AUTHOR: Parin, V. V.; Antipov, V. V.; Davydov, B. I.;

a number of space-flight factors

TOPIC TAGS: space flight, biological effect, serotonin, cerulo-
plasmin, vibration, acceleration, ionizing radiation

exposure to vibration, serotonin content was
serotonin content

L 3[illegible]-65

by a factor of 4 compared to the control level

Card 2/4

days after irradiation, in contrast to the reaction to radiation alone. Acceleration 1 day prior to irradiation had the same effect as radiation alone. Vibration 2 hr prior to irradiation did not alter the normal dynamics of ceruloplasmin and serotonin in irradiated animals. In analyzing the results of these tests, it was not possible to establish a dependence between the magnitude of vibration

is hard to speculate on the mechanisms leading to
serotonin content in animals

and 4 figures.

ASSOCIATION: none

Card

PANCHENOV, R.T., ROZANOV, B.S.

"Chirurgie du pancrea endocrine."

Report presented at the 19th Congress, Intl. Society of Surgery
Dublin, Ireland 2-9 Sep 1961

VOLZHSKIY, V.M.; PANCHESHNIKOV, M.Ye.

Anchor bolting in slate mines. Ugol' 36 no.4:14-17 Ap '61.
(MIRA 14:5)

1. Leningradskiy gornyy institut (for Volzhskiy). 2. Zavod po mekhanizatsii i remontu energeticheskogo i tekhnologicheskogo oborudovaniya Upravleniya khimicheskoy promyshlennosti Lensovnarkhoza (for Pancheshnikov).

(Mine roof bolting)

PANCHESHNIKOVA, L.

Lesson in the 9th class on the subject of "Africa." Geog.v shkole no.2:29-35 Mr-Ap '54. (MLRA 7:2)
(Africa--Study and teaching)

PANCHESHNIKOVA, L.

First four lessons on the subject "China" in the 9th class.
Geog. v shkole 18 no.1:43-54 Ja-F '55. (MLRA 8:3)
(China--Geography--Study and teaching)

PANCHESHNIKOVA, L.

Topic "Indochina, Indonesia, and the Philippines" in the 9th class geography lessons. Geog. v shkole 18 no.6:33-44 N-D '55. (MLRA 9:1) (Asia, Southeastern--Geography) (Geography--Study and teaching)

PANCHESKHNIKOVA, L.

The subject of "Latin America" for lessons in the 9th class.
Geog. v shkole 18 no.2:48-56 Mr-Ap '55. (MIRA 8:7)
(Latin America--Geography) (Geography--Study and teaching)

PANCHESHNIKOVA, L.

Geography in schools of England. Geog.v shkole 19 no.5:28-32 S-O '56. (MLRA 9:11)
(Great Britain--Geography--Study and teaching)

PANCHESHNIKOVA, L.

Content of geography courses in English schools. Vop.geog. no.44:101-113 '58. (MIRA 12:5)
(Great Britain--Geography--Study and teaching)

PANCHESHNIKOVA, L.

English geographical textbooks for secondary schools. Geog. v shkole 21 no.5:57-62 S-O '58. (MIRA 11:10)
(Great Britain--Geography--Textbooks)

PANCHESHNIKOVA, L.M.

Comparative characteristics of Glasgow and Edinburgh. Geog.v shkole no.6:37-44 N-D '54. (MLRA 8:1)
(Glasgow--Description) (Edinburgh--Description)

PRESTON, Dzheyms [Preston, James]; FISHER, Dzhek [Fisher, Jack]; PANCHESHNIKOVA, L.M. [translator]

Teaching goegraphy in the United States of America. Geog. v shkole 22 no.6:52-58 N-D '59. (MIRA 13:4)
(United States--Geography--Study and teaching)

PANCHESHNIKOVA, L.M.

Studying the people's democracies in a course on the economic geography of foreign countries. Geog. v shkole 23 no.4:31-40 Jl-Ag '60.
(MIRA 13:10)

1. 43-ya shkola rabochey molodezhi g.Moskvy.
(Communist countries--Economic geography--Study and teaching)

HADEN-GUEST, Stephen (1902-), red.; GORBUNOV, V.V.[translator]; PANCHESHNIKOVA, L.M.[translator]; FAREEROVA, N.I. [translator]; VASIL'YEV, P.V., red.; VIPPER, P.B., red.

[World geography of forest resouces] Geografiia lesnykh resursov zemnogo shara. Pod red. P.V.Vasil'eva i P.B.Vippera. Moskva, Izd-vo inostr. lit-ry, 1960. 665 p. illus., maps. Translated from the English. (MIRA 15:3)

(Forests and forestry)

BIBIK, A.Ye.; PANCHESHNIKOVA, L.M.

Central "pedagogical readings" on geography in 1963. Geog. v shkole 26 no.2:82-84 Mr-Ap '63. (MIRA 16:4)

(Geography--Study and teaching)

PANCHESHNIKOVA, L.M.

Teaching geography in the secondary schools of capitalist countries; England, France, Federal Republic of Germany, and the United States. Geog. v shkole 26 no.6:58-63 N-D '63. (MIRA 17:1)

1. Akademiya pedagogicheskikh nauk RSFSR.

PANCHEV, B.

Temporary Seizure of Property According to the Decree for Resources of Mines and Other Underground Resources. Minno Delo (Mining), #6:18: Nov-Dec 55

PANCHEV, B.

"The new law on mines and quarries."

p.4 (Minno Delo, Vol. 12, no. 6, Nov./Dec. 1957, Sofiia, Bulgaria)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 8, August 1958

PANCHEV, B.N.

Ion-exchange separation of thallium with wofatit P, and its photometric determination with crystal violet. Izv Geol inst BAN 12:237-243 '63.

BRATOVANOV, L. P.; TARGOV, Z.; PANCHEV, Chr.

The epidemiology of haemorrhagic fever with the renal syndrome in Bulgaria. J. hyg. epidem., Praha 5 no.1:52-54 '61.

1. Department of Epidemiology and infectious Diseases of the L. P. Pavlov Medicinal Faculty, Plovdiv.

(EPIDEMIC HEMORRHAGIC FEVER epidemiol)

PANCHEV, Evg., inzh.

Some methods in reducing internal stresses and increasing durability of hard-alloy cutting tools. Mashinostroene 13 no.12:42 D '64.

PANCHEV, G.

Bulgaria

No degree listed

Department of Children's Diseases at the Institute for the Specialization and Advanced Study of Physicians (Institut za spetsiyalizatsiya i usuvurshenstvuvane na lekarite), Sofia; Department Head: Professor Br. BRATANOV.

Sofia, Pediatriya, supplement of Suvremenna Meditsina, No 2, 1962, pp 39-45.

"Peptic Ulcer in Children"

L 27541-66 EWT(1)/T WR

ACC NR: AP6007496 SOURCE CODE: UR/0109/66/011/002/0195/0201

25
B

AUTHOR: Panchev, G. I.

