IGNAT'YEV, A.F., kand.tekhn.nauk; DOROFEYEV, B.F., inzh.

New types of self-unloading gondola cars. Trudy KHIIT no.34:52-70 '59. (MIRA 13:1)
(Railroads--Freight cars)

DOROFEYEV, B.F., insh.

Calculating the stability of dumcars in operation. Trudy KHIIT no.34:71-91 '59. (MIRA 13:1)
(Railroads--Freight cars)

SOV/144-58-11-12/17

AUTHORS: Dorofeyev, B. G. (Boris Grigor'yevich) (Senior Lecturer), Meyerovich, Sh. S. (Candidate Technical Sciences, Docent, Department Head), Stukalkin, A. N. (Engineer), Kurochka, A. L. (Engineer).

TITLE: Experimental Investigation of the Ventilation of Electric Locomotive Starting Resistances of a New Type (Eksperimental'noye issledovaniye ventilyatsii elektrovoznykh puskovykh soprotivleniy novogo tipa)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Elektromekhanika, 1958, Nr 11, pp 107-111 (USSR)

ABSTRACT: Resistances type KF are used on electric locomotives types N-8 and VL-23 and others. Previous work has shown that although these metal strip resistors are much better than the previous cast iron ones, the coils are not uniformly cooled and there is a temperature difference of 240°C between the front and back of the element and accordingly the material is not so fully used as it should be. Accordingly, new types of resistance have been developed at the Novocherkassk Electric Locomotive works, and the Novocherkassk Polytechnical Institute, and the works laboratory has collaborated in testing

Card 1/4

Experimental Investigation of the Ventilation of Electric Locomotive Starting Resistances of a New Type

the cooling of such a starting resistance type LF-1. The construction of resistance box type LF-1 is described and illustrated diagrammatically in Fig 1. The comparison between resistances type KF and type LF-1 given in Table 1 shows that the new resistances are smaller, and lighter and use much less insulation than the old though they are of higher power. The new resistances are also of simpler construction than the old. It is required that under operating conditions the local temperature rise of the resistance element surface should not exceed 450°C. In order to make the necessary tests of temperature rise a simple wind-tunnel was constructed, which is described and illustrated diagrammatically in Fig 3. In the tests measurements were made of the air flow, the temperature rise of the resistance elements, the power consumption and the air temperatures at inlet and outlet. The methods of measurement are described. The air speed ranged up to 8.75 m/sec and the current from 98 to 230 A. The test procedure is described. It was found that the heating is much more uniform than in resistances type KF.

Experimental Investigation of the Ventilation of Electric Locomotive Starting Resistances of a New Type

According to conditions the greatest difference between the temperature rise of front and rear surfaces was 60-160°C, and accordingly the power of the resistance could be increased by 34% or the flow of cooling air could be reduced. The relationship between the permissible current and rate of air flow is given in Fig 4. An equation is given for the relationship between the permissible current and the air flow when all nine rows of resistance are in use, with a temperature rise of 450°C. Temperature rises of the different rows of resistances are given in Fig 5 and Fig 6. The temperature distribution could be somewhat improved by

Experimental Investigation of the Ventilation of Electric Locomotive Starting Resistances of a New Type

altering the design of the fixing pins in the centre of the elements. There are 6 figures and 1 Soviet reference.

ASSOCIATIONS: Kafedra teoreticheskikh osnov teplotekhniki Novocherkasskogo politekhnicheskogo instituta; Novocherkasskiy elektrovozostroitel'nyy zavod (Chair of Theory of Fundamentals of Thermal Power Engineering, Novocherkassk Polytechnical Institute, and Novocherkassk Electrical Locomotive Works)

SUBMITTED: July 2, 1958.

110-58-5-3/25

AUTHORS: Dorofeyev, B.G., Lozanovskiy, A.L., Engineers and Meyerovich, Sh.S., Ushakov, V.G., Candidates of Technical Sciences

TITLE: The Cooling of Tape-wound Starting Resistances Type KF (Ob okhlazhdenii lentochnykh puskovykh soprotivleniy tipa KF)

PERIODICAL: Vestnik Elektropromyshlennosti, 1958, Vol 29, Nr 5, pp 9 - 12 (USSR).

ABSTRACT: Resistance-alloy tape-wound resistances, type KF, are used as starting resistances in electric locomotives, type N8 and VL-23 and in motor coaches, trolley buses, etc. They are cooled by free or forced-air circulation and are appreciably lighter, smaller and cheaper than cast-iron resistances. However, they are not widely used because inadquate information is available about their thermal rating.
The Novocherkassk Polytechnical Institute and the laboratory of the electric locomotive works made an experimental study of the cooling of the resistances. They consist of assemblies of standard resistance elements. An individual element, illustrated in Figure 1, consists of resistance-alloy ribbon wound on edge to form a coil which is insulated from its channel-shaped supporting bar by 2 segmental porcelain insulators.

Cardl/5

The Cooling of Tape-wound Starting Resistances, Type KF

The rate of air flow and the aspect of the element in relation to the flow have an important bearing on the rating. It is known from operating experience that the highest local temperature should not exceed 450 °C, or else the porcelain insulators crack. It was required to find the relationship between the permissible loading and the air speed.
Thermocouples were used to determine the temperature of the element at different places. The air speed ranged from 0 - 18 m/sec. The current was so chosen that the highest local temperature did not exceed 350 °C. In one arrangement, the porcelain insulators were arranged head-on to the air stream, as shown in Fig. 3a, which is the usual arrangement. The arrangement of 3b, in which the insulators are edge-on across the stream, was also tested. In both cases, the outer edges of the resistance elements were found to be better cooled than the inner. Thus, the conditions of cooling are not greatly changed when the element is turned through 90°. Also, under a wide range of conditions, the maximum temperature is on the leeward side of the coils. For example, with an air flow of 15 m/sec and a current of 142 A, the temperature of the leeward

parts of the spiral was 382 °C, the top and bottom were at

The Cooling of Tape-wound Starting Resistances, Type KF

142 °C and the windward side 90 °C. Holes were than made in the supporting bars to reduce the temperature of the leeward side of the coils. The holes occupied 20% of the area of each bar. With this arrangement the cooling was much more uniform and the current rating could be increased. The relationship between the rate of air flow and the permissible current in the element, in the two alternative positionings described above, are shown in Figure 4.

Tests were next made on a complete starting-resistance assembly consisting of four rows of seven elements each. Measurements were made of air flow, coil temperatures and power. Once again, the middle of the elements was hottest. The temperature difference between the windward and leeward parts of a coil was 100 °C. The third row of elements was the hottest, and showed the highest temperature on its leeward side but the porcelain insulators did not get too hot. A graph of the relationship between the permissible current and the rate of air flow for a maximum temperature of 350 °C is given in Figure 5. In addition to the usual assembly with the elements arranged one behind the other, a staggered honeycomb arrangement was tried, the size of the box and

The Cooling of Tape-wound Starting Resistances, Type KF

the number of elements being unchanged. Again holes were drilled in the bars. The performance graphs plotted in Fig.5 show that the rating is higher with the honeycomb than with the usual square arrangement. With an air flow of 45 m^3/min, the permissible current for the standard box is 46.75 A but in the modified assembly it was 51.9 A. This applies only with forced cooling; with natural ventilation the honeycomb arrangement is not so good.
A number of tests were also made under conditions of transient loading to determine the time different loads take to produce a temperature of 350 ^{o}C. The honeycomb arrangement was used and the results given in Figure 6, show that the resistances take about an hour to reach a steady temperature with the normal rated current, although cast-iron elements take still longer. Starting from cold, the resistances can carry up to three times rated current for 5 minutes. Under transient conditions, the rate of forced ventilation is important only for light currents. With currents of the order of 60 A and air-flow rates up to 20 m^3/min, the permissible time of operation is 4 - 6 min and is practically independent of the rate of air flow.

Card4/5

The Cooling of Tape-wound Starting Resistances, Type KF 110-58-5-3/25

There are 6 figures.

ASSOCIATIONS: Novocherkasskiy politekhnicheskiy institut (Novocherkassk Polytechnical Institute) and Novocherkasskiy elektrovozostroitel'nyy zavod (Novocherkassk Electric Locomotive Works)

SUBMITTED: June 24, 1957

Card 5/5

DOROFEYEV, B.G.

Studying the heat transmission of LF-2 electric resistors.
Trudy NPI 106:27-32 '60. (MIRA 15:5)
(Electric resistors)
(Electric railway motors)

DOROFEYEV, B. G., Cand. Tech. Sci. (diss) "Investigation of Heat Transfer of Electrical Resistances, Applied to Electric-powered Transport," Moscow, 1961, 16 pp. (Moscow Inst. Railroad Transp. Engr.) 200 copies (KL Supp 12-61, 268).

DOROFEYEV, B.G.

Study of the heat emission of different types of electric resistors. Trudy MIIT no.139:200-205 '61. (MIRA 16:4)

1. Novocherkasskiy politekhnicheskiy institut.
(Electric resistors)

DOROFEYEV, B.G.; MEYEROVICH, Sh.S.; NOVOGRENKO, N.M.

Study of heat transfer and temperature fields of improved KF-1 and KF-2 electric resistors. Izv. vys. ucheb. zav.; elektromekh. 4 no.2:136-143 '61. (MIRA 14:9)
(Electric resistors) (Electric railroads--Electric equipment)

DOROFEYEV, BORIS GRIGOR'YEVICH, starshiy prepodavatel'

Study of the heat emission of the LF resistances of electric locomotives. Izv. vys. ucheb. zav.; elektromekh. 4 no.5:69-72 '61. (MIRA 14:7)

1. Kafedra teoreticheskikh osnov teplotekhniki Novocherkasskogo politekhnicheskogo instituta.
(Electric locomotives)
(Electric resistors)

SMIRNOV, A.I.; TSOKANOVA, T.G.; BONDARENKO, Ye.M.; NOVOGRENKO, N.M.; DOROFEYEV, B.G.

