"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, L.A., prof.

Biocatalysts. Priroda 52 no.10:13-23 '63. (MIRA 16:12)

1. Moskovskiy institut inzhenerov transporta.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, L.A.

Principles of modeling of biocatalysts. Usp.khim. 33 no. 5: 580-601 My '64. (MIRA 17:6)

1. Moskovskiy institut inzhenerov transporta.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, Lev Aleksandrovich; TULUPOV, Vladimir Alekseyevich; Prinimal uchastiye LUNIN, M.A., dots.; ALAVERDOV, Ya.G., red.; STUKOVNIN, N.D., red.

[Physical chemistry] Fizicheskaia khimiia. Moskva, Vysshaia shkola, 1964. 440 p. (MIRA 17:9)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

DRAVSKIKH, A.F.; NIKOLAYEV, L.A.; UMETSKIY, V.N.; TARAYENKO, V.G.

Powerful high-stability source of low voltage. Izv. GAO 23 no.3:243-244 '64. (MIRA 17:11)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, Lev Aleksandrovich

[Chemistry of the cell] Khimiia kletki. Moskva, Nauka, 1964. 148 p. (MIRA 18:1)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, Lev Aleksandrovich; ALAVERDOV, Ya.G., red.; [illegible], N.D., red.

[Biocatalysts and their models] Biokatalizatory i ikh modeli. Moskva, Vysshaia shkola, 1964. 197 p. (MIRA 18:3)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

USSR/Agriculture-Wool growing

Card 1/1 Pub. 77 - 4/29

Authors : Nikolaev, L. I., Prof.

Title : The golden fleece

Periodical : Nauka i zhizn' 21/12, 10-11, Dec 1954

Abstract : An explanation is given of how the requirement of the 5th five-year plan for increasing wool production by two to two-and-one-half times can be met with an increase in the number of sheep of only 30%. This is accomplished by increasing the number of those sheep which produce the long fibers of fine quality. Figures are presented to show how these results are worked out, as well as the progress already attained in this direction. Illustration.

Institution : ...

Submitted : ...

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, L.K.

AUTHOR: Nikolayev, L.K., Engineer 110-1-18/19

TITLE: Discussion of the Article by A.Ya.Lemberg, Vestnik Elektropromyshlennosti, 1957, no.6 "On the Design of the Most Powerful Possible Generator for a Diesel-electric Locomotive Using Single-armature Construction" (O proyektirovanii moshchnogo predel'no ispol'zovannogo teplovoznogo generatora v odnoyakornom ispolnenii) (Po povodu stat'i A.Ya.Lemberga)

PERIODICAL: Vestnik Elektropromyshlennosti, 1958, Vol.29, no.1, pp. 78 - 79 (USSR).

ABSTRACT: This letter is rather critical of Lemberg's article. It doubts whether such a large machine should be made without a compensating winding and adduces reasons briefly.

SUBMITTED: August 20, 1957

AVAILABLE: Library of Congress

Card 1/1

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAIEV, L.K.

Causes of insufficient heat exchange in the fat cooler of the "Titan" unit and ways for its intensification. Izv.vys.ucheb.zav.; pishch.tekh. no.3:92-96 '62. (MIRA 15:7)

1. Leningradskiy tekhnologicheskiy institut kholodil'noy promyshlennosti, kafedra tekhnologicheskogo oborudovaniya pishchevykh proizvodstv.
(Refrigeration and refrigerating machinery) (Oils and fats)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, L. K.

Determining the design criterion of a tubular fat cooler. Mias. ind. SSSR 33 no.4:49-51 '62. (MIRA 17:2)

1. Leningradskiy tekhnologicheskiy institut kholodil'noy promyshlennosti.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, L.K.; SOKOLOV, I.I.

Technical and economic efficiency of fat cooling in a cooler with knife rolls. Izv.vys.ucheb.zav.; pishch.tekh. no.5:7-9 '63. (MIRA 16:12)

1. Leningradskiy tekhnologicheskiy institut kholodil'noy promyshlennosti, kafedra tekhnologicheskogo oborudovaniya pishchevykh proizvodstv i kafedra ekonomiki promyshlennosti i organizatsii proizvodstva.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, L.K.

Determining the coefficients of heat transfer for the "Titan" type oil cooler. Izv. vys. ucheb. zav.; pishch. tekh. no.6:113-116 '63. (MIRA 17:3)

1. Leningradskiy tekhnologicheskiy institut kholodil'noy promyshlennosti, kafedra tekhnologicheskogo oborudovaniya pishchevykh proizvodstv.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, L.K.

Intensification of the heat exchange in the cooling of animal fats. Izv.vys.ucheb.zav.; pishch.tekh. no.1:147-152 '64. (MIRA 17:4)

1. Leningradskiy tekhnologicheskiy institut kholodil'noy promyshlennosti, kafedra tekhnologicheskogo oborudovaniya pishchevykh proizvodstv.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, L.K., inzh.; KUZNETSOVA, N.V., inzh.; NIKOLAYEVA, V.V., inzh.

Use of different types of electrical machines. Elektrotekhnika 36 no.1:15 Ja '65. (MIRA 18:3)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, L.N.

NIKOLAYEV, L.N., inzhener

Effect of the size of the groove and the type of the dowel on the strength of dowel joints. (From: Journal of Forest Products Research Society, 1953 vol.3, no.4, XI, p.14-17, 72.) Der.prom. 4 no.8:31-32 Ag '55. (MLRA 8:10)

(Joinery)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, L.N., inzhener

New type of steaming chamber (From: "Wood" no.1, 1955) Der.prom.4 no.9:31-32 S '55. (MLRA 8:11)
(Woodworking machinery)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAIEV, L.N., inzhener.

Mechanized finishing of panels with synthetic resins. (From "The Timber Trades Journal" no.4109, 1955). Der.prom.4 no.10: 31-32 O '55. (MLRA 9:1)

(Wood finishing)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, L.N., inzhener.

Effect of heating on the mechanical properties of wood (From: "Proceedings Fiftieth Annual Meeting of the American Wood-Preservers' Association," Vol.50, 1954). Der.prom. 4 no.11:31-32 N '55. (United States--Wood--Testing) (MLRA 9:2)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAIEV, L.N., inzhener.

Furniture from hard wood fiber panels (From "Timber Trades Journal" no.4124, 1955 and "The Cabinet Maker" no. 2919, 1955). Der.prom. 5 no.1:31 Ja '56. (MLRA 9:5)
(Great Britain--Furniture industry)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, L.N. inzhener.

Tools for transversal rib-gluing of veneer (From "Veneers and Plywood" no.9, 1955). Der.prom. 5 no.2:31 F '56. (MLRA 9:5)
(Switzerland--Veneers and veneering)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

AMIREYEV, S.D., inzhener; NIKOLAYEV, L.N., inzhener.

Production line for making barrels. Der.prom.5 no.6:25 Je '56.
(MLRA 9:9)

1.TSentral'naya nauchno-issledovatel'skaya laboratoriya rybnoy tary.
(Astrakhan--Barrels) (Assembly-line methods)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

AUTHOR: Nikolayev, L.N., Engineer, 118-58-5-17/18

TITLE: Foreign Technique (Tekhnika za rubezhom) Automated Lumber Mill (Avtomatizirovannyy lesozavod)

PERIODICAL: Mekhanizatsiya Trudoyemkikh i Tyazhelykh Rabot, 1958, Nr 5, pp 45-46 (USSR)

ABSTRACT: The author describes the building, equipment and the operating method of the highly automated lumber mill of the Latcher and Moore Lumber Company in the USA. The article contains 1 photo and a schematic drawing.

AVAILABLE: Library of Congress

Card 1/1 1. Wood-Processing-USSR 2. Wood-Processing-Automation

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

AUTHOR: Nikolayev, L.N., Engineer

SOV/118-58-11-16/19

TITLE: Engineering Abroad (Tekhnika za rubezhom) Automation of Railroad Crosstie Production (Avtomatizatsiya proizvodstva zheleznodorozhnykh shpal)

PERIODICAL: Mekhanizatsiya trudoyemkikh i tyazhelykh rabot, 1958, Nr 11, pp 44-45 (USSR)

ABSTRACT: This is a description of an automatic machine-tool for the manufacture of crossties, designed and produced by the British firm "Thomas Robinson and Son, Limited". There are 3 photographs.

1. Tracks (Railroad)--Equipment 2. Wood--Processing
3. Industrial equipment--Gt. Brit.

Card 1/1

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

LASHCHAVER, Sergey Mikhaylovich; NIKOLAYEV, Leonid Nikolayevich; GERASIMOV, S.A., red.; MOROZOV, Yu.V., red.izd-va; BACHURINA, A.M., tekhn.red.

[Sawmill practices in foreign countries] Lesopil'noe proizvodstvo zarubezhnykh stran. Moskva, Goslesbumizdat, 1959. 176 p. (MIRA 13:12)
(Sawmills)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, L.N.

Control of papermaking machinery by means of systems with a computer. Bum. prom. 37 no.7:30-31 Jl'62. (MIRA 17:2)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, L.M., inzh.

Continuous grinding of the stock for high-grade paper manufacture. Bum. prom. 38 no.5:27 My '63. (MIRA 16:8)

(Paper machinery)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, L.V.

Checkered rods with verniers. Geod. i kart. no. 10:41-42 O '60.
(MIRA 13:12)

(Surveying--Instruments)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

LOPYREV, V.A.; NIKOLAYEV, L.V.

Micaceous window for dismountable vacuum instruments.
Prib. i tekh.eksp. 6 no.4:163-164 Jl-Ag '61. (MIRA 14:9)

1. Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom gosudarstvennom universitete.
(Vacuum apparatus)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, L.Z., professor.

Catalytic properties of complex metal compounds. Khim. nauka i prom. 2 no.2:202-209 '57. (MIRA 10:6)
(Complex compounds) (Catalysis)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAIEV, M.

