"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOVA, E.

CZECHOSLOVAKIA/General Biology. General Ecology. B-6

Abs Jour: Ref Zhur-Biol., No 20, 1958, 90451.

Author : Kolova, Erzsebet.
Inst :
Title : On Colored Snow and Ice.

Orig Pub: Ziva, 1957, 5, No 6, 204-207 (Czech.)

Abstract: No abstract.

Card : 1/1

37

KOLOVANDIN, A. N.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

VOROZOV, Konstantin Pavlovich; PUSHKAREV, B.A., retsenzent; KOLOVANDIN, A.N., retsenzent; [illegible], redaktor izdatel'stva; BACHURINA, A.M., tekhnicheskiy redaktor

[Repair of machines and mechanisms used in woodworking industries] Remont mashin i mekhanizmov na lesozagotovitel'nykh predpriiatiiakh. Moskva, Goslesbumizdat, 1957. 339 p. (MLRA 10:10)
(Woodworking machinery--Maintenance and repair)

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

POVKH, I.L.; KIRILLOV, I.I., doktor tekhn. nauk, prof., retsenzent; BUSHMARIN, O.N., kand. fiz.-mat. nauk, red. Prinimal uchastiye KOLOVANDIN, B.A.

[Technical hydromechanics] Tekhnicheskaia gidromekhanika. Moskva, Mashinostroenie, 1964. 506 p. (MIRA 17:12)

1. Kafedra gidroaerodinamiki fiziko-mekhanicheskogo fakul'teta Leningradskogo politekhnicheskogo instituta im. M.I. Kalinina (for Bushmarin).

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

BOLONOV, N.I., inzh.; KOLOVANDIN, B.A., inzh.; POVKH, I.L., doktor tekhn. nauk, prof.; SKRINNIK, Ye.F., inzh.

Study of the structure of magnetohydrodynamic currents using an induction-type anemometer. Izv. vys. ucheb. zav.; energ. 9 no.1:65-71 Ja '66. (MIRA 19:1)

1. Donetskiy gosudarstvennyy universitet i Donetskiy nauchno-issledovatel'skiy institut chernoy metallurgii. 2. Chlen-korrespondent AN UkrSSR (for Povkh). Submitted September 13, 1965.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOVANDIN, B.A. (Donetsk)

Stability of conducting fluid flow with a free surface in the presence of magnetic and electric fields. Prikl. mekh. 1 no.11:95-105 '65. (MIRA 19:1)

1. Donetskiy nauchno-issledovatel'skiy institut chernoy metallurgii. Submitted Nov. 12, 1964.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

L 04078-67 EWP(m)/EWT(1)/EWT(m)/EWP(t)/ETI WW/JD/JG

ACC NR: AP6025422 (N) SOURCE CODE: UR/0143/66/000/007/0070/0076

AUTHOR: Kolovandin, B. A. (Engineer)

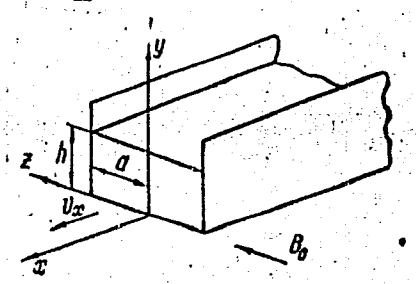
ORG: Donets Scientific Research Institute for Ferrous Metallurgy (Donetskiy nauchno-issledovatel'skiy institut chernoy metallurgii)

TITLE: Laminar flow of a conducting liquid in an open channel

SOURCE: IVUZ. Energetika, no. 7, 1966, 70-76

TOPIC TAGS: laminar flow, magnetohydrodynamics

ABSTRACT: The article considers a flow bounded by nonconducting walls $y = 0$, $z = \pm a$, and a free surface (see Fig. 1)



Card 1/3 Figure 1 UDC: 532.517.2+532.543+621.357.12

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

Perpendicular to the side walls of the channel, inclined to the horizontal at a certain angle β, there is placed a magnetic field B_0. It is assumed that the velocity of the liquid has a single component $V = (v_x, 0, 0)$. Neglecting the volumetric density of the charge, the magnetohydrodynamic equations are written in the form:

$$\Delta B_x + \frac{1}{\nu_m} B_0 \frac{\partial v_x}{\partial z} = 0, \qquad (1.1)$$

$$\eta \Delta v_x + \frac{1}{\mu} B_0 \frac{\partial B_x}{\partial z} = -\rho g \sin\beta, \qquad (1.2)$$

$$\frac{\partial}{\partial y}\left(p + \frac{B_x^2}{2\mu}\right) = -\rho g \cos\beta, \quad \frac{\partial}{\partial z}\left(p + \frac{B_x^2}{2\mu}\right) = 0, \qquad (1.3)$$

where B_x is the longitudinal component of the magnetic field; $\nu_m = 1/\sigma\mu$ is the magnetic viscosity; σ is the conductivity; η is the coefficient of the dynamic viscosity; ρ is the density; g is the acceleration due to gravity. The boundary conditions for the velocity are the conditions for adhesion to the walls and the absence of friction at the free surface, that is:

$$v_x = 0 \text{ при } y = 0,\ z = \pm a; \quad \frac{\partial v_x}{\partial y} = 0 \text{ при } y = h.$$

The problem is first solved mathematically for arbitrary values of the Hartman number, and then for large values of the Hartman number. The

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ACC NR: AP6025422

final equations arrived at are valid only in the core of the flow, since near the walls, the role of terms of higher order in the equations increases. Orig. art. has: 33 formulas and 5 figures.

SUB CODE: 20/ SUBM DATE: 13Sep65/ ORIG REF: 001/ OTH REF: 003

liquid metal 18

kh

Card 3/3

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

L 38992-66 EWT(1)/EWP(m)/T-2 IJP(c)

ACC NR: AP6016910 SOURCE CODE: UR/0143/66/000/001/0065/0071

AUTHOR: Bolonov, N. I. (Engineer); Kolovandin, B. A. (Engineer); Skrinnik, Ye. F. (Engineer); Povkh, I. L. (Corresponding member AN UkrSSR, Doctor of technical sciences, Professor)

41 B

ORG: Donetsk State University (Donetskiy gosudarstvennyy universitet); Donetsk Scientific-Research Institute of Ferrous Metallurgy (Donetskiy nauchno-issledovatel'skiy institut chernoy metallurgii)

TITLE: Investigation of the structure of magnetohydrodynamic flows by an induction anemometer 10

SOURCE: IVUZ. Energetika, no. 1, 1966, 65-71

TOPIC TAGS: anemometer, MHD flow, high temperature instrument

ABSTRACT: The article is devoted to a description of an instrument for investigating the structure of magnetohydrodynamic flows, an induction anemometer. The principles of measuring the local velocity by the induction methods are given. The object of the investigation was a flow of a conduction fluid with a free surface situated in a comparatively strong magnetic field. The basic components of the experimental device were the liquid system, magnetic field source, and measuring equipment. The experiments carried out showed that the investigation of the advantages of the induction method of measuring the characteristics of turbulence

Card 1/2 UDC: 621.032:621.3.082.78

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L 38992-66
ACC NR: AP6016910 O

and the design features of the induction anemometer which the authors used proved to be quite fruitful and offered considerable possibilities for a thorough investigation of the structure of MHD flows at sufficiently high Hartmann numbers. With the appropriate amplifying and measuring equipment the instrument on the whole is simple and reliable in operation. The obvious advantages of this instrument are: the possibility of investigating the structure of the flows of both ordinary and Newtonian fluids in a wide range of frequencies and its noninertia. A change of velocity fluctuation almost instantly causes a change of the induced emf. Finally, the design of the sensor permits a rigorous separation of the signals induced by various components of the fluctuating velocity. Orig. art. has: 6 figures and 13 formulas.

SUB CODE: 20/ SUBM DATE: 13Sep65/ ORIG REF: 002/ OTH REF: 002

Card 2/2 fls

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69993

AUTHORS: Bashkirov, A. N., Corresponding Member of the AS USSR, Kamzolkin, V. V., Potarin, M. M., Kolovertnov, G. D.

S/020/60/131/05/022/069
B011/B117

TITLE: Preparation of Higher Aliphatic Ketones by the Method of Dehydrogenation of Secondary Alcohols

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 131, Nr 5, pp 1067-1068 (USSR)

TEXT: The topic mentioned in the title has been studied using an industrial-type skeleton nickel catalyst. It was proved by the authors that it is possible to obtain a high yield (85% by weight), if the above-mentioned liquid-phase preparation method is used. The amount of the catalyst was 10% of the alcohol. Commercially produced C_{16} - C_{19} alcohols containing 6% of hydrocarbons were dehydrogenated. The reaction temperature was 185°, the residual pressure 33 torr. From the kinetic curves of the reaction it follows that the reaction proceeds rapidly in the liquid phase, and is practically completed within two hours. The conversion degree of the alcohols reaches 95 mole % (Fig 1). At first, a vigorous separation of hydrogen takes place, the iodine number of the product decreases, probably as a result of the hydrogenation of the unsaturated compounds in the alcohols used. Then, the iodine number is somewhat increased which is due to a side reaction involving the dehydration of the alcohols. It could be established

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

Preparation of Higher Aliphatic Ketones by the Method of Dehydrogenation of Secondary Alcohols

S/020/60/131/05/022/069
B011/B117

by chromatography on silica gel that the carbohydrate content was thereby increased from 6 to 10% by weight. The acid and ester content in the reaction products remains the same as the one in the alcohols used. The curves in figure 2 show that the dehydrogenation of the alcohols is accelerated by higher temperatures. Low pressure (33 torr) favors the reaction. The small quantity of unreacted alcohols was removed from the dehydrogenation product by esterification with boric acid. Substances not reacting with boric acid were distilled from the boric esters in vacuo (7 torr). The boiling-point range of the distillate was 115 to 120°. After removal of the hydrocarbons by means of chromatography on silica gel, a fraction of higher aliphatic ketones with d_4^{20} 0.8362, n_D^{20} 1.4446 and a carbonyl number of 202.0 was obtained. There are 2 figures and 5 references, 4 of which are Soviet.

