: 1) increase in the duration of the electrical pulse leads to a rapid growth in the magnitude of the axial residual stresses, and also in the depth of their penetration;

2) regardless of the state of the spark gap and the frequency of the pulses (tens and even hundreds of megacycles/sec), RC type

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Investigation of the residual stresses ... S/147/61/000/002/012/015
E081/E135

pulse generators or other generators producing short pulses
(1-5 μ secs) are recommended for feeding the electro-erosion
equipment in the finishing operations.
There are 8 figures, 3 tables and 5 Soviet references.

ASSOCIATION: Kafedra proizvodstva aviadvigatelye,
Kuybyshevskiy i Moskovskiy aviatsionnyye instituty
(Department of Aircraft Engine Production,
Kuybyshev and Moscow Aviation Institutes)

SUBMITTED: August 22 1960

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ACCESSION NR AM5002711

BOOK EXPLOITATION

S/

Belikov, Vasilii Nikolayevich; Nikitin, Aleksandr Nikitich

32
B+1

Assembling of aircraft engines (Sbornik aviatsionnykh dvigateley), Moscow, Izd-vo "Mashinostroyeniye", 1961, 221 p. illus., biblio. Errata slip inserted. 5,000 copies printed. Series note: Tekhnologiya aviadvigatelsestroyeniya

TOPIC TAGS: aircraft engine manufacture, automation, rocket engine

PURPOSE AND COVERAGE: This book contains information on the basic types of joints used in the assembly of aircraft engines and methods of making them. Data are given on the design and organization of the engineering processes of assembly. Problems of precision of assembly are considered. Preliminary operations are described and examples are given of component and general assembly of engines of several types. The book is a textbook for students in aviation institutes and departments. It can also be of interest to engineers and technicians of the aviation industry.

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- Ch. II. Organizational forms of assembly operations -- 9
- Ch. II(I). Design of the engineering processes of assembly -- 14
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- Ch. VIII. Immobile joints -- 77
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- Ch. IX. Features of the assembly of typical components of gas turbine engines -- 133
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Card 2/3

L 24513-65

0

ACCESSION NR: AM 5002711

SUBMITTED: 15 May 64

SUB CODE: IE, PR

NO REF SOV: 033

OTHER: 012

Card 3/3

AN" NOV, V.A., kand.tekhn.nauk, dotsent; NIKITIN, A.N., kand.tekhn.nauk, dotsent

Centrifugal purification of oil in the lubrication systems of
stationary diesel engines. Energiyomashinostroyeniye 1. 1965-68
Ja '65. (MIRA 18:4)

NIKIFIN, A. N.

Technic of modified function test for synthesis of hippuric acid. Klin. med., Moskva 29 no.8:55-57 Aug 1951. (CIML 20:11)

1. Honored Physician RSFSR. 2. Of Vologda Oblast Transfusion Station (Director — Honored Physician RSFSR A. N. Nikitin), Vologda.

NIKITIN, A.N.; KLEYN, Yu.S.; SHOKHAREVA, V.I.

Phagocytic index in combined therapy of dysentery. Zhur.
mikrobiol.epid. i immun. no.11:67-69 N '55. (MLRA 9:1)

1. Iz Vologodskogo oblastnogo otdeleniya perelivaniya krovi
(nach-zasluzhennyy vrach RSFSR A.N.Nikitin), Vologodskoy
gorodskoy ob"edinennoy bol'nitsy (glavnyy vrach S.F.Shvarev)
i Vologodskoy gorodskoy infektsionnoy bol'nitsy (glavnyy
vrach N.D.Denisyuk)

(DYSENTERY, BACILLARY, therapy,

chemother, combined, eff. on phagocytic index)

(PHAGOCYTOSIS, in various diseases,

dysentery, bacillary, eff. of combined chemother)

5

NIKITIN, A.N., zaslužhenny vrach RSFSR.

Comparative study of serum titers of exudates and transudates.
Probl.gemat. i perel. krovi 1 no.4:57 J1-Ag '56. (MIRA 10:1)
(AGGLUTININS) (SERUM)

NIKITIN, A. N.

Nikitin, A. N. and Obreimov, I. V. The refractometer of uninterrupted action.
Pages 557-559.

Inst. of Organic Chemistry
Acad. of Sci. USSR.

SO: Bulletin of the Academy of Sciences, Izvestia, (USSR) Vol. 14, No. 4.
(1950) Series on Physics.

NIKITIN, A.N., kandidat tekhnicheskikh nauk.

Investigating the process of cutting high-precision internal
threads. Trudy MAI no.70:84-112 '56. (MLA 9:12)
(Screw cutting)

SOV/133-58-10-3/31

AUTHORS: Vasil'chenko, N.I., Kotov, V.I., Nikitin, A.N. and Norik, N.P., Engineers, and Ostroukhov, M.Ya., Candidate of Technical Sciences.

TITLE: The Influence of Blast Temperature on the Dimensions of the Oxidising Zone in a Blast Furnace (Vliyaniye temperatury dut'ya na razmery okislitel'noy zony v domennoy pechi)

PERIODICAL: Stal', 1958, Nr 10, pp 869 - 874 (USSR)

ABSTRACT: In view of the conflicting evidence on the influence of the blast temperature on the dimensions of the combustion zone, the authors carried out an investigation of the problem on a blast furnace of the Novo-Lipetskiy Works (Figure 1) producing foundry iron (2.0-3.5% Si). The furnace output was about 1 000 tons/day, slag basicity CaO/SiO_2 1.05-1.10, blast volume 2 100 - 2 300 m^3/min , blast temperature 800 °C, blast humidity 20 - 25 g/m^3 and top pressure 0.8 atm. During the investigation, the furnace operation was not steady due to a large proportion of fines in the burden. Dimensions of the combustion zone were measured by sampling gases along the tuyère axis and by direct probing with the sampling tube. The experimental

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DOV/133 58 10 3/51

The Influence of Blast Temperature on the Dimensions of the Oxidising Zone in Blast Furnace

results are given in Tables 1 and 2 and Figures 2-7. Some special features of furnace operation when an exceptionally long combustion zone was observed are given in Table 3. A large spread of the experimental results was obtained which necessitated a separate study of the operating conditions for cases when exceptionally long and exceptionally short combustion zones were observed. A very short combustion zone is characterised by an unusually high content of either CO_2 or CO . This can be caused by an accumulation of unprepared flux (evolution of CO_2) or unprepared burden.

In such cases, the oxidising zone is limited by this dense accumulation. An exceptionally long combustion zone, out of proportion to the kinetic energy of blast, coincided with periods of an incorrect distribution of the gas stream, particularly with channelling and a considerable increase in the permeability of the central part of the furnace. If the exceptionally short and long combustion zones are excluded, then in a number of cases the dependence of the size of combustion zone on the blast temperature can be detected. The length of the combustion zone as measured

Card2/3

SOV/133 58 10-3/31

The Influence of Blast Temperature on the Dimensions of the Oxidising Zone in a Blast Furnace

by direct probing increases with temperature at blast rates 2 000, 2 100, 2 250 and 2 300 m³/min (at 2 200 m³/min it decreases and at 2 400 m³/min it remains constant). The oxygen zone (Figures 5 and 6) behaves differently; with increasing temperature it remains in the majority of cases constant or decreases. Thus increasing temperature or, strictly speaking, kinetic energy of the blast, increases the length of the combustion zone (determined by the position of 2 or 3% of CO₂ or by direct probing) but has practically no influence on the size of the oxygen zone. There are 3 tables, 2 figures and 9 references, 6 of which are Soviet, 2 England and 1 German.

