

MILLERE, R.K. (Riga)

Dynamics of the physical development of schoolchildren in Riga.
Sov. zdrav. 21 no.5:40-43 '62. (MIRA 15:5)

1. Iz kafedry organizatsii zdravookhraneniya i istorii meditsiny
(zav. - dotsent F.F.Grigorash) Rzhskogo meditsinskogo instituta
(dir. - prof. V.A.Kal'berg).
(GROWTH) (RIGA--SCHOOLCHILDREN)

BELORUTSKIY, A.G., mayor; **GRIGOR'YEV, A.Ya.**, podpolkovnik; **MILLEROV, V.I.**,
mayor; **UL'YANOV, I.P.**, gvardii polkovnik zapasa; **KHRENNIKOV, A.A.**,
podpolkovnik; **TSABINOV, S.M.**, podpolkovnik; **KOVINSKIY, V.A.**, obshchiy
red.; **RAYEVSKIY, L.A.**, red.; **UMANSKIY, P.A.**, tekhn.red.

[Tashkent Red Banner and Order of the Red Star Military Academy
named for V.I.Lenin; a brief historical account] Tashkentskoye
krasnosnamennoye i ordena Krasnoy Zvezdy voyennoye uchilishche
imeni V.I.Lenina. Tashkent, Gos.isd-vo Uzbekskoi SSR, 1958.
280 p. (MIRA 12:3)

(Tashkent--Military education)

SIMALJAK, J.; MILLEROVA, A.; JABLONSKY, I.; LASKOVA, O.; BUKACOVA, H.; BUZAS, M.

Effect of several common light sources on color perception. Cesk. ofth.
14 no.6:420-424 Dec 58..

1. Ustav pre lekarsku fyziku UK Bratislava, prednosta prof. MUDr. RNDr.
Z. Krizan.

(COLOR VISION

eff. of various light sources on color perception (Cz))

(ILLUMINATION

same)

MILLEROWA, Danuta

A case of infectious mononucleosis in infant with associated septicemia. *Pediat.polska* 35 no.1:84-88 Ja '60.

1. Z I Kliniki Pediatrycznej P.A.M. w Szczecinie. Kierownik:
doc.dr.med. J. Starkiewiczowa.

(INFECTIOUS MONONUCLEOSIS in inf.& child.)

(SEPTICEMIA in inf.& child.)

MILLEROWA, Danuta

Comparative studies on alkaline reserve in the blood and cerebrospinal fluid in acute diarrheas. *Pediat.polska* 35 no.10:1217-1222
0 '60.

1. Z I Kliniki Pediatricznej P.A.M. w Szczecinie, Kierownik: doc.
dr med. J.Starkiewiczowa.

(DIARRHEA metab)

(HYDROGEN ION CONCENTRATION)

(CEREBROSPINAL FLUID chem)

STARKIEWICZOWA, Julia; MILLEROWA, Danuta

Role of kidneys in the pathogenesis of chronic dehydration in infants.
Pediat. pol 36 no.12:1249-1262 D '61.

1. Z I Kliniki Pediatricznej PAM w Szczecinie Kierownik: doc. dr
med. J. Starkiewiczowa i z Centralnego Laboratorium Panstwowego
Szczecinie Kierownik: lek H. Sliwinska.
(DEHYDRATION in inf & child) (KIDNEY physiol)

MILLEROWA, Danuta

Role of the adrenal cortex in diarrheas in infants. Roczn. pom. akad.
med. Swierczewski. 8:383-414 '62.

1. Z I Kliniki Pediatricznej Pomorskiej Akademii Medycznej Kierownik:
prof. dr med. Julia Starkiewiczowa.
(DIARRHEA INFANTILE) (17 KORTISTEROIDS)
(ADRENAL CORTEX FUNCTION TESTS)

MILLEROWA, Danuta

Variability of anatomical and histological structure and of the physiological structure of the adrenal cortex in newborn infants.
Pol. tyg. lek. 17 no.31:1235-1237 30 J1 '62.

1. Z I Kliniki Pediatricznej Pom. AM w Szczecinie; kierownik Kliniki:
prof. dr med. J. Starkiewiczowa.

(ADRENAL CORTEX)

MILLEROWA, Danuta; PRONICKA, Ewa

Functional diabetes insipidus of renal origin in acute diarrhea
in infants. *Pediat. pol.* 39 no.1:25-31 Ja'64

1. Z I Kliniki Pediatricznej PAM w Szczecinie; Kierownik: prof.
dr. med. J.Starkiewiczowa.

*

MILLEROWA, Danuta

Studies on the level of 17-OHCS in the urine following ACTH stimulation in infant toxicosis. *Pediat.Pol.* 39 no.2:145-152 F*64.

1. Z I Kliniki Pediatrycznej PAM w Szczecinie (kierownik: prof.dr.med. J.Starkiewiczowa) i z Centralnego Laboratorium PSK nr.1 (kierownik: lek.med. H.Sliwinska).

*

MILLEROWA, Danuta; PRONICKA, Ewa; DOROZYNSKA, Barbara

The effect of vitamin D 3 on the level of serum calcium in rickets and tetany of rachitic etiology. *Pediat. Pol.* 40 no.3: 261-266 Mr '65

1. Z I Kliniki Pediatricznej Pomorskiej Akademii Medycznej w Szczecinie (Kierownik: prof. dr. med. J. Starkiewiczowa) i z Centralnego Laboratorium PSK nr.1 w Szczecinie (Kierownik: lek. H. Sliwiska).

MILLEROWA, R.

"Piece wages in the fish industry" p. 7 (GOSPODARKA RYBNA, Vol. 5, No. 3, Mar. 1953
Warszawa, Poland)

SO: Monthly list of East European Accessions, L.C., Vol. 3, No. 4, April 1954

MILLERS, A.

Biological effect of radioactive phosphorus in presowing treatment of oats.
p. 105.

LATVIJAS PSR ZINATNU AKADEMIJA. VESTIS. RIGA, LATVIA. No. 7, 1959

Monthly List of East European Accessions. (EEAI) LC, Vol. 9, no. 2,
Feb. 1960 Uncl.

MILLERS, A.

Effect of radioactivity on plants when using various nitrogen
Fertilizers. Vestil Latv ak no.7:85-90 '62

1. Latvijas PSR Zinatnu akademijs, Biologijas instituts.

GUTMANIS, Kristis; GUTMANE, Laima; PETERSONS, E., kand. sel'khoz.
nauk, retsenzent; MILLERS, A., st. nauchn. sotr.,
retsenzent; SHKLENNIKS, Ch., red.; PILADZE, Z., tekhn.
red.

[Significance and use of vitamins in vegetable growing]
Vitaminu nozime un pielietosana darzemu audzesana. Riga,
Latvijas PSR Zinatnu akademijas izd-va, 1962. 54 p.
(MIRA 17:2)

1. Biologicheskiy institut Akademii nauk Latvyskoy SSR
(for Petersons, Millers).

MILLERS, Arnolds; SKLENNIKS, C., red.