Heat transfer of type SF-80 and LF-9B tape-wound resistors with air cooling. Sbor. nauch. trud. EINII 2:205-212 '62. (MIRA 16:8)

(Electric resistors—Cooling)
(Heat—Transmission)

MEYEROVICH, Shmerko Samuilovich, kand.tekhn.nauk, dotsent; DOROFEYEV, Boris Grigor'yevich, kand.tekhn.nauk, ispolnyayushchiy obyazannosti dotsenta

Heat emission of KF type electric resistors. Izv. vys. ucheb. zav.; elektromekh. 6 no.11:1271-1273 '63. (MIRA 17:4)

1. Zaveduyushchiy kafedroy teoreticheskikh osnov teplotekhniki Novocherkasskogo politekhnicheskogo instituta (for Meyerovich). 2. Kafedra teoreticheskikh osnov teplotekhniki Novocherkasskogo politekhnicheskogo instituta (for Dorofeyev).

MAVDRIKOV, F.I., inzh.; NOVOCHRENKO, N.M., inzh.; BONDARENKO, Ye.M., inzh.; YASTREBOV, A.V., inzh.; SMIRNOV, A.I., inzh.; DOROFEYEV, B.G., inzh.

New designs of air cooled resistances. Vest. elektroprom. 33 no.5:24-28 My '62. (MIRA 15:5)
(Novocherkassk—Electric equipment industry)
(Electric railroads—Electric equipment)
(Electric resistors)

BONDARENKO, Ye.M., inzh.; SMIRNOV, A.I., inzh.; DOROFEYEV, B.G., kand. tekhn. nauk

Investigation of thermal and aerodynamic parameters of resistor blocks made from a tape-wound high-resistance alloy. Elektrotekhnika 36 no.5:27-30 My '65. (MIRA 18:5)

DOROFEYEV, B.V.

Interpretation of H and A type curves. Trudy Sver.gor.inst. no.34:91-94 '59. (MIRA 13:5)
(Electric prospecting)

DOROFEYEV, B.V.

Qualitative interpretation of vertical electric sounding curves.
Trudy Sver.gor.inst. no.34:95-99 '59. (MIRA 13:5)
(Electric prospecting)

LAPIDUS, Mikhail Khlovenovich; DOROFEYEV, B.V., red.

[New developments in financing construction] Novoe v finansirovanii stroitel'stva. Leningrad, 1964. 42 p. (MIRA 18:3)

RAKHMANOV, Yuriy Nikolayevich; DOROFEYEV, B.V., red.

[Progressive forms of payments in construction] Progressivnye formy raschetov v stroitel'stve. Leningrad, 1965. 30 p. (MIRA 18:5)

ANAN'YEVA, Ye.M.; DOROFEYEV, B.V.

Geological elements of the eastern slope of the Urals and trans-Ural region based on geophysical data. Trudy Sver. gor. inst. no.43:33-41 '63. (MIRA 18:7)

FLEROV, B.L.; BULAYEVSKIY, D.S.; DOROFEYEV, D.A.

Geological position of lead-zinc mineralization in the southern Verkhoyansk Range. Geol.rud.mestorozh. no.2:59-74 Mr-Ap '62. (MIRA 15:4)

1. Yakutskiy filial Sibirskogo otdeleniya AN SSSR i Aldanskoye rayonnoye geologorazvedochnoye upravleniye.
(Verkhoyansk Range—Ore deposits)

DOROFEYEV, D.A.

A type of tungsten deposits in eastern Yakutia. Mat.po geol.i pol.iskop.IAk.ASSR no.5:12-31 '61. (MIRA 15:7)
(Yakutia—Tungsten ores)

FLEROV, B.L.; DOROFEYEV, D.A.

Indium in lead-zinc deposits in the southern Verkhoyansk Range region. Trudy IAFAN SSSR.Ser.Geol. no.16:39-48 '63. (MIRA 16:9)

S/137/62/000/003/163/191
A160/A101

18.8310

AUTHORS: Rabkin, M. A.; Dorofeyev, D. S.; Torgovitskaya, S. B.; Pogrebnaya, Ye. S.

TITLE: The protection of low-carbon steel by a metallized layer from stainless chrome-nickel steel

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 13, abstract 3B69. (Sb. nauchn. tr. Zhdanovsk. metallurg. in-t, 1960, vyp. 6, 262 - 274)

TEXT: To ascertain the protective action of a stainless steel sprayed on a non-alloyed low-carbon steel, determined were the corrosion rate and the electronic potentials of test pieces made from СТ3 (St.3) steel and metallized with 1х18Н9Т (1x18N9T) steel. Plates from St.3 steel, each measuring 80x40x3 mm, were used as samples. Before spraying-on the stainless-steel layer, the pieces were etched in HCl and degreased with CCl_4. Then the samples were coated with the stainless 1x18N9T steel. The whole surface of the sample, including its ends, were metallized. The protective action of the coating on the rate of dissolving of the plates was determined in aqueous solutions of H_2SO_4, HNO_3 and HCl with

Card 1/2

The protection of low-carbon steel by a .....

different concentrations. The electrode potentials of the pieces were measured in H_2SO_4 and HNO_3 solutions. The experiments yielded the following results: (1) The resistance of the metallized samples in HCl is lower than the resistance of a low-carbon steel. (2) The resistance of metallized samples in H_2SO_4 depends on the concentration of the latter. The maximum corrosion rate of metallized pieces is observed, in contrast to the samples made from St.3 steel, in a 15 % solution of H_2SO_4, i.e., the passivation of metallized pieces appears at a lower concentration of acid as compared to non-metallized samples. (3) The electrode potential of the metallized steel in H_2SO_4 is more positive than the electrode potential of the non-metallized steel, and grows with an increase in the concentration of acid. (4) The resistance of the metallized steel in HNO_3 is 3,000 times higher than the resistance of a non-metallized steel. (5) The higher the concentration of HNO_3 and the longer the duration of its action, the lower the corrosion rate of metallized samples. Compared to a low-carbon steel which passivates in a 60 - 80 % solution of HNO_3, the metallized pieces undergo passivation in a 30 % solution of HNO_3.

V. Tarisova

[Abstracter's note: Complete translation]

Card 2/2

DOROFEYEV, D. V.

"The Development and Investigation of Automatic Devices for Thermal Resistance." Cand Tech Sci, Belorussian Polytechnic Inst imeni I. V. Stalin, 25 Dec 54. (SB, 14 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: SUM. No. 556, 24 Jun 55

DOROFEYEV, D.V.

Applications and secondary characteristics of thermistors. Trudy Inst.energ.AN BSSR no.1:62-81 '54. (MLRA 9:8)
(Thermistors)

Dorofeyev, D. V.

USSR/Chemical Technology. Chemical Products and their Application. J-12
Glass. Ceramics. Building Materials.

Abs Jour: Referat Zh.-Kh., No 8, 1957, 27682

Author : D.V. Dorofeyev.
Inst : ~~Belorussian~~ Polytechnical Institute
Title : Characteristics of Dependence of Semiconductor Resistivity on Temperature.

Orig Pub: Sb. nauch. rabot Beloruss. politekhn. in-ta, 1956, No 46, 102-111.

Abstract: The temperature dependence of the resistivity R of thermoresistors up to 150° has an exponential character: $R = R_\infty \cdot e^{B/T}$, where R_∞ is the conventional resistivity at $T = \infty$, B is a constant characteristic of the material of the thermoresistor, and T is the temperature of the body of the thermoresistor in °K. The magnitude of the temperature factor α at some constant temperature T is determined by the value of the constant B, because $\alpha = -B/T^2$. The dependence between the voltage and current

Card : 1/3

Abs Jour: Referat Zh.-Kh., No 8, 1957, 27682

is expressed by the equation $U = I \cdot R_{\infty} \cdot e^{B/T}$. Considering that at any given magnitude of the current, the heating of the thermoresistor is determined by the conditions of the heat interchange with the medium, the temperature and the resistance may have several values at the same current. In the result of the above, the voltage in the thermoresistor can have several values at the same current magnitude, i.e., it can be deformed. Therefore, it is necessary to have a settled regime of self-heating in order to obtain the volt-ampere characteristic set in advance. If b is the heat emission factor, T is the absolute temperature of the thermoresistor, and T_o is the absolute temperature of the medium, then the voltage will be determined by the equation: $U = \left[R_{\infty} \cdot b(T - T_o) \cdot e^{B/T} \right]^{1/2}$ Consequently, a change of the heat emission factor b causes a deformation of the volt-ampere characteristics, which can be utilized in corresponding installations. Giving various shapes

Abs Jour: Referat Zh.-Kh., No 8, 1957, 27682

and dimensions to thermoresistors of the same material, it is possible to obtain various values of R_∞ in each of them. Under conditions of a settled regime, the voltage in the thermoresistor can have a maximum at $B \geq 4T_0$, i.e., at low temperatures of the medium, the volt-ampere characteristic can have a maximum at small magnitudes of B, but with the rise of the temperature of the medium, a maximum is possible only at sufficiently great values of B.

105-9-13/32

AUTHORS Nechayev G.K, Dorofeyev D.V., Candidates of Technical Sciences.