ASSOCIATIONS: Nov. Lipetskij zavod (Novo-Lipetskij Works) and
Institat metalurgii AN SSSR (Institute of
Metallurgy of the AN SSSR)

Card 3/3

NIKITIN, A.N., insh.

Analyzing causes of accidents in hot shops of the Novyy Lipetsk
Plant. Bezop.truda v prom. 4 no.10:13-14 O '60. (MIRA 13:11)

1. Nachal'nik otdela tekhniki bezopasnosti.
(Kursk magnetic anomaly--Steelworks)

DUGANOV, G.V.; NIKITIN, A.N.; RYAZANTSEV, V.I.; SPEKTOR, B.V.

Rapid determination of thermophysical properties of rocks in a
massif. Izv. vys. ucheb. zav.; tsvet. met. 5 no.4:14-20 '62. (MIRA 16:5)

1. Dnepropetrovskiy gornyy institut, kafedra rudnichnoy ventilyatsii.
(Rocks—Thermal properties)

NIKITIN, A.P.

Methods for comparative evaluation of forgings and rolled blanks.
Mashinostroitel' no. 12 38-39 D '61. (MIRA 14:12)
(Metalwork)

NIKITIN, A.P.

Formation of chip-breaking holes and grooves. Stan.1 instr.
33 no.12:36 D '62. (MIRA 16:1)
(Metal-cutting tools)

NIKITIN, A.P.

Machines for diamond grinding and lapping of cutting tools. Stan.1
instr. 34 no.7:44-45 JI '63. (MIRA 16:9)
(Grinding machines)

NIKIIIN, Aleksandr Pavlovich; SHILNENKO, I.A., red.

(Diamond grinding and lapping of hard-alloy cutting tools
Almaznaia zatochka i dovodka tverdospriavannogo instrumenta.
Leningrad, 1964. 27 p. (MIRA 17 7)

L 12982-55 EWP(a)/EWP(m)/EWP(l)/EWP(k)/EWP(b) 8/0117/64/000/007/0029/0031
ACCESSION NR: AP4048491

AUTHOR: Nikitin, A. P.

TITLE: Broad introduction of diamond instruments

SOURCE: Mashinostroitel', no. 7, 1964, 29-31

TOPIC TAGS: grinding machine, polishing machine, diamond, grinding, polishing

Abstract: The advantages and uses of machines for diamond grinding and polishing are discussed. The Scientific Research Planning and Design Institute of Machine Building Technology (NITFMASH) has played a leading role in the introduction of such machines into industry. Two diamond polishing machines, 3A64 and 3A64M, were released by this institute in 1963. The machines were further described in Stenki 1 instrument, No 7, 1963. Training programs on the use of these machines have been organized in the Leningrad area.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: IE, MT

NO REF SOV: 000

OTHER: 000

JPRS

Card 1/1

NIKITIN, A.P.

For a wider use of diamond instruments. Technika Bulg 13 no 9,
26-28 '64.

MOROZOV, V.A. Prinsipialni uchastiye: NIKITIN, A.P., pomoshchnik entomologa;
YEGIPKO, V.P.; bonifikator; VENEDIKTOR, A.V.; bonifikator;
GODINA, M.S., bonifikator.

Distribution of mosquitoes of the genus *Mansonia richiardii*
Fic. in Krasnodar Territory and methods for the collection of
their larvae. Med. paraz. i paraz. bol. 34 no. 5:514-517
S-0 '65 (MIRA 19:1)

1. Parazitologicheskii otdel Krasnodarskoy krayevoy sanitarno-
epidemiologicheskoy stantsii (for Morozov). 2. Kropotkinskaya
gorodskaya sanitarno-epidemiologicheskaya stantsiya (for Ni-
kitin). Submitted December 29, 1964.

SOV/137-57-1-830

Translation from: Referativnyy zhurnal. Metallurgiya, 1957, Nr 1, p 107 (USSR)

AUTHORS: Dodonov, A. A., Nikitin, A. S., Belousov, N. N.

TITLE: Effect of Some Technological Factors on the Quality of Castings Produced by the Vacuum Suction Method (Vliyaniye nekotorykh tekhnologicheskikh faktorov na kachestvo otlivok, poluchayemykh metodom vakuumnogo vsasyvaniya)

PERIODICAL: V sb.: Novoye v teorii i praktike liteyn proiz-va, Moscow-Leningrad, Mashgiz, 1956, pp 436-443

ABSTRACT: A description is given of the procedure for the automatization of the process of vacuum suction of liquid bronze (BrOF 10-1) into a water-cooled crystallizer in the production of hollow castings. The procedure permits the regulation of the wall thickness of the casting with a 0.1-sec [sic!] precision. It is necessary to keep the water temperature 20-30°C above room temperature. The authors studied the effect of the casting temperature on the quality of the coating of the inner surface of the crystallizer.

A. L.

Card 1/1

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

The 14ER-1 electric mine locomotive. Biul.tekh.-ekon.inform.
no.10:3-4 '58. (MIRA 11:12)
(Mine railroads) (Electric locomotives)

HIKITIN, A.S.

Rare location of biliary fistula. Khirurgiia Supplement:29 '57.
(MIRA 11:4)

1. Iz khirurgicheskogo otdeleniya zheleznodorozhnoy bol'nitsy
Kuybyshevskoy zheleznoy dorogi.
(FISTULA) (GALL BLADDER--DISEASES)

L 14119-66 EWP(d)/(T)/EWP(L) IJP(e) GG/BB
ACC NR: AF6004247 SOURCE CODE: UR/0378/65/000/006/0028/0031

AUTHOR: Nikitin, A. S.

57
B

ORG: none

16.44.55

TITLE: An algorithm for economic use of memory

SOURCE: Kibernetika, no. 6, 1965, 28-31

TOPIC TAGS: computer memory, optimal control, algorithm, computer programming

ABSTRACT: The author gives some data from the solution of a problem proposed by V. H. Glushkov on optimization of memory volume when synthesizing programmed automata. A description is given of an algorithm for economic use of memory which is applicable both for optimizing the number of working registers in a digital computer and for optimizing the memory volume in a class of computer programs. The problem of economic use of memory is defined as determining the number of true addresses t and assigning them magnitudes in the operator scheme without destroying the correct operation of the scheme so that the total memory volume $g+t-e$ for conservation of operators and magnitudes in the scheme is a minimum, where g is the number of operators in the scheme and e is the number of forwarding operators. An algorithm is

16.44.55

Card 1/2

UDC: 681.142.1.01

L 02327-67 EWT(d)/T/EWP(1) IJP(c) GD

ACC NR: AT6010533

SOURCE CODE: UR/0000/65/000/000/0091/0099

AUTHOR: Nikitin, A. S.