ASSOCIATION: Institut neftekhimicheskogo sinteza Akademii nauk SSSR (Institute of Petroleum-chemical Synthesis of the Academy of Sciences of the USSR)

SUBMITTED: November 30, 1959

Card 2/2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOVERTNOV, G.D.; BORESKOV, G.K.; DZIS'KO, V.A.; POPOV, B.I.; TARASOVA, D.V.; BELUGINA, G.G.

Iron-molybdenum oxide catalyst of methanol oxidation to formaldehyde. Part I: Specific activity as a function of the catalyst composition. Kin. i kat. 6 no. 6:1052-1056 N-D '65 (MIRA 19:1)

1. Institut kataliza Sibirskogo otdeleniya AN SSSR. Submitted January 25, 1965.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOVIC, D.

"The Problem of Electrification Of Our Railroads" p. 222. (Zeleznice, Vol. 9, no. 7, July, 1953, Beograd.)

SO: Monthly List of East European Accessions, Vol. 2, No. 9, Library of Congress, September 1953, Uncl.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

V

KOLOWICZ, R.

"The fishing Accessories Cooperative fights for quality", p. 11 (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

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOVOITSEV, V., kandidat tekhnicheskikh nauk; PETROV, G., inzhener

Effect of certain structure characteristics in ships on the cost of loading and unloading operations. Mor.flot 15 no:5:5-8 My'55. (MLRA 8:6)
(Naval architecture) (Loading and unloading)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

Z/037/62/000/005-6/048/049
E140/E520

AUTHOR: Kolovrat, J.

TITLE: Simple production of some waveguide members for band 2.35-3.65 cm

PERIODICAL: Československý časopis pro fysiku, no.5-6, 1962, 723-724

TEXT: A galvanoplastic method of forming complicated waveguide shapes using plastic modelling materials and electroplating suitable for laboratory use, is described. There are 2 figures.

ASSOCIATION: Katedra obecné fysiky matematicko-fysikální fakulty, Karlovy university, Praha
(Department of General Physics, Faculty of Mathematics and Physics of Charles University, Prague)

Card 1/1

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOVRAT, J.

Simple method of making some waveguide parts for the wave-band 2,35 - 3,65 cm. Cs cas fys 12 no.5/6:723-727 '62.

1. Katedra obecne fysiky, Matematicko-fysikalni fakulta, Karlova universita, Praha.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

BORODOVSKIY, V. A., KOLOVRAT-CHERVINSKIY, L. S. YAKOBSON, I. I.

Radioactivity

(From the history of early Russian studies of radioactivity.) Usp., fiz., nauk, 47, no. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952, Uncl.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOVSKIY, A.A.

Simple thermoregulator of medium accuracy. Trudy Sib.tekh.inst. no.24:57-60 '59. (MIRA 14:3)
(Thermostat)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

S/169/61/000/012/051/089
D228/D305

AUTHOR: Kolovskiy, A. A.

TITLE: Electrodistance equipment for measuring the temperature and humidity at certain points

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 12, 1961, 8, abstract 12B65 (Tr. Sibirsk. tekhnol. in-ta, 1959, coll. 24, 1959, 61-68)

TEXT: A description is given of a multipoint device for measuring the temperature profile in the ground and also the temperature and humidity of the air. The temperature profile in the ground is measured by copper-constantan thermocouples included in a potentiometric scheme. The temperature and humidity of the air are determined with the help of a suctionless psychrometer. Copper-constantan thermocouples are also used as emitters in the psychrometer. The temperature of the cold

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Electrodistance equipment...

junctions of the thermocouples is measured by a copper resistance thermometer included in the scheme of an equilibrium bridge.
[Abstracter's note: Complete translation.]

Card 2/2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOVSKIY, A.A.

Electric telemetric device for measuring temperature and humidity at several points. Trudy Sib.tekh.inst. no.24:61-68 '59. (MIRA 14:3)

(Thermometers) (Telemetering)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KORSHUNOV, A.V., KOLOVSKIY, A.A.

Low-frequency Roman spectra of crystals of certain alums. Izv.Sib. otd.AN SSSR no.1:98-102 '60. (MIRA 13:7)

1. Institut fiziki Sibirskogo otdeleniya AN SSSR.
(Raman spectra) (Alums--Spectra)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

27741
S/058/61/000/007/020/086
A001/A101

AUTHORS: Korshunov, A.V., Kolovskiy, A.A.

TITLE: Raman spectra of solid solutions of some crystal heptahydrates

PERIODICAL: Referativnyy zhurnal. Fizika, no. 7, 1961, 136, abstract 7V272 ("Dokl. Mezhvuz. nauchn. konferentsii po spektroskipii i spektr. analizu". Tomsk, Tomskiy un-t, 1960, 102 - 103)

TEXT: Raman spectra of crystal heptahydrates of the salts $MgSO_4$, $FeSO_4$, $ZnSO_4$ and their solid solutions were investigated for determining the vibrational frequency of intermolecular hydrogen bonds. It has been established that lines 217 and 250 cm^{-1} correspond to vibrational transitions of purely hydrogen bonds. A definite correlation is observed between displacement of the OH-band disturbed by the hydrogen bond and displacement of hydrogen bond lines in the range of low frequencies.

[Abstracter's note: Complete translation]

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

S/058/62/000/006/034/136
A061/A101

AUTHORS: Korshunov, A. V., Kolovskiy, A. A.

TITLE: On the spectra of Raman effect of light in some types of alum

PERIODICAL: Referativnyy zhurnal, Fizika, no. 6, 1962, 35, abstract 6V238 (In collection: "Nekotoryye vopr. emission. i molekulyarn. spektroskopii". Krasnoyarsk, 1960, 180 - 183)

TEXT: The hydrogen bond was studied on Raman spectra in the low-frequency range of isomorphous alum types $KAl(SO_4)_2 \cdot 12H_2O$, $NH_4Al(SO_4)_2 \cdot 12H_2O$, and their mixed crystals. Nine lines: 37, 47, 80, 116, 153, 192, 232, 272, and 332 cm^{-1} were observed in the low-frequency range. These lines can be divided into two groups: one comprising the first six lines of about equal intensity, hypothetically referred to intermolecular ion vibrations, and the other composed of the last three lines with intensities decreasing in succession, which belong to hydrogen bond vibrations. The energy of hydrogen bond dissociation was calculated and found to be equal to 4.2 kcal/mole.

[Abstracter's note: Complete translation]

V. Pivovarov

Card 1/1

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

110

KOLOVSKIY, A. A. PHASE I BOOK EXPLOITATION SOV/6181

Ural'skoye soveshchaniye po spektroskopii. 3d, Sverdlovsk, 1960. Materialy (Materials of the Third Ural Conference on Spectroscopy) Sverdlovsk, Metallurgizdat, 1962. 197 p. Errata slip inserted. 3000 copies printed.

Sponsoring Agencies: Institut fiziki metallov Akademii nauk SSSR. Komissiya po spektroskopii; and Ural'skiy dom tekhniki VSNTO.

Eds. (Title page): G. P. Skornyakov, A. B. Shayevich, and S. G. Bogomolov; Ed.: Gennadiy Pavlovich Skornyakov; Ed. of Publishing House: M. L. Kryzhova; Tech. Ed.: N. T. Mal'kova.

PURPOSE: The book, a collection of articles, is intended for staff members of spectral analysis laboratories in industry and scientific research organizations, as well as for students of related disciplines and for technologists utilizing analytical results.

Card 1/15

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

Materials of the Third Ural Conference (Cont.) SOV/6181

COVERAGE: The collection presents theoretical and practical problems of the application of atomic and molecular spectral analysis in controlling the chemical composition of various materials in ferrous and nonferrous metallurgy, geology, chemical industry, and medicine. The authors express their thanks to G. V. Chentsova for help in preparing the materials for the press. References follow the individual articles.

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

Materials of the Third Ural Conference (Cont.) SOV/6181

PART II

Card 12/15

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

ACCESSION NR: AR4040824 S/0058/64/000/005/D029/D029

SOURCE: Ref. zh. Fizika, Abs. 5D220

AUTHOR: Korshunov, A. V.; Kolovskiy, A. A.; Sarapkin, P. S.