[Radioactive fallout and its biological significance]
Radioaktīvie nosedumi un to bioloģiska loma. Rīga,
Latvijas PSR Zinatnu akad. izd-ba, 1963. 55 p.
[In Latvian] (MIRA 17:6)

MILLERS, T. (Riga); KARLSONS, K. (Riga); VAIVADS, A. (Riga)

Usefulness of domestic dolomite quicklime for production of lime-sand blocks. III. Carbonization of solutions of Ieriki and Ape dolomite quicklime. Vestis Latv ak no.10:97-106 '59. (EEAI 9:10)

Latvijas PSR Zinatnu akademijs, Kimijas instituts
(Latvia--Dolomite)
(Latvia--Lime)

~~MILLER, T.~~ [Millers, T.]; KARLSON, K. [Karlsons, K.]; VAYVAD, A. [Vaivads, A.]

Frost resistance of carbonated sand-lime products with unslaked dolomitic lime [with summary in English]. Vestis Latv ak no.12: 35-40 '61.

1. Akademiya nauk Latvyskoy SSR, Institut khimii

ARTEM'YEV, Ye.A.; VOLCHENKO, V.V.; NOZDRINA, M.S.; BRUNNER, Yu.N., dotsent;
MILLERUK, G.Ya.

Readers' letters. Zashch. rast. ot vred. i bol. 8 no.2:14-15
F '63. (MIRA 16:7)

1. Agronom po zashchite rasteniy Krasnosel'skogo rayona Kostromskoy oblasti (for Artem'yev).
2. Obshchestvennyy korrespondent zhurnala "Zashchita rasteniy ot vrediteley i bolezney" (for Volchenko).
3. Agronom po zashchite rasteniy Khar'kovskogo rayona (for Nozdrina).
4. Poltavskiy sel'skokhozyaystvennyy institut (for Brunner).
5. Zamestitel' predsedatelya Soveta rayonnogo otdeleniya Obshchestva okhrany prirody, Cherkasskaya obl. (for Milleruk).
(Plants, Protection of)

ACCESSION NR: AT4042317

S/0000/63/003/000/0381/0388

AUTHOR: Milleryan, T. Ye., Pol'skiy, N.I., Shchegolev, G.M.

TITLE: Unidimensional idealization and its application to the finding of optimal operational modes of magnetogasdynamic apparatus

SOURCE: Soveshchaniye po teoreticheskoy i prikladnoy magnitnoy gidrodinamike. 3d, Riga, 1962. Voprosy* magnitnoy gidrodinamiki (Problems in magnetic hydrodynamics); doklady* soveshchaniya, v. 3. Riga, Izd-vo AN LatSSR, 1963, 381-388

TOPIC TAGS: magnetogasdynamics, gas dynamics, hydromagnetics, idealization, unidimensional idealization

ABSTRACT: The authors call attention to the fact that, despite the large number of published works dealing with the use of unidimensional schemes in the study of magnetogasdynamic flows in channels, there is a frequent failure to bear in mind the assumptions on the basis of which the equations of the unidimensional system were derived. As a result, there is no indication of the real flows, to the study of which the results of the investigation of the obtained equations are applicable. The present article contains some comments on stationary flows in connection with this problem. The authors note that the equations of unidimensional magnetogasdynamics are normally derived from the full system

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of equations with the following additional assumptions: 1. the volumetric electromagnetic force F acts only in the direction of the flow (for example, along the x axis); 2. all components of electromagnetic values $B = H, E, j$ depend only on x ; 3. The magnetic field preserves its direction along the flow (for example, along the z axis), while the electrical field E and the density vector of the current j are directed along the y axis; that is, vectors u, B and E are mutually perpendicular and the flow occurs in crossed fields. From assumptions 1 and 2 it follows that in the case of a force F , not equal to zero, vector B must have only two components B_y and B_z . In the case of a sufficiently large magnetic Reynolds number Re_m it also follows from assumptions 1 and 2 that the ratio $B_y:B_z$ remains unchanged along the flow. If the flow of a nonviscous gas satisfies conditions 1 - 3, the motion and induction equations take on the following form:

$$\rho u u' + p' = -\frac{1}{2\mu} (B^2)'; \quad \mu j = B' = \mu \sigma (uB - E). \quad (1)$$

Initial and boundary conditions are discussed. The authors note that in some investigations a unidimensional system is used on the supposition that the magnetic Reynolds

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number is small, while the induction of the applied magnetic field is a given function of $B(x)$. They show, however, that these two postulates are incompatible in a unidimensional approximation. From the general equation of magnetogasdynamics, with assumption 1 - 3, it follows that $E = \text{const.}$ along the channel; if, in a rectangular channel, the electrodes, arranged at a distance y_0 , are ideal conductors and closed through the external net, there will arise on them a potential difference $U = Ey_0$. The following question is posed and discussed in the paper: In which of the two cases - $U = \text{const.}$ or $E = \text{const.}$ - does the unidimensional system more accurately describe the actual behavior of the flow. In the authors' view, properly organized experimentation would permit the development of a unidimensional system of magnetogasdynamic diffuser flows, much in the same manner as this has already been done for a case in which no magnetic field is present. The solution of the equation system of the unidimensional approximation is also considered. It is noted that with the variational problem formulated one way or the other, a system of ordinary differential equations can be obtained, the solution of which will provide the unknown optimum. In the opinion of the authors, the most important point is the selection of premises which render possible the application of the unidimensional system. For an elucidation of this question, they discuss the simplest problem of finding an isothermic generator of maximum power on the condition that the flow velocity along the channel is constant. In accordance with their previous development of the subject, the authors assume that the induction of the magnetic field B remains unchanged along the channel,

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ACCESSION NR: AT4042317

with the channel having a constant width z between the poles of the magnet. An analysis is made of the power of the same generator on the assumption that $E = U = \text{const.}$ In the

examples given in the article, it is also possible to consider the dependence of the conductivity on the pressure. In each case, this has no effect on the qualitative character of the relations obtained. The effect of friction is also discussed for the case of $U = \text{const.}$ Having determined the optimal operational regimes of a magnetogasdynamic apparatus on the assumption that T and u are constant, the authors point out that all the considerations presented in the article can also be extended to cases in which the constancy of T and u is not assumed. The proper formulation of the variational problem makes it possible to reduce the task of finding the optimal mode to the solution of a system of ordinary differential equations. At the present state of the computer art, the solution of such a system presents no particular difficulties. The authors emphasize that the solution of such problems is meaningful only if there is some degree of certainty that the assumptions, or which the unidimensional idealization is based, are sufficiently justified. The examples considered in the article indicate that the effect of the particular assumptions on the characters of

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ACCESSION NR: AT4042317

the final solution is extremely significant. A determination of the degree of justification of specific hypotheses in a unidimensional system is impossible within the framework of the system itself. Here what is required is either experimentation or a sufficiently thorough theoretical analysis of plane and three-dimensional flows. Orig. art. has: 3 figures and 8 formulas.