43

ORG: none

B+1

TITLE: Optimal distribution and selection of the number of registers in an electronic digital computer by means of integral linear programming 16

SOURCE: AN UkrSSR, Voprosy teoreticheskoy kibernetiki (Problems in theoretical cybernetics), Kiev, Naukova dumka, 1965, 91-99

TOPIC TAGS: digital computer, linear programming, Boolean algebra, algorithm

ABSTRACT: An algorithm is described for optimal distribution and selection of the number of registers in an electronic digital computer through a solution of the problem of integral linear programming with two-sided bounding of variables. The solution is written on the basis of the operator scheme of the computer's functional algorithm. In order to make possible the use of integral linear programming methods, a technique is proposed for the linearization of any non-linear limitations and specific function of the Boolean arguments in the mathematical programming problem. The algorithm proposed is essentially one in which for a given number of registers the modification of the operator arrangement will be such as to permit a minimum number of accesses to the linear memory in comparison with all other permissible transforms of the

Card 1/2

L 08523-62 EWT(d) IJP(o)
ACC NR: AP6035585 SOURCE CODE: UR/0378/66/000/005/0064/0072

AUTHOR: Nikitin, A. S.

37

ORG: none

B

TITLE: One class of equivalent ¹⁶transformations of operator schemes. I

SOURCE: Kibernetika, no. 5, 1966, 64-72

TOPIC TAGS: cybernetics, finite automaton, ~~operator schemes,~~
~~microprogram~~ automaton, *electronic computer*

ABSTRACT: This is the first part of the article under the same title which deals with the solution of problems formulated by B. M. Glushkov (Kibernetika, no. 1, 1965; Tekhnicheskaya Kibernetika, v. 7, no. 1, 1964) concerning the minimization of structures of microprogram automata. The language of operator schemes (the finite number of certain operators) for describing the structure and performance of microprogram automata and also for compiling routines for electronic digital computers is proposed. The operator schemes are considered as a certain modification and simplification of the microprogramming language. The structure of such schemes is analyzed and the time characteristics of the performance of a scheme and the cost of elements of the memory utilized to store information concerning the structure of the scheme

Card 1/2

UDC: 681.142.1.01

L 08523-67

ACC NR: AP6035585

0

itself as well as the information obtained during the performance of the scheme are introduced and the electronic digital computer is described briefly in the language of operator schemes. Three forms of an equivalent transformation of operator schemes are considered: a) inserting the remittance operator into the scheme; b) eliminating the remittance operator from the scheme; c) substituting the addresses in schemes. A theorem is proved establishing the necessary conditions under which the substitution of addresses in a scheme is an equivalent transformation. The main objective of the article is to determine a sequence of equivalent transformations of the initial scheme S into a certain scheme S₂ which minimizes the functional

$$F = \alpha \cdot T(S_2) + \beta \cdot C(S_2) \tag{1}$$

where T(S₂) is the mathematical expectation of the performance time of scheme S₂ over the set of permissible initial values of the scheme, C(S₂) is the total cost of all elements of the memory for the operators and parameters of scheme S₂, and α and β are constants. The minimization problem is reduced to a problem of linear programming whose approximate solution is analyzed in the second part of the article. Orig. art. has: 18 formulas.

SUB CODE: 09, 06 SUBM DATE: 30Dec65/ ORIG REF: 010/ ATD PRESS: 5103

Corr. 2/2

LS

Nikitin, A.T.

S/170/60/003/008/008/014
B019/B054

AUTHOR: Nikitin, A. T.
TITLE: Temperature Distribution in an Unbounded Hollow Cylinder²⁶
During a Heat Exchange on the Boundaries With Media of
Varying Temperature
PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1960, Vol. 3, No. 8,
pp. 74-77

✓

TEXT: The author investigates the heat conductivity of a hollow unbounded cylinder under boundary conditions of the third type if the temperatures of the media without and within the cylinder are arbitrary functions of time. It is assumed that the heat exchange proceeds according to the Newtonian law. The author proceeds from the differential equation (1), and - with the aid of a unilateral integral Laplacian transform - he obtains formula (19) in an extensive expansion for $T(t,r)$, where T is the temperature, t the time, and r the radius. If the functions of the temperature variations of the media are known, it is easy to solve a concrete problem by means of this formula. There are

Card 1/2

2212A

S/056/61/040/003/004/011
S102/S202

24690 (195, 191, 159)
Wang Kang-ch'ang, Wang Se'-un-yeung, Viryasov, B.M., Ting
Ts-t'ao, Kim Dui In, Madnitskaya, Ye.E., Kuznetsov, A.A.,
Mikhail, A., Belyan Din Dz, Nikitin, A.V., Solov'yev, M.I.

TITLE: Production of Ξ^- hyperons by π^- mesons with the
momenta 7 and 8 BeV/c

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki,
v. 40, no. 3, 1951, 134 - 140

TEXT: The authors present compressive material concerning the produc-
tion of Ξ^- hyperons by negative high-energy pions in a 22-l propane bubble
chamber which was in a constant field of 13,700 oer. Experiments
have already been described in an earlier paper (ZhETF, 32, 176, 1960).
27,000 photographs were evaluated 2 - 3 times for pions with momenta
and 75,000 for pions with ≈ 8 BeV/c. The authors chose those events which
corresponded to a decay of cascade particles according to the mode

Card 1/4-3

2212A
S/056/61/040/003/004/011
S102/S202

Production of Ξ^- hyperons by ...

$\Lambda \rightarrow \pi^0 + \Sigma^-$, $\pi^0 \rightarrow \gamma + \gamma$ as well as all singly-pronged stars from the vertex
of which a π^0 particle departed. Altogether, 90 events were chosen, that
were measured by means of YAM-21 (YIM-21) microscopes, and the results
were evaluated by means of an electronic computer of the type "Ural-1".
Events of $\Lambda \rightarrow \pi^0 + \Sigma^-$ ($\Sigma^- \rightarrow \pi^0 + n$, $\Sigma^- \rightarrow \pi^- + p$) were identified according to the
rigorous criteria given in Table 1. The events with $\Lambda \rightarrow \pi^0 + \Sigma^-$ and non-
identified Ξ^- hyperons are given in Figs. 1 and 2 respectively. The Table
19-179 are schematically shown in Figs. 1 and 2 respectively. (until the
decay) of the Ξ^- hyperons. The mean value of q from the $\Lambda \rightarrow \pi^0 + \Sigma^-$ decay
events was $q = 61.9 \pm 2.2$ MeV from which the hyperon mass $M_{\Xi^-} = 1117.0 \pm 2.2$
MeV was calculated. The mean lifetime was $\tau = (3.5 \pm 1.2) \cdot 10^{-10}$ sec. The
mean free path of the Ξ^- mesons in Ξ^- -hyperon formation in propane was
 $l = (2.02 \pm 0.04)$ cm for a momentum of 6.8 BeV/c and $l = (0.66 \pm 0.20)$ cm for
 ≈ 8 BeV/c. Assuming that the Ξ^- -hyperon production cross section in nu-

Card 2/4-3

2212A
S/056/61/040/003/004/011
S102/S202

Production of Ξ^- hyperons by ...