TITLE A Relay Effect in Circuits Regulating Temperature. (Releynyy effekt v skhemakh regulirovaniya temperatury - Russian)

PERIODICAL Elektrichestvo, 1957, Nr 9, pp 53 - 54 (U.S.S.R.)

ABSTRACT Only direct current-jump is made use of in temperature indicators and heat protection; the authors here show that for temperature regulation also the whole cycle, that is to say the direct-and the rebound of the current can be used. If a relay is connected in series with a thermal resistance, response of the relay at θ_1 and a disconnection at θ_2 can be attained in the case of a corresponding parameter selection. θ_1 is a temperature at which the amperage increases, and θ_2 is that at which it decreases. If the characteristics on the occasion of the increase of current are recorded and the process is then arranged the reverseway, a coincidence of the curves can not always occur. Such a coincidence was obtained in the case of a thermal resistor KMT-11; this was the case with a diameter of the closed donor of d=53 mm. Therefore this resistance is recommended for works in plants using the relay effect. The scheme given here was checked experimentally and showed the best results. The temperature could be regulated within the limits of $\theta=\theta_1-\theta_2=2^{\circ}C$. θ_2 -is the temperature of negative reaction. (5 illustrations and 5 Slavic references)

Card 1/2

A Relay Effect in Circuits Regulating Temperature. 105-9-13/32

ASSOCIATION Institute for Electrical Engineering of the A.N. of the Ukrainian SSR (Institut elektrotekhniki AN UkrSSR) and Minsk Institute for the Electrification and Mechanization of Agriculture (Minskiy institut elektrifikatsii i mekhanizatsii sel'skogo khozyaystva -).

SUBMITTED March 18,1957
AVAILABLE Library of Congress.

Card 2/2

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SOV/112-59-21-44642

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 21, p 148 (USSR)

AUTHOR: Dorofeyev, D.V.

TITLE: The Plotting of Static Characteristics of a Thermistor by the Method of Interpolation

PERIODICAL: Sb. nauchn. rabot Belorussk. politekhn. in-t, 1957, Nr 61, pp 121-126

ABSTRACT: By an experiment with thermistors of KMT-10 and MMT-1 type has been found out, that within the temperature range of 10 - 80°C the power dissipated in the thermistor is a linear function of the environment temperature. Therefore, if the volt/ampere characteristics at two values of the environment temperature are experimentally obtained, it is possible by means of interpolation to find the volt/ampere characteristic for any given environment temperature. The technique of plotting is as follows: Several values of current must be taken and for each of them the power dissipated in the thermistor at certain environment temperatures must be computed. Through the points obtained straight lines are plotted in orthogonal system

Card 1/2

67973

SOV/112-59-21-44642

The Plotting of Static Characteristics of a Thermistor by the Method of Interpolation

of coordinates. These lines are graphs showing the dependence of the power dissipated in the thermistor on the environment temperature, and they make it possible to determine the power dissipated at a given temperature and consequently the voltage drop on the thermistor at a desired value of current. Volt/ampere characteristics plotted by the method of interpolation agree well with those obtained experimentally. 5 references.

N.P.U.

Card 2/2

DoRoFEyEV, D.V.

9(4) PHASE I BOOK EXPLOITATION SOV/2773

Poluprovodnikovyye termosoprotivleniya; sbornik statey (Thermistors; Collection of Articles) Moscow, Gosenergoizdat, 1959. 229 p. 13,000 copies printed.

Ed. (Title page): B. S. Sotskov, Doctor of Technical Sciences, Professor; Ed. (Inside book): V. A. Petrov; Tech. Ed.: G. I. Matveyev; Editorial Board: B. S. Sotskov, Doctor of Technical Sciences, Professor (Chief Ed.), N. P. Udalov, Candidate of Technical Sciences, N. S. Zaytsev, Engineer, Ye. N. Shugorov, Engineer, and V. I. Turkulets, Engineer.

PURPOSE: This collection of articles is intended for engineering and technical personnel of plants, OKB, NII and also instructors and students of vuzes.

COVERAGE: The book contains articles dealing with problems of manufacture of thermistors and determining thermistor parameters and characteristics. The authors also discuss problems of industrial application of thermistors as control elements. The book is an effort of cooperation by scientists of a number of vuzes, members of NII and engineers of one of the plants (name is not given) of Mosgorsovnarkhoz. No personalities are mentioned. References appear at the end of some articles.

Bocharov, G. K., L. S. Ponosyuk and M. M. Pisarevich. UTS-1 Temperature Signalling Device 192

The authors discuss the construction of a temperature signalling device for controlling temperature of bearings of various units of power plants such as boilers, turbines, etc. He describes the principle of its operation and explains the construction of a thermistor heat detector cell. There are 3 references, all Soviet.

Kosh'yan, L. K. Use of Thermistors for Controlling Temperature in Refrigerator Railroad Cars. 203

The author discusses the experience acquired in using MMT-1 and TOS-M types of thermistors for remote control and measuring temperature in refrigerator railroad cars. He presents circuits used and describes their operation. There are 3 references, all Soviet (including 2 translations).

Dorofeyev, D. V. Selection of Circuit Elements for Regulating Temperature in Networks With Thermistors on The Basis of Relay Effect 208

The author discusses methods of calculating circuits for regulating temperature in networks with thermistors on the basis of the relay effect. He also explains the concept of relay effect in some types of thermistors. There are 2 references, both Soviet.

Shaaria, L. A. Use of Thermistors in Hydrometric Devices.

The author discusses a device for measuring average rate of water flow used in Leningrad water supply systems and describes methods of calculating parameters of basic units of the device. There are 6 references: 4 Soviet and 2 English.

Malginov, I. V. Use of Thermistors in Automobile Thermometers 220

The author discusses thermistor circuits for controlling temperature of automobile-engine cooling liquidused in some Western countries. There are 5 references, all Soviet (including 1 translation).

DOROFEYEV, F., podpolkovnik

Firing with the aid of a radar station. Voen. vest. 43 no.2:71-73 F '64. (MIRA 17:1)

DOROFEYEV, F. I.

LUGA, A.A., kandidat tekhnicheskikh nauk; PAVLOV, B.A., inzhener; POPKOV, P.A., inzhener; DOROFEYEV, F.I., inzhener; MOROZOV, N.I., inzhener; USACHEV, A.A., inzhener

Coffer construction by means of deeper sinking. Transp.stroi 5 no.5:23-24 Jl'55. (MLRA 8:12)

(Cofferdams)

DOROFEYEV, G.

Public pressure has helped. Sov.profsoiuzy 7 no.15:45 Ag '59. (MIRA 12:12)

1. Predsedatel' postroyechnogo komiteta tresta No.40 Tatarskogo sovnarkhoza.
(TATAR A.S.S.R.--Construction industry)

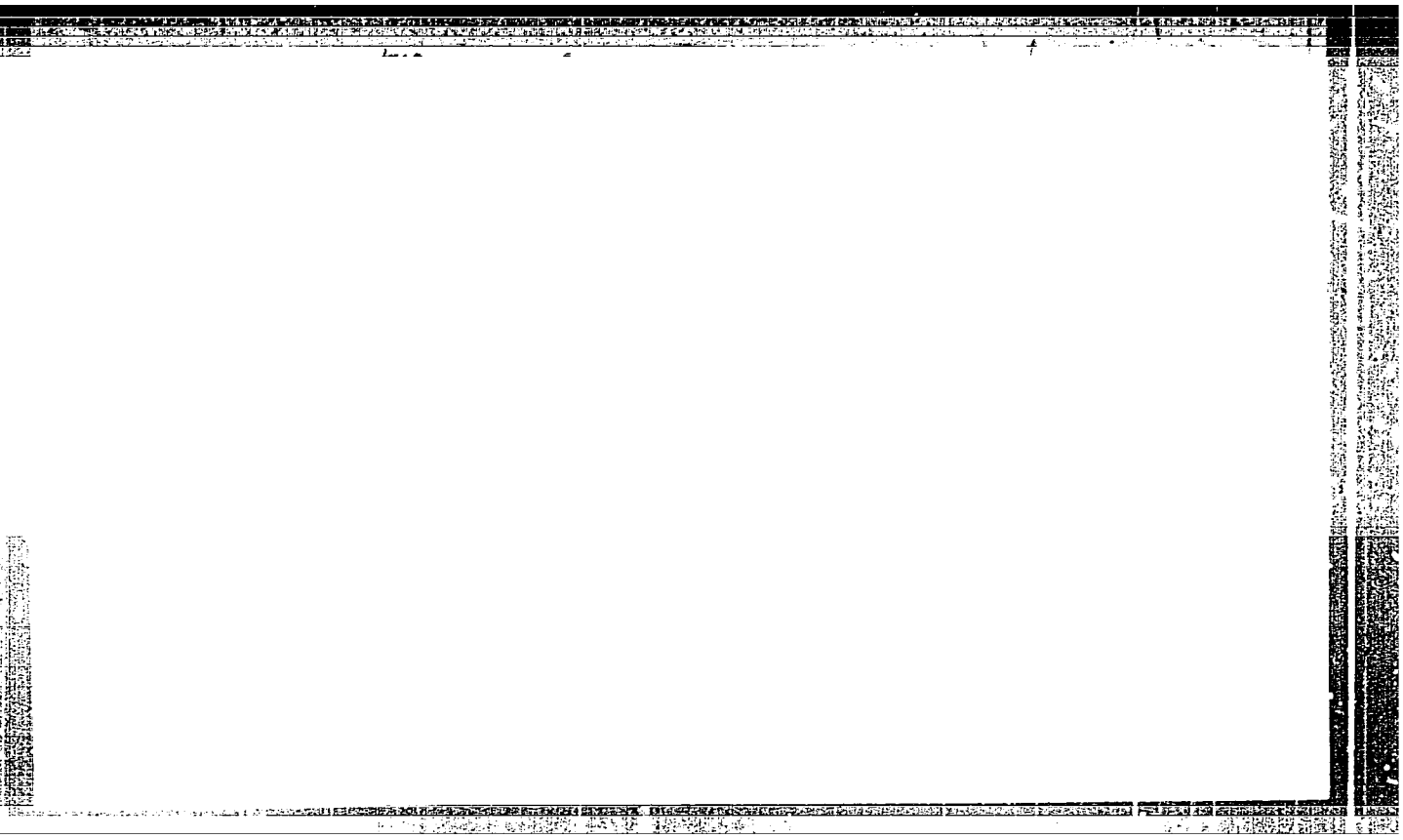
KORNEVA, N.K.; DOROFEYEV, G.A.; GRINEVICH, I.P.; VINOKUROV, Ye.B.