Let us use our resources. Avt.transp.33 no.1:38 Ja'55.
(MLRA 8:3)

1. Krasnodarskiy avtotrest "Rosselkhoztrans".
(Krasnodar—Transportation, Automotive)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAIEV, N.

Dump-truck hopper body designed for grain hauling. Avt.transp. 33 no.3:10-11 Mr '55. (MLRA 8:5)

1. Krasnodarskiy avtotrest "Raspredelitel'."
(Dump trucks)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, M.

Use of truck-tractors with semitrailers. Avt. transp. 33 no.4: 22 Ap '55. (MLRA 8:7)
(Motor trucks--Trailers)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, M.

Mechanizing the loading and unloading of grain. Avt. transp. 33 no.5:14-15 My '55. (MLRA 8:8)

1. Krasnodarskiy avtotrest "Rossevkhostrans"
(Loading and unloading)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, M.

Mechanized washing of trucks. Avt. transp. 34 no.6:33 Je '56. (MLRA 9:9)

(Motortrucks--Maintenance)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, M.

The eternal fire burns. Voen.-znan 41 no.12:5 D '65.
(MIRA 18:12)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, M., podpolkovnik

Flight safety is secured this way. Komm. Vooruzh. Sil 46 no.22: 55-56 N '65. (MIRA 19:1)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

SOV/136-59-5-14/21

AUTHORS: Manin, A.Ye., Shlychkov, L.A., and Nikolayev, M.A.

TITLE: Reduction of Fluorine-Salt Consumption and Increase in Labour Productivity in Aluminium Production (Snizheniye raskhoda ftoristykh soley i povysheniye proizvoditel'nosti truda pri proizvodstve alyuminiya)

PERIODICAL: Tsvetnyye metally, 1959, Nr 5, pp 67-72 (USSR)

ABSTRACT: In aluminium production by electrolysis of cryolite-alumina melts with continuous self-roasting anodes a coal-rich "froth" is produced on the bath surface. Removal of this froth has been considered necessary but leads to losses of fluorides and requires labour. The authors maintain that the deleterious effects of the froth have been exaggerated. Methods to improve froth handling have been tried at the Bogoslovskiy alyuminiyevyy zavod (Bogoslovskiy Aluminium Works) and proposed by M.I. Titov (1957) and by L.A. Shlychkov (1958). At the Ural Aluminium Works froth removal has been completely eliminated, reducing total consumption of fluorine salts by a factor of almost two and saving hundreds of thousands of roubles annually. The authors examine froth effects and conditions in terms

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Reduction of Fluorine-Salt Consumption and Increase in Labour Productivity in Aluminium Production

first of the equilibrium between carbon and carbon-dioxide and then of the kinetics of the C-CO_2 and coal-CO_2 reactions. They note the accelerating influence of many of the bath materials on the reaction and of some on anode disruption. Sodium fluoride is especially active. The amount of froth stabilizes when the rates of carbon input through anode disruption and of its gasification become equal. The authors show that at an electrolytic temperature of 950-960°C and optimal cryolite ratio froth accumulation ceases before it becomes harmful. They estimate the increase in labour productivity through the elimination of froth removal at 15-20% and point out that with this practice bath working can be mechanized and alumina additions made continuous. There are 2 figures, 1 table and 5 Soviet references.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

BLOKHINTSEV, D.I.; NIKOLAIEV, M.A.[Nikolaiev, M.A.]

First atomic energy plant in the U.S.S.R. and the development of atomic power engineering. Doc. such. fiz. no.5:13-49 '57. (MIRA 16:6)

(Russia—Atomic power plants)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, M.D.; FROLOV, N.I.

Using glass fibers in manufacturing instrument parts. Priborostroenie no.5:15-17 My '57. (MLRA 10:6)
(Glass fibers)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

SOV/110-58-11-14/28

AUTHORS: Nikolayev, M.D. (Engineer), and Strashun, A.Z. (Engineer)

TITLE: New Plastic Moulding Materials for Reinforced Parts with Inserts (Novyye pressmaterialy dlya armirovannykh detaley).

PERIODICAL: Vestnik Elektropromyshlennosti, Nr.11, 1958, pp.48-51, (USSR)

ABSTRACT: The most widely-used moulding materials are based on phenolformaldehyde resins with organic and mineral fillers, and include materials types K-18-2, K-21-22, K-211-2, K-211-3. These materials are brittle and differ in coefficient of expansion from metals, and may accordingly crack near the inserts. In order to find materials without these defects and with improved resistance to moisture and temperature, extensive investigations were made on materials 296-M and OFP-6. These materials are both based on phenol oxazolide resins with mineral and wood fillers. The article describes the results of a study of the properties of these materials. The investigations were made on standard specimens, discs and rods, and the results obtained were compared with tabulated

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

New Plastic Moulding Materials for Reinforced Parts with Inserts.

data for the usual phenol formaldehyde materials. Standard test methods were used where available. The physical and mechanical properties of materials 296-M and OPP-6 and the usual grades K-18-2, K-21-22, K-211-2 and K-211-3 are presented in Table 1. It will be seen that the new materials are better than the old in respect of impact strength, shrinkage and moulding properties. The moulded component illustrated in Fig.1 shows what can be done with the new materials. The electrical properties of the new and old materials are recorded in Table 2, from which it will be seen that materials 296-M and OPP-6 are better than K-18-2 and are as good as K-21-22, K-211-2 and K-211-3. The new materials also have good resistance to moist atmospheres. The results of heating tests are given in Tables 3 and 4, which show that the tests improve the electrical properties of the new materials. Mechanical tests were made on the new materials at temperatures of 80 - 120°C, to determine their suitability for operation at such temperatures. Little change was found in the

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

mechanical properties up to these temperatures. The materials could be machined in the usual way. The mouldings illustrated in Fig.2 were made up and subjected to tests. The new materials were of better mechanical strength during heat resistance tests than the old. It is concluded that the new materials are better than the old in a number of respects and that they are especially suitable for the manufacture of parts with inserts where good electrical and mechanical properties must be maintained under conditions of high humidity and temperature. There are 2 figures and 4 tables.

SUBMITTED: February 24, 1958.

1. Molding materials--Properties 2. Phenolic resins--Performance
3. Molding materials--Test results

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

S/110/61/000/001/003/023
E073/E455

AUTHORS: Nikolayev, M.P., Engineer and Strashun, K.Z., Engineer

TITLE: Experience in Using Foam Plastics in Instrument Construction

PERIODICAL: Vestnik elektropromyshlennosti, 1961, No.1, pp.7-9

TEXT: Foam plastics are used as dielectrics, particularly in high-frequency work. There are also applications where their thermal and sound-insulation properties are advantageous. In this paper some data are summarized on experience gained in using foam plastics as a structural material for light-weight, mechanically strong components and as a "potting" material to insulate components from their surroundings. In systems where weight is of utmost importance, the components are enclosed in housings that consist of a thin inner and outer skin, the cavity between the two being filled with foam plastic. The foam plastic is thermosetting grade FK-20 (FK-20), a copolymer-phenolformaldehyde resin and rubber, with the following specified properties:
density - 0.1 to 0.2 g/cm^3;
compression strength - 10 kg/cm^2;
water absorption - 0.3 kg/m^2 per 24 h;

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S/110/61/000/001/003/023
E073/E455

Experience in Using Foam Plastics in Instrument Construction

operating temperature - 120°C;
linear shrinkage - 1% per 24 h;
heat conductivity - 0.028 kcal/m².h.°C.
In actual experiments, a density of 0.18 g/cm³, compression strength of over 12 kg/cm², specific impact strength of 1.4 kg cm/cm² and shrinkage of 0.34% with a heat resistance of over 170°C were obtained. The bond resistance to steel is much higher in the uncoated state than it is for tinned surfaces. The foaming produces gas generation, resulting in gas pressures on the wall of the order of 2 to 4 kg/cm². Therefore, the skins have to be protected from deformation: this can easily be achieved by putting the components in a press during the process of foaming. Practical experience has shown that the foam plastic FK-20 is suitable for producing mechanically strong foams for complicated instruments. For large components, thermoplastic materials are recommended. In particular, for radio components a polystyrene foam plastic NC-1 (PS-1) or NC-4 (PS-4) is recommended. The authors used the plastic PS-1, the properties of which were as
Card 2/3

SUBMITTED: July 25, 1960
Card 3/3

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, M. G.

"Prospect of development of production of pipes from non-ferrous alloys".

Report presented at the branch seminar on drawing of tube and aluminum alloys on self-aligning mandrels, Metallurgical Factory im V. I. Lenin, Kuybyshev, 24-28 June 1963

(Tsvet. Metally, No. 10, 1963 pp 84-85, author Starostin, Yu. S.
JPRS 24, 651 19 May 1964

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, M.G.

Lever wire cutter. Transp. stroi. 13 no.2:52 F '63. (MIRA 16:3)

(Electric wiring—Equipment and supplies)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

SOV/112-57-9-18236

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1957, Nr 9, p 8 (USSR)

AUTHOR: Nikolayev, M., Glybovskiy, A., Berezina, G.

TITLE: Electric Circuit With Inertial Nonlinear Elements (Elektricheskaya tsep' s inertsionnymi nelineynymi elementami)

PERIODICAL: Sb. rabot stud. nauch. o-va Penzensk. industr. in-ta, 1956, Nr 3, pp 18-24

ABSTRACT: Bibliographic entry.

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APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

Automatic Traffic Monitoring on a Municipal Electric Transport

frequencies for tens and ten frequencies for units). Data on noise in the contact conductors at various frequencies is presented. The rolling stock is equipped with AF-oscillator units and 5-mc transmitters that can be connected to an isolated section of the contact network. The section is isolated by line traps cut into the contact wire. The stationary check point houses a receiver connected with the central dispatcher's station by a cable. The transmitter output is 1 w. Receiver sensitivity is adjusted according to local conditions. Visual signals are registered at the central dispatcher's station; in addition, a printing device is planned. A block diagram of the system is presented, as well as photographs of individual components, such as line traps, a transmitter with an AF-unit, and a receiver, as well as information on design features and electric supply. Five illustrations.