Table 1 is $\sim 2/3$, $\sigma = 3.6 \pm 2.5$ is obtained with 6.8 BeV/c and
 $\sigma = 10.6 \pm 4.4 \mu\text{b}$ with ≈ 8 BeV/c. Table 2 gives data on the primary stars
with Ξ^- hyperon production. Table 3 shows the momenta (p_{\perp}), transverse
momentum (p_{\parallel}), angle of departure (θ) of the various particles as well
as the angle between the Ξ^- mesons (ω). Table 4 presents data on
the background events (4 coplanar and 4 noncoplanar ones) where γ par-
ticles were identified as Λ particles. Finally, the authors thank V.I.
Yakler and I.V. Chuvilo for discussion, L.P. Zinov'yev, S.I. Avilov,
K.V. Chekhlov, L.E. Balyayev and various teams of technicians for their
assistance. There are 3 figures, 4 tables, and 7 references. 3 Soviet-
Union and 2 non-Soviet-USSR.

ASSOCIATION: Ob'yedinennyy Institut Yadernykh Issledovaniy
(Joint Institute of Nuclear Research)

SUBMITTED: September 30, 1960

Card 3/4-3

VAN GAN-CHAN [Wang Kang-ch'ang]; VAN TSU-TSEN [Wang TS'u-tseung]; VEKSLER,
V.I.; VRANA, I.; DIN DA-TSAO [Ting Ta-ts'ao]; IVANOV, V.G.;
KALDNITSKAYA, Ye.N.; KUZNETSOV, A.A.; NGUYEN DIN TY; WIKITIE,
A.V.; SOLOV'YEV, M.I.; KHOPMOKL', T.; CHEN LIH-YAN'

Nonconservation of parity in strong interactions with participa-
tion of strange particles. Zhur. eksp. i teor. fiz. 39 no. 6:1854-
1856 D '60. (MIRA 14:1)

1. Ob'yedinennyy institut yadernykh iss'ledovaniy.
(Particles (Nuclear physics))

BIRGER, N.G.; WANG KANG-CH'ANG; WANG TS'U-TS'ENG; TING TA-TS'AO; KATYSHEV,
Yu.V.; KLADNITSKAYA, Ye.N.; KOPYLOVA, D.K.; LYUBIMOV, V.B.; NGUEN
DIN TY; NIKITIN, A.V.; PODGORETSKIY, M.I.; SOLOV'YEV, M.I.

[Inelastic interaction of 6.8 Bev/s J/ψ^- -mesons and nucleons]
Neuprugie vzaimodeistviia J/ψ^- -mezonov s impul'som 6,8 Bev/s s
neuklonami . Dubna, Ob"edinennyi in-t iadernykh issl., 1961. 30 p.
(MIRA 14:11)

(Mesons)

(Nucleons)

C/026/61/017/005/01/000
F050/F004

AUTHOR:

Wang, Kang-ch'ang (3769/3227/2490); Wang, Chu-hsiang (3769/4376/5046); Viryasov, N. M.; Ting, Ta-chao (0002/112/0036); Kim, Hi-in (6855/5593/0088); Kladnitskaya, Ye. N., Kuznetsov, A. A.; Mikhul, A.; Nguyen, Din-ti (7086/0002/6337); Nikitin, A. V.; and Solov'yev, M. L.

TITLE:

Production of Ξ^- hyperons by the use of π^- mesons with a momentum of 7000 Mev/c and 8000 Mev/c

PERIODICAL:

Wu Li Hsueh Pao, v. 17, no. 5, 1961, 205-213

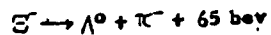
TEXT: The productive cross section σ ($\sigma = 3.6 \pm 2.5 \mu\text{b}/N$ at 6800 Mev/c, $\sigma = 10.6 \pm 4.4 \mu\text{b}/N$ at 8000 Mev/c), mass M_{Ξ^-} ($M_{\Xi^-} = 1317.0 \pm 2.2$ Mev), and lifetime τ_0 ($\tau_0 = 3.5 \pm 3.4 \times 10^{-10}$ sec) of Ξ^- hyperon were determined by the use of π^- mesons having momentums of 6800 Mev/c and 8000 Mev/c. In early investigations Ξ^- hyperons

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C/026/61/017/005/001/006
F050/F004

Production of Ξ^- hyperons by ...

were found by experiments with cosmic rays. A butane bubble chamber 24 liters in volume in a permanent magnetic field of 13700 gauss was used. The chamber was irradiated by a bundle of mesons with momentums of 7000 Mev/c and 8000 Mev/c. The result was 27,000 and 75,000 negatives obtained recording momentums of 6800 ± 600 Mev/c and 8000 Mev/c of π^- mesons. A three-dimensions amplifier and projector were used to trace the negatives twice and some negatives were traced three times. In the tracing process those events which could be classified with Ξ^- hyperon decay scheme $A \rightarrow V^0 + B$, $V^0 \rightarrow C + D$, by appearance were selected. The following standards were applied in the determination of Ξ^- hyperons: (1) V^0 must coincide with kinematics of the decay scheme $\Lambda^0 \rightarrow p + \pi^-$. (2) The refraction point must be within the Λ^0 decay plane. The vertical momentum of π^- meson and proton p, which came from Λ^0 decay relative to the projecting direction of Λ^0 , must be in equilibrium. (3) The Λ^0 decay particles should lie on the plane formed by particles A and B. (4) At the refraction point, the vertical momentum of particles Λ^0 and B particle must be in equilibrium. (5) The events must satisfy kinematics of Ξ^- hyperon decay scheme



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C/026/61/017/005/001/006
F050/F004Production of Ξ^- hyperons by ...

Among all the events there were 11 events which satisfied all 5 standards. Three events coincided well with the kinematics of Ξ^- decay and have been classified with Ξ^- hyperon. Of all Ξ^- hyperons, one was obtained by the bundle of π^- mesons with 6800 Mev/c and then were obtained by the bundle of π^- mesons with 8000 Mev/c. The results of this experiment are listed in four tables: (1) Table 1 lists data of defined Ξ^- . All these data were average values which were obtained by using a microscope to measure two — four times independently. It also lists the decay energy Q and lifetime of all Ξ^- hyperons found in their own coordinate system. (2) Table 2 lists all data concerning the primary stars. These stars have been analyzed as the source of Ξ^- hyperons. (3) Table 3 lists the momentum p^* in a $\pi^- N$ mass center system, vertical momentum p^+ , and projecting angle θ^* of Ξ^- hyperons (suppose Ξ^- hyperons were produced by the impact of π^- mesons to free nuclei). The average vertical momentum ($p_{\Xi^-}^+$) of Ξ^- hyperon is equal to 318 ± 35 Bev. This value is approximate to the vertical momentum of proton and Λ hyperon. This table also lists the characteristics of the following angles: (a) θ_{Λ}^* is the projecting angle of Λ^0 which is projected out from Ξ^- hyperon decay process under its equilibrium

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Production of Ξ hyperons by ...

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F050/F004

system. (b) θ_p^* is the projecting angle of p which was projected out from the decay process in its equilibrium system. (c) $\omega_{\Xi-\Lambda^0}$ is the intersection angle between Ξ and Λ^0 decay planes. In the distribution of θ_p^* and $\omega_{\Xi-\Lambda^0}$, no asymmetry was observed. (4) Table 4 lists the events which seems to be Ξ^- . Among these events, four were in the same plane and fourteen were in different planes. Most of these events in the same plane were induced by $\pi^+\pi$ mesons; the others in different plane events may have been induced by π^+ , π^- or K^- mesons. Thanks are extended to V. L. (Wei Ke Shih Lai Erh), L. V. (Chi Wei Lo), L. P. (Chi Lo Wei Yeh Fu), N. L. (Pa Pu La Fe), K. V. (Chi Ho Lo Fu), and L. N. (Chi Lao Yeh Fu). There are 3 figures and 4 tables. The English-language references read as follows: C. Franzinetti and G. Morpurgo, Suppl. Nuovo Cim. 6 (1957), 565; W. B. Fowler et al. Nuovo Cim. 11 (1959), 428.