Determining the optimum frequency of reversing the fuel spray in open-hearth furnaces. Metallurg 9 no.5:22-23 My '64. (MIRA 17:8)

1. Donetskiy filial Ukrainskogo nauchno-issledovatel'skogo instituta metallov i zavod im. Il'icha.

SPIVAK, P.Ye.; YEROZOLIMSKIY, B.G.; DOROFEYEV, G.A.; LAVRENCHIK, V.I.

[Measurement of resonance absorption integrals for various substances and of the multiplication coefficient (effective number of secondary neutrons) of resonance neutrons for fissionable isotopes] Izmereniia rezonansnykh integralov poglashcheniia dlia raslichnykh veshchestv i koeffitsienta razmnozheniia (effektivnogo chisla vtorichnykh neitronov) na rezonansnykh neitronakh dlia deliashchikhsia izotopov. Moskva, 1955. 13 p. (MIRA 14:7)
(Neutrons) (Isotopes) (Nuclear fission)



DOROFEYEV, G.A.

Category : USSR/Nuclear Physics - Nuclear Reactions C-5

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 557

Author : Spivak, P.E., Mirozolimskiy, B.G., Dorofeyev, G.A., Lavrenchik, V.N., Kutikov, I.Ya., and Dobrynin, Yu. P.

Title : Determination of the Average Number of Neutrons, ν_{eff}, Emitted by a Single Capture Act for the Isotopes U^{233}, U^{235}, and Pu^{239} in the Ultrathermal Region of Neutron Energies.

Orig Pub : Atom. energiya, 1956, No 3, 13-20

Abstract : The variation of ν_{eff} was measured for the isotopes U^{233}, U^{235} and Pu^{239} in the ultrathermal region of neutron energy. ν_{eff} of U^{233} remains unchanged all the way up to energies on the order of 100 ev. ν_{eff} of Pu^{239} diminishes by 12% during the transition from the thermal spectrum to the of 0.15 -- 0.5 ev energy spectrum, and then remains unchanged. ν_{eff} of U^{235} remains unchanged upon transition from the thermal spectrum to the 0.15 -- 0.5 ev energy spectrum, and then drops by 18% upon transition to the energy spectrum 8 -- 130 ev.

Card : 1/1

Dorofeyev, G.A.

C-5

Category : USSR/Nuclear Physics - Nuclear Reactions

Abs Jour : Ref Zhur - Fizika, No 3, 1957, No 6040

Author : Spivak, P.Ye., Yerozolimskiy, B.G., Dorofeyev, G.A., Lavrenchik, V.N., Kutikov, I.Ye., Dobrynin, Yu.I.

Title : Average Number of Neutrons ν_{eff} Emitted by the U^{233}, U^{235}, and Pu^{239} Isotopes Upon Capture of Neutrons with Energies from 30 -- 900 kev.

Orig Pub : Atom. energiya, 1956, No 3, 21-26

Abstract : The values of ν_{eff} of U^{233}, U^{235}, and Pu^{239} were measured for 30 -- 900 kev neutrons by means of a method employing two indicator systems, having a different dependence of the efficiency of the neutron energy. The primary-neutron sources employed were the photoneutron sources Sb^{124} + Be (30 kev), Ga^{72} + D2O (140 kev) Na^{24} + D_2O (250 kev), and Na^{24} + Be (900 kev).

The results obtained are listed in the table:

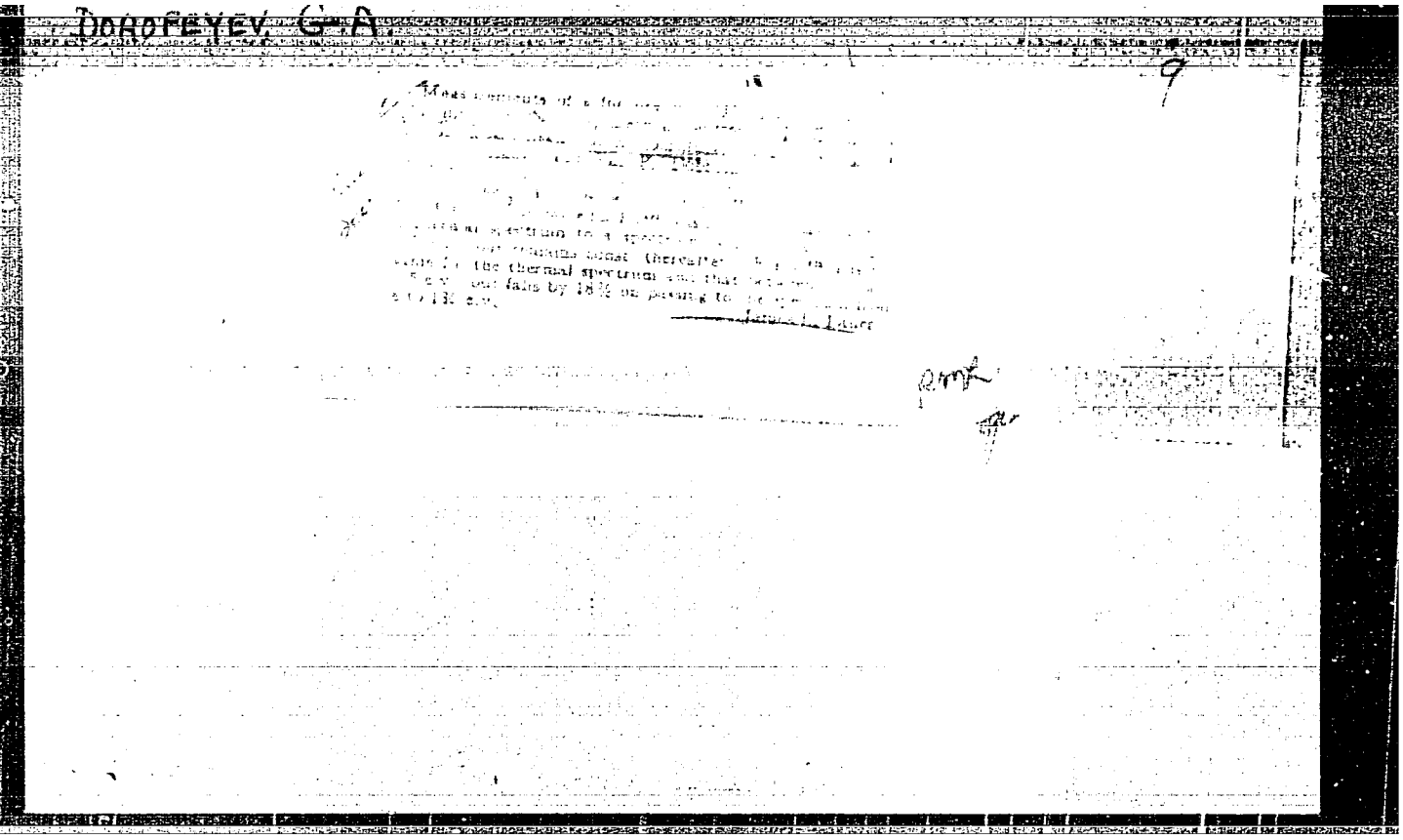
Card : 1/2

DOROFEYEV, G. A.

7/14

THE AVERAGE NUMBER OF NEUTRONS ν_{eff} EMITTED BY THE ISOTOPES U^{233}, U^{235} AND Pu^{239} ON CAPTURE OF NEUTRONS WITH ENERGIES FROM 30 TO 600 kev. P. E. Spivak, B. G. Erozolimsky, G. A. Dorofeev, V. S. Lavrenchik, I. E. Kutikov, and Yu. P. Dobrynin. Soviet J. Atomic Energy, No. 3, 303-9(1956).

Measurements are made on ν_{eff} for the isotopes U^{233}, U^{235} and Pu^{239} for neutrons with energies from 30 to 600 kev. It is discovered that in this energy region ν_{eff} increases substantially as the neutron energy increases. (auth)



DOROFEYEV, G.A.

AUTHOR: DOROFEEV,G.A., DOBRYNIN,JU.P. PA - 2049

TITLE: The Cross Sections of the Fission U^{233}, U^{235}, U^{239} and Pu^{240} for Neutrons with Energies of from 30 keV to 5 MeV (Russian).

PERIODICAL: Atomnaia Energiia, 1957, Vol 2, Nr 1, pp 10-17 (U.S.S.R.)