ASSOCIATION: none

SUBMITTED: 04Dec63

ENCL: 00

SUB CODE: ME

NO REF SOV: 003

OTHER: 002

Card 5/5

L-57879-65 EWP(m)/EPF(n)-2/EWT(1)/EWA(d) Pd-1/Pu-4 IJP(c) WW

ACCESSION NR: AP5014178

UR/0382/65/000/001/0067/0072
533.95 : 538.4 : 621.362

AUTHOR: Zelichenko, Ye. N.; Milleryan, T. Ye.; Pol'skiy, N. I.

TITLE: Optimum regimes of magnitogasdynamic flows in channels with Hall effect

SOURCE: Magnitnaya gidrodinamika, no. 1, 1965, 67-72

TOPIC TAGS: magnetohydrodynamics, MHD generator, Hall effect, conducting gas

ABSTRACT: The delivery of maximum power by the electrodes of a system consisting of conducting gas is discussed. Retaining the Hall effect, several physically justified simplifications are made to permit analytic treatment. The problem is solved by finding a unique extremum value of the generated power for a fixed exit pressure. The method is a generalization of one used by N. I. Pol'skiy (*Teplofizika B^osokikh Temperatur*, 1964, 2, 2, 238). The parameter equation is derived giving the conditions that do not permit the existence of the generator regime. Both cases with sectioned and continuous electrodes are considered and the one-dimensional approxi-

sectioned and continuous electrodes are considered and the one-dimensional approximation is evaluated for each situation. The case where Hall effect is significant is shown to be the so-called Hall short-circuiting as employed with sectioned electrodes. Orig. art. has: 10 formulas, 5 figures.

Card 1/2

L-57879-65

ACCESSION NR: AP5014178

SUBMITTED: 04Sep64

NO REF SOV: 003

ENCL: 00

OTHER: 001

SUB CODE: ME, EM

Card 2/2

MILLES, Ye.B., inzh.; AFONSKAYA, N.S., kand. tekhn. nauk; ZURABYAN, K.M., kand. tekhn. nauk

Characteristics of various methods for dehairing and liming of raw hides in the manufacture of hard leather. Izv. vys. ucheb. zav.;
tekh. leg. prom. no.4:34-38 '59. (MIRA 13:2)

1. Vsesoyuznyy saochnyy institut tekstil'noy i legkoy promyshlennosti i Tsentral'nyy nauchno-issledovatel'skiy institut koshevenno-obuvnoy promyshlennosti. Rekomendovana kafedroy tekhnologii obuvi, koshi i iskusstvennoy koshi Vsesoyuznogo saochnogo instituta tekstil'noy i legkoy promyshlennosti.

(Leather manufacture)

1. MILLETSKIY, YA.
2. USSR (600)
4. Physicians
7. Meeting. Ogonok, 30, No. 50, 1952

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified

BAUER, Karoly, okleveles olajmernok, tudományos munkatárs; ~~BAUER, Karoly,~~
okleveles vegyészmernok, tudományos munkatárs; ~~WAGNER, Ottó,~~ okleveles
vegyészmernok, tudományos munkatárs.

Preparation and application of glass filters, diaphragms and sintered
glass bodies made of nodular glass powder. Bany lap 67 no. 7:196-199
Jl '64.

1. Oil Production Research Laboratory of the Hungarian Academy of
Sciences, Miskolc-Egyetemváros.

MILLEY, Gyula, okleveles vegyemernok

Tensiometric investigation of the layer waters of petroleum reservoirs. Bany lap 95 no.6:412-421 Je '62.

1. Tudományos kutató, Magyar Tudományos Akadémia Olajbányászati Kutató Laboratóriuma, Miskolc.

MILLEY, Gyula, okleveles vegyészernok, tudományos munkatárs; WAGNER, Otto
okleveles vegyészernok, tudományos munkatárs.

Flowmeter for indicating very low rates of discharge of gases. Bany
lap 97 no.3:203-211 Mr '64.

1. Oil Production Research Laboratory, Hungarian Academy of Sciences
Miskolc.

MILLEY, Gyulane, okleveles vegyesmérnök, tudomány-s munkatárs

Specific surface measurement of consolidated porous substances. Bany lap 97 no.22:847-854 D '64.

1. Oil Production Research Laboratory of the Hungarian Academy of Sciences, Miskolc.

MILLEY, Vilmos

Mounting panel. Epuletgepeszet 9 no.4:134-137 '60.

MAKAI, Janos; KOVACS, Lajos, fomernok; MILLEY, Vilmos, fomernok

Tasks before the fitting industry of domestic engineering as reflected in the decisions by the 8th Congress of the Hungarian Socialist Workers Party. *Épületgépészet* 12 no.1/2:1-5 Mr '63.

1. Szerelőipari Igazgatóság vezetője (for Makai). 2. Műszaki Fejlesztési Főosztály (for Kovacs). 3. Oktatási Főosztály (for Milley).

IZMAIL'SKIY, V.A.; MILLIARES, Ye.Ye.

Microstructure and spectra of benzylideneaniline and azobenzene derivatives and their salts. Dokl. AN SSSR 141 no.4:857-860 D '61. (MIRA 14:11)

1. Laboratoriya khimii krasiteley i problemy tsvetnosti pri Moskovskom pedagogicheskom institute im. V.I. Lenina. Predstavleno akademikom B.A. Kazanskim.
(Aniline--Spectra) (Azobenzene--Spectra)

MILLIARESI, Ye.Ye.; IZMAIL'SKIY, V.A.

p-Dimethylaminobenzene salts with trifluoroacetic acid
in dichloroethane. Zhur.ob.khim. 32 no.10:3451-3452
0 '62. (MIRA 15:11)
(Aniline) (Acetic acid)

MILLIARESI, Ye.Ye.; IZMAIL'SKIY, V.A.

Spectra of the derivatives of 2,4-dinitroaniline. Presence of
quasiautonomous cochromophore systems. Dokl. AN SSSR 146 no.5:1094-1097
0 '62. (MIRA 15:10)

1. Laborayotiya khimii krasiteley i problemy tsvetnosti pri
Moskovskom pedagogicheskom institut im. Lenina i Institut
organicheskikh poluprovodnikov i krasitelay. Predstavleno
akademikom B. A. Kasumovskiy.
(Aniline Spectra)

MILLIARESI, Ye. Ye.; IZMAIL'SKIY, V. A.; LARINA, M. K.

Effect of N-methylation on the spectrum of derivatives of
2,4-dinitrodiphenylamine. Zhur. VKHO 8 no.2:238-239 '63.
(NIRA 16:4)

1. Moskovskiy pedagogicheskiy institut imeni V. I. Lenina.

(Diphenylamine—Spectra) (Methylation)

MILLIARES, Ye.Ye.; IZMAIL'SKIY, V.A.