SUBMITTED: March 20, 1961

Card 4/4

Nikolov, A.V.

S/050/6/040/002/012/047
3:02/3202

AUTHORS: Yang Kang-ch'ang, Yang Te'u-t'ung, Veznier, V. I., Yrana, I.,
Ding Ta-ta'ao, Ivanov, V. J., Kladnitskaya, Ye. N.,
Kuznetsov, A. A., Nguyen Din T', Nisitin, A. T., Solov'yev,
H. I., Ch'eng Ling-yen

TITLE: Production of $\Lambda^{0, \pm 0}$ hyperons and K^0 mesons in π^+p interactions with a π^+ meson momentum of 6.9 ± 0.6 Bev/c

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 40,
no. 2, 1961, 464-474

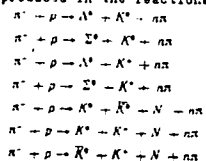
TEXT: The $\Lambda^{0, \pm 0}$ and K^0 production in π^+p collisions has hitherto been studied only for threshold momenta of (0.9 - 1.4) Bev/c; to explain the nucleon structure and the interaction, studies must be made at higher energies. The studies described were made with a 24-liter propane bubble chamber and a constant magnetic field of 13,700 gauss. The experiment is described in Ref. 2 (ZhETF, 28, 426, 1960). The pictures were taken with a stereophotocamera with "Rusarplazmat" objectives (focal length 67 mm). The pictures were evaluated 2 or 3 times with stereo-magnifiers and reproducers.

Card 1A

Production of ...

S/256/61/040/002/012/047
B102/3202

In this case, efficiency was 91 and 96%. Λ^0 and Σ^0 particles were selected according to rigorous rules. Altogether, 233 events conforming to these criteria were observed; space coordinates, angles, and momenta of these events were calculated by the electronic computer "Ural". The values obtained were geometrically corrected (consideration of the observation probabilities for Λ^0 and K^0 decays in the chamber volume as well as for Λ^0 and K^0 production). The number of events, in which 0, 2, 4, or 6 charged particles were observed besides K^0 and/or Λ^0 particles are given in Table 1. The mean number of charged particles accompanying a Λ^0 or K^0 production was 2.5-0.1; also K^0 mesons were observed among these charged particles. The neutral particles recorded were produced in the reactions



Card-2/11

1968.6.1 240/202/012/047
1102/3202

Production of ...

$\sigma(K^+K^+) = 0.11 \pm 0.02$	$\sigma(K^+K^0) = 0.11 \pm 0.02$	for the reactions	(8.3)
$\sigma(K^+K^+) = 0.15$	$\sigma(K^+K^0) = 0.15$	$\sigma(K^+K^+) = 0.17$	(9)
$\sigma(K^+K^+) = 0.11 \pm 0.02$	$\sigma(K^+K^0) = 0.11 \pm 0.02$	$\sigma(K^+K^+) = 0.17$	(10)
$\sigma(K^+K^+) = 0.11 \pm 0.02$	$\sigma(K^+K^0) = 0.11 \pm 0.02$	$\sigma(K^+K^+) = 0.17$	(11)

were possible. In the following, the reactions are referred to only by these figures; the cross sections are indicated by (1). The total cross section of K^+K^+ and K^+K^0 production on free protons was found to be 2.0 ± 0.25 mb taking account of all corrections, including the admixture and the efficiency of observation. In this case, $\sigma(K^+K^+) = 0.8 \pm 0.25$ mb, $\sigma(K^+K^0) = 1.2 \pm 0.1$ mb, $R = \sigma(K^+K^+)/\sigma(K^+K^0) = 0.7 \pm 0.2$. Momentum and angular distributions are illustrated in several diagrams. The mean transverse momenta of K^+ and K^0 particles, 398 ± 35 and 393 ± 35 MeV/c, respectively, were equal within the limits of measurement errors. $\sigma(K^+K^+)$ and $\sigma(K^+K^0)$ pair production cross sections: The experimental results indicate that at energies of 2 Bev, the K^+K^+ pair production cross section is higher than that of K^+K^0 . The ratio reads

Card 3A

Production of ...

0.256/5/040/002/0-2/047
3/22/8202

$$R = \frac{\sigma(\pi^+\pi^0) + \sigma(\pi^-\pi^0)}{\sigma(\pi^+\pi^+) + \sigma(\pi^-\pi^-) + \sigma(\pi^+\pi^0) + \sigma(\pi^-\pi^0)} = 0.7 \pm 0.2.$$

The authors only studied $\pi^+\pi^0$, $\pi^-\pi^0$, and $\pi^+\pi^-$, and obtained

$$R = \frac{\sigma(\pi^+\pi^0) + \sigma(\pi^-\pi^0)}{\sigma(\pi^+\pi^+) + \sigma(\pi^-\pi^-) + \sigma(\pi^+\pi^0) + \sigma(\pi^-\pi^0)} = 0.5 \pm 0.15.$$

Near the production threshold (0.96 Bev, $\sigma(\pi^+\pi^0) = 1.1$ mb; it drops to 0.4 mb at 1.2 Bev, and increases again to 0.6 mb at 1.5 Bev. The ratio $\sigma(\pi^+\pi^0)/\sigma(\pi^+\pi^+)$ was experimentally determined to be 0.7; the theoretically obtained value (statistical theory) was 7.5. Mean multiplicity of charged particles: At 6.0 Bev, not only strange particles but also charged and uncharged particles were produced. In the case of multiple pion production, the mean number of charged particles was $\bar{n}_c = 3.2 \pm 0.2$, and in strange-particle production, $\bar{n}_s = 2.5 \pm 0.1$. Pions constitute the main part of charged particles. It can be concluded from the energy balance in a production event that the number of pions produced together with a strange particle is lower than in the case of ordinary multiple pion production. This is in

Card 4/4

001 001 0040/002/002/001
001/B02

Production:

L. A. Belyaev, I. A. Gerasimov, V. I. Korotkiy, and T. Khodzinski and K. A. Kr. ...
Y. ...
...
High Energy Physics at CERN, Geneva, and ...
W. ...

ASSOCIATION: ... Joint Institute ...

SUBMITTED: September 1962

Fig. 1. Momentum distributions of ... in the c.m.s. total spectrum ...
Fig. 2. Angular distribution in the c.m.s. number of events given in parentheses

Cond 6/12

BIRGER, N.G.; VAN GAN-CHAN [Wang Kang-ch'ang]; VAN TSU-TSZEN [Wang TS'u-tsêng];
DIN DA-TSAO [Ting Ta-ts'ao]; KATYSHEV, Yu.V.; KLADNITSKAYA, Ye.N.;
KOPYLOVA, D.K.; LYUBIMOV, V.B.; NGUYEN DIN TY; NIKITIN, A.V.;
PODGORETSKIY, M.I.; SMORODIN, Yu.A.; SOLOV'YEV, M.I.; TRKA, Z.