I.P.P.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, M. I. Cand Tech Sci -- (diss) "Study of problems of automation of the traffic control of urban electrotransport." Mos, 1959. 16 pp with diagrams (Acad of [redacted] im N. D. Pomfilov), [redacted] 150 copies (KL, 52-59, 121)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, M.I.; KLESHCHINSKIY, B.K.; OVCHINNIKOVA, V.V., red. izd-va; [illegible], P.M., tekhn. red.

[Centralized traffic control and communication devices in municipal electrified transportation] Ustroistva signalizatsii, tsentralizatsii, blokirovki i sviazi na gorodskom elektro-transporte. Moskva, Izd-vo M-va kommun.khoz.RSFSR, 1962. 177 p. (MIRA 15:5)

(Local transit—Electronic equipment)
(Electronic traffic controls)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, N.I., starshiy nauchnyy sotrudnik

Dispatching equipment for city transportation systems. Gor. khoz.Mosk. 36 no.12:17-18 D '62. (MIRA 16:2)

1. Akademiya kommunal'nogo khozyaystva imeni K.D.Pamfilova.
(Moscow—Street-railways—Dispatching)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

DORIN, V.S., kand.tekhn.nauk; AKAKEL'YAN, G.V., inzh.; LOGACHEV, S.I., inzh.; NIKOLAYEV, M.M., inzh.

Advantage of designing large-tonnage tank vessels with excess metacentric height. Sudostroenie 29 no.7:5-8 Jl '63. (MIRA 16:9)

(Tank vessels) (Naval architecture)

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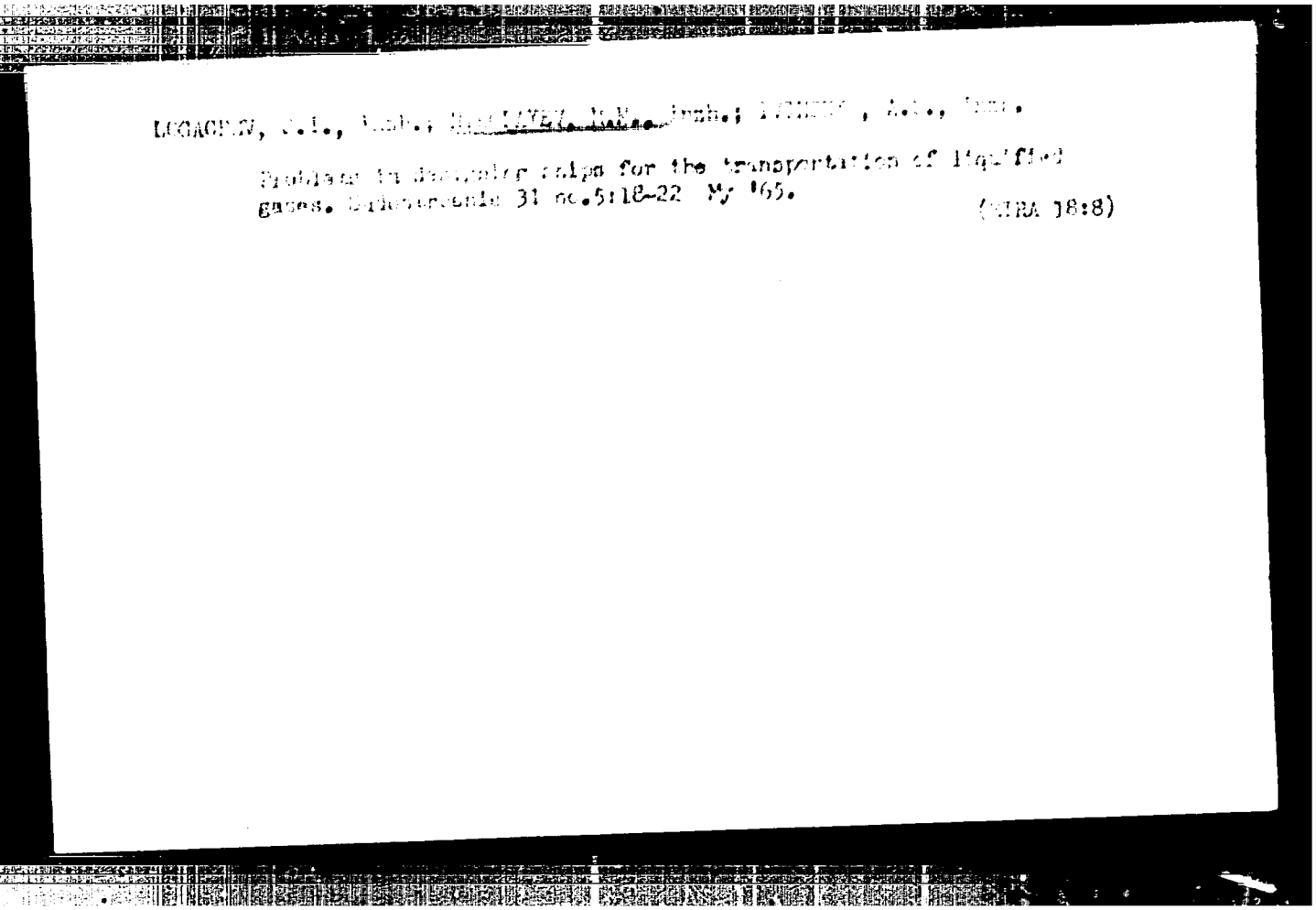

LOGACHEV, K.I., kand. tekhn. nauk; [illegible], A.A., inzh.

Problems in designing ships for the transportation of liquefied gases. Sudostroenie 31 no.5:18-22 My '65. (MIRA 18:8)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

ACC NR: AM7002942 (N) Monograph UR/

Logachev, Stanislav Ivanovich; Nikolayev, Mikhail Mikhaylovich

Vessels for transportation of liquefied gases (Suda dlya perevozki szhizennykh gazov) Leningrad, Izd-vo "Sudostroyeniye", 66. 0258 p. illus., biblio. Errata slip inserted. 1,200 copies printed.

TOPIC TAGS: shipbuilding engineering, ocean transportation, gas carrier, liquefied gas

PURPOSE AND COVERAGE: This book is the first systematic compilation of data published in domestic and foreign periodicals and literature on designing and constructing ships for transporting liquefied gases. Special design features for gas carriers with regard to the specific nature of cargo transported are explained. Basic types of foreign-made gas carriers are examined and the problem of dimensions, cargo-carrying capacity, and speed are discussed. The question of the selection of the most suitable type of ship cisterns for liquefied gases is analyzed in detail, including considerations of construction material, shape, and cubic volume of the cisterns as well as their insulation and method of securing them in the bilge. The economics of ocean transportation of gas is elucidated. The book is intended for engineers and technicians of the shipbuilding engineering

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Nikolayev, Mikhail Nikolayevich

Snaryad protiv snaryada; po materialam zarubezhnoy pechati (Anti-missile Missile; Based on Foreign Publications) Moscow, Voyenizdat M-va obor. SSSR, 1960. 146 p.

Ed.: A. M. Shorin, Colonel; Tech. Ed.: V. Ye. Volkova.

PURPOSE: This book is intended for readers interested in rocket engineering.

COVERAGE: The book is based on data published in the non-Soviet press. It acquaints the reader with contemporary long-range ballistic rockets, with problems of antirocket defense and its component elements, and with possible methods of intercepting ballistic missiles. No personalities are mentioned. There are 84 references: 83 English (4 of them in Russian translation), and 1 French.

Card 1/3

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, M.N., inzh.

Limit water level indicators for steam boilers. Bezop.trudav prom. 5 no.4:26-27 Ap '61. (MIRA 14:3)

1. Upravleniye Srednе-Volzhskogo okruga Gosgortekhnadzora RSFSR.
(Boilers—Safety appliances)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

DUBASOV, Aleksandr Alekseyevich; NIKOLAYEV, M.N., red.;

[Repair of tractors under operating conditions] Remont traktorov v ekspluatatsionnykh usloviiakh. Moskva, Goslesbumizdat, 1963. 81 p. (MIRA 17:4)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

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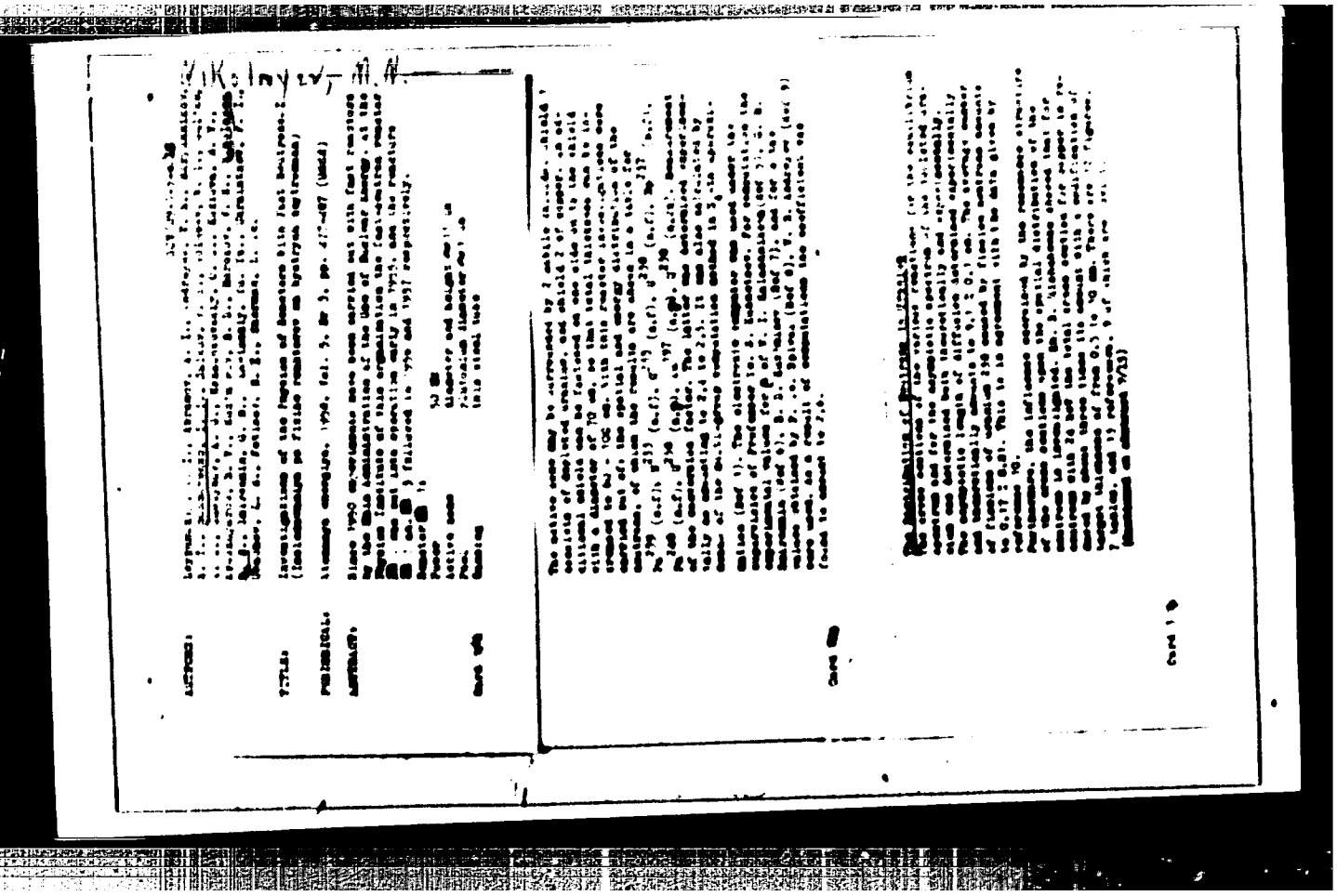