ORG: none

TITLE: Current distribution and input impedance of T-shaped, corner, and bent-ribbon radiators

SOURCE: Radiotekhnika i elektronika, v. 11, no. 2, 1966, 195-201

TOPIC TAGS: dipole antenna, antenna theory

ABSTRACT: Rigorous formulas for T-shaped, corner, and bent dipole supplied from a concentrated-emf source are developed by solving the integro-differential equations that describe the dipole vector potential. For $\chi < 3$ (where $\chi = ka$, "a" is the radius of bend), the input impedance of bent dipoles is determined not only by the azimuth component but also by the radial component of the vector potential. With the arm length $L = \lambda/4$, the input reactance of the above types of dipoles is lower than that of a linear dipoles. For $\chi < 2$, the resistance of the bent dipole is about 70 ohms, and that of the T-shaped and corner dipoles is about 40 ohms; hence, they can be easily matched to the supply cable. The T-shaped dipole field is elliptically polarized. Orig. art. has: 1 figure, 48 formulas, and 1 table.

SUB CODE: 17, 09 / SUBM DATE: 08Aug64 / ORIG REF: 004

UDC: 621.396.677.493.001.24

Card 1/1 BLG

PANCHEV, H.; BRATOVANOV, D.

On the seasonal prevalence of air-born infections. Folia med. (Plovdiv) 7 no.2:112-121 '65.

1. Higher Medical Institute "I.P. Pavlov" in Plovdiv, Bulgaria, Chair of Infectious Diseases and Epidemiology (Chief: Prof. D. Bratovenov).

PANCHEV, IVAN

Panchev, Ivan Darvinizum i marksizum. Sofiya, Nauka i izkustvo, 1950. 247 p.
(Darwinism and Marxism)

SO: MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, L. C., VOL. 3, NO. 1, Jan. 1954, Uncl.

PANCHEV, Iv., dots.

Investigations on sexual generations in vegetative hybrids.
Nauch. tr. Med. akad. Chervenkov, Sofia 1 no.1:107-116 1953.

1. Predstavena ot prof. M.Popov, zavezhdashch Katedrata po obshcha biologiia.

(HYBRIDITY,
sex patterns in vegetative hybrids)
(PLANTS,
hybridity, sex patterns)
(SEX CHARACTERISTICS,
patterns in vegetable hybrids)

PANCHEV, I.

"Studies of the Branchy Wheat Triticum Turgidum." p. 175, Izvestiia, Sofiya, Vol. 3, 1953

SO: East European Accessions List, Vol. 3, No. 9, September 1954, Lib. of Congress

PANCHEV I.

BULGARIA/General Biology. Genetics. The Genetics of Plants. D-5

Abs Jour: Ref Zhur-Biol., No 20, 1958, 90433.

Author : Panchev, I.
Inst : The V. Chervenkov Medical Academy.
Title : A Study of the Sexual Generation of Vegetative Hybrids.

Orig Pub: Nauchni tr. Med. akad. "V. Chervenkov", 1953 (1954), 1, No 1, 107-116 (Bulgarian; res. Russ.)

Abstract: The opinions of contemporary geneticists are criticized. The author believes that the experiments with vegetative hybrids demonstrate that the transmission of inherited characteristics are not determined by chromosomes, but, rather, depend on metabolism. Material is presented on the seed generation of tomato grafts. A plant is described, one branch of which yielded fruits of the Golden variety type, while another yielded the

Card : 1/2

PANCHEV, Iv., prof.

The problem of heredity in the light of dialectical materialism.
Nek.filos.vop.med.i est. no.2:69-82 '60. (MIRA 15:7)

1. Zaveduyushchiy kafedroy filosofii Sofiyskogo meditsinskogo instituta, Narodnaya Respublika Bolgariya.
(HEREDITY) (BIOLOGY--PHILOSOPHY)

PANCHEV, Iv., prof.

Ernst Haëckel, noted biologist and militant materialist; on the occasion of the 130th anniversary of his birth. Prir i znanie 17 no.4:20-22 Ap '64.

PANCHEV, Iv., prof.

Jean Lamarck; on the occasion of the 220 years since his birth.
Prir i znanie 17 no.10:19-20 D '64.

PANCHEV, KHR.

#240
10 copies

Sofia, *Khigiena*, Vol 4, No 6, Nov-Dec 61

1. "All in the Name of Man - For the Welfare of Man," V. [illegible] and M. AVRAMOVA, [no affiliation given]; pp 1-4.

2. "Foci of Trichinelosis in the Varna Region," T. AVLAVIDOV, parasitologist at the Okrug SES (Sanitarno-epidemiologicheska Stantsiya; Sanitary Epidemiological Station) in Varna and St. [illegible], junior scientific worker at the NIEM (Nauchen Institut po Epidemiologiya i Mikrobiologiya; Scientific Institute of Epidemiology and Microbiology); pp 5-9.

3. "The Geographical Milieu of the Natural Foci of Hemorrhagical Nephroso-nephritis in the Rhodope Mountains," D. BRATOVANOV, Zh. DAKOV, K. YANDOV, and Khr. PANCHEV, Chair of Infectious Diseases and Epidemiology at the [illegible] VMI (Visshi Meditsinski Institut; Higher Medical Institute) (Katedra po infektsionni bolesti i epidemiologiya pri VMI "I. P. Pavlov" in Plovdid and the Plovdiv Okrug Sanitary Epidemiological Station (Okruzhna Sanepidstantsiya); pp 11-16.

4. "Hemorrhagical Nephroso-nephritis in Blagoevgrad Okrug," P. [illegible] and K. GUBEV, [no affiliation given]; pp 17-22.

5. "Natural Focus of the Tick Encephalitis in the Eastern Part of Stara Planina Mountains," P. ANDONOV, M. RUSAKIEV, T. KHRISTOVA, A. [illegible]NOV, V. PETROV, St. PANEV, and N. GRIGORAPOV, [no affiliation given]; pp 23-25.

6. "Q-Fever in Khaskovo Okrug - The Incidence of Q-Fever Among the Livestock Workers and the Meat Combine Workers in Khaskovo Okrug," R. MARANGILOV and At. RASHEEV of the Khaskovo Okrug SES (Sanitary Epidemiological Station); pp 27-28.

7. "On the Epidemiology of Marseilian Fever in Bulgaria," A. PROIPONOV, Head (zaveshdasht) of the Internal Diseases Department of the Municipal Hospital in Pomorie (Vutreshno otdelenie pri Gradska bolnitsa v Pomorie); pp 29-31.

8. "Serological Research on Some Bulgarian Kinds of Leptospires," B. BARBUDIERI of the Higher Institute of Health Protection in Rome. Italy, and D. MATEEV of the NIEM (Scientific Institute of Epidemiology and Microbiology) in Sofia; pp 33-35.

9. "On the Incidence of Leptospirosis Among the Domestic Animals and the Population in Varna Okrug," Y. RANDEV and E. AVRAMOV of the Varna Okrug Sanitary Epidemiological Station (Okruzhna Sanepidstantsiya - Varna); pp 39-41.