Theory of the origin of the absorption spectra of 2,4-dinitroaniline and 2,4-dinitrodiphenylamine. Experimental confirmation of the presence of quasiautonomous chromophore systems. Zhur. ob. khim. 35 no.5:776-785 My '65. (MIRA 18:6)

1. Laboratoriya khimii krasiteley i problemy tsvetnosti pri Moskovskom pedagogicheskom institute imeni Lenina.

L 07157-67 EWP(j)/EWT(m)/EWP(w) RM/JW SOURCE CODE: UR/0079/66/036/006/1034/1038
ACC NR: AP6028168 33
32
B

AUTHOR: Milliaresi, Ye. Ye.

ORG: Moscow Pedagogical Institute im. V. I. Lenin (Moskovskiy pedagogicheskiy insti-
tut)

TITLE: Absorption spectra of 2,4,6-trinitroaniline and 2,4,6-trinitrodiphenylamine

SOURCE: Zhurnal obshchey khimii, v. 36, no. 6, 1966, 1034-1038

TOPIC TAGS: aniline, diphenylamine, aromatic nitro compound, absorption spectrum

ABSTRACT: An attempt has been made to determine the origin of the bands in the absorption spectra of 2,4,6-trinitroaniline (TNA), N,N-dialkyl-TNA, and N-phenyl-TNA (2,4,6-trinitrodiphenylamine). As in the case of 2,4-dinitroaniline and 2,4-dinitrodiphenylamine, the absorption bands of a single π -electron system are absent in the absorption spectra of these compounds. A study of N-alkylation of TNA in the absorption spectrum showed that dialkylation of TNA eliminates the hydrogen bond between the amino group and the two nitro groups. Because it reinforces the steric factors, dialkylation of TNA decreases the probability of electron transfer in the p-nitrodialkylaniline system, as indicated by a decrease in the intensity of the corresponding band. It is shown that the origin of the absorption bands can be established only by considering the presence of three quasi-autonomic chromophoric systems in the molecule viz., two o-nitroaniline systems and one p-nitroaniline system. Author thanks V. A.

UDC: 543.42:547.551.2

Card 1/2

L 07157-67

ACC NR: AP6028168

Izmail'skiy for discussing the paper and certain suggestions. Orig. art. has: 3 figures.

SUB CODE: 07/ SUBM DATE: 11May66/ ORIG REF: 003/- OTH REF: 003

Card 2/2 MZE

MILLICEVIC, B.

Supension strength. p. 251, Vol 20, no. 4, 1955

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, No. 2, Feb. 1956

MILLICEVIC, B; IVEKOVIC, H.

Saturated ternary systems. I. Some physicochemical properties of solutions of 1, 1, 1-trichloro-2, 2-bis-(p-chlorophenyl)-ethane and of gamma-1, 2, 3, 4, 5, 6-hexachlorocyclohexane in the systems of water-acetone and water-1, 4-dioxane. II. Equation of solubility in a mixture of two solvents. In English. p. 83.

CROATICA CHEMICA ACTA. (Hrvatsko Kemijsko drustvo, Sveuciliste u Zagrebu i Hrvatsko prirodoslovno drustvo) Zagreb, Yugoslavia. Vol. 31, no. 2, 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 9, no. 2, 1960.
Uncl.

MILLING, Ye.A.

Experience with work in the interregional orthopedic clinic.
Ortop. travm. i protez. 21 no. 10:49-53 '60. (MIRA 14:1)
(ORTHOPEDIA)

MILLION, A.

TECHNOLOGY

Periodicals: METALURGIA SI CONSTRUCTIA DE MASINI. Vol. 10, no. 5, May 1958

MILLION, A. Automatic welding under the flux of bottles containing liquefied petroleum gas. p. 440

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 2,
February 1959, Unclass.

L 39758-65 EPA(s)-2/EWT(m)/EWP(v)/T/EWP(t)/EWP(k)/EWP(b)/EWA(c) Pf-4
ACCESSION NR: AP4047010 JD/HM S/0135/64/000/010/0001/0006 23

AUTHORS: Petrov, G.L. (Doctor of technical sciences); Million, A. ^B
(Candidate of technical sciences)

TITLE: The processes of hydrogen distribution in weld joints of mild
and low-alloy steels ₁₆ ¹⁸

SOURCE: Svarochnoye proizvodstvo, no. 10, 1964, 1-6

TOPIC TAGS: steel, low alloy steel, weld joint, hydrogen distribu-
tion, permeability, weld affected zone, austenitic structure, pear-
ritic ferritic structure

ABSTRACT: The authors developed a method of bringing about a quantitative distribution of hydrogen in weld joints at different post-cooling periods as well as its complete removal from the weld joints of mild and low-alloy steels having a different hardenability. The method is applicable when the hydrogen permeability is identical in all weld-affected zones where hydrogen diffusion occurs such as in steels that do not harden during welding and in specimens with an electrode for the production of low-carbon non-hardening welds. The

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L 39758-65

ACCESSION NR: AP4047010

quantitative character of the process of hydrogen distribution was found to be independent of the type of the ferritic-pearlitic electrode cover and of the amount of hydrogen that passes into the joint during welding. With very high hydrogen concentration, welds pro-

temperature, when austenitic welds do not displace hydrogen at all.

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L 39758-65
ACCESSION NR: AP4047010

The employment of wet electrodes causes the displacement of hydrogen in high concentrations. In ferritic-pearlitic welds the hydrogen concentration in the weld-affected zone is initially heightened at

"APPROVED FOR RELEASE: Monday, July 31, 2000

CIA-RDP86-00513R001134310

art. has: 10 figures and 4 tables.

ASSOCIATION: Leningradskiy politekhnicheskiy institut im. M. I. Kalinina
(Leningrad Polytechnic Institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NR REF SOV: 007

OTHER: 005

ce
Card 3/3

APPROVED FOR RELEASE: Monday, July 31, 2000

CIA-RDP86-00513R001134310C

50239-55 EWP(w)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(b)/EWA(c) Pf-4 JD/HM

ACCESSION NR: AP5016575

SI/0020/65/010/001/0127/0150

33
30
B

AUTHOR: Petrow, G. L. (Professor, Doctor); Million, A. (Graduate engineer)

TITLE: A contribution to the understanding of the effects of hydrogen diffusion on the formation of cracks in welded joints

SOURCE: Revue Roumaine des sciences techniques. Serie de metallurgie, v. 10, no. 1, 1965, 127-150

TOPIC TAGS: steel welding, weld crack, hydrogen crack, weld hydrogen concentration, hydrogen diffusion, weld quality, hydrogen embrittlement, alloy steel welding

ABSTRACT: The mechanism of the effect of hydrogen on the formation of cracks in welded joints was investigated. A method was developed for studying the distribution mechanism of diffusible hydrogen in steel welds during and following the welding operation. The method is a refined version of that described by N. Christensen, K. Gjermundsen, and R. Rose (*British Welding Journal*, v. 5, no. 6, 1958, p. 272) and M. Dadian (*Soudage et Techniques Connexes*, v. 16, no. 3-4, 1962, p. 131). Hardenable and non-hardenable ferritic-perlitic and austenitic steels were investigated by this technique. The findings are summarized in Figures 1 and 2 of the Enclosure. With the aid of these diagrams, it is possible to establish the numerical value of the local hydrogen concentration for any

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L-58839-65.