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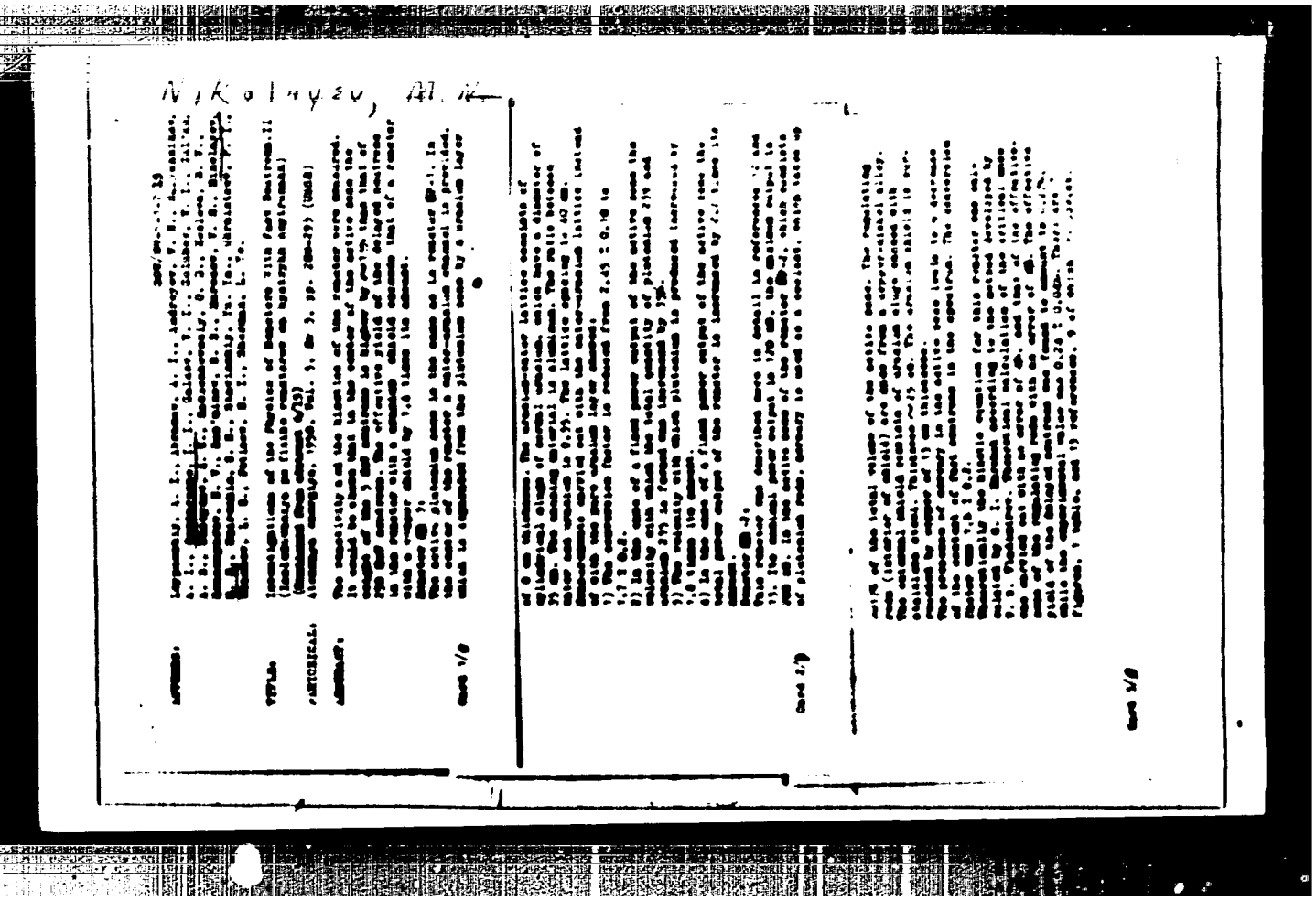

Nikolayev, A. M.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, M.N.; GOLUBEV, V.I.; KONDARENKO, I.I.

The U^{238} fission. Zhur.eksp. i teor. fiz. 34 no.3:752-754 Mr '58.
(MIRA 11:4)

(Nuclear fission)
(Uranium--Isotopes)

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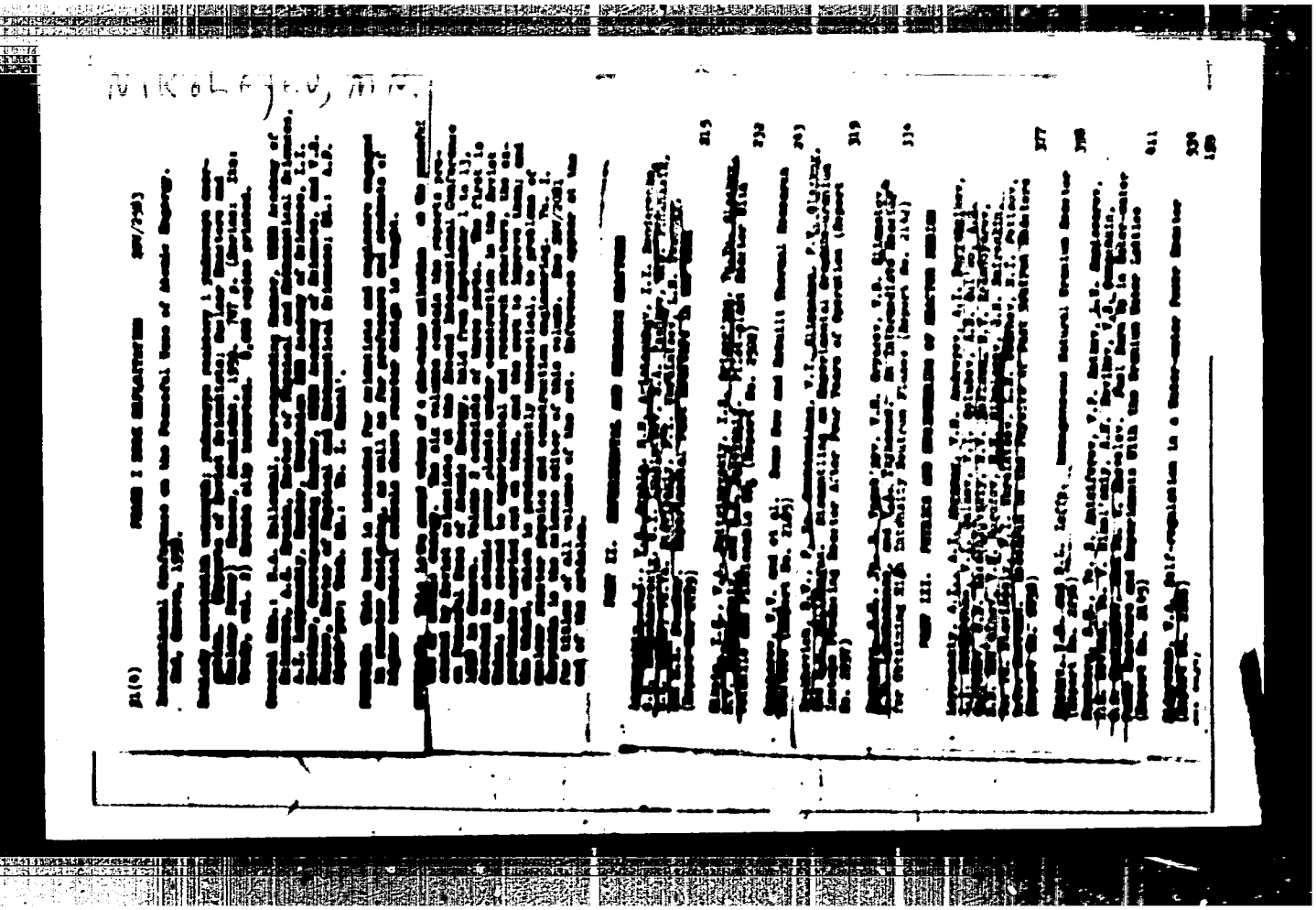

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, M. N., GOLUBEV, V. I., ARAGVIAN, [redacted], [redacted] GRIGOV, M. Ye.