Received: 3 / 1957 Reviewed: 3 / 1957

ABSTRACT: I. Measuring of the dependence of the cross sections of the fission of U^{233}, U^{235} and Pu^{239} was carried out by counting the fission fragments by means of an ionization chamber containing layers of the fissioning substances. The experimental order is demonstrated by means of a drawing; the chambers used for fission were filled with (90% Ar + 10% CO_2) with 200 torr and operated according to the principle of electron collection. Also the control tests and corrections are discussed. The fission cross sections σ_f were measured in series with one of the sources mentioned here and with the source Sb + Be. The cross section for the neutrons of this source was put equal to one. A table contains the here found experimental values of the relative cross sections σ_f for U^{233}, U^{235} and U^{239}, and also the definite values after consideration of the corrections.

Card 1/3

The Cross Sections of the Fission U^{233}, U^{235}, U^{239} and Pu^{240} for Neutrons with Energies of from 30 keV to 5 MeV (Russian).

II. The absolute values of σ_f for U^{233}, U^{235} and Pu^{239} were determined only for the neutrons of the source Sb + Be. A graphite prism with proportionality counters filled with BF_3 was used as neutron indicator. Measuring results and the cross sections computed therefrom are given in a table and the corresponding corrections are discussed.

III. The absolute values of σ_f for Pu^{240} were measured for neutrons of different energies by the same method as used for measuring the relative values of σ_f for U^{233}, U^{235} and Pu^{239}. Measuring results are given in a table.

IV. Discussion of Measuring Results: The here found fission cross sections of U^{233}, U^{235} and Pu^{239} agree well with the data obtained by D.J.HUGHES and I.A.HARVEY, Neutron Cross Sections, Mc Graw-Hill Comp., N.Y. (1955). With respect to other works, both agreement as well as considerable disagreement was found.

Card 2/3

PA - 2049

The Cross Sections of the Fission U^{233}, U^{235}, U^{239} and Pu^{240} for Neutrons with Energies of from keV to 5 MeV (Russian).

The data supplied by the last-mentioned table permit the conclusion that the threshold of the fission of Pu^{240} is between 250 and 900 keV. The values of the fission cross section of Pu^{240} obtained by the present work agree within the limit of measuring accuracy with the value of $(1,6 \pm 0,3)$ mentioned by JU.S.ZAMJATNIN, Atomnaia Energiia, enclosure Nr 1 (in print).

ASSOCIATION: Not given
PRESENTED BY:
SUBMITTED:
AVAILABLE: Library of Congress

Card 3/3

DOROFEYEV, G.A.

AUTHORS Dobrynin Yu.N., Dorofeyev, G.A., Kutikov I.Ye. 89-10-9/36
TITLE Measurement of Resonance Absorption Integrals in Zirconium Specimens.
(Izmereniya rezonansnykh integralov pogloshcheniya obraztsov tsirkoniya - Russian)
PERIODICAL Atomnaya Energiya, 1957, Vol 3, Nr 10, pp 323 - 324 (U.S.S.R.)

ABSTRACT Zirconium specimens with a different content of hafnium were introduced into the center of a graphite prism and irradiated with a collimated neutron beam of the reactor B.B.P. Measurements were connected with the resonance integral for boron Σ = 375b.
$\int_{0,4eV}^{\infty} \sigma(E) \frac{dE}{E}$ was measured at (2,3+ 0,5)b for pure zirdonium.

There are 1 table and 2 Slavic references.

SUBMITTED May 20, 1957
AVAILABLE Library of Congress.
Card 1/1

DOROFEYEV, G.A.

89-10-12/36

AUTHORS Dorofeyev, G.A., Kutikov, I.Ye., Kucher, A.M.

TITLE Comparison between USSR and Swedish Neutron Standards. (Sravneniye standartnykh neytronnykh istochnikov SSSR i Shvetsii.)

PERIODICAL Atomnaya Energiya, 1957, Vol. 3, Nr 10, pp.328-330 (USSR)

ABSTRACT The Russian neutron standard source H_{26} was measured in 1952 at $(4.70 \pm 0,30) \cdot 10^5$n/sec, and the source H_{22} was measured in 1951 at $(5.96 \pm 0,17) \cdot 10^5$n/sec.
The Swedish neutron standar source Q_1 was measured 1952-1954 by Larson at $(2,65 \pm 0,05) \cdot 10^6$n/sec. On the occasion of Larson's visit to Moscow the three sources were compared among one another and $Q_1/Q_{H22} = 0,439 \pm 0,5$ % and $Q_{H26}/Q_{H22} = 0,082 \pm 0,5$ % was measured. If, in addition the time factor is taken into account, the three sources have (for 1957) the value:

CARD 1/2

89-10-12/36

Comparison between Uesr and Swedish Neutron Standards.

$Q_{H26} = 6,07 \cdot 10^6 n/sec$

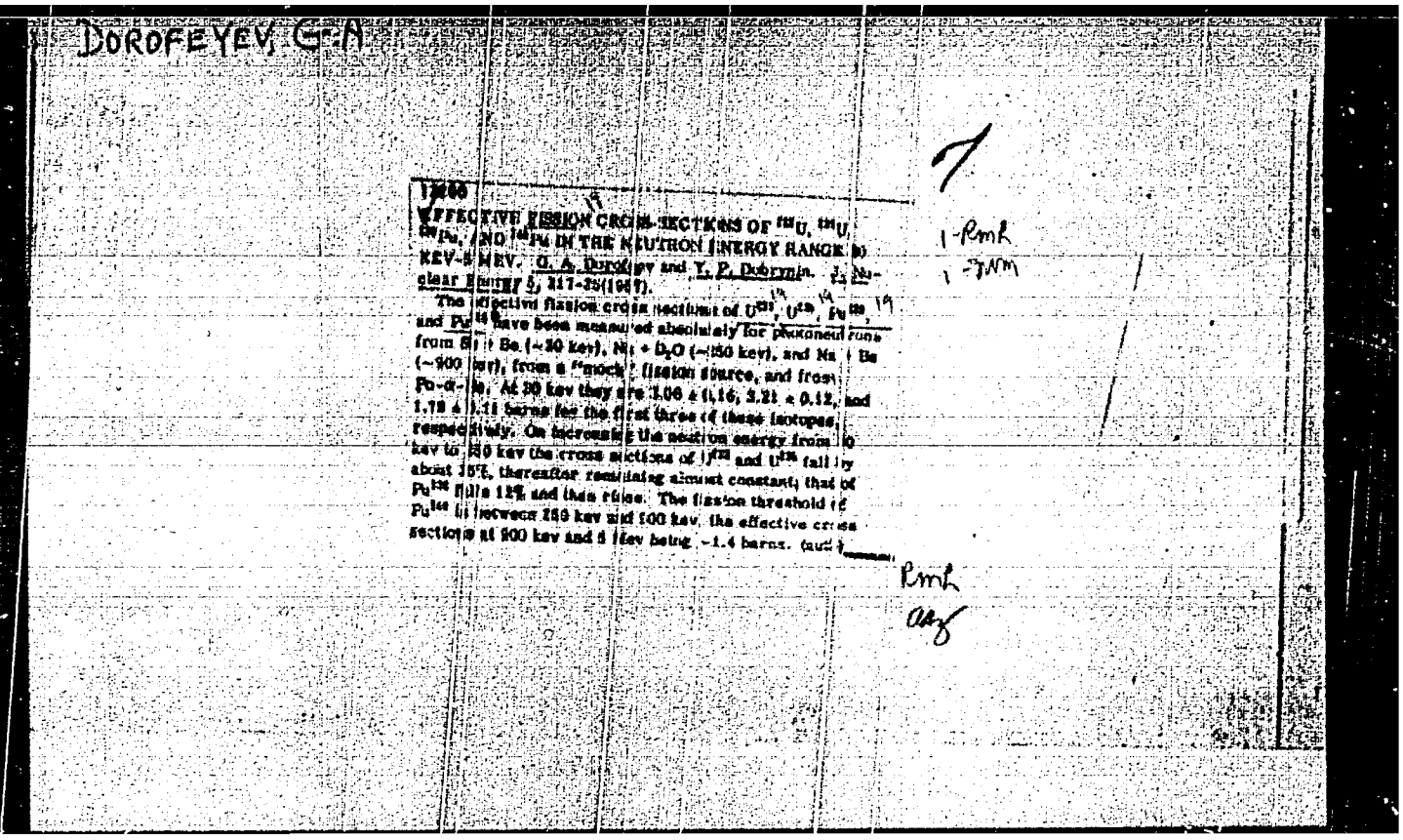
$Q_{H22} = 4,82 \cdot 10^5 n/sec$

$Q_1 = (2,86 \pm 0,06) \cdot 10^6 n/sec.$

There are 2 tables, 1 figure and 6 Slavic references.

ASSOCIATION: None given.
SUBMITTED: 20.5. 1957.
AVAILABLE: Library of Congress.

CARD 2/2



DOROFEYEV, G.A.

1 Rmk
1 JWM

EFFECTIVE FISSION CROSS SECTIONS OF ^{233}U, ^{235}U, ^{239}Pu, AND ^{241}Pu IN THE NEUTRON ENERGY RANGE 0 KEV-5 MEV. G. A. Dorofeyev and Y. P. Dobrynin. At. Energiya 5, 217-25(1957).