ACCESSION NR: AP5016675

2

portion of the welded joint as a function of time elapsed after the post-welding quenching if the height of the welding bead (h) and the concentration of hydrogen in the welding stock (C_0) is known. If, for example, $C_0 = 12.5$ cc/100 g and the $0-C_0$ distance (in Figures 1 and 2 of the Enclosure) is 10 mm, each 0.8 mm (i. e., 10/12.5) corresponds to a local concentration, C , of 1 cc/100 g. The time vs. concentration curve is of special signifi-

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ACCESSION NR: AP5016575

degree "Candidate of Technical Sciences." A motion picture illustrating the test procedure was also presented." Orig. art. has: 14 figures, 3 tables, and 6 formulas.

PETROV, G.L.; MILLION, A.

Hydrogen distribution in welded joints in carbon and low-
alloy steels. Trudy LPI no.245:32-41 '65. (MIRA 18:8)

KOURIM, Vaclav; RAIS, Jiri; MILLION, Borivoj

Exchange properties of complex cyanides. Pt. 1. Jaderna energie
10 no. 3:88 Mr '64.

1. Nuclear Research Institute, Czechoslovak Academy of Sciences,
Rez.

L 18492-66 EWT(m)/EWA(h)

~~ACC/NRT~~ AP6010235

SOURCE CODE: CZ/0038/65/000/005/0179/0179

AUTHOR: Kourim, Vaclav--Kourzhim, V.; Million, Borivoj

ORG: Institute for Nuclear Research, CSAV, Rez (Ustav jaderneho vyzkumu CSAV) 74
8

TITLE: Separation of cesium 137 from uranium fission products by means of zinc
ferrocyanide 19 19

SOURCE: Jaderna energie, no. 5, 1965, 179

TOPIC TAGS: cesium, ion exchange, chromatography, fission product, uranium, cyanide,
alkali metal, chemical separation

ABSTRACT: The group of complex cyanides forms inorganic ion exchangers with
a high selectivity for ions of alkali metal elements. For revers-
ible exchange of Cs ions zinc ferrocyanide is very suitable,
because of its chemical and mechanical properties. Chromatographic
separation of Cs from mixtures containing fission products of
medium and long half-life is described, such as Sr, Ce, Ru, and
the couple Zr-Nb. [JPRS]

SUB CODE: 07, 18 / SUBM DATE: none

Card 1/1 sc

UDC: 546.36.02: 621.039.59: 621.039.735

2

L 26046-66 EWA(d)/EWP(t) IJP(c) JD/HW/JG

ACC NR: AF5025475

SOURCE CODE: CZ/0065/65/000/004/0361/0372

AUTHOR: Kucera, Jaroslav--Kuchera, Jaroslav; Million, Borivoj--Million, Borzhivoy

ORG: Institute of Metal Properties, CSAV, Brno (Ustav vlastnosti kovu CSAV) ⁶⁴₆₂

TITLE: Autoradiographic study of the diffusion of iron and chromium in Ni-Cr alloys ^B
18 27 27

SOURCE: Kovove materialy, no. 4, 1965, 361-372

TOPIC TAGS: nickel base alloy, radioisotope, iron, heat resistant alloy, alloy, chromium, radiography, crystal structure, grain structure/VZU 60 alloy, EI 437 alloy

ABSTRACT: The radioisotopes Fe⁵⁵, Fe⁵⁹, and Cr⁵¹ were used to study the fusion of Fe and Cr in the heat-resistant Czechoslovak alloy VZU 60 (C 0.05, Mn 0.15, Si 0.3, Al 0.8, Cr 16.49, Ni 66.05, Fe 10.95, W 1.84, Mo 1.75, and Ti 1.3%) and the Soviet alloy EI 437 (C 0.08, Mn 0.4, Si 1.0, Al 0.8, Cr 20.0, Ni 71.32, Fe 4.0, and Ti 2.4%). In addition to the radiographic observations, the lit-par-lit samples were taken to determine the effect of grain boundaries on the diffusion of Fe in the EI 437 alloy at low temperature and the effect of the dendritic struc-

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L 26046-66

ACC NR: AF5025475

ture of the VZU 60 alloy on the Fe diffusion at temperatures near solidus. The autoradiograms were taken by the contact method on Agfa-Laué X-ray film. The study showed that the regions having a high rate of diffusion were formed near the grain boundaries in the multicomponent alloy at temperatures near solidus. A simple model for expressing the dependence of the concentration of a diffusing trace element $[C(x, t)]$ on the time (t) and the coordinate (x) was offered by assuming that, at the temperature near solidus, the diffusion along the grain boundaries is independent of the diffusion in the grain volume. The equation, which was based on this model, led to results which were in agreement with the experimental data:

$$c(x, t) = \frac{S_1}{S} \frac{c_0}{\sqrt{\pi D_V t}} \exp\left(-\frac{x^2}{4D_V t}\right),$$

where S_1 is the area in which the effect of the grain boundary is not present during diffusion, S is the total area of the sample, C_0 is an initial concentration of the diffusing trace element on the surface of the sample, and D_V is the volumetric diffusion. During the diffusion the dendritic structure had the same effect as the grain boundaries. The effect of the grain boundaries (or that of the dendritic structure) on diffusion was noticeably expressed provided the following condition was present:

$$1 \leq \beta = \frac{\delta \cdot D_g}{2D_0 \sqrt{D_V t}},$$

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ACC NR: AP5025475

2

where D_x is the diffusion coefficient in the region of elevated diffusion and δ is the width of this region. The ratio $D_x:D_y$ increased with decreased temperature. Because δ was greater in the VZU 60 alloy than in the alloy EI 437, this condition was present in the VZU 60 alloy at higher temperature than in the alloy EI 437. Orig. art. has: 6 formulas, 6 fig. and 1 table.

SUB CODE: 11,14/ SUBM DATE: 06Jan64/ ORIG REF: ~~001/~~ OTH REF: ~~007~~

Card 3/3 *file*

MILLION, Carol, ing.

The V.U.S. Soldering Institute in Bratislava. Metalurgia constr
mas 14 no.5:466-470 My '62.

1. Ministerul Metalurgiei si Constructiilor de Masini.

ENT(c)/EMP(w)/EMP(v)/P/ENT(b)/ETI/EMP(k) IJP(c) JD/HM/EM
ACC NR: AP6031545 SOURCE CODE: RU/027/65/010/002/0323/0331

AUTHOR: Cabelka, I. (Academician); Million, C.