Neutron Propagation in the Nickel Screen of a Fast Reactor.

report submitted for the IAEA Seminar on the Physics of Fast and Intermediate Reactors, Vienna, 3-11 Aug 1961.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, M. N., FILIPPOV, V. V., BONDARENKO, I. I.

"Measurement of Resonance Parameters of Cross-Sections affecting Fast-neutron propagation in Various media.

Report submitted for the IAEA Seminar on the Physic s of Fast and Intermediate Reactors, Vienna, 3-11 Aug 1961.

Acad. Sci. USSR, Moscow

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

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26.2243

AUTHORS: Nikolayev, M. N., Filippov, V. V., Fondarenko, I. I.

TITLE: The influence of the resonance structure of the iron cross-section on the diffusion of fast neutrons

PERIODICAL: Atomnaya energiya, v. 11, no. 5, 1961, 445 - 447

TEXT: Basing upon energy-group considerations, the resonance effect on the diffusion of fast neutrons in iron is studied. A formula is derived for the transmission $T(t) = e^{-\langle\Sigma\rangle t}\left[1 + \frac{\langle\Sigma^2\rangle - \langle\Sigma\rangle^2}{2!} t^2 + \ldots\right]$ (5). $\langle\Sigma\rangle$ is the total macroscopic cross section averaged over the energy group. It equals for thin specimens the scattering cross section averaged over the energy group in question. For thin specimens with Eq.(5) $\langle\Sigma\rangle$ can be determined from the shape of the transmission curve and the mean-square deviation $\langle\Sigma^2\rangle - \langle\Sigma\rangle^2$ can be estimated. The experimental arrangement with which this curve was determined is shown in the figure. $T(p,n)He^3$ reactions were used as a neutron source. The protons bombarding the tritium-titanium

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The influence of the resonance...

target (1) were accelerated by an electrostatic generator. The measurements were made at zero angle with respect to the proton beam. The neutrons from the target which passed the scatterer (2) without collision, were led through the collimator (3) placed in the water tank (4), and reached the detector (5). The scatterer, a cylinder 50 mm in diameter, consisted of Armco iron, arranged in sections of different thicknesses in order to vary the scatterer thickness. 48 boron-enriched proportional counters (6) were used to record the neutrons. They were of the type CHMO-5 (SNMO-5) and placed within a paraffin lump. In its 50 mm wide channel, a polyethylene plug (7) was arranged from which the neutrons, coming from the collimator, were scattered into the paraffin lump. In this lump, the neutrons were slowed down and then recorded by the counters. The background was found to be less than 0.1% of the counts. The angular resolution of this arrangement was about 1°. The transmission curves were measured for several energy groups within the range 0.3 - 1.8 Mev. The shape of the curve did not agree with Eq. (5), which is ascribed to cross-section fluctuations in the energy range investigated. Results were used for calculating $\langle 1/\Sigma \rangle$, $\langle 1/\Sigma^2 \rangle$ and $\langle D \rangle$, the mean diffusion coefficient, $\langle 1/\Sigma \rangle = \langle \lambda \rangle$, the mean free path. Preliminary results are given in a table.

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The influence of the resonance...

Here, σ stands instead of Σ, all cross sections are given in barns, the neutron energy in kev, $D_{incr}/D = D_{true}/D$. $D_{true} = \frac{\langle 1/\Sigma^2 \rangle}{3(1-\bar{\mu})\langle 1/\Sigma \rangle}$, $D = 1/3(1-\bar{\mu})\langle \Sigma \rangle$; $\bar{\mu}$ - mean cosine of the scattering angle. There are 1 figure, 1 table, and 8 references: 6 Soviet and 2 non-Soviet. The reference to the English-language publication reads as follows: W. Roach. Nucl. Sci. and Engng., 8, 621 (1960).

SUBMITTED: March 23, 1961

E_n, kev	$\langle\sigma\rangle$, barn	$\frac{1}{\langle 1/\sigma\rangle}$, barn	$\sqrt{\frac{1}{\langle 1/\sigma^2\rangle}}$, barn	$\frac{\langle 1/\sigma\rangle}{\langle 1/\sigma^2\rangle}$, barn	D_{incr}/D	$\frac{\langle\sigma^2\rangle}{\langle\sigma\rangle^2}$	$\frac{\langle 1/\sigma^2\rangle}{\langle 1/\sigma\rangle^2}$
350	3,8±0,1	2,49±0,03	1,05±0,04	1,52±0,06	2,5±0,1	1,26±0,08	1,64±0,07
650	3,4±0,1	2,08±0,04	1,51±0,03	1,21±0,08	2,8±0,2	1,68±0,15	1,68±0,13
950	2,8±0,1	2,08±0,03	1,78±0,04	1,57±0,03	1,8±0,1	1,31±0,10	1,27±0,06
1350	3,56±0,06	2,66±0,01	2,49±0,02	2,34±0,05	1,5±0,1	1,28±0,10	1,14±0,01
1750	3,28±0,12	2,86±0,02	2,55±0,03	2,38±0,09	1,4±0,1	1,04±0,04	1,24±0,02

Table

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NIKOLAYEV, M.N.

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AUTHORS: Leypunskiy, A. I., Abramov, A. I., Aleksandrov, Yu. A., Anikin, E. N., Bondarenko, I. I., Guseynov, A. G., Ivanov, V. I., Kazachkovskiy, O. D., Kuznetsov, V. F., Kus'minov, B. D., Morosov, V. N., Nikolayev, M. N., Sal'nikov, O. A., Smirenkin, G. N., Soldatov, A. S., Usachev, L. N., Yutkin, M. G.

TITLE: Investigation of the BR-5 (BR-5) fast reactor (spatial and energy distributions of neutrons)

PERIODICAL: Atomnaya energiya, v. 11, no. 6, 1961, 498 - 505

TEXT: The fast research reactor BR-5 and its experimental equipment is described in brief and some of its neutron spectra are given and discussed. The following data are given: fuel - plutonium oxide; coolant - sodium; reflector - thin layer of natural uranium plus thick layer of nickel; power - 5000 kw. The reactor has many vertical and horizontal holes for technical and physical studies and is well supplied with experimental equipment. Leypunskiy gave a detailed description of the BR-5 reactor at

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Investigation of the...

the Second Geneva Conference (1958). Inside the core the neutrons have energies of more than 100 kev which they lose almost completely in passage through reflector and shield. In the outer layers of the shield, their mean energy does not exceed some tens of ev. In the kev range (E_n>50 kev) spectra were measured for the most important beams and channels. For the other cases, they were determined from threshold reactions. The soft part of the spectrum within the reflector was determined from the spatial distribution of neutrons with E_n≈5 ev, recorded with gold resonance indicators. The total neutron flux was determined only at the points where the Pu^{239} fission cross section was constant. Direct neutron spectrum measurements were carried out in a vertical (OK-70) and a horizontal (B-3) channel using (He^3+Ar)-filled ionisation chamber in the first case and the neutron transmission method with n-hexane in the second. The neutron spectrum of the horizontal channel was also determined by photoemulsions. From the rates of indicator and fission reactions $Au^{197}(n,\gamma)$, $U^{235}(n,f)$ $Pu^{239}(n,f)$, $Th^{232}(n,f)$, $Na^{23}(n,\gamma)$ $Cu^{63}(n,\gamma)$, and $Al^{27}(n,\alpha)$ the abrupt

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Investigation of the...

drop in neutron energy in the Ni reflector was determined, and the activity caused by resonance neutrons (E_n = 4.9 ev). The fast neutron flux (E_n > 1.4 Mev) in the core center was found to be $(2.4 \pm 0.2) \cdot 10^{14}$, and total flux was $(8.2 \pm 0.3) \cdot 10^{14}$. Experimental results were verified by energy-group calculations (18 groups). Good agreement between theory and experiment was also found for the channel spectra. The authors thank D. S. Pinkhasik, N. N. Aristarkhov, and the reactor personnel for assistance. There are 10 figures, 2 tables, and 2 Soviet references.

SUBMITTED: August 17, 1961

Table 1. Reaction cross sections in the core center.

Legend: (1) Reaction; (2) experiment; (3) σ calculated, given in barns.

Fig. 7. Neutron transmission spectrum (n-hexane) for the horizontal channel B-3.

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AUTHORS: Colubev, V. I., Ivanov, V. I., Nikolayev, M. N., Smirenkin, G. N.

TITLE: Use of resonance indicators for investigating neutron spectra in fast reactors

PERIODICAL: Atomnaya energiya, v. 11, no. 6, 1961, 522 - 527

TEXT: The authors studied the possibilities of using resonance indicators for investigating the low-energy part of neutron spectra in the reflectors of fast reactors. The resonance blocking method is discussed in detail. In this case, the indicator foil is covered on both sides by thin shielding layers, except in the vicinity of resonance at $E = E_0$.