The effective fission cross sections of U^{233}, U^{235}, Pu^{239}, and Pu^{241} have been measured absolutely for piezoneutrons from Sb + Be (~30 kev), Na + D_2O (~150 kev), and Na + Be (~900 kev), from a "mock" fission source, and from Po-α-Be. At 30 kev they are 1.06 ± 0.16, 2.21 ± 0.12, and 1.78 ± 0.11 barns for the first three of these isotopes, respectively. On increasing the neutron energy from 0 kev to 150 kev the cross sections of U^{233} and U^{235} fall by about 15%, thereafter remaining almost constant; that of Pu^{239} falls 12% and then rises. The fission threshold of Pu^{241} lies between 250 kev and 500 kev, the effective cross sections at 500 kev and 5 Mev being ~1.4 barns. (auth)

Rmk
ajf

SOV-25-58-10-15/48

AUTHOR: Dorofeyev, G.A., Candidate of Physical and Mathematical Sciences, Scientific Consultant of the "Atom" Section at the Brussels World Fair

TITLE: Atom (Atom)

PERIODICAL: Nauka i zhizn', 1958, Nr 10, pp 26 - 28 (USSR)

ABSTRACT: The article deals with scientific instruments and apparatus exhibited at the Brussels Fair. There are 10 photographs.

Card 1/1 1. Scientific instruments--USSR

7 (5), 21 (1) SOV/89-7-2-16/24

AUTHORS: Vatset, P. I., Tonapetyan, S. G., Dorofeyev, G. A.

TITLE: A Neutron Detector Having Constant Sensitivity for Neutrons With Energies 0.025-14 Mev (Detektor neytronov s postoyannoy chuvstvitel'nost'yu k neytronam s energiyami ot 0.025 do 14 Mev)

PERIODICAL: Atomnaya energiya, 1959, Vol 7, Nr 2, pp 172-174 (USSR)

ABSTRACT: The neutron detector described in references 1 and 2, with its paraffin and boron carbide shielding is modified (Detailed sketch Fig 1). First of all the diameter of the boron counter is enlarged to 30 mm. It is filled with BF_3 (70 % B^{10}) of a 140 mm Hg pressure, the operational voltage is 1700 v and the plateau approximately 300 v. The enlargement of the diameter of the counter relatively increased the sensitivity of the counter concerning fast neutrons. The examination of the detector sensitivity was made in "good geometry". The following neutron sources were used: Sb-Be, Ra-Be, Na-D, Na-Be, $T(d,n)He^4$ Po-α-Be, and neutron source according to ref 3. The background caused by scattered neutrons did not exceed 6 %. A 1 c strong Sb^{124} γ-source located at a 20 cm distance from the counter

Card 1/3

did not impair the neutron sensitivity of the detector. The standard strength of the neutron preparations was known up to an accuracy of ± 3 %. The measurement of the relative intensity of the mentioned neutron sources was carried out with an accuracy of ± 1.5 %. The location of the counter in relation to the paraffin block is sensitive. A few curves show that the sensitivity of the counter decreases when the boron counter is put into the paraffin block. It was shown by an experiment that in a certain position there is a constant sensitivity towards neutrons of energies of 0.8-14 mev. In another position the sensitivity of the detector for neutrons of an energy between 0.025 and 5 mev is constant in the measuring accuracy range (± 3 %) and decreases by approximately 11 % when the neutron energy reaches 14 mev. K. D. Sinel'nikov, A. K. Val'ter, I. V. Kurchatov and I. N. Golovin were interested in these studies and collaborated from time to time. T. I. Lyashenko and L. Ya. Kolesnikov participated in certain partial examinations. There are 3 figures and 3 references, 1 of which is Soviet.

KARAMYAN, A.S. [deceased]; DORCFEYEV, G.A.; KLOCHKOV, D.S.

Neutron emission from strongly excited nuclei. Zhur. eksp. i teor. fiz. 40 no.4:1004-1006 Ap '61. (MIRA 14:7)
(Nuclear reactions) (Neutrons)

VASIL'YEV, R.D.; DOROFEYEV, G.A.; MORDOVSKAYA, G.S.; PETROV, V.I.; PIMENOV, M.I.

Study of a thermal neutron source.. Atom. energ. 15 no.3: 200-204 S '63. (MIRA 16:10)

(Neutron sources)

VASIL'YEV, I.D.; DOROFEYEV, G.A.; PETROV, V.I.; [illegible], [illegible]

Measurement of the neutron yield from pulse neutron accelerating tubes. Prib. i tekh. eksp. 9 no.6:32-33 N-D '64.

(MIRA 18:3)

YUDIN, Mikhail Fedorovich; FOMINYKH, Vladimir Ignat'yevich; DOROFEYEV, G.A., nauchn. red.; SHEVCHENKO, A.L., red.

[Neutron dosimetry] Neitronnaia dozimetriia. Moskva, Izd-vo standartov, 1964. 214 p. (MIRA 17:9)

L 19833-65 EWT(m) Pb-4 DIAAP/AFWL/ASD(a)-5/AMD/AFTC(b)/RAEM(a) DM 21 B

ACCESSION NR: AP4049543 S/0089/64/017/005/0410/0412

AUTHORS: Garapov, E. F.; Gryaznov, Yu. N.; Dorofeyev, G. A. 19

TITLE: Errors in the calibration of Gamma dosimeters in a collimated beam

SOURCE: Atomnaya energiya, v. 17, no. 5, 1964, 410-412

TOPIC TAGS: radiation dosimetry, gamma detector, calibration spectrum

ABSTRACT: To study the errors due to the difference between test and laboratory conditions, the authors measured the variation in the radiation spectrum as a function of the aperture angle of the collimated beam, and of the distance between the detector and the source, with an aim at establishing a method for determining the contribution of the scattered radiation. The primary source w was 2 x 2 cm of Co^{60}. The measurements were made with a standard calibration rule.

Card 1/2

L 19633-65
ACCESSION NR: AP4049543

The γ ray detector was an NaI(Tl) crystal measuring 40 x 40 mm with an FEU-13 photomultiplier, placed 100, 200, 300 and 400 cm from the source. For each distance, spectra were taken at collimating-channel diameters 8, 14, 30, 40, and 60 mm. The accuracy of the measurements is discussed. It is concluded on the basis of the results that the bulk of the stray radiation in a collimated beam is produced in the shielding material in the direct vicinity of the source. The use of a cavity with dimensions equal to or larger than the diameter of the collimating channel greatly reduces the stray radiation, so that channels with diameter larger than 30 mm can be used without a noticeable change in the γ ray intensity in the beam. Orig. art. has: 3 figures.

ASSOCIATION: None

SUBMITTED: 04Dec63 ENCL: 00

SUB CODE: NP, LS NR REF SOV: 002 OTHER: 000

Card 2/2

L 27228-65 EWG(j)/EWT(m)/EPF(c)/EPR/EWP(j)/T/EWA(h)/EWA(1) Pc-4/Pr-4/Ps-4/Peb 36 32 B
D:AAP WW/RM S/0120/64/000/006/0032/0033
ACCESSION NR: AP5002142

AUTHOR: Vasil'yev, R. D.; Dorofeyev, G. A.; Petrov, V. I.; Pimenov, M. I.

TITLE: Measuring the neutron yield of pulsed neutron tubes 19

SOURCE: Pribory i tekhnika eksperimenta, no. 6, 1964, 32-33

TOPIC TAGS: neutron source, neutron yield, neutron detector

ABSTRACT: An activation method is described of determining the neutron yield of a pulsed neutron tube by means of a device calibrated in a continuous neutron beam. The neutron detector was represented by a plexiglas cylinder whose diameter and height were 25 cm. Inside the cylinder, three Geiger counters were symmetrically mounted. The detector was placed at a distance of 10 cm or more from a tritium target in a sealed tube. Neutrons were produced by bombarding the target with 100-kev deuterons; the frequency of the neutron pulses was 1—400 cps; their duration, 10^{-6}—10^{-3} sec. The detector was irradiated by D, T-neutrons

L 27228-65

ACCESSION NR: AP5002142

obtained from a continuous neutron source for 1,000 sec, and a curve of decay of activated-to-saturation silver was measured. From these experiments, the coefficients for a neutron-yield formula were calculated. The average number of neutrons per pulse was found to be about 5×10^6. "The authors wish to thank V. T. Shchebolev for lending them the neutron source and for his help in the experimentation." Orig. art. has: 6 formulas.

ASSOCIATION: none

SUBMITTED: 25Nov63 ENCL: 00 SUB CODE: NP

NO REF SOV: 000 OTHER: 000

Card 2/2

L 62803-65 EWT(m)/EWA(h)

ACCESSION NR: AP5006339 S/0115/65/000/001/0048/0050

AUTHOR: Baryshova, L. Ya.; Denisikov, A. I.; Dorofeyev, G. A.; L'vova, L. A.; Bochkarev, V. V.; Garapov, E. F.; Gryaznov, Yu. N.

TITLE: Comparison of various methods of activity measurements by beta and gamma radiations

SOURCE: Izmeritel'naya tekhnika, no. 1, 1965, 48-50

TOPIC TAGS: radioactivity, radioactivity measurement, radioactive preparation

ABSTRACT: For evaluating the methods and accuracies of activity measurements, a number of Co^{60} and Fe^{59} preparations were tested in the laboratories of GK AE SSSR and Health Ministry SSSR. These methods were used: (1) Beta-gamma coincidence (stilbene detector and NaI(Tl) crystal); (2) Gamma-gamma coincidence; (3) Two 4π-beta proportional flow counter; (4) End-window counter; (5) Ionization chambers. The absolute measurements by methods 1, 2,

Card 1/2

L 48813-65
ACCESSION NR: AP5008339

and 3 were found to be correct to within ±1%. Measurements with F^{69} were less accurate because of the low specific activity of solutions (gamma) and complicated decay mode (beta-gamma). Orig. art. has: 2 tables.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: NP

NO REF SOV: 005 OTHER: 003

Card 2/2

KORNEVA, N.K.; GRINEVICH, I.P.; DOMOFEYEV, G.A.; ZARUBIN, N.G.; LEPORSKIY, S.V.