- 1/2 -

BRATOVANOV, D.; TARGOV, Zh.; PANCHEV, Chr.

Epidemiology of hemorrhagic fever with renal syndrome in Bulgaria. Zhur. mikrobiol., epid. i immun. 33 no.1:122-126 Ja '62. (MIRA 15:3)

1. Iz kafedry epidemiologii i infektsionnykh bolezney Bolgarskogo meditsinskogo instituta imeni Pavlova, Plovdiv.
(BULGARIA--HEMORRHAGIC FEVER)
(KIDNEYS--DISEASES)

DIMITROV, D.; PANCHEV, L.

Case of aural diphtheria. Suvrem.med.Sofia 6 no.5:120 1955.

1. Iz Okaliiskata sanepidstanpiia-Chirpan(gl.lekar: L.Panchev)

(DIPHTHERIA,
aural)
(EAR, diseases,
diphtheria)

BULGARIA

GANOVSKI, Dr. D., PANCHEV, Dr. L., DIMITROV, Dr. K., and GAVRILOV, Dr.N., Research and Production Institute for the Control of Hog Diseases, Vratsa

''Immunogenic Characteristics of Crystal-Violet Vaccine Against Hog Cholera''

Sofia, Veterinarna Sbirka, Vol 63, No 2, 1966, pp 6-9

Abstract: Production of crystal-violet vaccine against hog cholera, which was introduced in Bulgaria in 1947 by Chenchev and Khristov, has been increased since then because of the expansion in hog breeding and the necessity to immunize a greater number of hogs. Furthermore, a reserve supply of the vaccine must be kept in cold storage because of the possibility that the infection may be introduced from abroad. According to official instructions, the ultimate length of time during

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virus on hemopoiesis and directly on the erythrocytes themselves. It had been established in earlier work that the virus has an affinity for erythrocytes and exerts a pathogenic effect on them. Diagram. Russian and English summaries.

1/1

PANCHEV, N.

Bentonite. p. 28
Khidrotekhnika I Melioratsii Vol. 3, No. 1, 1958. Sofiia Bulgaria

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 10,
Oct. 58

PANCHEV, N.

Statistics of the dam walls in the world. p. 124

KHIDROTEKNIKA I MELIORATSII. (Nauchno-teknicheski suliuz v Bulgariia i Ministerstvo na elektrofikatsiiata i vodnoto stopanstvo) Sofia, Bulgaria.
Vol. 4, No. 4, 1959

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 12,
December 1959
Uncl.

GERGANSKI, Minko; PANCHEV, P.

Working of hole-boring machines. Izv mekh selsko stop BAN 1:43-63 '61.

1. Chlen na Redaktsionnata kolegiia, "Izvestiia na Tsentralniia nauchnoizsledovatelski institut po mekhanizatsiia i elektrifikatsiia na selskoto stopanstvo" (for Gerganski).

GERGANSKI, M.; PANCHEV, P.

Operation of the soil millers attached to deep-tilling ploughs. Izv mekh selsko stop BAN no. 2:5-20 '62.

1. Chlen na Redaktsionnata kolegiia, "Izvestiia na Instituta po mekhanizatsiia i elektrifikatsiia na selskoto stopanstvo" (for Gerganski).

PANCHEV, S.

PANCHEV, S. Transfor tion of kinetic energy of average movement into kinetic energy of turbulence ... permanent atmospheric cirulation. p. 3.
No. 3, 1956, KHIDROLOGIIA I METEOROLOGIIA SOFIIA, BULGARIA

SOURCE: East European Accessions List (EEAL) Vol. 6 No. 4 April 1957

PANCHEV, St.

B

BULGARIA/Physical Chemistry. Colloid Chemistry. Dispersion Systems.

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 73506.

Author : St. Panchev.
Inst : Academy of Sciences of Bulgaria.
Title : On the Evaporation of Large Freely Falling Water Drops in the Atmosphere.

Orig Pub: Dokl. Bolg. AN, 1957, 10, No 5, 355-358.

Abstract: It is shown theoretically that the falling velocity of evaporating water drops of radii $\geq$ greater than 60 μ is determined by the same equation as for drops with constant mass. The dependence between the height of a cloud and the distribution of drops reaching the earth by their size is also found.

S/124/62/000/001/029/046
D237/D304

3.5140

AUTHOR: Panchev, St.

TITLE: On a group of elementary particular solutions of the equation of turbulent heat conductivity in the atmosphere .

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 1, 1962, 94, abstract 1B651 (V"vkhu yedna grupa elementarni chastni resheniya na uravneniyeto na turbulentnata toploprovodnost v atmosferata. Khidrol. i meteorologiya, 1958, no. 4, 51-57) (in Bulgarian)

TEXT: A group of particular solutions of the heat conductivity equation is sought. The turbulence coefficient is assumed to be a power function of the altitude. In the present instance, variables τ (time) and z (vertical coordinate) are replaced by a

Card 1/2

PANCHEV, S.

"On the evaporation of the raindrops in the layer between cloud and earth."

KHIDROLOGIIA I METEOROLOGIIA., Sofiia, Bulgaria., No. 6, 1958

Monthly list of EAST EUROPEAN ACCESSIONS (EEAI), LC, Vol. 8, No. 7, July 1959, Unclas

PANCHEV, S.

"Formula for stationary velocity of falling waterdrops of the size of the intermediate region"

p. 3 (Khidrologiia I Meteorologiia, Vol. 9, no. 1, 1958, Sofiia, Bulgaria)

Monthly List of East European Accessions (EEAI) LC, Vol. 7, no. 9, September 1958
Unclassified

PANCHEV, S.

"Contribution to the theoryof the augmentation of cloud drops in water convex clouds."

KHIDROLOGIIA I METEOROLOGIIA., Sofiia, Bulgaria., No. 2, 1959

Monthly list of EAST EUROPEAN ACCESSIONS (EEAI), LC, Vol. 8, No. 7, July 1959, Unclas

SOV/49-59-4-16/20

AUTHOR: Panchev, St.