Resonance neutron flux can be calculated by measuring the activity difference

$$\Delta A = \varphi(E_0)\frac{\pi}{2}\Gamma_\gamma\Sigma_{a,a}\eta \cdot \\ + 2t\int\Sigma_a(E)\Sigma_s(E)\left\{1-\frac{1}{2}\times\right. \\ \left.\times Ei\left[-\Sigma_t(E)t\right]\right\}\varphi(E)dE. \qquad (1)$$

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Use of resonance indicators...

of the resonance parameters, for determining blocking factor η are known. $\varphi(E)$ is neutron flux, Γ_γ the radiation width, $\Sigma_{o,a}$ activation cross section in the resonance maximum, Σ_a and Σ_c activation cross section of the indicator isotope and total absorption cross section of the indicator respectively. η is calculated on the basis of the Gurevich-Pomeranchuk theory of resonance absorption (e. g., G. I. Marchuk, Chislennyye metody rascheta yadernykh reaktorov (Numerical methods for reactor calculation), M. Atomizdat, 1958). With $\beta = \Sigma_o' t$ and $\beta_o = \Sigma_o' t_o$, the ratios between filter thickness t and indicator thickness t_o and the "draw-out-length" of neutrons from the resonance region I/Σ_o', corresponding to its maximum,

$$\eta(\beta, \beta_o) = I(\beta_o) - I(\beta)\left(2 + \frac{\beta_o}{\beta}\right) + \frac{e^{-\frac{\beta}{2}}}{\beta}\left[\left(\beta + \beta_o - \frac{\beta^2}{12} + \frac{\beta^3}{192}\right) I_0\left(\frac{\beta}{2}\right) + \left(\beta + \frac{\beta_o}{2} + \frac{\beta^2}{12} - \frac{\beta^3}{192}\right) I_1\left(\frac{\beta}{2}\right)\right]. \quad (6)$$

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Use of resonance indicators...

is found. This relation is used for calculating the blocking factors (cf. Table 1). I_0 and I_1 are zeroth and first-order Bessel functions of an imaginary argument. Good indicators will show a broad energy gap between first and second resonance activation cross sections. Table 2 gives the characteristic parameters of several isotopes which are recommended as indicators. Only for In^{115}, Au^{197} (broad resonance) and La^{139} (narrow resonance), the relation $\Sigma_0' = \begin{cases} \Sigma_0 \text{ for } \Gamma \ll E_0 \text{ (narrow resonance)} \\ \Sigma_0 \frac{\Gamma_\gamma}{\Gamma} \text{ for } \Gamma \gg E_0 \text{ and } \Gamma \approx \Gamma_\gamma \text{ (broad resonance)} \end{cases}$ holds; for the others, Σ_0' has to be determined experimentally. If the contributions of higher resonances to the neutron spectrum are negligible, the activity induced by first-resonance neutrons may be determined by the so-called "1/v law". This method is demonstrated for two isotopes, the first of which has resonance at $E = E_0$, the second one obeys the 1/v law ($B^{10}(n,\alpha)$). The neutron flux is determined from

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$$\varphi(E_0)=\frac{A_1-A_2\frac{\Sigma_{a,1}^{m}\zeta_1}{\Sigma_{a,2}^{m}\zeta_2}}{\frac{\pi}{2}\Gamma_\gamma\Sigma_{a,1}^{m}} \qquad (8)$$

This method was used to determine the flux distributions of the 4.9-ev resonance neutrons in the reflector of the BP-5 (BR-5) reactor. A gold foil of 1.38 mg/cm^2 (β_0 = 0.14) with gold filters of 3.05 and 6.10 mg/cm^2 (β = 0.31 and 0.62) was used. Results are shown graphically and discussed in brief. The 2.95-kev neutron flux in the Ni reflector of a BP-1 (BR-1) reactor was also measured by this method, using a Na_2CO_3 indicator foil as 1/v detector. The authors thank A. I. Leypunskiy for interest, and I. I. Bondarenko and V. V. Orlov for discussions. There are 4 figures, 2 tables, and 4 Soviet references.

SUBMITTED: April 17, 1961

Card 4/4

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

33972
S/089/62/012/003/010/013
B102/B108

21.2242

AUTHORS: Guseynov, A. G., Nikolayev, M. N.

TITLE: Angular distribution of fast neutrons scattered from light nuclei

PERIODICAL: Atomnaya energiya, v. 12, no. 3, 1962, 243 - 246

TEXT: The shape of the spatial neutron energy distribution depends among other on the macroscopic scattering cross section $\beta(\vartheta)$. β is not known exactly, especially for light nuclei and higher energy groups. The authors determined the dependence of β on the scattering angle. The angular distribution of the higher group of fast fission neutrons, scattered from light nuclei ($A < 40$) was measured. A neutron beam from a БР-5 (BR-5) reactor was used in the experiments. A fission chamber with Th^{232} layers containing 1.5g Th, 40 cm from the scatterer, served as a neutron detector. Discs, 45 mm in diameter, made of Li, Be, B, C, N, O, F, Na, Mg, Al, Si, P, S, Cl, and K were placed at 45° to the beam axis and served as scatterers. For these elements the curves $\frac{1}{N}\frac{d\beta}{d\mu} = f(\mu)$ were

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

GOLUBEV, V.I.; ZVONAREV, A.V., NIKOLAYEV, M.N.; ORLOV, M.Yu.

Effect of reflectors made from various materials on the number of neutrons captured in the uranium carbide shield of a fast reactor. Atom. energ. 15 no.4:327-328 O '63. (MIRA 16:10)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

ACCESSION NR: AP4006632 S/0089/63/015/006/0493/0498

AUTHORS: Nikolayev, M. N.; Filippov, V. V.

TITLE: Measuring the parameters of the total-cross-section resonance structure for certain elements in the neutron energy region 0.3-2.7 Mev

SOURCE: Atomnaya energiya, v. 15, no. 6, 1963, 493-496

TOPIC TAGS: neutron cross section, neutron scattering, reactor shielding, resonance effect, total cross section, transmission method, magnesium, cross section, resonance structure, aluminum, phosphorus, neutron, sulfur, iron, copper, nickel, shielding, reactor, zirconium, niobium, lead, bismuth

ABSTRACT: The information offered on the neutron cross-sections of 11 elements (Mg, Al, S, Fe, Cu, Ni, Zr, Nb, P, Pb and Bi) was obtained by way of analysing the transmission curves. It is shown that in the elements having atomic weight, up to and including Niobium, a resonance cross-section was found in the entire investigated enemy spectrum, but could not be found in molybdenum, thorium

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

ACCESSION NR: AP4006632

with E = 1,320 kev). Orig. art. has: 2 Figures, 9 Formulas and 1 table.P

ASSOCIATION: None

SUBMITTED: 21Feb63 DATE ACQ: 07Jan64 ENCL: 01

SUB CODE: NS NR REF SOV: 003 OTHER: 002

Card 3/4

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

ACCESSION NR AM4040594 BOOK EXPLOITATION 3/

. . P.; Nazaryants, N. O.; Bondarenko, I. I.; Nikolayev, M. N.

. . . stants for the design of nuclear reactors (Gruppovyye konstanty dlya raschota yadernykh reaktorov), Moscow, Atomizdat, 196. . . p. illus., biblio. . . 200 copies printed.

. . . nuclear engineering, nuclear reactor design, group constant

. . . (abridged)

SUBMITTED: 24Dec63 NR REF SOV: 171

SUB CODE: NP

OTHER: 107

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

[illegible] 8108-65 EWT(1)/EWT(m)/EPF [illegible] EPF(c)-2 EPR/FWP [illegible] EWP(t) Pr-4 Pu-4/ [illegible] DIAAP/ESD [illegible] [illegible] [illegible]

ACCESSION NR: AP4043986 S/0089/64/017/002/0113/0119

AUTHOR: Bondarenko, I. I. (Deceased); Golubev, V. I.; Zvonarev, A. V. [illegible], M. N.; Orlov, V. [illegible] [illegible]

TITLE: Neutron propagation in uranium carbide

SOURCE: Atomnaya energiya, v. 17, no. 2, 1964, 113-119

TOPIC TAGS: uranium carbide, neutron propagation, spatial energy distribution, fast reactor, BR 1 reactor, plutonium [illegible] plutonium breeding

ABSTRACT: An investigation was made of the spatial energy distribution of neutrons in uranium carbide using a heterogeneous assembly of [illegible] uranium and graphite installed as a reflector in the BR-1 [illegible] reactor. The neutron energy [illegible] was determined by measuring the densities of [illegible] having different [illegible]-dependent cross [illegible]. The [illegible] obtained were compared [illegible] calculations using an [illegible] computer. The calculated and experimental data were in [illegible] agreement. As a rule, the [illegible] did not exceed [illegible]. The investigation showed that