An efficient design of the parts of high-capacity open-hearth furnaces. Metallurg 10 no.8:23-24 Ag '65. (MIRA 18:8)

1. DonNIICHermet i zavod im. Il'icha.

KORNEVA, N.K.; ANDREYEV, V.L.; DOROFEYEV, G.A.; GRINEVICH, I.P.; VINOKUROV, Ye.B.; TKACHENKO, V.A.

Study of the operation of ports in heavy duty open-hearth furnaces. Stal' 25 no.4:324-325 Ap '65. (MIRA 18:11)

1. Donetskiy institut chernoy metallurgii.

KULIKOV, V.O.; BORNATSKIY, I.I.; ZARUBIN, N.G.; DOROFEYEV, G.A.; KALUZHSKIY, Ye.A.; KAZAKOV, A.A.; KOVAL', R.F.; KORNEVA, N.K.; TRET'YAKOV, Ye.V.; TRUNOV, Ye.A.; Prinimali uchastiye: ANDREYEV, V.L.; GORDIYENKO, V.V.; GRINEVICH, I.P.; GUBAR', V.F.; DOLINENKO, V.I.; ZHERNOVSKIY, V.S.; ZHIGALOVA, Z.I.; KOMOV, N.G.; KURAPIN, B.S.; OLESHKEVICH, T.I.; PRIKHOZHENKO, Ye.

Mastering the operations of 650- and 900-ton (mega - gram) capacity open-hearth furnaces at the Il'ich metallurgical plant. Stal' 25 no.8:805-807 S '65. (MIRA 18:9)

1. DONNIICHERMET i Zhdanovskiy metallurgicheskiy zavod imeni Il'icha.

L 07957-67 EWT(m)

ACC NR: AT6031328 SOURCE CODE: UR/3163/66/000/004/0026/0033

AUTHOR: Vasil'yev, R. D.; Dorofeyev, G. A.; Petrov, V. I.; Pimenov, M. I.; Shevchenko, V. F.

ORG: none

27
19 B+1

TITLE: Determination of the yield of nuclear reactions in thick targets with energies up to 100 Kev

SOURCE: Soyuznyy nauchno-issledovatel'skiy institut priborostroyeniya. Doklady, no. 4, 1966. Opredeleniye vykhoda reaktsiy Deyteriy (deyton, neytron) Geliy tri i Tritiy (deyton, neytron) Geliy chetyry v tolstykh mishenyakh pri energiyakh

TOPIC TAGS: nuclear reaction, neutron, deuteron, neutron flux, all-wave counter/NG-200 cascade accelerator

ABSTRACT: On the basis of previous works, a determination is made of the yield of nuclear reactions $D(d,n)He^3$ and $T(d,n)He^4$ in commercially produced thick targets along accompanying particles at deuteron energies up to 100 Kev. The neutron yield was measured with an NG-200 cascade accelerator. Confirmation was made of the virtual absence of scattering in target nuclei Ne^3

Card 1/2 UDC: 539.17

L 47957-66

ACC NR: AT6031328

escaping toward the counter. Results of the calibration of the all-wave counter confirm the corrections of the method used to determine the neutron flux density and the yield of the reactions $D(d,n)He^3$ and $T(d,n)He^4$. Orig. art. has: 4 figures and 11 formulas.

SUB CODE: 20, 18/ SUBM DATE: 20Oct65/ ORIG REF: 001/ OTH REF: 006/

Card 2/2

L 05826-67 EWT(m) IJP(c)

ACC NR: AT6031330 SOURCE CODE: UR/3163/66/000/008/0022/0025

AUTHOR: Vasil'yer, R. D.; Dorofeyev, G. A.; Petrov, V. I.; Pimenov, M. I.; Shevchenko, V. F. 35

TITLE: The method of similarity of radiation fields used in the adjustment of neutron radiometers 19

SOURCE: Soyuznyy nauchno-issledovatel'skiy institut priborostroyeniya. Doklady, no. 8, 1966. Primeneniye metoda podobiya radiatsionnykh poley pri nastroyke neytronnykh radiometrov, 22-25

TOPIC TAGS: radiometer, gamma radiation, neutron flux density, all wave counter/RUP-1 radiometer, KPN-1 radiometer, KDUS-1M radiometer

ABSTRACT: A method is described for adjusting radiometers by using the similarity of radiation fields produced by neutron sources. The methods were tested with an all-wave counter and RUP-1, KPN-1, and KDUS-1M radiometers. The discrimination threshold in all instruments was set up so as to make it possible to discount the effect of gamma radiation. The results of the adjustment of neutron radiometers by the method of similarity of the radiation fields were compared with the results of the calibration of the same subrange. In all cases, the results of the

Card 1/2 UDC: 539.1.075.2:539.125.5

L 05826-67
ACC NR: AT6031330

adjustment and the calibration coincided within the limits of measurement error. The economic advantage of the method of similarity for the adjustment of radiometers is evident. In this case, the limits of radiometer calibration extend two or three times, the measurement time is reduced, and working conditions are safer from radiation. This compensates for the small decrease in the accuracy of the determination of neutron flux density with radiometers adjusted by the similarity method.

SUB CODE: 20, 18/ SUBM DATE: 05Jan66/

kh

Card 2/2

L 05821-67 EWT(m) IJP(c)

ACC NR: AT6031329 SOURCE CODE: UR/3163/66/000/007/0016/0022

AUTHOR: Vasil'yev, R. D.; Dorofeyev, G. A.; Petrov, V. I.; Pimenov, M. I.; Shevchenko, V. F.

ORG: none

TITLE: Calibration of radiometers of thermal neutrons in a diffused stream

SOURCE: Soyuznyy nauchno-issledovatel'skiy institut priborostroyeniya. Doklady, no. 7, 1966. Graduirovka radiometrov teplovykh neytronov v diffuznom potoke, 16-21

TOPIC TAGS: radiometer, thermal neutron/RUP-1 radiometer

ABSTRACT: A method is described for calibrating RUP-1 radiometers with a minimum of 10% accuracy. Results of calibration of thermal neutrons in a diffuse field and in a directed stream were compared. It was found that radiometers calibrated in a directed stream showed a reduced magnitude during measurements in a diffuse field. As a rule, diffuse fields occur in real conditions, therefore, readings of radiometers calibrated in a directed stream must be increased during

Card 1/2 UDC: 539.1.075.2:539.1.089.6:539.125.5

L 05827-67
ACC NR: AT6031329

measurements in diffuse fields. Readings of the RUP-1 radiometer for instance, must be increased by approximately 30%. Orig. art. has: 6 formulas.

SUB CODE: 20/ SUBM DATE: 05Jan66/ ORIG REF: 003/ OTH REF: 004/

kh

Card 2/2

L 07958-67 EWT(m)

ACC NR: At6031327 SOURCE CODE: UR/3163/66/000/003/0022/0025

AUTHOR: Vasil'yev, R. D.; Dorofeyev, G. A.; Petrov, V. I.; Pimenov, M. I.; Shevchenko, V. F.

41
B+1

ORG: none

19 19

TITLE: On the problem of using nuclear reactions to calibrate radiometers of fast neutrons

SOURCE: Soyuznyy nauchno-issledovatel'skiy institut priborostroyeniya. Doklady, no. 3, 1966. K voprosu ob ispol'zovanii yadernykh reaktsiy Deyteriy (deyton, neytron) Geliy tri i Tritiy (deyton, neytron) Geliy chetyry dlya graduirovki radiometrov bystrykh neytronov, 22-25

TOPIC TAGS: radiometer, nuclear reaction, neutron, neutron detector, neutron flux/NG-200 generator

ABSTRACT: A study is made of the calibration of neutron radiometers with energies close to 2.5 and 14 Mev, formed during nuclear reactions $D(d,n)He^3$ and $T(d,n)He^4$ respectively. A neutron NG-200 generator was used as the accelerator. It was found that in some cases, neutrons from reaction

Card 1/2 UDC: 539.1.075.2.089:539.172.4

L 07958-67

ACC NR: AT6031327

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$T(d,n)He^4$ can be used to adjust instruments intended to register neutrons from reaction $D(d,n)He^3$. The calibration error of neutron radiometers for both reactions was calculated as being the sum of the mean square errors in the determination of the neutron flux density and the readings of the calibrated instrument, and was of the order of 5 to 10%. Orig. art. has: 1 figure and 1 formula.

SUB CODE: 20, 18/ SUBM DATE: none/ ORIG REF: 005/ OTH REF: 001/

Card 2/2 egh

ACC NR: AP6022207 SOURCE CODE: UR/0115/66/000/005/0063/0065

AUTHOR: Vasil'yev, R. D.; Dorofeyev, G. A.; Petrov, V. I.; Pimenov, M. I.; Shevchenko, V. F.

ORG: none

TITLE: Calibrating thermal-neutron radiometers in diffused flux

SOURCE: Izmeritel'naya tekhnika, no. 5, 1966, 63-65

TOPIC TAGS: radiometer, thermal neutron

ABSTRACT: The possibility of using a graphite moderator as a source of thermal neutrons for calibrating neutron radiometers was explored. A fast-neutron source ($T(d,n)He^4$ reaction) was placed inside a cavity in the graphite. With thick industrial ZrT and TiT targets, the neutron yield reached 10^9 per sec, at 100 kv and 100 μamp in the cascade accelerator. Theoretically, Q/P = 7000 per cm^2; experimentally, 5600 per cm^2; here, Q - yield of fast neutrons, P - thermal-neutron flux density. Hence, a field of thermal neutrons with a density of 10^6 neutr/sec.cm^2 was feasible; these neutrons had a Maxwellian energy distribution and a temperature of 293K. The technique of calibration of Soviet-made RUP-1 radiometer is described in some detail. The radiometer calibrated in a directional flux showed readings by 30% lower than true value of measurand when used in diffused fluxes. Orig. art. has: 7 formulas.