37
B

ORG: Welding Institute, Bratislava

TITLE: Contributions to the understanding of the causes of slow fissuring in the transformation zone of welded joints of highly resistant steels

SOURCE: Studii si cercetari de metalurgie, v. 10, no. 2, 1965, 323-331

TOPIC TAGS: carbon steel, welding technology

ABSTRACT: A report on a study of the formation of fissures in welded joints in carbon steels with 0.45 percent carbon. The fissures are classified in terms of their place of appearance and their orientation, and the role of hydrogen in the appearance of different types of slow fissures is discussed. The authors emphasize that because of the differences among the various types of fissures it is not possible to suggest general measures to avoid the formation of all these types. Orig. art. has: 20 figures. [JPRS: 34,166]

SUB CODE: 13 / SUBM DATE: none / ORIG REF: 001 / SOV REF: 001
OTH REF: 011

Card 1/1 of

0477 2330

MILLEROVA, Maria, inz.

Testing the refractory characteristics of insulation materials. Wiad elektrotechn 33 no.10:298-300 0 '64.

1. Electrical Engineering Research Institute, Prague-Troja, Czechoslovakia.

PETROV, G.L.; MILLION, A.

Contributions to the study of hydrogen diffusion influence
on fissure formation in welded joints. *Studia cero metalurgie*
9 no.2:253-274 '64.

B-1

Millionova, M.I.

USSR / General Biology. Physical and Chemical Biology.

Abs Jour : Ref Zhur - Biol., No 2, 1958, No 4732

Author : Millionova, M.I., Andreeva, N.S.

Inst : Not given

Title : Diffraction Picture of Collagen

Orig Pub : Biofizika, 1957, 2, No 1, 43-45

Abstract : A description is given of a diffraction picture of an air-dry collagen KTT by exposure on flat and cylindrical gratings with Cu- and Mo-radiation, monochromatized by reflection from a monocrystal. Some of the data obtained do not agree with calculations from a contemporary model of collagen structure.

Card : 1/1

B-1

USSR/General Biology: Physical and Chemical Biology.

Abs Jour: Ref Zhur-Biol., No 20, 1958, 90257.

Author : Millionova, M.I., Andreyeva, H.S.

Inst :

Title : The Structure of the Molecular Chain of Collagen.

Orig Pub: Biofizika, 1957, 2, No 3, 294-303 (res. Eng.)

Abstract: The authors report a method of analyzing X-ray diffraction images of various proteins belonging to the collagen (I) type. Having established the relationship of the peculiarities of these images to the amino acid composition of the proteins under study, they reach the conclusion that the reason for the unique form of coagulation of polypeptide chains in some parts of the long molecule (I) which was established by the authors earlier, is the accumulation in those areas of residues of amino

Card : 1/2

70-4-4/16

MILLIONOVA, M.I.

AUTHORS: Andreyeva, N.S., Yesipova, N.G. and Millionova, M.I.

TITLE: On Peculiarities in the Structure of Collagen. (Ob osobennostyakh stroyeniya kollagena).

PERIODICAL: Kristallografiya, 1957, Vol.2, Nr 4, pp.470-474 (USSR).

ABSTRACT: Outline account - fuller details in "Biofizika", Vol.2, Nos. 3, 4 and 5 (1957). The dependence of the quantity of ordered phase in different collagens on various factors was investigated to elucidate the principles conditioning the presence of specific chain configurations in separate parts of the molecules in the protein groups of collagen. A major factor was found to be the accumulation of iminoacids and glycine in separate parts of the molecular chain. Other aminoacids may be present to a smaller extent. Water stabilises the particular chain configuration being distributed in the ordered parts near the chain skeletons (3 Å away) and linked by H bonds. Photographs were taken with Cu radiation monochromatised by reflection from pentaerithritol and the peak heights and integrated intensities of the rings at 2.9 and 11.5 Å were measured. Specimens used were collagen RTT, procollagen prepared by Orekhovich's method, collagen from pike skin, collagen from cod skin and spongin. These were examined in the disordered state and photographs were also

Card 1/2

70-4-4/16

On Peculiarities in the Structure of Collagen.

taken from wet oriented collagen RFT and from films of procollagen. A linear relation between the line intensity and the iminoacid content was found. The quantity of ordered phase was found to be proportional to the iminoacid content and to the glycine content less a constant term. Infrared absorption spectra were measured. There are 5 figures and 18 references, 4 of which are Slavic.

ASSOCIATION: Moscow State University im.M.V.Lomonosov.
(Moskovskiy Gosudarstvennyy Universitet im. M.V.Lomonosova)

SUBMITTED: March 1, 1957.

AVAILABLE: Library of Congress.

Card 2/2

MILLIONOVA, M.I., ANDREYEVA, N.S.

Configuration model of the glycy-l-proline chain. Biofizika
(MIRA 11:6)
3 no.3:259-264 '58

1. Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta
im. M.V. Lomonosova (for Millionova). 2. Institut biologicheskoy
fiziki AN SSSR, Moskva (for Andreyeva).

(COLLAGEN)

(GLYCINE)

(PROLINE)

MILLIONOVA, M. I.; ANDRE^YVA, N. S.

"On the Configuration of Polypeptide Chains in Collagen"

a report presented at Symposium of the International Union of
Crystallography Leningrad, 21-27 May 1959

MILLIONOVA, M. I., CHIRGADZE, I. N. and ANDREYEVA, N. S. (USSR)

"Structural Investigation of Collagen Synthetic Model."

Report presented at the 5th International Biochemistry Congress,
Moscow, 10-16 Aug 1961

ANDREYEVA, N.S.; DEBABOV, V.A.; MILLIONOVA, M.I.; SHIBNEV, V.A.;
CHIRGADZE, Yu.N.

Synthetic polymer isomorphic with collagen. Biofizika 6 no. 2:244
'61. (MIRA 14:4)

1. Institut biologicheskoy fiziki AN SSSR, Moskva i Institut
organicheskoy khimii AN SSSR, Moskva.
(POLYMERS) (COLLAGEN)

MILLIONOVA, M. I.; ANDREYEVA, N. S.

"The configuration of the polypeptide chain of the (gly-L-pro-L-hydro) polymer."

report submitted for 6th Gen Assembly, Intl Union of Crystallography, Rome,
9 Sep 63.

Inst of Biophysics, AS USSR, Moscow.

MILLIONOVA, M.I.; ANDREYEVA, N.S.; LEBEDEV, L.A.

Structure of polymers related to collagen. Report No.1: Characteristics of two polymer fractions (glycine-1-proline-1-hydroxyproline)n. Biofizika 8 no.4:430-432 '63.

(MIRA 17:10)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

ANDREYEVA, N.S.; MILLIONOVA, M.I.