TITLE: The Determination of Velocity of Precipitating Drops Enlarged Through Gravitational Coalescence in Clouds (Opredeleniye skorosti padeniya rastushchikh cherez gravitatsionnuyu koagulyatsiyu oblachnykh kapel')

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya, 1959, Nr 4, pp 624-628 (USSR)

ABSTRACT: The velocity of raindrops falling from clouds is usually determined for 5 parameters: densities of water ρ_w and air ρ, viscosity of air η, gravitation g and the radius of drops r. With an increase of the Reynolds number $Re = 2\rho Vr/\eta$, the friction can be ignored but a new factor should be added: the variability of the mass of drops due to their gravitational coalescence. In this case the velocity of fall will be expressed as Eq (1), where s - density of cloud. Because ϕ depends on Re (Table 1), then the formula for calculation can be derived from the rate of growth of the drops (Eq 2). The equation of motion in this case can

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The Determination of Velocity of Precipitating Drops Enlarged Through Gravitational Coalescence in Clouds

be expressed by Eq (3) where m - mass of a drop and F_c - air resistance calculated from the expression at the top of p 625. The value of $\phi(Re)$ can be experimentally determined (Table 1) as Eq (4) (Ref 8) where a(Re) and b(Re) are described by Eq (5) which also must be found experimentally (Table 2). Thus the air resistance formula will be finally defined as Eq (6). The equation of motion can be shown as Eq (8) for the conditions (7) and its solution as Eq (9). Since a_y can be defined as Eq (10), the formula for V will be Eq (11), which for s = 0 (dry air) becomes Eqs (12) and (13). The Eq (12) converges at

$$yr < \frac{x^2}{r^2}$$

which corresponds to $r < 60\ \mu$. In the case of large drops the formulae (14) and (14') can be applied. The solution of Eq (8) for $r = 60 - 1200\ \mu$ can also be shown as Eqs(15) to (17). The linear form of Eq (17) can be defined from Eqs (18) to (21) and shown in its final form as Eqs (22) and (23). The expressions (11) and (22) represent the solutions of the

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The Determination of Velocity of Precipitating Drops Enlarged Through Gravitational Coalescence in Clouds

problem of velocity of growing drops, while the formula (13) gives a constant velocity. The calculated values based on this formula agree with those determined experimentally, which is illustrated in Table 3. There are 3 tables and 10 Soviet references.

ASSOCIATION: Bolgarskaya akademiya nauk, Fizicheskiy institut (Bulgarian Academy of Sciences, Institute of Physics)

SUBMITTED: June 23, 1958.

Card 3/3

S/081/62/000/021/006/069
B168/B101

3.5132

AUTHOR: Panchev, St.

TITLE: Effects of turbulence on the motion and coagulation of droplets in clouds

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 21, 1962, 66, abstract 21B474 (Godishnik Sofiysk. un-t. Fiz.-matem. fak., v. 54, no. 2, 1959-1960 (1961), 57-82 [Bulg.; summary in French])

TEXT: Unidimensional motion of a spherical particle in a turbulent flow was studied. Where the resistance obeys Stokes' law the mean-square velocity σ_0^2 of the particle relative to the medium is expressed in the form $\sigma_0^2 = \left[4a^2/(2a+3)^2\right](1/2T)\int_0^\infty \exp(-\tau/T)D(\tau)d\tau$, where $a = \varrho_s/\varrho - 1$, ϱ_s is density of particle, ϱ density of medium, T relaxation time of particle and $D(\tau)$ Lagrange's structural function of flow. Under different assumptions with regard to $D(\tau)$ an explicit expression was obtained for σ_0^2. The difference in σ of the two particles is taken to represent their

Card 1/2

PANCHEV, St.

Correlation of local velocity and temperature derivatives in the final period of the degeneration of isotropic turbulence. Izv. AN SSSR. Ser. geofiz. no.9:1439-1440 S '61. (MIRA 14:9)

1. Akademiya nauk, Fizicheskiy institut, Bolgariya.
(Turbulence)

PANCHEV, Stoicho

Cosmic gasomagnetic turbulence and some astrophysical problems.
Fiz mat spisanie BAN 4 no.3:176-186 '61.

PANCHEV, St.

Atmospheric whirlwinds. Priroda Bulg 10 no.6:27-33 '61.

PANCHEV, St.

Subsequent generalization of the Chandrasekhar theory in case of turbulence in the field of temperature. Godishnik fiz mat 55 no.2:21-36 '60/'61 [publ. '62].

PANCHEV, Stoicho

Radiometeorology. Mat i fiz Bulg 5 no.3:15-19 My-Je '62.

PANCHEV, St.

Use of the method of similitude and dimension in an analysis of the macrostructure of meteorological fields. Izv. AN SSSR. Ser. feofiz. no.10:1416-1424 O '62. (MIRA 16:2)

1. Sofiyskiy gosudarstvennyy universitet, Bolgariya.
(Dimensional analysis) (Meteorology)

44365
S/044/62/000/012/029/049
A060/A000

24.4320

AUTHOR: Panchev, St.

TITLE: On the correlation theory of isotropic turbulence

PERIODICAL: Referativnyy zhurnal, Matematika, no. 12, 1962, 19, abstract 12V83 (Izv. Geofiz. in-t. Bulg. AN , 1961, v. 2, 133 - 164, Bulgarian; summaries in Russian, German)

TEXT: In connection with the nonlinearity of the equations of hydrodynamics the equations for the second moments of hydrodynamic fields in a turbulent flow will contain moments of the third order, the equations for the third moments will contain moments of the fourth order, and so on. The equations are set up for two-point moments of the second and third orders for velocity and temperature fields of homogeneous and isotropic turbulence relating to a single instant of time, and in the equations for the third moments it is proposed to express the fourth moments in terms of the second with the aid of the so-called "M. D. Millionshchikov's hypothesis" (Izv. AN SSSR, Ser. geogr. i geofiz., 1941, no. 4 - 5) stating that the fourth-order invariants of hydrodynamic fields are

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On the correlation theory of isotropic turbulence

equal to zero. Here, however, a closed system of equations is not obtained since the equations for two-point moments of the third order of a certain type (for example of the moments $\overline{u_i(x)u_j(x)u_k(x')}$, where $u_i(x)$ are the velocity components at the point x, and the line means averaging) contain also moments of certain other types (for example, in the case under consideration, the moments $\overline{\frac{\partial u_i(x)}{\partial x_\alpha}\frac{\partial u_j(x)}{\partial x_\alpha}u_k(x')}$); consequently, to obtain a closed system one has to take into consideration three-point moments of the third order (see for example, I. Proudman, W. H. Reid, Phil. Trans. Roy. Soc., 1954, v. A247, 926). To close the obtained equations it is proposed to simply throw away part of the third-order moments: then, however, one obtains a system in which among a number of terms of the same order some are taken into account, and the others are not. Further, the author considers the consequences of the obtained equations for the case of locally isotropic turbulence (i. e. for the case when all the hydrodynamic fields are stationary fields with homogeneous and isotropic increments); under certain additional assumptions the author hence manages to obtain the known "2/3 laws" for the structure functions of velocity and temperature fields

Card 2/3

On the correlation theory of isotropic turbulence

S/044/62/000/012/029/049
A060/A000

of a locally isotropic turbulence, first established by A. N. Kolmogorov (Dokl. AN SSSR, 1941, v. 30, 301) and by A. M. Obukhov (Izv. AN SSSR. Ser. geograf. i geofiz., 1949, v. 13, 58). In conclusion the author considers the case of homogeneous isotropic and stationary turbulence in which Millionshchikov's hypothesis permits one to obtain equations closed with respect to two-point space-time second-order moments of hydrodynamic fields; for the correlation function of the velocity fields one then obtains the Chandrasekhar equation (S. Chandrasekhar, Proc. Roy. Soc., 1955, v. 229A), and in the derivation of an analogous equation for the temperature field the author erroneously adopts the hypothesis as to the time-symmetry of the corresponding third moments and therefore obtains a false result (published by him earlier, see RZhMat, 1962, 2V111).