TITLE: Spectra of combinational light scattering of certain crystalline heptahydrates and their mixed crystals

CITED SOURCE: Tr. Sibirsk. tekhnol. in-ta, sb. 36, 1963, 18-25

TOPIC TAGS: single crystal, mixed crystal, heptahydrate, light scattering, spectrum investigation

TRANSLATION: There are investigated the spectra of single crystals of $MgSO4.7H_20$, $ZnSO_4.7H_20$, $ZnSO_4.6H_20$ and $FeSO_4.7H_20$ and mixed heptahydrate crystals of sulfates of Mg and Zn, Mg and Fe. There is conducted an interpretation of frequencies. The assumption is expressed that a change of lattice frequencies during transition from one substance to the other, and the constancy of frequencies

Card 1/2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

ACCESSION NR: AR4040824

Nu-9≈220 cm^{-1} and Nu-10≈250 cm^{-1}, allows us to consider oscillations of the hydrogen bond as being only slightly associated with lattice vibrations.
Bibliography: 11 references.

SUB CODE:- OC, OP ENCL: 00

Card 2/2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

AR6013668 SOURCE CODE: UR/0058/65/000/010/E055/E055

AUTHOR: Podgayetskaya, R. I.; Kolovskiy, A. A.; Korshunov, A. V.

TITLE: Investigation of lattice vibrations of single crystals with different ions by the Raman scattering method

SOURCE: Ref. zh. Fizika, Abs. 10E436

REF. SOURCE: Tr. Komis. po spektroskopii. AN SSSR. t. 3, vyp. 1, 1964, 582-587

TOPIC TAGS: Raman spectroscopy, crystal lattice vibration, sulfate, selenium compound

ABSTRACT: The authors obtain the low-frequency spectra of Raman lines of sulfate and selenate crystal-hydrates with different cations. They consider the connection between these spectra and the vibrations of crystalline octahedral groups consisting of metallic cations surrounded by water molecules. The lattice vibrations are interpreted by comparison of the low-frequency spectra of the sulfate and selenate crystal-hydrates. [Translation of abstract].

SUB CODE: 20

Card 1/1 pdf

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

L 01927-67 EWT(1)/T IJP(c)

ACC NR: AR6031865 SOURCE CODE: UR/0058/66/000/006/D053/D053

AUTHOR: Podgayetskaya, R. I.; Kolovskiy, A. A.; Yudin, A. L. 34 B

TITLE: Vibrations of octahedral groups determined from Raman scattering spectra of the monocrystal and solution of $MgCd(CdCl_4)\ 12H_2O$ 71

SOURCE: Ref. zh. Fizika, Abs. 6D434

REF SOURCE: Sb. Optich. issled. molekulyarn. dvizheniya i mezhmolekulyarn. vzaimodeystv. v zhidkostyakh i rastvorakh. Tashkent, Nauka, 1965, 69-71

TOPIC TAGS: Raman scattering, Raman spectrum, crystal vibration

ABSTRACT: An analysis is made of the Raman scattering spectrum of a monocrystal (cr) and its solution (sl) $MgCd(CdCl_4)\ 12H_2O$. The observed frequencies (cm^{-1}) ν_3 = 226 (cr) and 146 (sl), ν_5 = 251 (cr) and 258 (sl), ν_1 = 401 (cr) and 387 (sl) are attributed to the internal vibrations of the cation $Mg(H_2O)_6$. The difference between $\nu_{1\,cr}$ and $\nu_{1\,sl}$ is attributed by the author to the removal of degeneracy in the vibrations of the crystal. E. Broun. [Translation of abstract] [SP]

SUB CODE: 20/

Card 1/1 hs

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L 04235-67 EWT(m)/T/EWP(t)/ETI IJP(c) JD

ACC NR: AR6031866 SOURCE CODE: UR/0058/66/000/006/D054/D054

25
B

AUTHOR: Podgayetskaya, R. I.; Kolovskiy, A. A.; Korshunov, A. V.

TITLE: Width of 1-f lines of barium nitrate single-crystals

SOURCE: Ref. zh. Fizika, Abs. 6D441

REF SOURCE: Sb. Optich. issled. molekulyarn. dvizheniya i mezhmolekulyarn. vzaimodeystv. v zhidkostyakh i rastvorakh. Tashkent, Nauka, 1965, 65-69

TOPIC TAGS: lf line, barium nitrate, Raman spectrum, potential barrier, anion oscillation

ABSTRACT: Raman spectra of a $Ba(NO)_3$ are investigated in l-f region. The spectrum consists of 6 lines. Three of the more intense lines of 80, 126, and 142 cm^{-1}, are 3--6 cm^{-1} in width. Computational values of the potential barriers for various anion oscillations in relation to various axes are given. [Translation of abstract]

SUB CODE: 07/

Card 1/1 pla

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOVSKIY, B.K., inzh.

New norms and technical specifications for designing city streets, roads, and squares. Avt. dor. 23 no.4:29-30 Ap '60. (MIRA 13:6)
(Roads--Design)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

[illegible], M.A.; KOLOVSKIY, L.Ya. (Narva)

Case of abdominal aortic thrombosis diagnosed at the site of bifurcation. Klin.med. 37 no.7:126-127 Jl '59.
(MIRA 12:10)

1. Iz Narvskoy gorodskoy bol'nitsy (glavnyy vrach A.I.Blum).
(AORTA dis.)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOVSKIY, M.Z. (Leningrad)

Designing nonlinear elastic dampers with one degree of freedom. Izv.AN SSSR.Otd.tekh.nauk.Mekh.i mashinostr. no.4:116-124 Jl-Ag '60. (MIRA 13:8)

(Damping (Mechanics)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOVSKIY, M. Z. (Leningrad)

Conditions for the existence of periodic solutions of a system of differential equations with discontinuous right sides containing small parameter. Prikl. mat. i mekh. 24 no.4:738-745 Jl-Ag '60. (MIRA 13:9)

(Differential equations)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

244100 1327, 1344 1057

31276
S/124/61/000/010/006/056
D251/D301

AUTHOR: Kolovskiy, M.Z.

TITLE: Forced oscillations in non-linear dampers in the presence of a resistance force proportional to the velocity of the relative displacement

PERIODICAL: Referativnyy zhurnal. Mekhanika, no. 10, 1961, 15, abstract 10 A121 (Tr. Leningr. politekhn. in-ta, 1960, no. 210, 104-125).

TEXT: Theproblem is proposed of the forced oscillations of a system on dampers with non-linear elastic characteristics with non-linear perturbing forces, whose amplitude is proportional to the square of the frequency. The influence of viscous friction is studied. The results obtained state that with rigid characteristics of the damper and viscous friction it is possible for large amplitudes to exist in the resonance region. (The presence of limits of displacement in the dampers produces an elastic characteristic of

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Forced oscillations...

elasticity). Increase of friction intensity decreases the amplitude of oscillations, but with a worsening of the damping properties in the high-frequency region. The author sees a way out of the difficulty in constructing dampers with non-linear resistances. [Abstracter's note: Complete translation]

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24.4100 1327, 1191 1057
17.8000

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S/124/61/000/010/005/056
D251/D301

AUTHOR: Kolovskiy, M.Z.

TITLE: Forced oscillations in elastic dampers in the presence of a dry frictional force

PERIODICAL: Referativnyy zhurnal. Mekhanika, no. 10, 1961, 15, abstract 10 A120 (Tr. Leningr. politekhn. in-ta, 1960, no. 210, 126-139)

TEXT: The article is devoted to investigating the question of the influence of dry friction in a non-linear damper on the forced oscillations of a damped system under the action of a harmonic exciting force. The amplitude of the exciting force is taken to be proportional to the square of the velocity. The following results were established by the investigation: 1) For large frictional forces, the damper remains "locked" and acts like a rigid rod; 2) introduction of dry friction in a damper with linear restoring force permits the amplitude of the resonance oscillations to be essential-

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Forced oscillations...

ly lowered in the case where the "unlocking" of the damper begins in the resonance region; 3) the introduction of dry friction gives the damper a special property - the accelerations of the damped system remain, for all practical purposes, constant; 4) it follows that the introduction of elastic non-linearity into the characteristics of the damper is to be avoided on account of the possibility of additional resonances arising in the system. [Abstracter's note: Complete translation]

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOVSKIY, M. Z.

"On the application of the small parameter method for the determination of discontinuous periodic solutions."

Paper presented at the Intl. Symposium on Nonlinear Vibrations, Kiev, USSR, 9-19 Sep 61

Polytechnical Institute, Leningrad

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOVSKIY, M.Z. (Leningrad)

Vibrations of a solid supported by nonlinear flexible shock absorbers. Izv.AN SSSR.Otd.tekh.nauk.Mekh.i mashinostr. no.2:43-49 Mr-Ap '61. (MIRA 14:4)

(Elastic solids—Vibration)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOVSKIY, M. Z., Cand. Tech. Sci. (diss) "Methods of Computation Non-Linear Vibration-Proof Shockabsorbers," Moscow, 1961, 12 pp. (Inst. of Machine Operation) 270 copies (KL Supp 12-61, 268.)