Structure of polymers related to collagen; structure of the low-molecular fraction of polytripeptide (glycine-l-proline-l-hydroxyproline).
Kristallografiia 8 no.4:578-581 J1-Ag '63. (MIRA 16:9)

1. Institut biologicheskoy fiziki AN SSSR.
(Tripeptides)

MILIONOVA, M.I.

Dispersion and temperature-dependence of a specific optical rotation
for the polymer, glycyl-L-propyl-L-cysteine. Biofizika 9 no.2:145-
147 '64. (MIRA 17:12)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

MILLIONSHCHIKOV, A.

How to distribute profits of enterprise between a regional economic council and the budget. Fin. SSSR 23 no.7:49-52 J1 '62.
(MIRA 15:7)

(Taxation) (Profit)

MILLIONSHCHIKOV, Anatoliy Dmitriyevich; SOROKIN, Valentin Alekseyevich;
KOZHUKH, Semen Arkad'yevich; TITOV, Konstantin Sergeyevich;
FILIPPOVA, E., red.

[Deductions from profit] Otchisleniia ot pribyli. Izd.3.,
perer. i dop. Moskva, Izd-vo "Finansy," 1964. 182 p.
(MIRA 17:6)

MOKHOV, Boris Ivanovich; D'YACHENKO, Aleksandr Akimovich;
FREYMAN, Tamara Iosifovna; MILLIONSHCHIKOV, A.D., otv. red.

[Payments and compensations from budget funds to organiza-
tions operating on a profit] Vyplaty i vozmeshchenia kho-
zorganam sredstv iz biudzheta. Moskva, Finansy, 1965. 86 p.
(MIRA 18:7)

MILLIONSHCHIKOV, E. D.

Decay of Homogeneous isotropic Turbulence in a viscous incompressible fluid

Doklady Akad. nauk SSSR, Vol. 22, #5, 1939

MILLIONSHCHIKOV, M. D.

Decay of turbulence in Wind tunnels

Doklady Akad. nauk SSSR, vol. 22, #5, 1939

Ordshinokidse Aircraft Inst.

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

PROCESSES AND PROPERTIES - DEC

1810

532.5174

MILLIONSHCHIKOV, M. D.

Theory of homogeneous isotropic turbulence. M.S. LOMONOSOV, M. D. C.R. Acad. Sci., USSR, 28 (No. 9) 815-18 (1941).—What is essential in the approximate method applied to the theory of homogeneous isotropic turbulence is that, at the stage when third moments are small and the laws of distribution approach normal, the fourth moments are connected approximately with the second by the same correlations that are strictly fulfilled for the normal law. These correlations, as well as Karman's equations for the second and third moments, and the equation for the third and fourth moments, now obtained, form a closed system from which the third moments can be calculated.

A. S. G. V.

153
d

Metallurgical Literature Classification

Metallurgical Literature Classification

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

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87 MILLIONSHCHIKOV, M. D. AS-3
d

532.5174 1011
On the site of third moments in isotropic turbulence.
MILLIONSHCHIKOV, M. D. *C.R. Acad. Sci., USSR*,
35 (No. 9) 619-21 (1941).—The development of the
theory of isotropic turbulence due to Karman,
Millionschchikov and others is briefly traced. Follow-
ing a previous paper (see Abstr. 1010 (1940)) it is
shown that the larger the viscosity of a liquid, the
wider the scope of a theory which neglects inertial
terms, whereas an increase of the intensity of initial
perturbations limits the applicability of such a theory.
J. S. G. T.

ASD-51A METALLURGICAL LITERATURE CLASSIFICATION

EDM STIVIZIUM FROM BOWERY

1ST AND 2ND COPIES PROCESSED AND PROPERTIES INDEXED AND 4TH COPIES

MILLIONSHCHIKOV, M. D., RYABINKOV, G. M., TREBIN, F. A. and KHRISTIANOVICH, S.A.

"Use of Ejectors in Gas-Collecting Networks." Izv. AN SSSR, No. 3(1946)

Central Aerohydrodynamics Inst. in N. Ye. Zhukovskiy

MILLIONSHCHIKOV, M. D., SIMONOV, L. A., GAL'PERIN, V. G. and KHRISTIANOVICH, S. A.

"Applied Gas Dynamics" 1948

MILIONSHCHIKOV, M.D.

29512

Dvizhiye Gaeirovannoy Nyefti v Poristoy Sryedye. Inzh. Sbornik (Akad. Nauk SSSR, In-t Myekhaniki), t. V. vyp. 2, 1949, s. 190-93.

So: Letopis' No. 40

KELER, V.R., otv. red.; MILLIONSHCHIKOV, M.D., akademik, red.;
 BLOKHIN, N.N., red.; BLOKHINTSEV, D.I., red.; GNEDENKO,
 B.V., akademik, red.; ZAYCHIKOV, V.N., red.; KELDYSH, M.V.,
 akademik, red.; KIRILLIN, V.A., akademik, red.; KORTU'NOV,
 V.V., red.; MONIN, Andrey Sergeyevich, prof., doktor fiz.-
 matem. nauk, red. (1921); NESMEYANOV, A.N., akademik, red.;
 PARIN, V.V., red.; REBINDER, P.A., akademik, red.; SEMENOV,
 N.N., akademik, red.; FOK, V.A., akademik, red.; FRANTSOV,
 G.P., akademik, red.; ENGEL'GARDT, V.A., akademik, red.;
 KREMNEVA, G., red.; BALASHOVA, A., red.; BERG, A.I., akademik, red.

[Science and mankind, 1964; simple and precise information
 about the principal developments in world science] Nauka i
 chelovechestvo, 1964.; dostupno i tochno o glavnom v miro-
 voi nauke. Moskva, Izd-vo "Znanie," 1964. 424 p.

(MIRA 18:1)

1. Deystvitel'nyy chlen AMN SSSR (for Blokhin, ~~Parin~~); 2. Chlen-
 korrespondent AN SSSR (for Blokhintsev). 3. Akademiya nauk
 SSSR Ukr. SSR (for Gnedenko).

MILLIONSHCHIKOV, M. D.

"Disarmament, security and economic developments."

Report presented at the Pugwash, 12th Conference, Udaipur, near New Delhi,
India, 27 Jan- 1 Feb 64.

MILLIONSHCHIKOV, M. D.

"The Most Rational Ways of Attaining General and Complete Disarmament."

report presented at the US-USSR Joint Disarmament Study Group Mtg, Cambridge,
Mass., 7-20 Jun 64.