A. M. Yaglom

[Abstracter's note: Complete translation]

Card 3/3

42744
S/124/62/000/011/010/017
D234/D308

10,3100

AUTHOR: Panchev, St.

TITLE: Space correlation of local temperature variations in an isotropic turbulent stream.

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 11, 1962, 89, abstract 11B633 (Dokl. Bolg. AN, 1961, v. 14, no. 2, 143-146 (Summary in Fr.))

TEXT: For the case of isotropic turbulence the author deduces from the equation of heat conduction in an incompressible liquid, by the Fridman-Keller method, a formula for the space correlation function $B_{\dot{T}\dot{T}}(r, t)$ of the local time derivative of temperature $\dot{T} = \partial T/\partial t$. The fourth moments in this formula are expressed in terms of second moments with the aid of M. D. Millionshchikov's hypothesis, the third moment $B_{l\dot{T}\dot{T}}$ is expressed with the aid of the exact equation of S. Korsin (a similar equation was proposed by A. M. Yaglom for locally isotropic turbulence). As a result $B_{\dot{T}\dot{T}}$ is expressed in

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Space correlation of ...

terms of temperature correlation function B_{TT} and longitudinal correlation function of velocity B_{ll}. For temperature there is an invariant of S Korsin

$$\Lambda_T = \int_0^\infty r^2 B_{TT} dr$$

The corresponding invariant for $\dot{T}$ within Millionshchikov's hypothesis is equal to zero. It is established that in the last stage of damping of isotropic turbulence

$$\sigma_{\dot{T}}(t)/\sigma_{\dot{T}}(t) = \sqrt{15}/4t$$

Finally, the formula

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Space correlation of ...

$$B_{TT}' = \frac{1}{2} \partial B_{TT}/\partial t$$

is deduced, from which it follows that in the last stage of turbulence damping the correlation coefficient between T and $\dot{T}$ values at a fixed point of space is independent of time and equal to -0.775.
[Abstracter's note: Complete translation.]

Card 3/3

3292

S/044/62/000/005/030/072
C111/C333

24,5000

AUTHOR: Panchev, S.

TITLE: On the solution of a particular differential equation of the statistical theory of turbulence

PERIODICAL: Referativnyy zhurnal, Matematika, no. 5, 1962, 87, abstract 5B396. ("Dokl. Bolg. AN", 1961, 14, no. 4, 341-344)

TEXT: The equation for the space-time correlation functions in the Chandrasekhar turbulence theory and its generalization on the case of a temperature field (Panchev St., C. r. Acad. sci., 1960, 250, no. 4) are examined in the limit case of disappearing viscosity and conduction. The system of equations is reduced to two ordinary differential equations by introducing the independent variables $x = \tau/r^{2/3}$, where τ and r are the time and space distance of the points of observation. The first of these equations (for the correlation function of the speed) are solved by Chandrasekhar. The solution of the equation for the temperature correlation function in both the limit cases $x \to 0$ and $x \to \infty$ is given. In the first case one obtains "the law 2/3" for the Obukhov temperature field with a correction for the following term of the power series

Card 1/2

S/124/62/000/011/012/017
D234/D308

3.1540

AUTHOR: Panchev, St.

TITLE: Some quantitative relations between statistical characteristics of purely thermal turbulence in the atmosphere

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 11, 1962, 94, abstract 11B654 (Dokl. Bolg. AN, 1961, v. 14, no. 8, 791-794 (summary in Fr.))

TEXT: In the theory of free turbulent convection in the near-to-earth layer of the atmosphere (A. S. Monin, A. M. Obukhov, Tr. Geofiz. in-ta AN SSSR, 1954, no. 24; A. M. Obukhov, Izv. AN SSSR, Ser. geofiz., 1960, no. 9), with the aid of some complementary hypotheses, six relations are established between the two correlation coefficients in the expressions R_{wT} and R_{wl} and five unknown dimensionless coefficients in the expressions for the length of mixing path, mean temperature gradient, turbulence coefficient and mean square pulsations of velocity and temperature, deduced from similarity reasons.

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D234/D308

Some quantitative relations ...

The above coefficients of correlation between the pulsations of vertical velocity w, temperature T and (instantaneous) length of mixing path l are found to be equal to 1, and all other coefficients are expressed in terms of either of these. Some estimations of these coefficients are given for the near-to-earth layer using the experimental value of the coefficient in the expression for the mean temperature gradient. [Abstracter's note: Complete translation.]

VB

Card 2/2

PANCHEV, S.

Velocity of free falling of the small drops with variable mass.
Doklady BAN 15 no.7:731-734 '62.

1. Otvetstvennyy redaktor, "Doklady Bolgarskoy Akademii nauk".
Predstavleno akad. L. Krystanovym [Krustanov, L.].

PANCHEV, St.

Structure of meteorological fields during the movements of a synoptic scale. Godishnik fiz mat 57:15-49 '62/'63 [publ. '64]

Objective analysis and numerical methods in weather forecasting. Ibid.:141-153

PANCHEV, St.

Analytic representation of the structural and correlational function of the geopotential at the 500 mb level. Khidro i meteorolog 6 3-9 '63.

PANCHEV, St.; STOIANOV, St.

Formulas for stationary velocities of water droplets with radii of the medial region. Khidro i meteorolog 3:21-29 '63.

PANCHEV, St.

A method of determining the coefficient of turbulence interchanges in the plantetary boundary layer by observing trajectories of pilot balloons. Khidro i meteorolog no.2: 33-39 '63.

PANCHEV, S.

Space correlation of local modifications of temperature in the atmosphere. Doklady BAN 16 no. 8:821-824 '63.

1. Predstavleno chl.-korr. L. Krystanovym [Krustanov, L.], otvetstvennyy redaktor, "Doklady Bolgarskoy akademii nauk".

PANCHEV, St.

Spectral and correlation analysis of the fluctuations in the direction of the wind in the free atmosphere. Khidro i meteorolog 13 no. 1:9-18 '64.

PANCHEV, St.