Inelastic interactions of 6.8 Bev./c π^+ -mesons with nucleons.
Zhur. eksp. i teor. fiz. 41 no.5:1461-1474 N '61. (MIRA 14:12)

1. Ob'yedinennyy institut yadernykh issledovaniy.
(Collisions (Nuclear physics))
(Mesons) (Nucleons)

NIKITIN, A.V.

ARLOV, R. A., KOPLOVA, D. K. LYUBNOV, V. B., ~~NIKITIN, A. V.~~, PODGORETSKIY, M. I.,
PORTNOVA, S. I., RIBAEV, H., STRELTSOV, V. N., TRKA, S., and SHKLOVSKAYA, A. I.
RISAYEV G.

"Inelastic Interactions of π^- Mesons with Nucleons at 7 Gev"

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

Joint Institute for Nuclear Research,
Laboratory of High Energy, Dubna, 1962

LYUBIMOV, V.B.; NIKITIN, A.V.; TRKA, Z.; SARANTSEVA, V.R., tekhn.
red.

[Properties of π^0 -mesons generated in inelastic collisions of
7 Bev π^- -mesons with nucleons] Svoistva π^0 -mezonov, obrazu-
iushchikhsia v neuprugikh stolknoveniakh π^0 -mezonov s nuklonami
pri energii 7 BEV. Dubna, Ob"edinennyi in-t iadernykh issl., 1962.
7 p. (MIRA 15:6)

(Mesons) (Collisions (Nuclear physics))

ACCESSION NR: AP4012550

S/0056/64/046/001/0232/0242

AUTHORS: Vishnevskiy, V. F.; Tu, Yuan-ts'ai; Moroz, V. I.; Nikitin, A. V.; Troyan, Yu. A.; Chiang, Shao-chun; Chang, Wen-yu; Chakhbazyan, B. A.; Yen, Wu-kuang

TITLE: Possible scheme of production of Λ hyperons via isobars in negative pion -- proton interactions at 7--8 BeV energy

SOURCE: Zhurnal eksper. i teoret. fiz., v. 46, no. 1, 1964, 232-242

TOPIC TAGS: LAMBDA hyperon production, negative pion proton interaction, baryon isobar, meson isobar, baryon isobar decay, meson isobar decay, strange particle production, two particle reaction

ABSTRACT: In view of the failure of the statistical model to explain the two peaks in the momentum distribution of the Λ hyperons produced by negative pions with 7--8 BeV energy observed in Dubna (V. I. Weksler, I. Vrana, Ye. N. Kladnitskaya et al., Preprint, OIYAI, D-806,

Card 1/3

ACCESSION NR: AP4012550

offer some evidence that the π^-p interactions with strange-particle production is, with noticeable probability, a two-particle reaction whose products can be isobars. "The authors take the opportunity to thank V. I. Veksler for interest and support, to the propane-chamber crew of the OIYaI high-energy laboratory, to V. S. Bareshenkov, D. A. Blokhintser, G. Domokosh, L. Pater and the Chinese physicists working at the Joint Institute for useful discussions, and also V. P. Solomakhina, V. M. Ponomareva, and M. I. Chikvareva for help with the data reduction."

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

SUBMITTED: 21May63

DATE ACQ: 26Feb64

ENCL: 00

SUB CODE: PH

NO REF SOV: 006

OTHER: 006

Card 3/3

VISHNEVSKIY, V.F.; DU YUAN'-TSAY [Tu Yuan-ts'ai]; MOROZ, V.I.; NIKITIN, A.V.;
TROYAN, Yu.A.; TSZYAN SHAO-TSZYUN' [Chiang Shao-chün];
CHZHAN VEN'-YUY [Chang Wên-yü]; SHAKHBAZYAN, B.A.;
YAN' U-GUAN [Yen U-kuang]

Applicability of an isobaric model simulating the formation of
 Λ -hyperons in $\bar{N}p$ -interactions. IAd. fiz. 1 no.6:1101-1105
Je '65. (MIRA 18:6)

1. Ob'yedinennyy institut yadernykh issledovaniy.

L 05054-87 EWT(m)/EWT(t)/ETI IFF(c) JE/JR/GD
ACC NR: AT6027929 SOURCE CODE: UR/0000/66/000/000/0141/0149

AUTHOR: Veselkin, A. P.; Netecha, M. Ye.; Nikitin, A. V.

ORG: None

TITLE: Energy distribution of neutron dose rate in various shielding materials and compositions

SOURCE: Voprosy fiziki zashchity reaktorov (Problems in physics of reactor shielding); sbornik statey, no. 2. Moscow, Atomizdat, 1966, 141-149

TOPIC TAGS: radiation dosimetry, reactor shielding, neutron spectrum, neutron cross section

ABSTRACT: A method is proposed for calculating dose rate from the entire neutron spectrum based on the use of three familiar ideas from the theory of ionizing radiation penetration through matter: the removal cross section method, the multigroup method for solution of the kinetic neutron transfer equation in the age-diffusion approximation and the concept of the "dosage accumulation factor" for neutron radiation similar in form to the corresponding concept for γ -quanta. The method is applicable only within limitations imposed by the removal cross section method and five-group calculation of neutron distribution in the age-diffusion approximation. It is shown that the introduction of a heavy moderator (e. g. iron, titanium, etc.) into a hydrogen-containing

Card 1/2

U. 05054-67

ACC NR: AT6027929

material increases the contribution made by intermediate neutrons to the total dose rate. A comparison of theoretical and experimental data shows a difference of less than 20% between calculated and measured dosage accumulation factors. This shows that the proposed method for calculating biological shielding gives sufficiently accurate data on the total radiation dose with respect to neutrons of all energies. Orig. art. has: 2 figures, 6 tables, 3 formulas.

SUB CODE: 18/ SUBM DATE: 12Jan66/ ORIG REF: 009/ OTH REF: 002

Card 2/2 *pla*

L 04596-67 EWT(m)/EWP(t)/ETI IJP(c) JD/HW/JG/WB/JR

ACC NR: AP6032402

SOURCE CODE: UR/0009/66/021/003/0184/0189

AUTHOR: Veselkin, A. P.; Nikitin, A. V.

77

ORG: none

68

TITLE: Activation of corrosion products in nuclear reactors

B

SOURCE: Atomnaya energiya, v. 21, no. 3, 1966, 184-189

TOPIC TAGS: nuclear reactor, nuclear debris, corrosion, water cooled reactor, water filter, mass flow rate, mass transfer, mathematic model

ABSTRACT: A study was made of the activation of corrosion products and their mass transport in pressurized and boiling water reactors. A mathematical model of the corrosion reactions and the mass transfer of corrosion products included a solution of a system of mass transfer equations for the steady state case and an approximate solution of the transient case during ⁶⁰Co buildup. Sets of mass transport equations are given for the full buildup of *i* elements in each section of a boiling-water reactor. The solutions, solved for *t* (operation time) + ∞, indicated that the total amount of corrosion products in the reactor water is independent of the deposition rate and of the particle erosion rate. Two mass transport parameters were established: ω--the precipitation probability (sec⁻¹), and γ--the particle erosion probability (sec⁻¹). Since the total amount of corrosion products on reactor surfaces exceeds their concentration

Card 1/2

UDC: 621.039.56

ACC NR: AF7002169

(A, N)

SOURCE CODE: UR/0089/66/021/006/0509/0511

AUTHOR: Veselkin, A. P.; Nikitin, A. V.; Orlov, Yu. V.