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S/179/62/000/005/007/012
E031/E135

AUTHORS: Kolovskiy, M.Z., and Pervozvanskiy, A.A. (Leningrad)

TITLE: On linearisation by the method of distribution functions for problems in the theory of non-linear oscillations

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Mekhanika i mashinostroyeniye, no.5, 1962, 118-128

TEXT: The problem is to determine approximately the polyharmonic solutions of non-linear equations of the type

$$Q(p)y + R(p)x = S(p)z, \qquad y = f(x) \qquad \left(p \equiv \frac{d}{dt}\right) \tag{1.1}$$

where: $Q(p)$, $R(p)$ and $S(p)$ are polynomials in the operator p; $f(x)$ is a non-linear function; z is a given function of the time (harmonic or polyharmonic). The method of harmonic linearisation, in which

$$x = a \sin t \tag{1.2}$$

and

$$f(x) \approx qx \tag{1.3}$$

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and the method of linearisation proposed by Ya.G. Panovko, can both be regarded as particular cases of a more general method of linearisation, differing in their choice of distribution function. A periodic or almost periodic solution is obtained from the linearised equation resulting from the substitution in (1.1) of $qx_o + r$ (x_o is the difference between x and its mean value); q and r are obtained from the conditions that

$$J = \int_L [f(x) - qx_o - r]^2 w(x, \alpha_1, \ldots, \alpha_e)\, dx \qquad (2.4)$$

has a minimum ($w(x,\alpha_1,\ldots,\alpha_e)$ is the distribution function). The required solution can always be written in the form

$$x = a_o + \sum_{i=1}^{n} a_i \sin(\omega_i t + \theta_i) \qquad (2.7)$$

where a_o, a_i, ω_i, θ_i are functions of the α_k. The α_k are

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conveniently taken as the moments of the distribution function and only the first two are usually needed - $\alpha_1 = m_x$ (the mean), and $\alpha_2 = \sigma_x^2 + m_x^2$ (where σ_x^2 is defined by

$$\sigma_x^2 = \int_L x_o^2 w(x, \alpha_1, \ldots, \alpha_e)\, dx. \qquad (2.5)$$

If $m_x = 0$, then $r = 0$ and $q = q(\sigma_x)$ and the equation

$$\sigma_x^2 = \frac{1}{2}\left[a_1^2(\sigma_x) + \ldots + a_n^2(\sigma_x)\right] \qquad (2.12)$$

can be used to determine σ_x. Knowing σ_x, the coefficients a_i can be found.

In the final section, using the method of Van der Pohl, the stability of polyharmonic solutions found by the above method is considered from the equation

$$\ddot{x} + b\dot{x} + f(x) = A_1 \sin(\omega_1 t + \psi_1) + \ldots + A_n \sin(\omega_n t + \psi_n) \qquad (3.1)$$

There are 6 figures.

Card 3/3 SUBMITTED: June 1, 1962

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

S/179/63/000/001/001/031
E031/E135

AUTHOR: Kolovskiy, M.Z. (Leningrad)

TITLE: The forced oscillations of a damped object subjected to random disturbances

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Mekhanika i mashinostroyeniye, no.1, 1963, 3-11

TEXT: The equation for the forced oscillations of an object on elastic shock absorbers with one degree of freedom can be written in the form

$$\ddot{y} + \varphi(\dot{y}) + f(y) = -w(t) \qquad (1.1)$$

where y is the deformation; $\varphi(\dot{y})$ and $f(y)$ are the resistance and restoring force respectively for unit mass; and $w(t)$ is the acceleration of the base. The effect of vibrations on the damped object is determined by the magnitude of its absolute acceleration

$$u = \ddot{x} = \ddot{y} + w = -\varphi(\dot{y}) - f(y) \qquad (1.2)$$

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To determine the probability characteristics of u(t) from those of w(t) the method of statistical linearization of the non-linear functions $\varphi(\dot{y})$ and $f(y)$ by the criterion of the minimum of the mean-squared error is used. If w(t) is normally distributed, it is assumed that y(t) and $\dot{y}(t)$ are nearly normally distributed. If the spectral density $S_w(\omega)$ of the acceleration of the base is given, and $y^o = y - m_y$, where m_y is the mathematical expectation of y, then the spectral density of y^o and the variances σ_y^2, σ_v^2 (where $v = \dot{y}$) can be obtained. An expression for σ_u^2 is also derived. An approximation to $S_w(\omega)$ is discussed, which is typical of the case in which there is one dominating disturbance near the harmonic. The case of a shock absorber on elastic supports with linear and weak damping is considered. The elastic characteristics have the form

$$f(y) = k^2 y \quad \text{where} \quad y < \ldots \qquad (3.1)$$

$$f(y) = (k^2 + k_1^2)y - k_1^2 \ldots \text{sign } y \quad \text{where} \quad y > \ldots$$

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The forced oscillations of a damped...

It is shown that if $\Delta^* = \Delta/\sqrt{\mu}$ is sufficiently large, then even comparatively rigid supports do not affect the statistical characteristics of the forced oscillations. The forced oscillations of an object on a linear shock absorber with dry friction are analyzed. It is shown that if the disturbance [illegible] is in the high frequency region the shock absorber transmits, on the average, the force of dry friction. The theory is extended to the case when there are independent sources of [illegible] disturbance. The solution of E[illegible] is the sum of harmonic oscillations.
There are 7 figures.

SUBMITTED: May 25, 1962

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

EWP(r)/EWT(m)/EDS--AFFTC--EM

ACCESSION NR: AP3000384 S/0179/63/000 0 0 51

AUTHOR: Kolovskiy, M. Z. (Leningrad)

TITLE: On the substitution of a polyharmonic process to simulate a random vibrational action

SOURCE: AN SSSR. Izv. Otd. tekh. nauk. Mekhanika i mashinostroyeniye, no. 2, 1963, 93-101

TOPIC TAGS: random processes, simulation, polyharmonic process, vibrational action, distribution functions, probability density, spectral density

ABSTRACT: This theoretical paper deals with the creation, on a test stand, of a vibration spectrum for aircraft, rocket, ship, and automotive sturctures that would ensure a realistic test program for such structures. The author proposes a method of reproducing realistic operational conditions by creating a polyharmonic process which contains a relatively small number of harmonic components and which, in a sense, is statistically equivalent to the stationary random process that is to be simulated. The actual realization of this polyharmonic process is to be

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simulated. The actual realization of this polyharmonic process is to be accomplished by means of ordinary wide-band electrodynamic vibrators and through the use of several generators of sinusoidal voltage operating in parallel. The paper examines, more specifically, the selection of the parameters of a polyharmonic process that is statistically equivalent to a prescribed random process. In particular, it is assumed that the vibrational accelerations undergone by a structure under natural conditions, x=x(t), represent a stationary and in a broad sense ergodic process. It is further assumed that the action of these vibrational accelerations on the object is determined primarily by those statistical properties of the random process, x(t), which are characterized by the [illegible] of the probability distribution and of the spectral density of the process (or its correlation function). Assuming the use of a polyharmonic process to approximate the probability density of the real process, it is shown that the probability density of the polyharmonic process does not depend on the frequencies of the harmonic components employed. This permits one, to a degree, to separate the problem of the approximation to the given process according to the probability density from the problem of the approximation according to the spectral density. Problems encountered with the approximation according to the probability density are described, and solutions therefore are proposed. A method for the determination of the amplitude of the harmonic components of the

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ACCESSION NR: AP3000884

polyharmonic process is explained, followed by an outline of applications of this method to those particular cases when the approximation of the distribution laws is adequately described by the use of the moments of second and fourth, or [illegible] fourth and sixth order. The inherent limitations of the method are evaluated by means of considerations involving the [illegible] coefficient [illegible] the polyharmonic process in the light of the excess coefficient [illegible] encountered in an arbitrary random process. A number of examples are [illegible] illustrate the application of the process. The examples adduced [illegible] approximation according to the probability density appears mandatory [illegible] random process is to be simulated by a polyharmonic process. The [illegible] approximation permits one [illegible] polyharmonic [illegible] random process with [illegible] vibrational acceleration, whereas an approximation [illegible] density can ensure only an equivalence of the mean-square values. There are 61 numbered equations and 3 figures.

ASSOCIATION: none

SUBMITTED: 17Sep62 DATE ACQ: 12Jun63 ENCL: 00

SUB CODE: GM, MM, AP, MD, AC NR REF SOV: 002 OTHER: 001

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

S/170/63/000/001/026/031
B102/B186

AUTHORS: Kolovskiy, M.Z., and Pervozvanskiy, A.A. (Leningrad)

TITLE: On the stability of solutions obtained by the method of statistical linearization

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Mekhanika i mashinostroyeniye, no.1, 1963, 184-189

TEXT: The method of statistical linearization is the most effective for the approximate solution of stationary regimes in nonlinear feedback systems. The present article examines the solution of equations of the type

$$Q(p)Y + R(p)X = S(p)Z, \quad Y = f(X) \qquad (p = d/dt) \qquad (1)$$

where Q, R and S are polynomials and Z a stationary random process. The problem reduces to the solution of two, in general transcendental equations having one or several solutions, corresponding respectively to stable or unstable regimes. Whereas the method of harmonic linearization (describing functions) has

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On the stability of solutions ...

been extensively studied, in the case of statistical linearization. the problem of the stability of solutions has not even been posed. The problem consists in the examination of the behavior, as $t \to \infty$, of the solutions of an equation for the variance of the initial solution, i.e. a linear equation with variable coefficients constituting random functions of time. For equations of order higher than first, no methods are known for solving such a problem. However, in view of the degree of approximation of the initial method, it would appear that it would suffice if it were possible to determine whether the mean value and the dispersion of the variance remain bounded as $t \to \infty$. The method given here for obtaining this more approximate solution employs the basic assumption that the probability distribution of the variance is the same as that of the initial solution. A Volterra's integral equation is obtained, and solved by means of the Laplace transform. Two examples are worked, one in which

$$(p^2 + 2n\,p)X + f(X) = Z \qquad (33)$$

where f is an odd function, and

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... stability of solutions ...

$$Z(t) = \sum_{i=1}^{m} A_i \sin(\omega t + \psi_i)$$

and a relay servomechanism (Fig.1) described by Eq.(1) where

$$Q(p) = k_1 k, \quad R(p) = p(p^2 + 2\zeta p + 1) \quad S(p) = k_1 p$$

$$R_z(\tau) = D_z \exp(-\beta|\tau|)$$

... is given in the form of a Nyquist plot. A subsequent ... consider the stability of oscillatory regimes perturbed by stationary random noise. There are 3 figures.