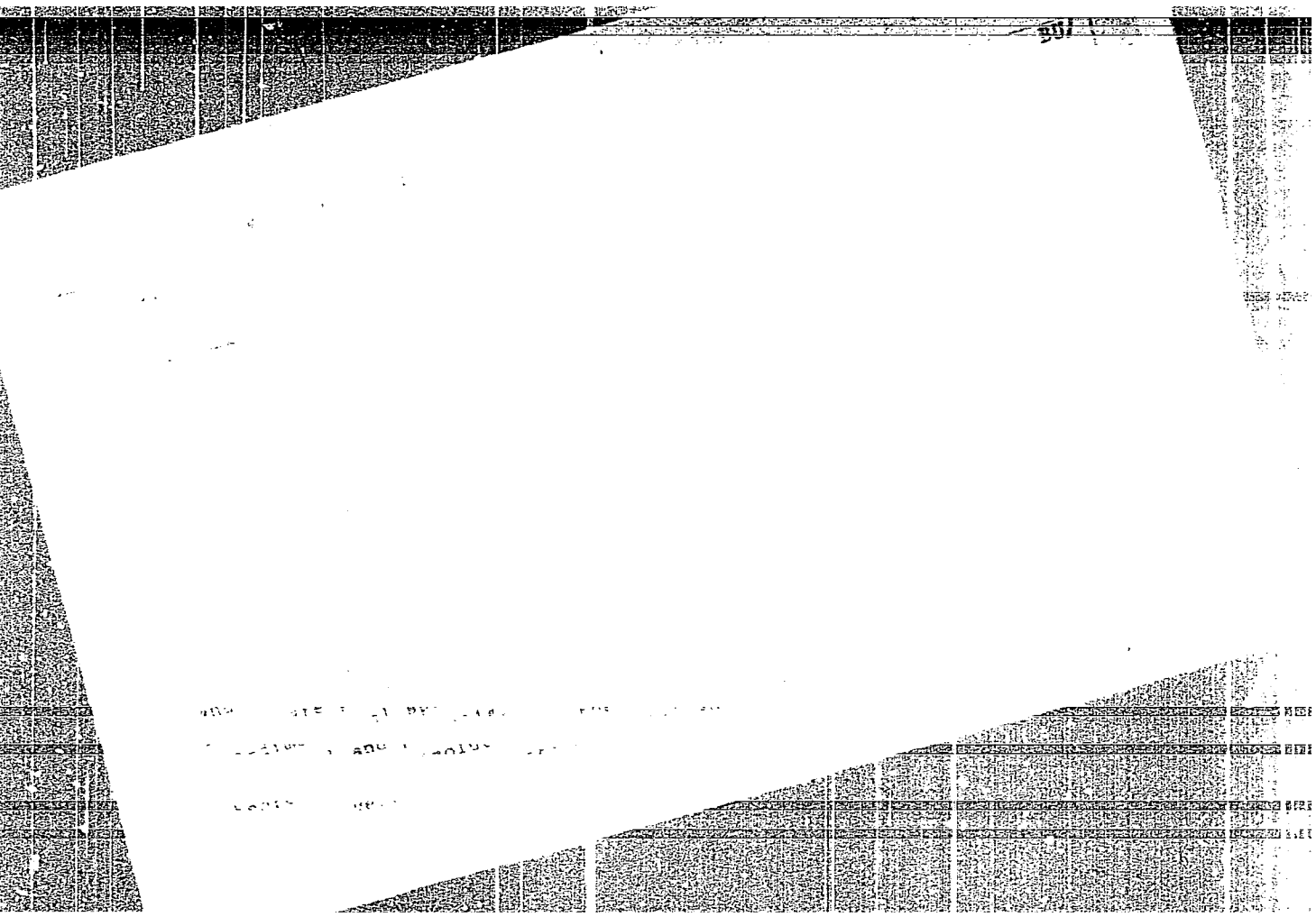
Selecting the scale of averaging in the differentiation of certain meteorological elements by the finite-difference method. Izv. AN SSSR. Ser. geofiz. no.1:157-159 Ja'64. (MIRA 17:2)

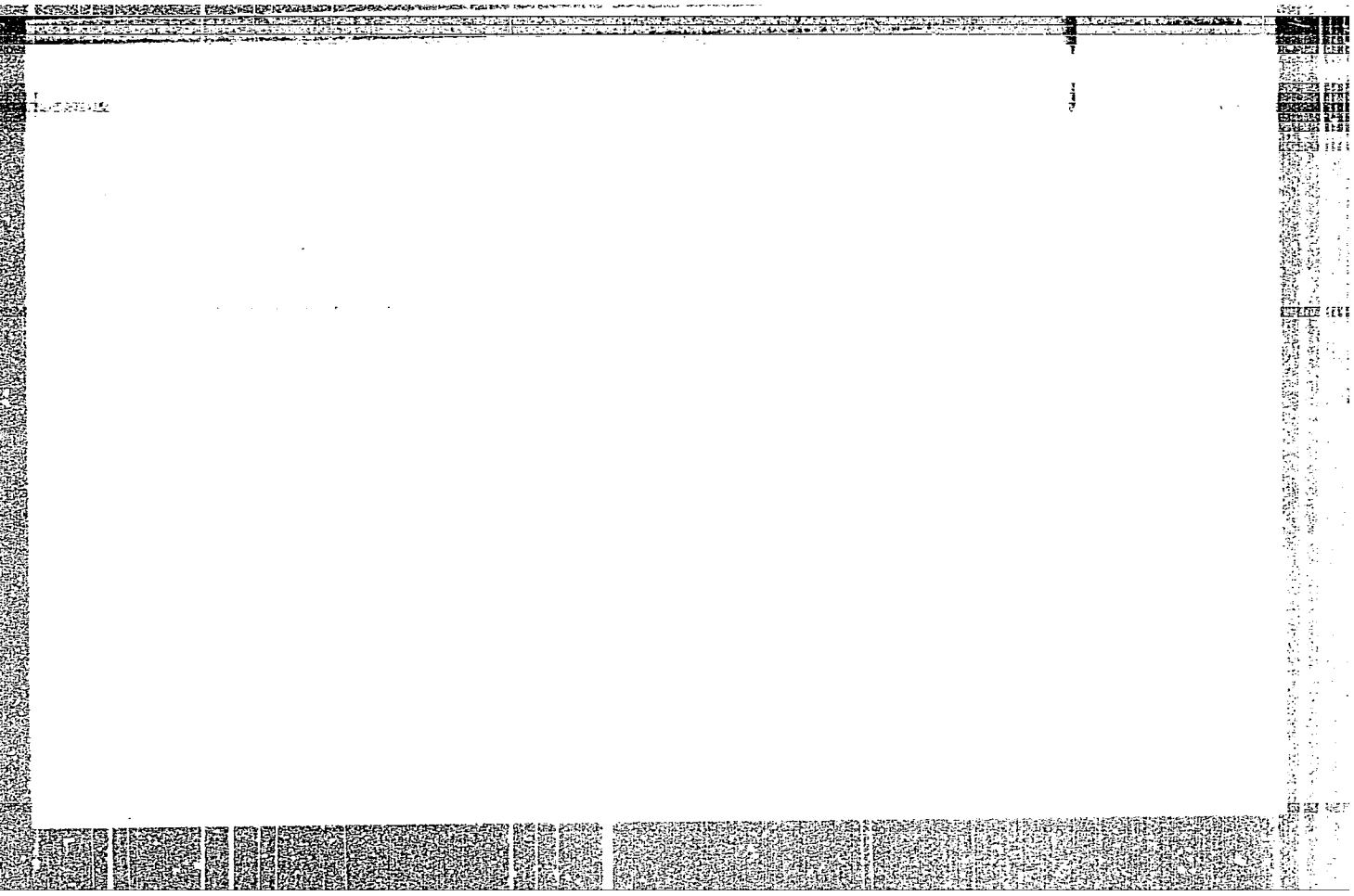
PANCHEV, St.