ORG: none

TITLE: Investigations with the radiation loop of a water-water reactor

SOURCE: Atomnaya energiya, v. 21, no. 6, 1966, 509-511

TOPIC TAGS: water cooled nuclear reactor, reactor neutron flux, gamma flux, irradiation apparatus, radioactive source

ABSTRACT: The authors describe a test made to explain the possibilities of research with a water-water reactor, aimed at eliminating the undesirable presence of a wide range of mixed radiation with a wide energy spectrum. To this end, the water-water reactor was equipped with a radiation loop with a set of emitters of different geometric shape. The emitters were produced by passing high-purity water through the reactor, and using the irradiated water as a secondary source of radiation. The particular investigation was carried out with a source in the form of 8 mm tubing wound to make a disc of outside diameter 470 mm and inside diameter 30 mm. Measurements were made of the distribution of the γ quantum energy and of the radioactivity as functions of the distance to this type of source, and other source parameters are calculated. The radiation loop was also used to measure the relative concentration of the chemical forms of N^{16} produced in the water passing through the reactor. The loop is being reconstructed to increase its intensity. The authors thank A. V. Zhenikhova for sys-

Cerd 1/2

UDC: 621.039.573

ACC NR: AP7002169

tematic monitoring of the pH of the reactor water, V. V. Gerasimov for preparing the ion-exchange columns and for the measurements and a discussion of the results, Yu. G. Anisimov for help with the measurements and the data reduction, and the reactor crew for constructing and operating the loop. Orig. art. has: 2 figures and 6 formulas.

SUB CODE: 18/ SUBM DATE: 21Dec65/ ORIG REF: 001/ OTH REF: 004

Card 2/2

RUDNEVA, A.V.; NIKITIN, A.V.; BELOV, N.V., akademik

Cefluorosil Ce-britholite. Dokl. AN SSSR 146 no.5:1182-1183 0 '62.
(MIRA 15:10)

(Britholite)

NIKITIN, A.V.; BELOV, H.V., akademik

Crystal structure of batisite $\text{Na}_2\text{BaTi}_2\text{Si}_4\text{O}_{14} = \text{Na}_2\text{BaTi}_2\text{O}_2[\text{Si}_4\text{O}_{12}]$.
Dokl. AN SSSR 146 no.6:1401-1403 0 '62. (MIRA 15:10)
(Batisite)

S/070/63/008/001/001/024
E132/E460

AUTHORS: Ilyukhin, V.V., Nikitin, A.V.

TITLE: Observations on the application of the statistical analysis of intensities

PERIODICAL: Kristallografiya, v.8, no.1, 1963, 5-9

TEXT: The statistical distribution of intensities is examined for the case of an atom in a special position with one parameter (linear symmetry). The influence of chance errors and "pseudoperiodicity" (pseudocentering) on the classical formulas of E.R.Howells, D.Rogers and D.C.Phillips is shown. Errors in the estimation of intensities affect the distribution $N(z)$ and may give, in extreme cases, a false estimate of the symmetry, asymmetric crystals appearing as centered and centered as hypercentric. The omission of non-observed reflections may also affect $N(z)$ for small z . An analysis is made of a two-dimensional case with different degrees of pseudo-symmetry (measured by $n = \frac{F_{\text{odd}}^2}{F_{\text{even}}^2}$). The curves of $N(z)$ are displaced by rotation, the intercept with the ordinate axis moving up to 25% for the case $n = 0.5$. Examples of such distributions are shown -
Card 1/2

NIKITIN, A.V.; BELOV, N.V., akademik

Crystalline structure of clinohedrite $\text{Ca}_2\text{Zn}_2(\text{OH})_2\text{Si}_2\text{O}_7 \cdot \text{H}_2\text{O} =$
 $2\text{CaZn}[\text{SiO}_4] \cdot \text{H}_2\text{O}$. Dokl. AN SSSR 148 no.6:1386-1388 F '63.
(MIRA 16:3)

1. Institut kristallografii AN SSSR.
(Minerals) (Crystallography)

NIKITIN, A.V.; SIMONOV, V.I.

Effect of temperature correction on the divergence factor in
the structural analysis of crystals. Kristallografiia 8 no.3:
446-449 My-Je '63. (MIRA 16:11)

1. Institut kristallografii AN SSSR.

ILYUKHIN, V.V.; NIKITIN, A.V.

Remarks on the application of the statistical analysis of intensities. Kristallografiia 8 no.1: 5-9 Ja-F*63

(MIRA 1747)

1. Institut kristallografii AN SSSR.

L 17080-65

ACCESSION NR: AP5000303

S/0070/64/009/006/0943/0945

AUTHOR: Litvin, B. N.; Mal'nikov, O. K.; Ilyukhin, V. V.;
Nikitin, A. V.

TITLE: New sodium-zinc silicates B

SOURCE: Kristallografiya, v. 9, no. 6, 1964, 943-945

TOPIC TAGS: sodium zinc silicate, activated sodium zinc silicate,
manganese, luminescence activator, crystal hydrothermal growth,
sodium zinc silicate crystal, sodium zinc silicate property

ABSTRACT: Seven crystalline phases have been synthesized, six of them for the first time, in the $Na_2O-ZnO-SiO_2-H_2O$ system under hydrothermal conditions, and their optical and crystallographic characteristics have been determined. The study was initiated on the theory that zinc in the compounds would have a coordination number of four and that such compounds, if activated with manganese, would display a green luminescence; this is known to be the case in activated zinc silicates. The synthesis was carried out in an autoclave at 350—550C with mixtures of pure ZnO and SiO_2 in sodium hydroxide

Card 1/2

L 27080-65

ACCESSION NR: AP5000303

solutions and in the presence of an MnO activator. The chemical composition, specific gravity, hardness, refractive index, and x-ray crystallographic data were tabulated for all phases. Five of the phases displayed a yellow-green luminescence. Two of them, in addition, had a piezoelectric effect, which makes them potentially valuable for technical applications. Orig. art. has: 4 tables.

ASSOCIATION: Institut kristallografi AN SSSR (Institute of Crystallography, AN SSSR)

SUBMITTED: 27 Jan 64

ENCL: 05

SUB CODE: SS, GC

NO REF SOV: 003

OTHER: 000

ATD PRESS: 3148

Card 2/2

~~NIKITIN, A.V.; LITVIN, V.V.; LITVIN, B.S.; M. L'NIKOV, O.S.; S. L'V, N.T.,~~
EKA 1014

Crystal structure of synthetic sodium titanate. *Acta Cryst.* 1964, 21, 1355-1357.
Dokl. AN SSSR 157 no. 6:1355-1357. Apr. 1964.

L 00/09-01 FSS-2/EWT(1)/SEC(S)-2 SCSB TT/DD/GD/GW 12

ACC NR: AT6036480

SOURCE CODE: UR/0000/66/000/000/0034/0036

AUTHOR: Arzhanov, I. M.; Beregovkin, A. V.; Bryanov, I. I.; Buyanov, P. V.;
Zaloguyev, S. N.; Kamen'shchikov, Yu. V.; Kovalov, V. V.; Krasovskiy, A. S.;
Kuznetsov, S. V.; Litsov, A. N.; Nikitin, A. V.; Nistratov, V. V.; Poruchikov, Ye. A.;
Potkin, V. Ye.; Teret'yev, V. G.; Fedorov, Ye. A.; Khlebnikov, G. F.;
Yaroshenko, G. L.