SUBMITTED: October 1, 1962

Fig.1.

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOVSKIY, M.Z.

Effect of high-frequency perturbations on resonance vibrations in a nonlinear system. Trudy LPI no.226:7-17 '63. (MIRA 16:9)
(Vibration)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

L 26682-65 EWT(d) Pg-4 IJP(c)

AP5002364 S/2563/64/000/235/0012/0022

AUTHOR: Volovskiy, M. Z.

TITLE: On the use of a distribution law when linearizing non-linear differential equations

SOURCE: Leningrad. Politekhnicheskiy institut. Trudy, no. 235, 1964. Dinamika i prochnost' mashin (Dynamics and strength of machines) 12-22

TOPIC TAGS: nonlinear differential equation, distribution function, probability density, moments method, linearization

ABSTRACT: The use of a method of linearization with respect to the distribution function is considerably simplified if the law of distribution of the solution is [illegible] the form of a step-function. This method allows us to obtain the approx- [illegible] mulas for determining the coefficients of harmonic linearization. The [illegible] method agrees with the previous concept that, analytically, the distribution function can be written in the form

$$W(u) = \lim_{T \to \infty} \frac{1}{T} \int_0^T \eta [u - x(t)]\, dt, \qquad (1)$$

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and the coefficients of linearization of the non-linear function f(x) are expressed in the following manner:

$$f_0 = \int_{-\infty}^{\infty} f(u)\, w(u)\, du; \tag{2}$$

$$q = \frac{1}{\sigma_x^2} \int_{-\infty}^{\infty} f(u)\,(u - m_x)\, w(u)\, du, \tag{3}$$

: the probability density of the process x(t). The distribution fun-
nd probability density w(u) are identical determined by the set of
ments

$$M_k^0 = \int_{-\infty}^{\infty} (u - m_x)^k w(u)\, du = \lim_{T \to \infty} \frac{1}{T} \int_0^T [x(t) - m_x]^k\, dt \tag{4}$$

ean value of m_x. Therefore, the coefficients f_0 and q are also functions
nts. In spite of the fact thar the moments of a high order weakly in-
magnitude of the coefficients of linear ation, a simple method is
abling the author to select, with a suffi ent degree of accuracy, a
law of distribution of the desired e ation which facilitates the cal-
culation of the coefficients of linearization. Thus, the distribution function is
sought in the form of the step function

$$W(u) = \sum_{k=1}^{l} a_k \eta(u - x_k). \tag{5}$$

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The following expression is obtained for the probability density

$$w(u)=\sum_{i=1}^{s} a_i \delta(u-x_i). \qquad (6)$$

Substituting (6) in (2) and (3), the coefficients of linearization are found

$$f_0=\int_{-\infty}^{+\infty} f(u)\sum_{i=1}^{s} a_i\delta(u-x_i)\,du=\sum_{i=1}^{s} a_i f(x_i); \qquad (7)$$

$$q=\frac{1}{\sigma_x^2}\int_{-\infty}^{+\infty} f(u)(u-m_x)\sum_{i=1}^{s} a_i\delta(u-x_i)\,du=\frac{1}{\sigma_x^2}\sum_{i=1}^{s} a_i f(x_i)(x_i-m_x). \qquad (8)$$

The function x(t) is the polyharmonic process

$$x(t)=a_0+\sum_{i=1}^{N} a_i\cos(\omega_i t+\varphi_i)=a_0+x_0(t). \qquad (9)$$

The expressions of the central moments of the fourth and sixth orders through

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a_i^2 have the following form:

$$M_4^0 = \frac{3}{2}\left(\sigma_x^4 + \frac{1}{4}\sum_{i,j=1}^{N}{}' a_i^2 a_j^2\right); \tag{10}$$

$$M_6^0 = 5\sigma_x^2\left(M_4^0 - \sigma^{(\cdot)} + \frac{5}{8}\sum_{i,j=1}^{N}{}' a_i^2 a_j^2 c_{ij}^2\right. \tag{11}$$

Distribution should be symmetrical relative to $u = a_0$ in order that all moments of uneven order equal zero. Therefore,

$$w(u) = \alpha_0\delta(u - a_0) + \sum_{l=1}^{S}\alpha_l\left[\delta(u - a_0 - \beta_l) + \delta(u - a_0 + \beta_l)\right]. \tag{12}$$

It is assumed that

$$S \geqslant \frac{e+1}{2}. \tag{13}$$

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... following system of equations is obtained for determining a_1 and

$$\left.\begin{aligned} a_0 + 2a_1 + 2a_2 &= 1;\\ 2(a_1\beta_1^2 + a_2\beta_2^2) &= \sigma_x^2;\\ 2(a_1\beta_1^4 + a_2\beta_2^4) &= M_4^0;\\ 2(a_1\beta_1^6 + a_2\beta_2^6) &= M_6^0. \end{aligned}\right\} \qquad (14)$$

If $\beta_1 = k_1\sigma_x$, and $\beta_2 = k_2\sigma_x$, we obtain

$$\left.\begin{aligned} a_0 + 2a_1 + 2a_2 &= 1;\\ 2(a_1k_1^2 + a_2k_2^2) &= 1;\\ 2(a_1k_1^4 + a_2k_2^4) &= \varepsilon;\\ 2(a_1k_1^6 + a_2k_2^6) &= \mu. \end{aligned}\right\} \qquad (15)$$

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Since system (15) contains five unknowns, it can be assumed th

$$a_0 = 0. \tag{16}$$

If in eqn.(9), the frequencies ψ_i are not incommensurable, the expressions for the ... ments are considerably complicated. In this case, the probability den- ... lution can be sought in the form of (6'). The question of the ap- ... termination of the coefficients of harmonic linearization is then ex- amined as the first example of using the obtained relations. If x(t) is the harmonic function of time,

$$x(t) = a_0 + a \sin \omega t, \tag{17}$$

... coefficients of harmonic linearization for the non-linear functions of ... determined with respect to the formulas

$$f_0 = \frac{1}{2\pi} \int_0^{2\pi} f(a_0 + a \sin \psi)\, d\psi = f_0(a, a_0); \tag{18}$$

$$q = \frac{1}{\pi a} \int_0^{2\pi} f(a_0 + a \sin \psi) \sin \psi\, d\psi = q(a, a_0). \tag{19}$$

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For the harmonic process (17), we have

$$\sigma_x^2 = \frac{a^2}{2}; \quad \varepsilon = \frac{\tilde{M}_4^0}{\sigma_x^4} = \frac{3}{2}; \quad \mu = \frac{M_6^0}{\sigma_x^6} = \frac{5}{2}. \tag{20}$$

Thus, the probability density for the harmonic process (17) is approximately expressed by the formula

$$w(u) = \frac{1}{4}[\delta(u - a_0 + 0{,}924a) + \delta(u - a_0 + 0{,}383a) + \delta(u - a_0 - 0{,}383a) + \delta(u - a_0 - 0{,}924a)]. \tag{21}$$

Hence, we find

$$f_0 = \frac{1}{4}[f(a_0 - 0{,}924a) + f(a_0 - 0{,}383a) + f(a_0 + 0{,}383a) + f(a_0 + 0{,}924a)]; \tag{22}$$

$$q = \frac{1}{2a}[0{,}924[f(a_0 + 0{,}924a) - f(a_0 - 0{,}924a)] + 0{,}383[f(a_0 + 0{,}383a) - f(a_0 - 0{,}383a)]]. \tag{23}$$

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If $a_0 = 0$, and f(x) is an uneven function, then $f_0 = 0$

$$q = \frac{1}{a}\left[0{,}924 f(0{,}924a) + 0{,}383 f(0{,}383a)\right]. \quad (24)$$

... yield a value of the coefficient of harmonic linearization with a very high accuracy. The following expressions for the coefficients of linearization are easily obtained:

$$f_0 = \frac{1}{3}\left[f(a_0) + f\left(a_0 - \frac{\sqrt{3}}{2}a\right) + f\left(a_0 + \frac{\sqrt{3}}{2}a\right)\right];$$
$$q = \frac{\sqrt{3}}{3a}\left[f\left(a_0 + \frac{\sqrt{3}}{2}a\right) - f\left(a_0 - \frac{\sqrt{3}}{2}a\right)\right]. \quad (25)$$

The equation

$$\ddot{x} + 0{,}1\dot{x} + \operatorname{tg} x = 0{,}4\left(\sin\sqrt{2}t + \sin\sqrt{3}t\right). \quad (26)$$

... then examined. The solution of these equations is sought in the form

$$x = a_1 \sin\left(\sqrt{2}t + \varphi_1\right) + a_2 \sin\left(\sqrt{3}t + \varphi_2\right). \quad (27)$$