ARTSIMOVICH, L.A., akademik; DOLLEZHAL', N.A., akademik; KIRILLIN, V.A., akad.;
MILLIONSHCHIKOV, M.D., akademik; POPKOV, V.I.; FRUMKIN, A.N.,
~~akademik~~

[Power engineering of the future; the second discussion]
Energetika budushchego; beseda vtoraiia. [By] L.A.
Artsimovich i dr. Moskva, Izd-vo "Znanie," 1964. 54 p.
(no.oe v zhizni, nauke, tekhnike. Seriiia IX: Fizika, ma-
tematika, astronomiia, no.11) (MIRA 17:6)

1. Chlen-korrespondent AN SSSR (for Popkov).

L 18316-65 EWG(j)/EWT(l)/EWP(e)/EWG(k)/EWT(m)/EPF(c)/EPF(n)-2/EPR/EEC(b)-2/EWP(b)
Ps-6/Pr-4/Ps-4/Pu-4 LJP(c)/AFWL/SSD WW/AT/WH
ACCESSION NR: AP4049532 S/0089/64/017/005/0329/0335

AUTHOR: Millionshchikov, M. D.; Gverdtsiteli, I. G.; Abramov,
A. S.; Gorlov, L. V.; Gubanov, Yu. D.; Yefremov, A. A.; Zhukov, V. F.;
Ivanov, V. Ye.; Kovy*rzin, V. K.; Koptelov, Ye. A.; Kosovskiy, V. G.;
Kukharkin, N. Ye.; Kucherov, R. Ya.; Laly*kin, S. P.; Merkin, V. I.;
... .. Ponomarev-Stepnov, N. N.;

V. V. Yakutovich, M. V. Knodakov, v. n., ~~romashka~~

TITLE: The "Romashka" high-temperature reactor-converter / 9

SOURCE: Atomnaya energiya, v. 17, no. 5, 1964, 329-335

TOPIC TAGS: nuclear power reactor, reactor feasibility study, re-
search reactor, thermoelectric converter/Romashka

ABSTRACT: The authors briefly describe the construction, parameters,
test results, and operating experience of the "Romashka" reactor-

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L 18316-65
ACCESSION NR: AP4049532

converter unit, which has been in operation at the Kurchatov Atomic Energy Institute since August 1964. The fuel used is uranium di-carbide enriched to 90% U^{235} . Graphite and beryllium are used as reflectors. Electricity is generated by silicon-germanium semiconductor thermocouples distributed on the outer surface of the reflector and connected in four groups which can be connected in series or in parallel. The temperatures of the active zone and outer surface are 1770 and 1000C, respectively. The power ratings are 0.50—0.80 kW electric and 40 kW thermal, the maximum current (parallel connection) is 88 A, the neutron flux is 10^{13} neut/cm² sec in the center of the active zone and 7×10^{12} on its boundary. The reactor has a negative temperature reactivity coefficient. The equipment has high inherent stability and requires no external regulator, and little change was observed in the thermocouple properties after 2500 hours of operation. Tests on the equipment parameters are continuing, and the results are being analyzed for use in future designs. Orig. art. has: 8 figures and 1 formula.

Card 2/3

1 20316-65

ACCESSION NR: AP4049532

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: NP

NO REF SOV: 000

OTHER: 000

ATD PRESS: 3155

Card 3/3

ARTSIMOVICH, L.A., akademik; KELDYSH, M.V., akademik; KAPITSA, P.L., akademik;
VUL, B.M.; VERESHCHAGIN, L.F.; PISTOL'KORS, A.A.; SHCHUKIN, A.N.,
akademik; SKOBEL'TSYN, D.V., akademik; ALEKSANDROV, A.P., akademik;
AMBARTSUMYAN, V.A., akademik; ZEL'DOVICH, Ya.B.; SEMENOV, N.N.,
akademik; KOTEL'NIKOV, V.A., akademik; LIFSHITS, I.M.; VEKSLEP, V.I.,
akademik; GINZBURG, V.L.; MILLIONSHCHIKOV, M.D., akademik

Some problems in the development of modern physics; discussion of
the work of the Department of General and Applied Physics. Vest.
AN SSSR 35 no.2:3-46 F '65. (MIRA 18:3)

1. Chleny-korrespondenty AN SSSR (for Vul, Vereshchagin, Pistol'kors,
Lifshits, Ginzburg).

MILLIONSHCHIKOV, M.D., akademik; ARUTYUNOV, K.B.; NESMEYANOV, A.N., akademik;
TAL'ROZE, V.L., doktor khim.nauk; PAVLENKO, V.A.; KOTEL'NIKOV, V.A.,
akademik; PETROV, B.N., akademik; NOVIKOV, I.I.; MANDEL'SHTAM, S.L.,
doktor fiz.-matem.nauk; VAYNSHTEYN, B.K.; SHUMILOVSKIY, N.N., akademik

Problems in the manufacture of scientific instruments. Vest.AN SSSR
35 no.6:3-20 Je '65. (MIRA 18:8)

1. Glavnyy konstruktor Spetsial'nogo konstruktorskogo byuro
analiticheskogo priborostroyeniya (for Pavlenko). 2. Chleny-
korrespondenty SSSR (for Novikov, Vaynshteyn). 3. AN Kirgizskoy
SSR (for Shumilovskiy).

L 26581-66 EWT(1)/EWP(e)/EWP(m)/EWT(m)/ETC(f)/EWG(m)/EWP(j)/T/EWP(1)/ETC(m)-6

ACC NR: AP6008762 IJP(c) DS/WW/RO/JK/SOURCE CODE: UR/0030/66/000/002/0021/0029

AUTHOR: Millionshchikov, M. D. (Academician)
JT/AT/RM/WH

120
109
B

ORG: none

TITLE: Basic trends in technical progress related to Soviet achievements in the sciences

SOURCE: AN SSSR. Vestnik, no. 2, 1966, 21-29

TOPIC TAGS: economics, catalysis, nuclear physics, cosmic rays, plasma, chemical kinetics, heredity, direct energy conversion, cybernetics, automation, quantum electronics, single crystal, heat resistance material, polymer chemistry, metalworking machinery

ABSTRACT: At the annual meeting of the Academy of Sciences SSSR, held on February 13-14, 1966, Academician M. D. Millionshchikov reported on the decision of the Plenum of the Central Committee concerning the new economic policy, enumerating the trends and outlining the directions along which the development of various branches of the national economy must be pursued.

Continued development of all basic trends in mathematics was stressed as the key for all progress in science and technology. According to the

Card 1/6

L 26581-66

ACC NR: AP6008762

3

author, the most important branches of science are those pertaining to the structure of matter (the physics of elementary particles), nuclear physics, and the investigation of cosmic rays. The purpose of the latter is to establish the theory of elementary particles and the consecutive theory of atomic nuclei. These theories are based on the development of methods for accelerating charged particles and, most importantly, on new methods of investigation, such as the method of colliding beams.

Academician Millionshchikov also stresses the importance of the development of theoretical chemistry. Progress in this field depends upon successful utilization of the theory of chemical structure and reactivity of substances, and on developments in chemical kinetics.

The importance of future development of the theory of catalysis and the prospect of practical utilization of extreme conditions and plasma processes in chemistry is emphasized.

The increasing importance of biological investigations is stressed for the development of many branches of science and for practical applications.

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