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

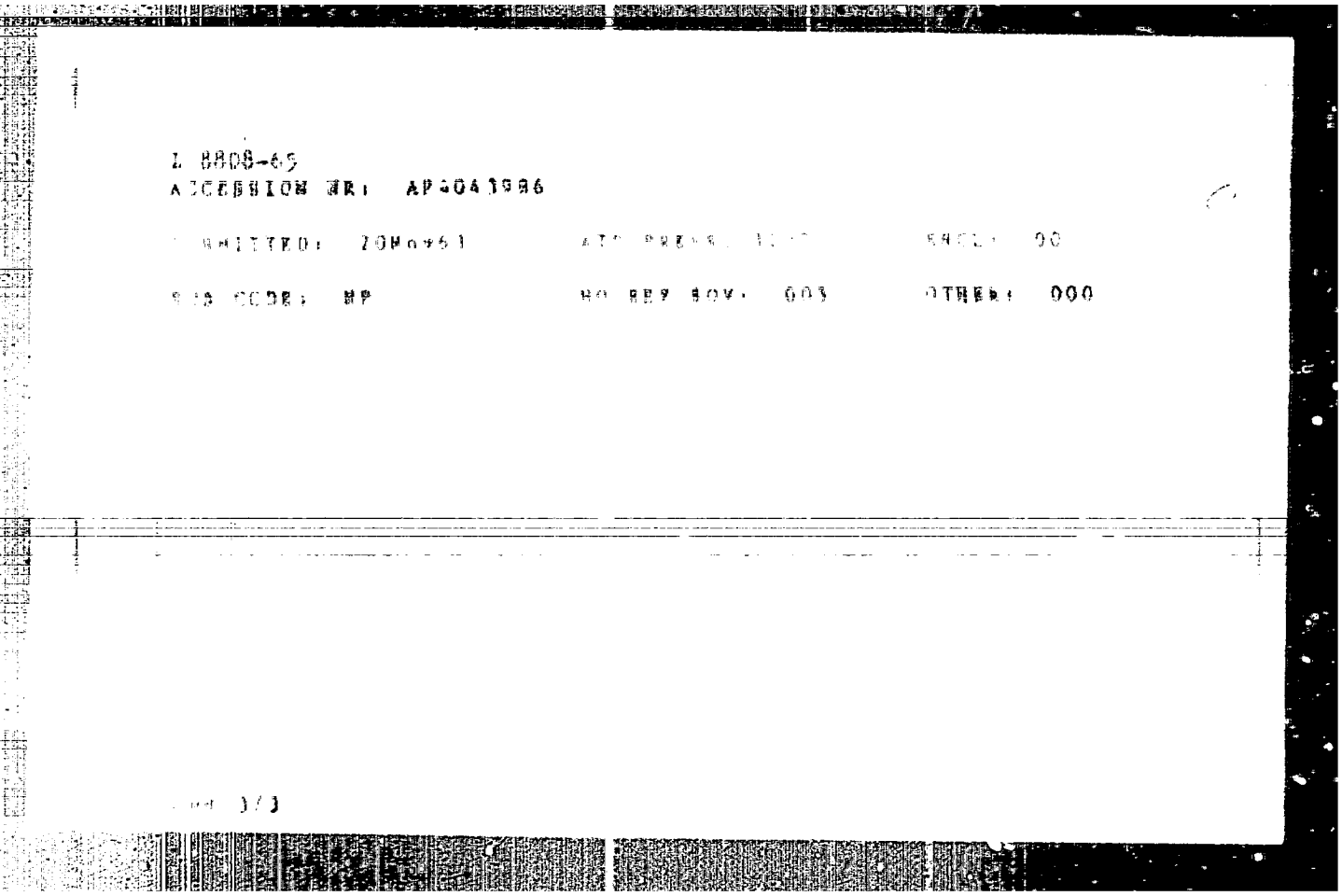
L 8808-65
ACCESSION NR: AP4043986

from the nuclear-physics point of view, uranium carbide is a very promising material for use in the breeding blankets of fast reactors. [illegible] the diffusion length in uranium carbide [illegible] times less than that in metallic uranium (calculated for the same density of uranium nuclei), the use of uranium carbide will permit a decrease in the uranium load in the breeding blanket and an increase in the concentration of accumulating plutonium. The breeding coefficient for uranous carbide is the same as for metallic uranium. It was established that the maximum breeding coefficient for a fast reactor with a uranium-carbide blanket is [illegible]. The neutron spectrum in uranium carbide is substantially harder than in metallic uranium. On substituting uranium carbide for metallic uranium, it must be noted that the fission cross section of [illegible] will increase [illegible] more than the neutron cross section of [illegible]. As a result of this, the burnup in [illegible] will be more intensive [illegible] and the burnup of accumulating plutonium [illegible] will be [illegible] uranium. Orig. art. has: 4 figures and 3 tables.

ASSOCIATION: none

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3



L 8808-65
ACCESSION NR: AP5041986

SUBMITTED: 20Mar65 ENCL: 00

SUB CODE: MP NO REF SOV: 003 OTHER: 000

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

ACCESSION NR: AP

AUTHOR: ...erbakov, ... Bondarenko, I. I. (Deceased); Koleganov, ... Nik...ayev, M. N. ...

TITLE: Some characteristics of a fast reactor with a thorium blanket

SOURCE: Atomnaya energiya ...

TOPIC TAGS: fast reactor, BR-1 fast reactor, thorium, breeding ratio, thorium breeding characteristic, neutron multiplication factor, nuclear reactor

ABSTRACT: The experimental BR-1 fast reactor with a Pu^{239} core and ... blanket was used to determine the conversion ratio of the ... variation of thori- ... diameter and ... cm. The blanket, ... average thorium ... cm high, formed a ... cm³. The ... of the nucleus ... core ..., and screen was 123 cm thick ...

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

L 40289-65 EWT(m)/EWA(h) DM

ACCESSION NR: AP5009124 S/0089/65/018/003/0278/0282

12

AUTHOR: Suvorov, A. P.; Guseynov, A. G.; Nikolayev, M. N.

B

TITLE: Effective resonance structure of the cross sections on the anisotropy of scattering of fast neutrons and on their passage through iron

SOURCE: Atomnaya energiya, v. 18, no. 3, 1965, 278-282

TOPIC TAGS: resonance cross section, fast neutron scattering, reactor shielding, iron shield

ABSTRACT: The article deals with the influence of the resonance structure of cross sections on the passage of fast neutrons through iron, which is extensively used in reactor shields. The experimental set-up is shown in Fig. 1 of the Enclosure. The scattered neutrons were obtained from the active zone of a BR-1 reactor. The scattered neutrons were registered with a multiple-layer ionization fast chamber with [illegible]. Measurements were made of the counting rates of the detector behind an absorber of given thickness and of the counting rate of a detector of neutrons passing through some absorber and scattered at a specified angle. The experimental results are compared with various calculations. It is concluded that the resonance

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

L 45983-65

ACCESSION NR: AP5009124

structure of the cross sections greatly influences the passage of neutrons through media consisting of medium-weight nuclei. A large slowing-down effect is to be expected at lower energies (1.5--2 MeV). When account is taken of the influence of [illegible] resonance structure of the cross sections, it becomes necessary to include the [illegible] of averaging on the angular distributions and use the [illegible] method for [illegible] calculations. The authors thank [illegible] for valuable advice, V. V. [illegible] for interest [illegible]. Orig. art. has: 3 figures, 9 formulas, and [illegible] tables.

ASSOCIATION: None

SUBMITTED: 15Jun64 ENCL: 01 SUB CODE: NP

NR REF SOV: 005 OTHER: 007

Card 2/3

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

L 16192-65 EPF(n)-2/EWA(h)/EWT(m) Pu-4 DM

ACCESSION NR: AP5001282 UR/0120/65/018/004/0409/0415

AUTHORS: Gusev, A. V.; Nikolayev, M. N.; Dovbenko, A. O.; Ivanov, V. Ye.; Morozov, V. N.

TITLE: Angular distribution of fast neutrons scattered by medium and heavy nuclei 19

SOURCE: Atomnaya energiya, v. 18, no. 4, 1965, 409-415

TOPIC TAGS: fast neutron scattering, heavy nucleus, medium nucleus, macroscopic cross section, scattering cross section, angular distribution

ABSTRACT: This is a continuation of earlier measurements (Atomnaya energiya v. 12, 243, 1962) of the macroscopic cross section for the scattering of neutrons in the upper group of the fission spectrum (energy ≥ 1.5 MeV) by light nuclei. The present study is devoted to scattering by medium and heavy nuclei, namely Ti, V, Cr, Mn, Fe,

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

L 32755-65
ACCESSION NR: AP5012482

Co, Ni, Cu, Zn, Br, Zr, Nb, Mo, Ag, Cd, Sb, I, Cs, Ba, W, Ir, Hg, Pb, Bi, Th, and U (natural). The measurements were made with a neutron beam 5 cm in diameter, emerging from the active zone of the BR-5 reactor. The neutron detector was a fission chamber with Th^{232}. The results are presented in the form of plots of the angular distributions of the fast neutrons scattered by the various elements. The cross sections and the coefficients of the Legendre coefficients for the differential cross sections are presented in the form of a table. The results are compared with the angular distributions calculated from the optical model of the nucleus. The agreement was found to be satisfactory for most elements. Original article has: 4 figures, 7 formulas, and 2 tables.

ASSOCIATION: None

SUBMITTED: 28Oct63 ENCL: 00 SUB CODE: NP

NR REF SOV: 006 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

L 2.... EWT(m)/EPF ... UR/0089/65/018/005/0469/0473

ACCESSION NR: AP5014536

AUTHOR: ... Y. A.; ... A. N.; ... M.; ... M. Yu.; Pe...nko, V. I.; Urtmadze, O. P.

TITLE: Propagation of neutrons in iron

SOURCE: Atomnaya energiya, v. 18, no. 5, 1965, 469-473

TOPIC TAGS: reactor ... , ... fast neutron, intermediate neutron, self screening, resonance ...

ABSTRACT: Results are presented of an experimental and theoretical study of the ... The ... distribution of neutrons ... the reactor and ... distribution was determined ... using fission chambers ... test channels of the ... based on the ... with layers of ... illustrated in Fig. ... of ... and (n, p) reaction. The ... calculations in the ... Enclosure. The results are compared with ... geometry. It is shown that the ... formation of one-dimensional and two ... introduced by Abagyan et al. (Gruppovye ... the system of constants for iron ... yadernykh reaktorov ... bystrykh i promezhutochnykh ...

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

L 2285-66 EWT(m)/EPF(n)-2/T/EWP(t)/EWP(z)/EWP(b)/EWA(h) IJP(c) JD/HW/DM

ACCESSION NR: AP5016928 UR/0089/65/018/006/0593/0601

621.039.538/539.125.52

AUTHORS: Bondarenko, I. I. (Deceased); Liforov, V. G.; Morozov, V. N.; Nikolayev, M. N.; Parfenov, V. A.; Semenov, V. A.

TITLE: Measurement of the neutron spectrum in nickel, iron, and stainless steel

SOURCE: Atomnaya energiya, v. 18, no. 6, 1965, 593-601

TOPIC TAGS: neutron spectrum, neutron energy distribution, nickel, iron, stainless steel, nuclear reactor shield, neutron cross section

ABSTRACT: The neutron spectra were measured by the time of flight method using a pulsed fast reactor (IBR) with a resolution of ~0.04 μsec/m, and with high neutron intensity (~10^7 sec^{-1}). The energy region covered was that below 1 MeV. The experimental setup is shown in Fig. 1 of the Enclosure. The spectra of the neutrons passing through various thicknesses of material disclosed the presence of a

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

L 2285-66

ACCESSION NR: AP5016928

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fine structure due to the resonant character of the cross section of the investigated media. A preliminary analysis of these spectra was made by comparison with multigroup calculation and calculations based on simple models, with account taken of the resonant self-screening of the cross section, shows certain discrepancies between theory and experiment, the reasons of which are briefly discussed. 'The authors thank O. D. Kazachkovskiy, L. N. Usachev, and V. V. Orlov for valuable discussions, F. L. Shapiro and Iu. S. Yazvitskiy for advice and the opportunity of using the neutron detector and the multichannel time analyzer of the Laboratory of Neutron Physics of the Joint Institute of Nuclear Research, and the IBR reactor crew headed by S. K. Nikolayev for help, and V. Z. Nozik, Z. A. Aleksandrova and L. M. Sereda for participating in the experimental data reduction.' Orig. art. has: 6 figures and 4 formulas

ASSOCIATION: None

SUBMITTED: 13Jul64

ENCL: 01

SUB CODE: NP

NR REF SOV: 017

OTHER: 005

Card 2/3

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

ACC NR: AT4006753 SOURCE CODE: UR/3153/65/000/010/0001/0008

AUTHOR: Liforov, V. G.; Nikolayev, M. N.; Nozik, V. Z.; Parfenov, V. A.; Semenov, V. A.; Turchin, V. F.