ORG: none 61
671

TITLE: Results of clinical and physiological investigations of the crew of the first multiman Voskhod spacecraft [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24 to 27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 34-36

TOPIC TAGS: space medicine, space physiology, weightlessness, bodily fatigue, stress reaction, combined stress, cardiovascular system, central nervous system, manned spaceflight/Voskhod-1

ABSTRACT: The inclusion of a physician in the crew of the Voskhod-1 made it possible to increase medical investigations of the crew members during flight and to compare them with results of preflight and postflight examinations. The scope of the physiological examinations was selected in order to obtain a more complete evaluation of the functional condition of the cardiovascular and central nervous systems, and the function of

Card 1/4

L 08269-67

ACC No. AT6036480

external respiration of the cosmonauts. Physical exercises and ortho-
static tests were included to detect earlier signs of physiological shifts. 0

Examinations were carried out before and after training in the ship, where certain conditions of flight were simulated, and also two weeks before flight. Postflight examination was begun fifteen minutes after landing and was continued for the first four days after the flight and also two weeks later.

After landing, the cosmonauts were active, looked somewhat excited, and complained of general fatigue. They were found to have hyperemia of the mucosa of the upper respiratory tract and conjunctivitis.

Komarov's weight dropped by 2.6%, Feoktistov's weight dropped by 4%, and Yegorov's by 3.9%. Weight loss was determined by Zhdanov to be due to water and fat loss. Neurological examination revealed a light swaying in the Romberg position, a tremor of the fingers, and increased perspiration. In addition, Yegorov showed a contraction of the retinal arteries. Disruption of vision and vestibular difficulties were not noted. Changes in EEG indicated an increase in inhibitory processes in the cortex of the brain. A diminution in work capacity was established by

Card 2/4

ACC NR: AT6036480

psychological experiments (increase in the number of mistakes, increase in latent periods). 0

Indices of cardiovascular activity during rest did not exceed wide norms. However, an increase in pulse frequency was noted (Komarov up to 96, Feoktistov up to 100, and Yegorov up to 94 beats/min), as well as moderate drop in arterial pulse pressure at the expense of an increase in diastolic pressure. All three cosmonauts, when subjected to exercise, showed a significant increase in the pulse rate and inertia in the stroke volume. Feoktistov and Yegorov showed a significant diminution in the heart stroke volume and minute circulation of the blood during the passive orthostatic test. This could indicate a disruption of the venous inflow to the heart.

Postflight blood examinations indicated neutrophilic leukocytosis and eosinopenia. Urine was found to contain significant quantities of salts, chiefly urates, single erythrocytes (in the field of vision), and an increase in the excretion of 17-oxycorticosteroids. Eosinopenia, an increase in excretion of products of hormone decomposition, indicated the development of a stress reaction in cosmonauts. Since some of the indications found on the flight were also found after training in the train-

Card 3/4

L 08269-67

ACC NR: AT6036480

ing ship, there is reason to attribute them to limitation of motor activity under conditions of weightlessness. The functional shifts found after flight are indications of a general fatigue, a moderate stress reaction, and a certain amount of detraining. In general, the changes observed in the cosmonauts were of one type. The differences found between the cosmonauts can be attributed to individual differences. [W.A. No. 22; ATD Report 66-116]

SUB CODE: 06, 22 / SUBM DATE: 00May66

Card 4/4 *eyz*

L 08268-67 FSS-2/EWT(1)/EEC(k)-2 SCTB TT/DD/GD/GW

ACC NR: AT6036481

SOURCE CODE: UR/0000/66/000/000/0036/0637

AUTHOR: Arzhanov, I. M.; Bryanov, I. I.; Baturenko, V. A.; Beregovkin, A. V.;
Buyanov, P. V.; Kovalev, V. V.; Kondrakov, V. M.; Krasovskiy, A. S.; Kuznetsov, O. N.;
Kuznetsov, S. V.; Nikitin, A. V.; Nistratov, V. V.; Teret'yev, V. G.; Fedorov, Ye. A.;
Khlebnikov, G. V.

10
52
B+1

ORG: none

TITLE: Some results of the postflight examination of P. I. Belyayev and A. A. Leonov following their flight on the Voskhod-2 spacecraft [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24 to 27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 36-37

TOPIC TAGS: space medicine, postflight medical examination, bodily fatigue, body weight, cardiovascular system, oculocardiac reflex, unconditioned reflex, space psychology, oxygen consumption, respiration, pulmonary ventilation/Voskhod-2

ABSTRACT: Postflight examinations of the Voskhod-2 crew members, Leonov and Belyayev, were performed on the third and fourth days after the flight and again a month later. The cosmonauts complained of light fatigue. They were found to have hyperemia of the mucosa of the nose and throat and conjunctivitis of the eyelids and eyeballs. They had lost weight

Card 1/3

L 08268-67

ACC NR: AT6036481

Their pulse showed a certain lability. Pulse frequency rose significantly during mild physical exertions and changes in the position of the body. There was an increase in intraventricular conductivity, an increase in the systolic index (7—11%), and a delay in restoration of hemodynamic indices after physical exercise.

Belyayev's oxygen consumption increased by 23% and Leonov's by 14% as compared with preflight levels. Vital capacity of the lungs diminished by 8—12%, while pulmonary ventilation increased by 51—18%.

Neurological examinations revealed a light tremor of the fingers, a high orthostatic reflex with an absence of pulse reaction to the oculocardiac reflex, and an increase in the slow bioelectrical activity of the brain cortex. Psychological tests revealed an increase in distribution and in the middle magnitudes of the duration of the period of sensory motor reaction. Since this was not accompanied by errors, it is possible to assume that the fatigue observed in cosmonauts was a compensatory reaction. Blood and urine examination on the third day after flight did not differ substantially from preflight levels. Biochemical examination uncovered an increase of chlorides, adrenalin, noradrenalin, and 17-oxy corticosteroids in the urine.

Card 2/3

L 08268-67

ACC NR: AT6036481

The observed shifts in physiological indices were short-term and reversible. They indicated the development of moderately marked fatigue in the subjects. Thus, despite the complexity of the flight, the postflight examinations revealed only moderate functional changes in the two cosmonauts. There was no difference in the nature of these changes in the cosmonauts. This indicates a high degree of training and a good neuropsychological and physical preparation for spaceflight. [W.A. No. 22; ATD Report 66-116]

SUB CODE: 06, 22 / SUBM DATE: 00May66

Card 3/3 *egk*

NIKITIN, A. V. (Engineer) (Institute of electric welding)

"The results of investigation of a process of welding, on the fusion and resultant structure of combinations of aluminum with copper." During the on burst/break destruction, as a rule, occurs on/by aluminum.

Report presented at the 1st All-Union Conference on welding of heterogeneous metals, at the Inst of Electric Welding im. Ye. O. Paton, 14-15 June 1963.
(Reported in Avtomaticheskaya svarka, Kiev, No. 7, Sept 1963, pp 95-96 author, V. k. Ryabov)

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NIKITIN, A.V.

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1. Iz kafedry gosital'noy terapii (zav. - prof.V.S.Nesterov)
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(HEART--DISEASES)