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The approximation to the law of distribution with respect to the first four moments is realized. The probability density is selected in the form

$$w(u)=\frac{\varepsilon-1}{\varepsilon}\delta(u-a_0)+\frac{1}{2\varepsilon}\left[\delta\left(u-a_0-\sqrt{\varepsilon}\sigma_x\right)+\delta\left(u-a_0+\sqrt{\varepsilon}\sigma_x\right)\right].$$

The polyharmonic solution of the linearized equation is then found in the form of eqn. (27):

$$x=\frac{0{,}16\sin\left(\sqrt{2}t+\varphi_1\right)}{\sqrt{(q-2)^2+0{,}01\cdot 2}}+\frac{0{,}16\sin\left(\sqrt{3}t+\varphi_2\right)}{\sqrt{(q-3)^2+0{,}01}}. \qquad (28)$$

From which

$$2\sigma_x^2=0{,}16\left[\frac{1}{(q-2)^2+0{,}02}+\frac{1}{(q-3)^2+0{,}01}\right] \qquad (29)$$

A graph of the dependence $\sigma_x(q)$ according to formula (29) is plotted. The point of intersection of both curves determines the values of σ_x and q, which correspond to the sought solution. The new dependence $q(\sigma_x)$ is obtained:

$$q=\frac{2}{\sigma_x}\left[0{,}223\operatorname{tg}(0{,}615\sigma_x)+0{,}223\operatorname{tg}(1{,}62\sigma_x)\right]=$$
$$=\frac{0{,}446}{\sigma_x}\left[\operatorname{tg}(0{,}615\sigma_x)+\operatorname{tg}(1{,}62\sigma_x)\right]. \qquad (30)$$

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ACCESSION NR: AT5002364

the law of distribution are made more precise with respect to and . Thus, the resultant values are σ_ε=0.8; q = 2.4. The with respect to the first six moments of the value of $\bar{x}$ which differs by 10% from the value obtained by the approximation with respect to the first four moments. For the functions of f(x) which do not possess such a clearly expressed linearity, such as tg x, the divergence should come out still smaller. Orig. art. has: 1 table, 3 figures, and 54 formulas.

ASSOCIATION: Leningradskiy politekhnicheskiy institut imeni M.I. Kalinina (Leningrad polytechnic institute)

SUBMITTED: 00 ENCL: 00 SUB CODE: MA,ME

NO REF SOV: 004 OTHER: 000

Card 10/10

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOVSKY, M.Z.: OSORIN, V.I.: PERVOZVANSKY, A.A.(Leningrad)

"Probability methods in the theory of vibrations".

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

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

L 27508-66 EWT(1)/EWT(m)/EWP(w)/ETC(m)-6 IJP(c) EM/WW
ACC NR: AP6011127 SOURCE CODE: UR/0424/66/000/001/0020/0026

AUTHOR: Kolovskiy, M. Z. (Leningrad)

ORG: none

TITLE: Application of linearization methods to the investigation of induced oscillations in a nonlinear oscillatory system

SOURCE: Inzhenernyy zhurnal. Mekhanika tverdogo tela, no. 1, 1966, 20-26

TOPIC TAGS: forced vibration, nonlinear vibration, ordinary differential equation, error analysis

ABSTRACT: The accuracy involved in the direct linearization of nonlinear functions, as applied to nonlinear induced vibration systems, is analyzed in detail. The differential equation

$$[Q(p)x + R(p)f(x) = F(t)] \quad (1)$$

is considered where Q and R are polynomials in the differential operator p, Q is of higher degree than R, and f(x) denotes a nonlinear function. The solution x(t) of this equation also appears in the solution of the linear system

$$Q(p)x = -R(p)f[x(t)] + F(t). \quad (2)$$

The formulas

$$[m_\Delta = -M(0)m_f, \quad \sigma_\Delta^2 \leqslant |M(j\omega)|^2_{\max}\sigma_f^2] \quad (3)$$

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are obtained to evaluate the mean square error in substituting the exact equation (1) with the linear equation (2). The formulas (3) are applied to the cases where either f(x) or f(x)/x is bounded. The analysis is generalized to the case of a linearized equation where the nonlinear function f(x) is substituted by the linear functions

$$\hat{f}(x) = q(x - m_x) + r \qquad (4)$$

where

$$q = \frac{1}{\sigma_{x0}^2} \int_{L_{x_0}} f(u)(u - m_{x_0}) w_{x_0}(u)\,du, \qquad r = \int_{L_{x_0}} f(u) w_{x_0}(u)\,du. \qquad (5)$$

The root mean square error of this solution is evaluated from the result

$$\mu_\Delta \leqslant \left| \frac{R(j\omega)}{Q(j\omega) + qR(j\omega)} \right|_{\max} \mu_0 . \qquad (6)$$

In order to evaluate to what degree the selection of the function

$$w_{x0} = w_{x0}(u, m_{x0}, \mu_{x0}) \qquad (7)$$

affects the error estimate, three types of distributions are analyzed for w_x, viz., a harmonic distribution, an equilibrium distribution, and a normal distribution. Orig. art. has: 54 equations and 3 diagrams.

SUB CODE: 20,12/SUBM DATE: 10Jul65/ ORIG REF: 004

Card 2/2 BkG

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

ACC NR: AM6015018 Monograph UR

Kolovskiy, Mikhail Zakharovich

Nonlinear theory of vibration protection systems (Nelineynaya teoriya vibrozashchitnykh sistem) Moscow, Izd-vo "Nauka", 1966. 317 p. illus., biblip. 4500 copies printed.

TOPIC TAGS: shock absorber, vibration damping

PURPOSE AND COVERAGE: Problems of protection from vibration and shocks encountered in aircraft, ships, and automobiles are presented. The theory and calculating methods of vibrational protective systems is covered. Various types of vibrations are described and methods of dealing with them are analyzed. The book is intented for engineers and technical personnel investigating and designing vibration and shock insulating equipment.

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APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

ACC NR: AM6015018

SUB CODE: 13/ SUBM DATE: 11Jan66/ ORIG REF: 053/ OTH REF: 011

Card 2/2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KHARIN, N.G.; BOGOYAVLENSKAYA, R.A.; KOLOVSKIY, R.A.

Phytopathology, spectrophotometry and aerial photography. Nauch. dokl.vys.shkoly; biol.nauki no.3:111-117 '65.

(MIRA 18:8)

1. Rekomendovana Institutom lesa i drevesiny Sibirskogo otdeleniya AN SSSR.

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

L 10969-67 EWT(1) SCTB DD/RO/JK/GD

ACC NR: AT6036586 SOURCE CODE: UR/0000/66/000/000/0213/0213

AUTHOR: Kozyrevskaya, G. I.; Kolovskova, Yu. S.; Sitnikova, N. N.; Chizhov, S. V.; 37
Pak, Z. P.

ORG: none

TITLE: The question of drinking water preservation with ion silver [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24 to 27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 213

TOPIC TAGS: life support system, water purification, silver ion, space nutrition

ABSTRACT: A water-preservation method suitable for spaceflight must keep the taste qualities of drinking water, while preventing development of microflora even after secondary contamination. Most physical methods of disinfecting water can only be used immediately before drinking, since they have an insufficient aftereffect. Biological purification methods are not presently used because of the unfavorable effects of antibiotics on the human organism. The most effective and least toxic of the chemical preservatives are silver preparations.

Experimental data are presented from a 1961—1965 study of the

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ACC NR: AT6036586

properties of ionic silver as a drinking-water preservative. It was established that the minimum silver dose which ensures a stable bactericidal effect for six months is a dose of 0.1 mg/liter. Doses of silver ions ten or more times larger than the minimum bactericidal dose did not have a toxic effect on experimental animals. Human comsumption of water preserved with silver ions in a dose of 0.1 mg/liter for 15 days did not result in any pathological shifts in the functional condition of those organs and systems most susceptible to the effect of silver.

Experimental material demonstrates the effective preserving qualities of silver ions and the absence of a toxic effect of the preservative on human and animal organisms. [W.A. No. 22; ATD Report 66-116]

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APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

SHAKHMEYSTER, L.G., kand.tekhn.nauk; KOTOV, M.A., kand.tekhn.nauk; KOST, G.N., kand.tekhn.nauk; KOLOYAROV, V.K., inzh.; SAMOYLYUK, V.N., inzh.

Industrial testing of the PRU-900 conveyor. Ugol' 40 no.3:37-41 Mr '65. (MIRA 18:4)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

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KOST, G.N., kand. tekhn. nauk; KOTOV, M.A., kand. tekhn. nauk; KOLOYAROV, V.K., inzh.; BELOGRUDOV, Yu.V., inzh.

Experimental testing of the KI-2 belt conveyer. Nauch. soob. IGD 26:40-48 '65. (MIRA 18:9)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOWCA, J.

A plan for the organization of pastures in the Tatra Mountains National Park.

P. 179 (OCHRONA PRZYRODY) Poland, Vol. 6, No. 2, 1957.

SO: Monthly Index of East European Acessions (AEEI) Vol. 6, No. 11, November 1957.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

Kolowca, J.