ORG: Physics and Power Institute, State Committee on the Use of Atomic Energy, SSSR (Fiziko-energeticheskiy institut, Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii SSSR)

TITLE: Investigation of inelastic scattering of slow neutrons from zirconium hydride

SOURCE: Obninsk. Fiziko-energeticheskiy institut. Doklady, no. 10, 1965. Issledovaniye neuprugogo rasseyaniya medlennykh neytronov na gidride tsirkoniya, 1-8

TOPIC TAGS: neutron spectrum, neutron scattering, zirconium compound, hydride, neutron spectrometry, slow neutron, scattering cross section, differential cross section

ABSTRACT: The article describes measurement of the spectra of neutrons scattered by $ZrH_{1.48}$ at an angle of 80° to the incident beam, at temperatures 490C and 20C. The measurements were made with a slow-neutron double spectrometer described by I. I. Bondarenko et al. (Inelastic Scattering of Neutrons in Solids and Liquids, Proceedings of a Symposium, Chalk River, 1962). A mechanical interrupter phase with the IBR reactor was used to produce neutron pulses of 75 μsec. The spectrometer resolution was 22.5 μsec/m in the elastic-scattering region. The intensity of the monochromatic neutrons at the same measurements was 5×10^4 neut/sec at energy 25 Mev. The measurements were made for neutrons with initial energy 0.02 Mev, the total re-

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L 23702-66

ACC NR: AT6006753

2

solution of the spectrometer in the elastic-scattering region being 45 μsec/m. The plotted differential scattering cross sections were compared with theoretical calculations and found to agree well with the theoretical spectrum. To calculate the doubly-differential scattering cross section of zirconium hydride in the first approximation, the initial data on the spectra of the normal oscillations of the ZrH crystal were taken from the published data based on certain model assumptions. The preliminary results indicate that even rough measurements yield valuable information on the dynamics of the atoms of this substance. More accurate measurements are now under way. The authors thank A. L. Leypunskiy and F. L. Shapiro for interest in the work. Orig. art. has: 5 figures and 3 formulas.

SUB CODE: 20/1 ORIG REF: 003/ OTH REF: 001

SUBM DATE: none

Card 2/2 FV

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

ACC NR: AP6021530 SOURCE CODE: UR/0089/66/020/006/0518/0520

AUTHOR: Zvonarev, A. V.; Kolesanov, Yu. F.; Mikhaylus, F. F.; Nikolayev, M. N.

ORG: none

TITLE: Measurement of neutron spectra in the energy region up to 3 kev by resonant indicators

SOURCE: Atomnaya energiya, v. 20, no. 6, 1966, 518-520

TOPIC TAGS: neutron spectroscopy, reactor neutron flux, fast neutron, neutron capture, BR-1 reactor

ABSTRACT: The authors propose a modification of the method of V. I. Golubev et al. (Atomnaya energiya v. 11, 1961) for measuring neutron spectra at different points inside a nuclear reactor through the use of resonant self-screening of indicators by filters of the same material. The authors' modification, aimed at extending the possible energy range, consists of using the first resonances of neutron capture in W^{186}, Mn^{55}, and Na^{23}. The filter resonant self-screening factors needed to make use of the method are calculated for different thicknesses of the indicators themselves and of the filters surrounding them. Plots of these factors, obtained by a Monte Carlo computer calculation, are presented. The method was used to measure the distribution of neutrons with energies corresponding to the first resonances of In^{115}, Au^{197}, W^{186}, Mn^{55}, and Na^{23} inside a uranium block measuring 70 x 70 x 90 cm bombarding with neutrons in the Fermi spectrum. The results confirmed the possibility of

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

ACC NR: AP7000905 (N) SOURCE CODE: CZ/0025/66/009/009/0273/0281

AUTHOR: Lejpunskij, A. I.; Krasnojarov, N. V.; Nikolaev, M. N.; Orlov, V. V.; Trojanov, M. F.; Chromov, V. V.

ORG: Institute of Physical Energy, Obninsk, SSSR (Physikalish-Energetisches Institut)

TITLE: Physical problems in the development of fast power reactors (Summarising report) [Presented at a Conference on Reactor held in Budapest in 1965]

SOURCE: Kernenergie, v. 9, no. 9, 1966, 273-281

TOPIC TAGS: fast reactor, nuclear power reactor, nuclear reactor technology

ABSTRACT: The state of the developments in the theoretical and experimental physics of the fast energy reactors in the Soviet Union is reviewed. Work on the fast reactor BN-350 having a thermal power of 100 MW and an electric power of 350 MW has been recently initiated and its construction is expected to be completed by 1968--1969. The physical and technological feasibility of a fast reactor having an electric power of 1000 MW is being studied at the present. The experimental reactor EOR has been developed for the study of operational characteristics of high temperature and high pressure reactors. In a general way the review covers the following subjects: 1. development of methods for physical analysis, including multidimensional multigroup calculations, systematization of computation methods and various approximations related to their accuracy, complex computations and optimization of the reactor

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

ACC NR: AT7005008 (A,N) SOURCE CODE: UR/0000/66/000/000/0090/0095

AUTHORS: Nikolayev, M. N.; Ignatov, A. A.; Khokhlov, V. F.; Shikhov, S. B.

ORG: none

TITLE: Method of subgroups and its application in the diffusion approximation

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Inzhenerno-fizicheskiye voprosy yadernykh reaktorov (Problems of nuclear reactor engineering and physics); sbornik statey. Moscow, Atomizdat, 1966, 90-95

TOPIC TAGS: transport equation, neutron diffusion, nuclear reactor, reactor neutron flux, neutron spectrum

ABSTRACT: The method of subgroups for solving the neutron transport equation with consideration of the energy dependence is discussed for the case when the structure of the neutron spectrum depends significantly on diffusion. Algorithms are given for calculating the distribution of subgroups in adjacent media, one of which has a resonance structure of the total cross section $\Sigma_t(u)$. The portion of the cross section curve containing the resonances where the average resonance parameters are approximately constant is separated out. The neutrons in the interval can be distributed into subgroups corresponding to the distribution of the magnitude of the total cross section. The diffusion equation for neutrons of subgroup k of the

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

SOV/97-58-8-5/13

AUTHORS: Shurygin, V.P., Candidate of Technical Sciences and Nikolayev, M.P., Engineer

TITLE: Reinforced Concrete Pylons Supporting Overhead Wiring of Electrified Railways (Zhelezobetonnyye opory kontaktnoy seti elektrifitsiruyemykh zheleznykh dorog)

PERIODICAL: Beton i Zhelezobeton, 1958, Nr 8, pp 298 - 300 (USSR)

ABSTRACT: During the next 15 years, it is planned to electrify 40 000 km of railways. For this electrification, 1 300 000 pylons are required. Figure 1 illustrates construction of standard pre-stressed reinforced concrete pylons: a) conical shape and b) "I" section. The most economical types of pylons are of reinforced concrete where the part above the ground, as well as under the ground is in one. Concrete and steel requirements for centrifugally-manufactured pylons of "I" section are tabulated. These values show that in both cases, the cost is the same. Tests carried out by TsNIIS of Mintransstroy showed that the strength and resistance to crack formations of centrifugally-cast, pre-stressed pylons are much higher than is required. Further tests were carried out on centrifugally produced pylons rein-

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Reinforced Concrete Pylons Supporting Overhead Wiring of Electrified Railways

forced with tensioned wires. In this case the calculated moment could be increased by 20%. In regard to crack formations, however, it is necessary to increase the reinforcement by 25 - 30% in comparison with the reinforcement required for load-bearing assessment. The technological process of the factory mass-production of centrifugally-manufactured pylons, both with prestressed reinforcement and without, was mastered by Mintransstroy factories sooner than the technological process of mass-production of "I" section pylons. The centrifugal consolidation of concrete increases considerably the density and frost resistance of the concrete. The reinforcement of these prestressed reinforced pylons consists of high tensile cold-rolled wires of 2.5, 3 and 5 mm in diameter, or of hot-rolled steel Mark St.5 or 25G2S of standard profile, also pretensioned. Fig.2 illustrates hydraulic jack for tensioning reinforcement. Details of casting, reinforcing and tensioning of these pylons are discussed in detail. Fig.3 illustrates the bottom half of the formwork with installed reinforcement ready for casting pylons and subsequent centrifugal consolidation. Con-

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Reinforced Concrete Pylons Supporting Overhead Wiring of Electrified Railways

crete used is of the Mark 400-500 prepared from cement with activity of 500 - 600 km/cm² and water/cement ratio of 0.45-0.5 (before centrifugal action). The recommended centrifugal process is as follows: 150 rotations/minute during the first three minutes, 250 rotations/minute the following two minutes and finally, 350 rotations/minute for fifteen minutes i.e. twenty minutes in all. The products are steam-cured. There are 3 Figures.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

NIKOLAYEV, M.P., inzh.; GOL'SHUKH, V.V., inzh.

Pile foundations of the "Frankipile" Company. Transp. stroi. 14 no.2:57 F '64. (MIRA 17:4)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3

KLAPCHUK, L.D., inshener; NIKOLAYEV, M.S., inshener; SHMYAGIN, F.G., inshener; BRIZHV, A.S., inshener.

Switchboard sets of the "Elektrosshchit" plant. Elek.sta. 24 no.5:56 My '53. (MLRA 6:7)
(Electric switchgear)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001137110013-3"