Some problems in the thermodynamics of atmospheric processes in dry and humid air. Khidro i meteorolog 13 no.6:3-13 '64.

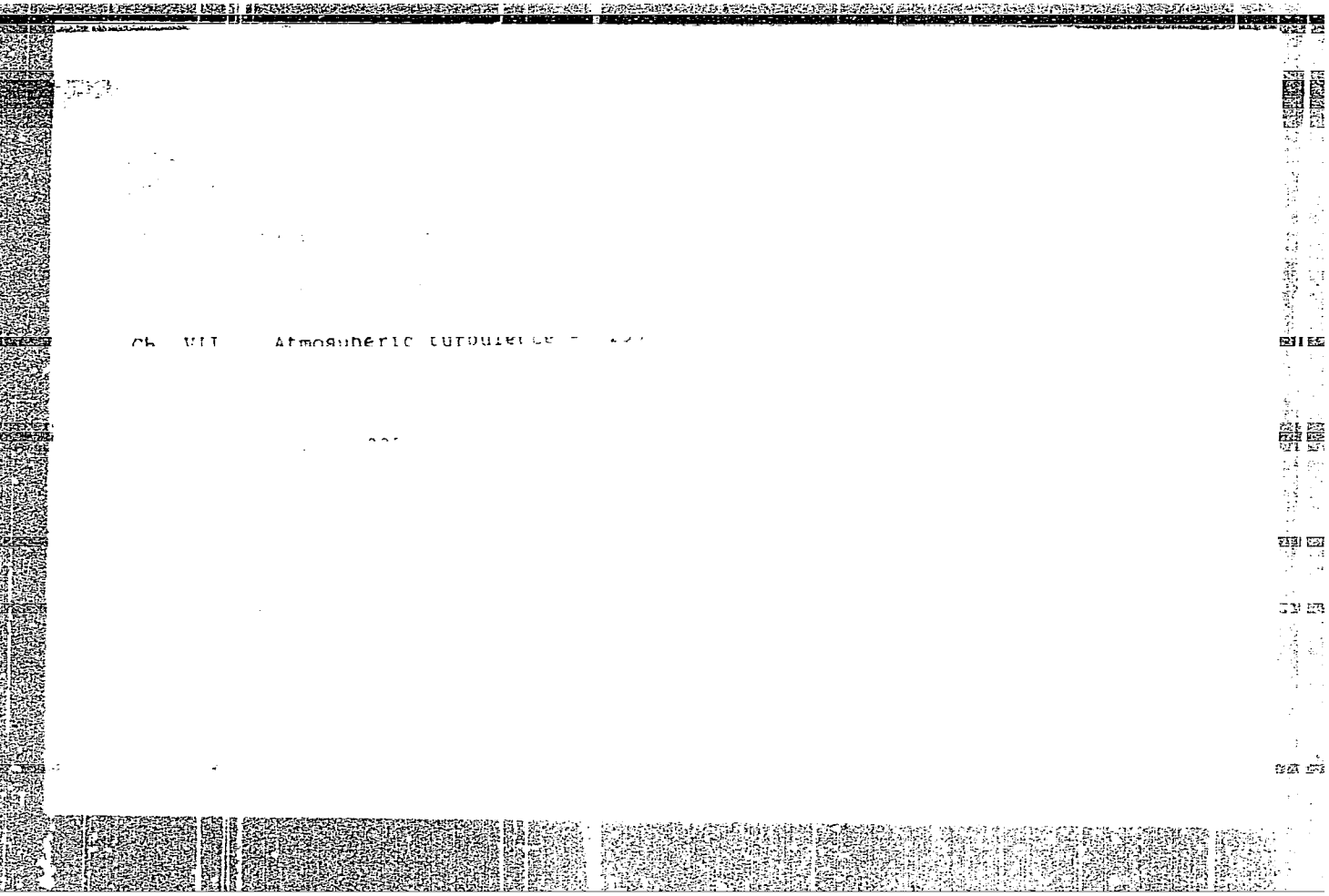
PANCHEV, St., k. fiz. n.

Theory of rainfalls from purely watery convective clouds. Khidro i meteorolog 13 no.5:3-7 '64.





Ch. II. Random processes -- 50



PANCHEV, S. S.

14(5) PHASE I BOOK EXPLOITATION SOV/3173

Shustov, Nikolay Vasil'yevich, and Sergey Sergeyevich Panchev

Materialy, mashiny i burovoy instrument dlya podzemnykh gornykh rabot (Materials, Machinery, and Drilling Equipment for Underground Mining Operations) Moscow, Trudrezervizdat, 1958. 153 p. (Series: Biblioteka molodogo rabochego) 6,000 copies printed.

Scientific Ed.: O.O. Sosedov; Ed.: B.V. Romanov; Tech. Ed.: Yu.N. Gorokhov.

PURPOSE: This booklet is intended for students of labor-reserve mining schools. It may also be useful to technical personnel in the mining industry.

COVERAGE: The booklet contains information on the materials and equipment used in Soviet mining operations. Mining operations in non-Soviet countries are also briefly discussed. No personalities are mentioned. There are 30 references, all Soviet.

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TABLE OF CONTENTS:

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PANCHEV, S.S., prof.

"Special mining methods" by G.I.Man'kovskii. Reviewed by S.S.Panchev. Shakht.stroi. no.4:31-32 Ap '59. (MIRA 12:5)
(Mining engineering) (Man'kovskii, G.I.)

PANCHEV, S.S., prof.; PASHKOV, A.D., gornyy inzhener; DUSEV, V.I., gornyy inzhener; CHEKULAYEV, P.G., gornyy inzhener

Comparative evaluation of rock breaking by detonations of charges in vertical and inclined holes. Vzryv. delo no.47/4:52-63 '61. (MIRA 15:2)

1. Institut tsvetnykh metallov imeni M.I.Kalinina.
(Blasting) (Boring)

PANCHEV, S.S.

Present status of and prospects for the development of open-pit and underground mining methods and equipment. Vzryv. delo no.46/3:5-9 '61. (MIRA 15:1)

(Mining engineering)

PANCHEV, S.S.; PETROV, L.A.

Investigating the work of roof bolting on granular material models. Izv. vys. ucheb. zav.; tsvet. met. 5 no.2:27-37 '62. (MIRA 15:3)

1. Krasnoyarskiy institut tsvetnykh metallov, kafedra gornogo dela. (Mine roof bolting--Models) (Granular materials)

PANCHEV, Sergey Sergeyevich, prof.; SHUSTOV, Nikolay Vasil'yevich, dots.; VEGNER, L.V., retsenzent; TERPOGOSOV, Z.A., kand. tekhn. nauk, retsenzent;

[Miner in development operations and in permanent workings of metal mines] Prokhodchik podgotovitel'nykh i kapital'nykh vyrabotok metallicheskikh rudnikov. Moskva, Gosgortekhizdat, 1961. 271 p. (MIRA 15:7)

(Mining engineering)

BULGARIA / Chemical Technology. Chemical Products and Their Applications. Chemical Processing of Natural Gases and Petroleum. Motor and Rocket Fuel Lubricants. H-23

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 9648.