Utilisation of distillery residue (as cattle fodder). J. Kolowca (*Ann. Univ. M. Curie-Sklodowska*, 1954, 9, B, 103—131).—Under Polish conditions the best use of distillery residues is to pour them into earth pits containing dried spent sugar-beet slices or chaff, at the rate of 100 l. per 2—3 kg. Although a considerable proportion of sol. nutrients drains away to the soil the resulting [illegible] provides valuable cattle fodder

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

1404. KOŁOWROTKIEWICZ W. Woj. Stacja Sanit. Epidemiol., Poznań. *Badania nad występowaniem pasożytów przewodu pokarmowego u dzieci przedszkoli, szkól i domów dziecka z terenu Wielkopolski. Research on the occurrence of the parasites of the alimentary tract in children of creches, schools and children's homes in Wielkopolska WIAD. PARAZYTOL. 1956, 2/5 suppl. (77-78)

Parasitic worms (Enterobius vermicularis, Trichuris trichiura, Ascaris lumbricoides, Taenia sp. and Hymenolepis nana) were found in 71.3% of 4,796 children examined. Of protozoa, Lamblia intestinalis was discovered in 5.9% of the children and Entamoeba coli in 8.7% of the children on the average.

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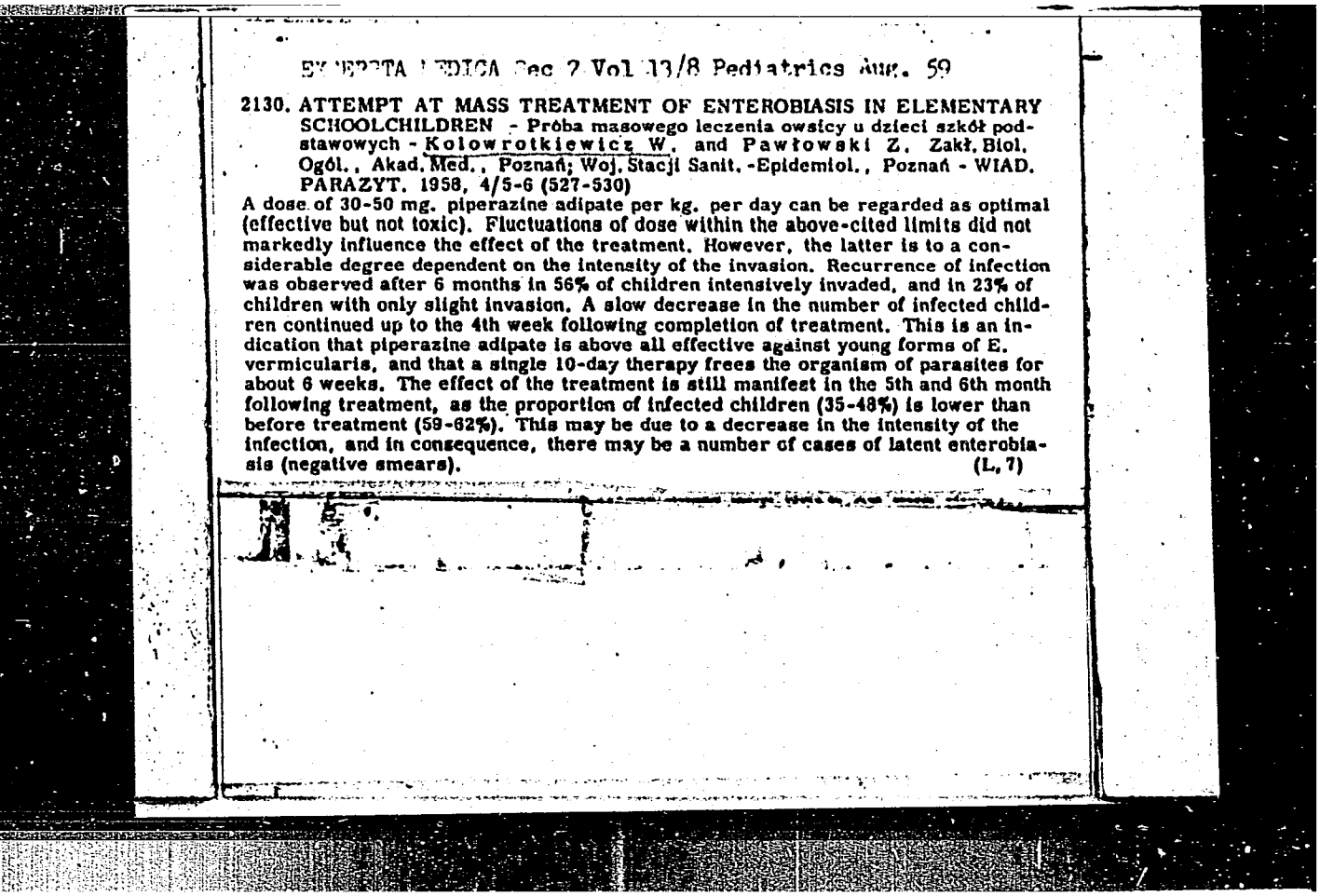

EXCERPTA MEDICA Sec 7 Vol 13/8 Pediatrics Aug. 59

2130. ATTEMPT AT MASS TREATMENT OF ENTEROBIASIS IN ELEMENTARY SCHOOLCHILDREN - Próba masowego leczenia owsicy u dzieci szkół podstawowych - Kolowrotkiewicz W. and Pawłowski Z. Zakł. Biol. Ogól., Akad. Med., Poznań; Woj. Stacji Sanit.-Epidemiol., Poznań - WIAD. PARAZYT. 1958, 4/5-6 (527-530)

A dose of 30-50 mg. piperazine adipate per kg. per day can be regarded as optimal (effective but not toxic). Fluctuations of dose within the above-cited limits did not markedly influence the effect of the treatment. However, the latter is to a considerable degree dependent on the intensity of the invasion. Recurrence of infection was observed after 6 months in 56% of children intensively invaded, and in 23% of children with only slight invasion. A slow decrease in the number of infected children continued up to the 4th week following completion of treatment. This is an indication that piperazine adipate is above all effective against young forms of E. vermicularis, and that a single 10-day therapy frees the organism of parasites for about 6 weeks. The effect of the treatment is still manifest in the 5th and 6th month following treatment, as the proportion of infected children (35-48%) is lower than before treatment (59-62%). This may be due to a decrease in the intensity of the infection, and in consequence, there may be a number of cases of latent enterobiasis (negative smears). (L, 7)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

L 01903-67 T RO/JK

ACC NR: AP6035168 (A) SOURCE CODE: PO/0081/65/019/002/0247/0248

CZUPRYS, Felicja; KOLOWROTKIEWICZ, Wladyslaw; MALLEK, Danuta; Department of Infectious Diseases of the City Hospital "J. Strus", (Oddzial Chorob Zakaznych Szpitala Miejskiego im. J. Strusia) and Hospital Laboratory of Infectious Diseases (Przyszpitalna Poradna Chorob Jelitowych), Poznan.

22
B

"Clinical Course of Food Poisoning Caused by Salmonella."

Warsaw, Przeglad Epidemiologiczny, Vol 19, No 2, 1965; pp 247-248.

Abstract: During 1958 to 1963, S. typhimurium was found in 10 outbreaks with 116 patients with acute gastroenteritis, S. heidelberg in 6, S. brandenburg in 4, S. haifa in 3, S. derby in one, S. stanleyville in one, S. bovis mobificans in 9, S. choleraesuis in 3, S. enteritidis in 9, S. newington in 8 and S. anatum in 2. Of the cases, 82 were sporadic, 32 familial, and only 3 mass outbreaks. Clinical aspects and complications, including 5 fatal ones (e.g. one patient with S. newington and symptomatology of ulcerative colitis), are described. Treatment was with chloramphenicol in 65, sulfaguanidine in 24, symptomatic treatment only in 26. Presented at the 3rd Scientific Assembly of Polish Epidemiologists and Infectologists, 5-6 Oct 64. [JPRS]

TOPIC TAGS: food sanitation, digestive system disease, disease therapeutics

SUB CODE: 06 / SUBM DATE: none

Card 1/1 hs

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APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

MALLEK, Danuta; KOLOWROTKIEWICZ, Wladyslaw

Results of bacteriological examinations in dysentery in relation to the method of sampling of infectious material. Przegl.epidem. 14 no.3:277-280 '60.

1. Z Oddzialu Chorob Zakaznych Szpitala Miejskiego im. J.Strusia oraz Poradni Schorzen Jelitowych w Poznaniu Ordynator: dr med. A.Zahradnik

(DYSENTERY BACILLARY diag)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

BRZOZOWSKA, Wanda; KOLOWROTKIEWICZ, Wladyslaw

Observations on the effect of helminthiasis on the clinical course of dysentery in the light of our material. Przegl.epidem. 14 no.3: 375-377 '60.

1. Z Oddzialu Chorob Zakaznych Szpitala Miejskiego im. J.Strusia oraz Poradni Schorzen Jelitowych w Poznaniu Ordynator: dr med. A.Zahradnik

(DYSENTERY BACILLARY compl)
(HELMINTHIASIS compl)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLSZKOWSKIEWICZ, Wladyslaw

Studies on enterobiosis in children from Great Poland region.
Wiad. parazyt. 10 no.4:401-403 '64

1. Wojewodzka Stacja Sanitarno-Epidemiologiczna, Poznan.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOWROTKIEWICZ, Wladyslaw; MALLEK, Danuta

Observations on the coincidence of alimentary tract parasites and bacteria from the Shigella and Salmonella group. Wiad. Parazyt. 10 no.4:415-417 '64

1. Oddzial Chorob Zakaznych Szpitala M[illegible]skiego i Poradnia Zakaznych Schorzen Jelitowych, Poznan.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOWROTKIEWICZ, Wladyslaw; PAWLOWSKI, Zbigniew

The efficiency of cellophane tape in the diagnosis of enterobiosis. Wiad. parazyt. 10 no.4:418-419 '64

1. Katedra biologii i Parazytologii Lekarskiej Akademii Medycznej i Wojewodzka Stacja Sanitarno-Epidemiologiczna, Poznan.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

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PAWLOWSKI, Zbigniew; KOLOWROTKIEWICZ, Wladyslaw

The efficiency of piperazine and pyrvinium compounds in the treatment of enterobiosis in children in isolated child homes. Wiad. parazyt. 10 no.4:443-446 '64

1. Katedra Biologii i Parazytologii Lekarskiej Akademii Medycznej, Poznan, i Wojewodzka Stacja Sanitarno-Epidemiologiczna, Poznan.