SUB CODE: 18 / SUBM DATE: none / ORIG REF: 005 / OTH REF: 001

UDC:621.039.564.2

Card 1/1

DOROFEYEV, G.I., kand.med.nauk

Result of penicillin aerosol therapy of catarrhs of the respiratory tract aboard ship. Voen.-med.zhur. no.8:81-82 Ag '57. (MIRA 10:12)
(PENICILLIN, therapeutic use,
resp. catarrh., aerosols (Rus))
(RESPIRATORY TRACT, diseases,
catarrh, penicillin aerosol ther. (Rus))

SMAGIN, G.A., prof.; DOROFEYEV, G.I., kand.med.nauk

Clinical and physiological principles in the compound therapy of peptic ulcer. Terap.arkh. 31 no.8:56-61 Ag '59. (MIRA 12:11)

1. Iz kafedry terapii No.2 dlya usovershenstvovaniya vrachey (nach. - prof. G.A. Smagin) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.
(PEPTIC ULCER, therapy)

DOROFEYEV, G.I.

Experience in prednisolone therapy for allergic complications of roentgen and curie therapy. Med.rad. 5 no.10:18-21 '60.
(MIRA 14:2)

(PREGNA DIENEDIONE) (RADIOTHERAPY)
(ALLERGY)

YAKOVLEV, S.I., doktor med.nauk; DOROFEYEV, G.I., kand.med.nauk; ONIKIYENKO, B.A.; POLUNOVA, Ye.N.

Clinical aspects and remote results of the treatment of acute poisoning with methyl alcohol. Voen.-med.zhur. no.3:40-44 Mr '61. (MIRA 14:7)

(METHANOL--TOXICOLOGY)

DOROFEYEV, O.I.; ONIKIYENKO, B.A.

Diagnosis of chronic radiation sickness. Med. rad. 6 no.1:9-12 '61. (MIRA 14:3)

(RADIATION SICKNESS)

[redacted]

SEROVEYEV, G. I.

"Study of the Variations in Equivalent Parameters of Inductors During High-Frequency Heating." Cand Tech Sci, Leningrad Electrical Engineering Inst, Leningrad, 1954. (RZhFiz, Sep 54)

SO: Sum 432, 29 Mar 55

DOROFIYEV, G.I.

VASIL'YEV, A.S., kand.tekhn.nauk; DOROFIYEV, G.I., kand.tekhn.nauk; ACHKINADZE, Sh.D., red.; GVIRTS, V.L., tekhn.red.

[Changes in load parameters during induction heating under various operating conditions of generators] Izmenenie parametrov nagruzki pri induktsionnom nagreve v razlichnykh rezhimakh raboty mashinnogo generatora. Leningrad, 1955. 7 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Informatsionno tekhnicheskii listok, no.108(796)) (MIRA 10:12)

(Induction heating)

DOROFEYEV, G. I.

AID P - 1483

Subject : USSR/Electricity

Card 1/1 Pub. 27 - 34/36

Author : Dorofeyev, G. I., Kand. of Tech. Sci.

Title : Book review: A. Ye. Slukhotskiy and S. Ye. Ryskin. Inductors for Induction Heating of Machine Building Details. Mashgiz, 1954. 320 pp.

Periodical : Elektrichestvo, 2, 86-87, F 1955

Abstract : The book is written for employees of machine-building and metallurgical factories, for workers at scientific research institutes, and also for the students of institutes of higher education. The reviewer states that the book is well written, contains much material and good illustrations, and that the deficiencies observed do not diminish its technical and educational value.

Institution: Moscow Physical and Technical Institute
Submitted : No date

DOROFEYEV, G.I., kandidat tekhnicheskikh nauk.

Skin effect in a two-layer conductor. Elektrichestvo no.8:31-32 Ag '56. (MLRA 9:10)

1.Moskovskiy fiziko-tekhnicheskiy institut.
(Electric conductors)

84765

S/042/60/015/003/008/016XX
C111/C222

16.1600

AUTHOR: Dorofeyev, G.V.

TITLE: An Example of a Solvable, Though Non-Nilpotent Alternative Ring 16

PERIODICAL: Uspekhi matematicheskikh nauk, 1960, Vol.15, No.3, pp.147-150

TEXT: Let $R = \{x_i\}$, $i=1,2,3,\ldots$ be a countable set of symbols; $x_i \in R$ are called regular words of the length 1; the symbols $x_i x_j$ $(i<j)$ are called regular words of the length 2. Let the regular words of the length $k \geq 2$ be defined. Then the symbol $(a)x_s$ is called a regular word of the length $k+1$ if a is a regular word of the length k and all x_l in a satisfy the condition $i \leq s$. Semiregular words of the length 3 be the symbols $x_i(x_j x_k)$ $(i<j<k)$. Semiregular words of the length >3 are defined successively as above. Regular and semiregular words are called basis words. On the set of linear combinations of the basis words with coefficients being rational integers, the multiplication is defined as follows:

1. If a is a basis word, then

$$a \cdot x_s = \begin{cases} 0, & \text{if } x_s \text{ appears in } a \\ (-1)^t a', & \text{if } x_s \text{ does not appear in } a; \end{cases}$$

Card 1/3

S/042/60/015/003/008/016XX
C111/C222

An Example of a Solvable, Though Non-Nilpotent Alternative Ring

here t is the number of inversions of the lower indices of the elements of ax_s; a' denotes a word with the same distribution of parantheses as ax_s in which, however, all appearing elements of ax_s are in natural sequence.

2. $$x_i \cdot (x_j x_k) = \begin{cases} x_i(x_j x_k) & \text{for } i<j \\ -x_j(x_i \cdot x_k) & \text{for } i>j \\ 0 & \text{for } i = j \end{cases}$$

3. $$x_i \cdot [x_j(x_k x_l)] = [(x_k x_l) \cdot x_j] \cdot x_i$$

4. $$x_i \cdot [(x_j x_k) x_l] = [x_i(x_j x_k) + (x_j x_k) \cdot x_i] \cdot x_l$$

5. Let the product $x_i \cdot ax_k$ be defined for words a of the length $\leq n$, $n \geqslant 2$. Let now a have the length n+1. Let then: $x_i \cdot (ax_k) = (x_i \cdot a + a \cdot x_i) \cdot x_k$.

6. For arbitrary words a,b,c,d let $(a \cdot b) \cdot (c \cdot d) = 0$.

84765

S/042/60/015/003/008/016XX
C111/C222

An Example of a Solvable, Though Non-Nilpotent Alternative Ring

A ring is defined by 1.-6.
It is shown that this ring is alternative, solvable but not nilpotent.
There are 2 non-Soviet references.

SUBMITTED: October 24, 1958

Card 3/3

DOROFEYEV, G.V.

Alternative rings with three generatrices. Sib. mat. zhur. 4 no.5:1029-1048 '63.

One example to the theory of alternative rings. Ibid.:1049-1052 (MIRA 16:12)

SHIKHANOVICH, Yuriy Aleksandrovich; DOROFEYEV, G.V., red.

[Introduction to modern mathematics; elementary concepts]
Vvedenie v sovremennuiu matematiku; nachal'nye poniatiia.
Moskva, Nauka, 1965. 376 p. (MIRA 19:1)

ACC NR: AP6031843 (N) SOURCE CODE: UR/0375/66/000/007/0076/0083

AUTHOR: Dorofeyev, I. D. (Engineer; Rear Admiral); Bukin, P. Ye. (Engineer; Captain 2d Rank; Candidate of Technical Sciences); Klimenko, N. A. (Engineer; Captain 2d Rank); Rikhter, A. A. (Engineer; Captain 1st Rank Reserve; Candidate of Technical Sciences)

ORG: None

TITLE: Naval propulsion engineering during the years of Soviet power

SOURCE: Morskoy sbornik, no. 7, 1966, 76-83

TOPIC TAGS: marine engineering, marine engine, diesel engine, gas turbine engine, nuclear propulsion engine, engine performance characteristic, engine reliability

ABSTRACT: The status of propulsion machinery building, as a base for powerful propulsion installations, is of great significance for the building of a navy. The absence, in the past, of a strong machinebuilding base was the result of the dependence of the Russian fleet on foreign states for propulsion engineering. The main propulsion equipment for combatant ships was made abroad, or on foreign license. The history of the development of "classic" steam and diesel installations is reviewed, as are such new installations as atomic powered and gas turbine ones. Certain of the qualitative and quantitative characteristics of the various types of installations are listed for purposes of comparison. Orig. art. has: 5 figures and 2 tables.

SUB CODE: 13,15/SUBM DATE: None

Card 1/1 21

Dobrynin

DOBRYNIN, I. F.

Nervous System

Problem of the psyche and conciousness in the light of the Marxist-Leninist theory of knowledge and I. P. Pavlov's theory of higher nervous activity. Sov. pedag. 16 no 7, 1952

9. Monthly List of Russian Accessions, Library of Congress, September 1953, Uncl.

DOROFEYEV, I. F.

DOROFEYEV, I. F.: "The significance of I. P. Pavlov's doctrines of types of higher nervous activity for an understanding of the individual psychological differences in temperament and characters of people." Min Education RSFSR. Moscow Oblast Pedagogical Inst. Moscow, 1956. (Dissertation for the Degree of Candidate in Pedagogical Sciences).

Source; Knizhnaya letopis' No. 28 1956 Moscow