Author : Panchev, V.
Inst : Not given.
Title : Investigation of the Heavy Petroleum Residues of Tyulenov Origin (Bulgaria) (From Dissertation).

Orig Pub: Khimiya, i industriya (B"lg), 1958, 30, No 2, 36-40.

Abstract: Physico-chemical properties of the heavy residues from Tyulenov petroleum were determined. The petroleum asphalt consists of 25.8% paraffin and naphthene hydrocarbons with a high index of viscosity, 50% aromatic hydrocarbons, 22.8% rosins,

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Ivancheva, A.

4

AVDZHIEV, G.
Author (in caps); Given Names

Country: Bulgaria

Academic Degrees: not indicated

Affiliation: not indicated

Source: Sofia, Khigiena, No 2, Mar/Apr 61, pp 21-24

Data: "A Typhoid Fever Epidemic Originating From Drinking Water."

Co-authors:
KOEN, R., Sofia
PUTEKOV, G. "
TODEVA, M. "
IVANCHEVA, A. "

L 18458-63 EWT(m)/BDS AFFTC/ASD B/2503/62/010/002/0053/0056

ACCESSION NR: AT3002411

55

AUTHOR: Dragnev, T.; Kashukeev, N.; Pancheva, N.; Yaneva, N.

TITLE: Moment of emission of prompt neutrons in the fission of heavy nuclei 19

SOURCE: B"lgarska akademiya na naukite, Fizicheski institut. Izvestiya na Fizicheskiya institut s ANEB, v. 10, no. 2, 1962, 53-56

TOPIC TAGS: prompt neutron, fission, heavy nucleus, fragment, fragment motion, fragment velocity

ABSTRACT: A new method is propsed for determining the moment of emission of prompt neutrons during the fission of heavy nuclei. Thereby an answer can be obtained to the question whether neutrons are emitted after fragments have attained ultimate velocity or sooner. The method for finding the velocity of the fragments at the moment of the emission of neutrons consists in a comparison between theoretically calculated and experimentally obtained energy distributions of neutrons at different angles to the direction of fission registered at a fixed ultimate velocity of the fragments. The time of emission of neutrons is determined in

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accordance with the law of the motion of fragments, formula for which is derived as follows:

$$t = t_0\left(\frac{u}{1-u^2} - \frac{1}{2}\ln\frac{1+u}{1-u}\right); \quad t_0 = \frac{R_0}{V_k}; \quad u = \frac{V}{V_k},$$

where R_0 is the initial distance from the center of the masses of the fragments to the center of the moving fragment, V_k is the ultimate velocity of the fragment from which the neutrons are emitted, and V is the velocity of the fragment at moment t from the beginning of its acceleration. Fig. 1 of Enclosure 1 shows the graph of this correlation. The authors observe that in conducting the proposed experiments considerable difficulty may be encountered in collecting sufficient statistics. Orig. art. has 1 formula and 1 figure.

ASSOCIATION: none

SUBMITTED: 31 Mar 62 DATE ACQ: 04 Jun 63 ENCL: 01

SUB CODE: NS, PH NO REF SOV: 004 OTHER: 005

Card 2/3

CHELIBONOVA-LORER, Kh.; PANCHEVA-GOLOVINSKA, S.

Mucopolysaccharides and mucoproteins in living organisms.
Priroda Bulg 12 no. 1: 39-43 Ja-F '63.

CHELLBORG-LOEER, Kh.; PANCHEVA-GOLOVINSKA, S.

Penetration of substances through the cell membrane of organisms. Fiz i znanie 17 no.10:1-5 D '64.

MANOLOVA,N.; GAGOV, I.; PANCHEVA-GOLOVINSKA, S.

Effect of various inhibitors on experimental myxovirus infections. I. Effect of quinine on some properties of the influenza virus A2. Izv. mikrobiol. inst. (Sofiia) 16:187-192 '64.

PAPADIYA-GOLOVINSKA, S.

TOSHKOV, Al.; MANOLOVA, N.; GAGOV, Il.; PAPADIYA-GOLOVINSKA S.

Multiplication and spreading of chickenpox virus in the organism and its reactions. Izv. mikrobiol. inst. (Sofija) 16:181-186 '64

TOSHKOV,Al.; GAGOV,Il.; MANOLOVA,N.; PANCHEVA-GOLOVINSKA,S.

Effect of some substances on the antimicrobial activity of the chick embryo. Izv. microbiol. inst. 15:97-101 '63

MANOLOVA,N.; PANCHEVA-GOLOVINSKA, S.

Studies on the localization of a thermostable inhibitor of type A-2 influenza virus in protein fractions of human serum. Izv. microbiol. inst. 15:103-106 '63

*

PUGACHEVSKIY, Yu.Ye.; PANCHIK, P.S.

Prolonging the life of blades of the machine tool designed by Nosenko. [Suggested by IU. E.Pugachevskii, P.S.Panchik]. Rats. i izobr. predl. v stroi. no. 4:19-21 '57. (MIRA 11:8)
(Metal-cutting tools)

L 07580-67

ACC NR: AT6029363 SOURCE CODE: UR/0000/66/000/000/0019/0031

AUTHOR: Pisarenko, G. S. (Academician AN UkrSSR, Kiev); Panchin, V. V. (Kiev) 27 B+1

ORG: none

TITLE: The general case of transverse vibrations in a rod with variable cross section taking account of dissipation of energy in the material

SOURCE: AN UkrSSR. Institut problem materialovedeniya. Rasseyaniye energii pri kolebaniyakh uprugikh sistem (Energy dissipation during vibrations of elastic systems). Kiev, Naukova dumka, 1966, 19-31

TOPIC TAGS: vibration analysis, heat energy conversion

ABSTRACT: The article starts with a consideration of transverse vibrations which are symmetrical with respect to the axis of the system. It is assumed here that the ratio of the length and the transverse cross sections of the system is such that, in setting up the differential equation for the transverse vibrations of such a rod, account must be taken of the rotational inertia of its mass as well as the transverse force. To derive the differential equation for the transverse vibrations of a rod with a variable cross section with a cross section area F(x) and a bending rigidity of the section EJ(x), we isolate an element of the rod with a length dx which carries out a complex motion, consisting of forward motion parallel to the y axis and a rotating

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ACC NR: AT6029363

motion in the plane of the vibrations (in the xy plane). The remainder of the article is an extended mathematical development, arriving at formulas which permit construction of the resonance curve of the transverse vibrations of a rod whose cross section varies along the length in an arbitrary manner. Orig. art. has: 63 formulas.

SUB CODE: 20/ 10/ SUBM DATE: 22Feb66/ ORIG REF: 002

Card 2/2