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOWSKI, H.

Should vipers be exterminated? p. 18.

LAS POLASKI. (Ministerstwo Lesnictwa oraz Stowarzyszenie Naukowo-Techniczne Inzynierow i Techników Lesnictwa i Drzewnictwa) Warszawa, Poland, Vol. 32, no. 12, June 1958.

Monthly List of East European Accession (EEAI) LC, Vol. 9, no. 1, Jan. 1960

Uncl.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOYANCHEVA, R.S., inzh.

Concerning the design of an a.c. magnetic contactor system.
Vest. elektrotekhn. 31 no.9:71-74 S '60. (MIRA 15:5)
(Magnetic circuits) (Electric contactors)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOYANCHEVA, R.S., starshiy prepodavatel'

Determination of the optimum parameters of electromagnets with short-circuited turns. Sbor. nauch. trud. Kem. gor. inst. no.5: 139-143 '64. (MIRA 18:3)

1. Gorno-elektromekhanicheskiy fakul'tet Kemerovskogo gornogo instituta.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824010002-4

KOLOYAROV, K.L.

KOLOYAROV, K.L., inzhener

Results of K-14 cutter loader testing in mines. Nauch.rab.VUGI no.11:38-53 '54. (MLRA 8:11)
(Coal mining machinery) (Mining engineering)

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KOLOYAROV, K.L., inzh.

Testing the working part of the UKM-1 narrow-range cutter-loader under shop and mine conditions. Mekh. i avtom. v gor. prom. no.3: 17-33 '63. (MIRA 16:10)

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USSR/Cultivated Plants - Commercial. Oil-Bearing. Sugar-Bearing. M-5

Abs Jour : Ref Zhur - Biol., No 7, 1958, 29874

Author : Koloyarova, L.F.

Inst : The All-Union Cotton Scientific Research Institute.

Title : The Seed Sowing Rate for Square-Pocket Cotton Planting.

Orig Pub : Sots. s. kh. Uzbekistana, 1957, No 3, 11-13

Abstract : Field tests made at the Central Selection Station of the All-Union Cotton Scientific Research Institute in 1956 have shown that when planting in square pockets the optimal number of seeds per bunch should be at least 8-12 (with the spaces between the rows 60 cm. wide and between the pockets 45 cm.). The cotton wool yield with 4 seeds being dropped into each hole totalled 43.3 centners per ha. and when 8 seeds were planted 48.2 centners per ha.

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KOLOYAROVA, L.F., Cand Agr Sci -- (diss) "Effect of conditions of cultivation of the cotton plant on the quality of the seeds." Tashkent, 1958, 20 pp (Uzbek Acad of Agr Sci. Tashkent Agr Inst) 150 copies (KL, 29-58, 135)

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BEZOBRAZOV, S.V.; KADARMETOV, Kh.N.; KOLOYARTSEV, V.L.; SHALEV, A.A.; SHCHEDROVITSKIY, Ya.S.

Investigating the furnace bath following the experimental production of ferrosilicochromium from ores and quartzite. Stal' 21 no.10:903-907 O '61. (MIRA 14:10)

1. Chelyabinskiy nauchno-issledovatel'skiy institut metallurgii.
(Iron-silicon-chromium alloys—Metallurgy)
(Smelting furnaces)

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KADARMETOV, Kh.N., kand. tekhn. nauk; RUSAKOV, L.N., inzh.; KOLOZARTSEV, V.L., inzh.

Investigating the process of smelting iron-silicon-chromium alloys. Stal' 24 no.8:712-716 Ag '64. (MIRA 17:9)

1. Chelyabinskiy nauchno-issledovatel'skiy institut metallurgii.

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KOLOYARTSEV, V.L. (Chelyabinsk); BEZOBRAZOV, S.V. (Chelyabinsk)

Desulfuration of liquid carbon ferrochromium in vacuum. Izv. AN SSSR. Met. i gor. delo no.5:38-41 S-O '63. (MIRA 16:11)

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KHAYRUTDINOV, R.M., inzh.; MOROZOV, A.N., doktor tekhn. nauk, prof., rukovoditel' raboty; Prinimali uchastiye: GALYAN, V.S.; BORNOVALOV, M.A.; KOLOYARTSEV, V.L.; GALYAN, R.V.; SYROVA, G.I.; KORNEYEV, V.F.

Decarburizing the bath of a large electric furnace. Stal' 23 no.10:911-914 O '63. (MIRA 16:11)

1. Chelyabinskiy nauchno-issledovatel'skiy institut metallurgii.

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FOGEL'ZANG, M. R., ENG., KOLOYARTSEVA, A. I., ENG.

Ceramic Industries

Manufacture of ceramic products for architectural construction in plants of the Moscow province. Biul. stroi. tekh. 9. No. 16, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952, Uncl.

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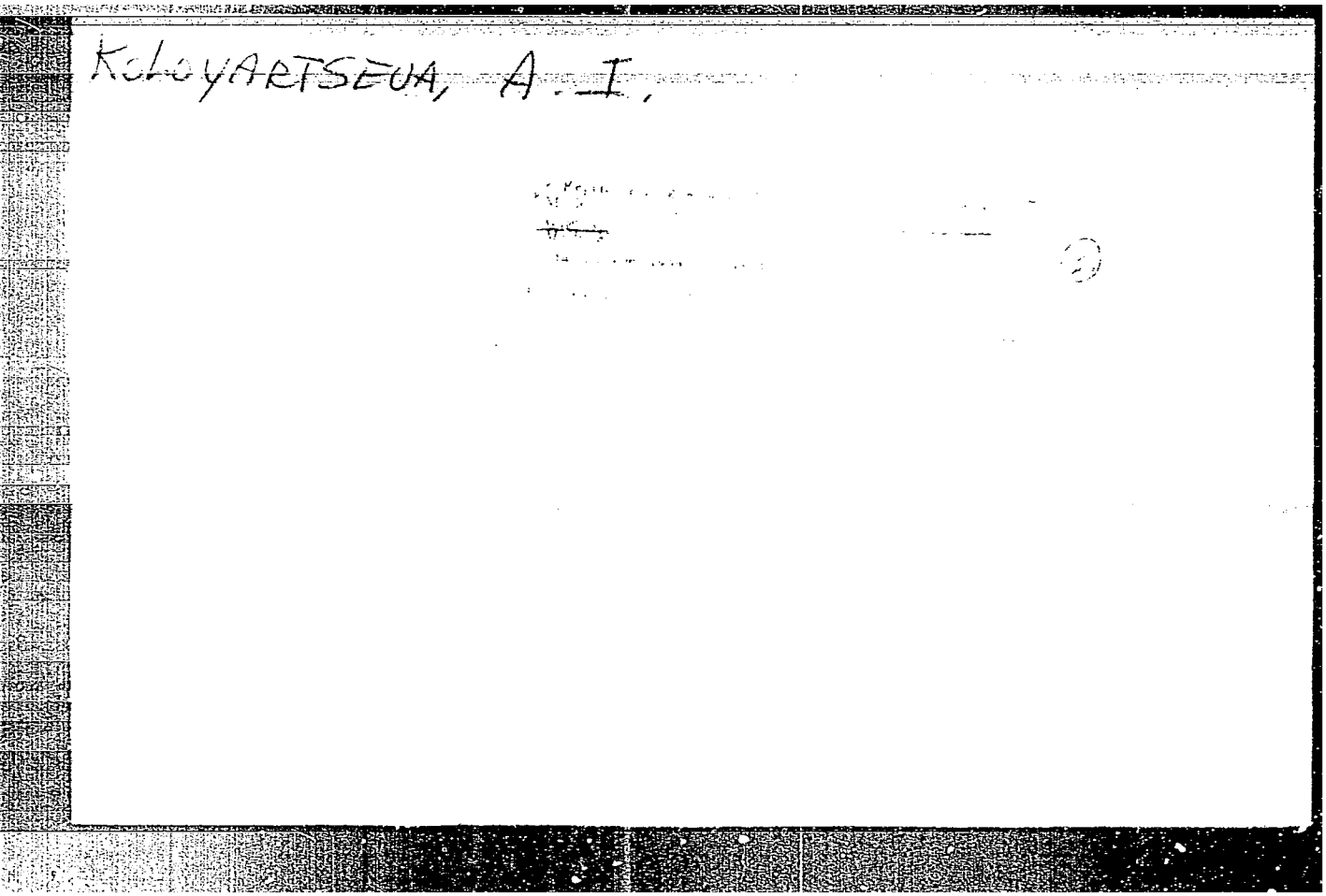

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