

KUZNETSOVA, L.P.

Increasing the precision of results obtained in comparing the amounts
of precipitation in afforested and woodless areas. Trudy GGO no.111:
77-80 '61. (MIRA 15'1)
(Forest influences) (Precipitation (Meteorology)--Measurement)

KUZNETSOVA, L. P.

Use of summary probability (frequency) curves in processing
data on diurnal maximum precipitation. Trudy GGO no.162:7-21 '64.
(MIRA 17:7)

ACC NR: AT6036740

SOURCE CODE: UR/2531/66/000/195/0070/0080

AUTHOR: Kuznetsova, L. P.

ORG: GGO

TITLE: Comparison of wind velocities and air temperatures during precipitation with their average monthly values

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya, Trudy, no. 195, 1966. Voprosy metodiki izmereniya atmosferykh osadkov (Problems in methods of measuring atmospheric precipitation), 70-80

TOPIC TAGS: atmospheric precipitation, data analysis, wind velocity, air temperature

ABSTRACT: The wind velocities and air temperatures during actual precipitation are compared to their average monthly values. The data used in the analysis were collected at 90 meteorological stations in addition to data from 15 stations collected for the period from 1936 to 1955. The results of analysis show that the wind velocity in all regions of the Soviet Union during precipitation exceed the average monthly values. The difference between these values varies from several tenths to 2--3 m/sec which is equal to 5--70% of average monthly values. The air temperature during precipitation in the winter is 4--5 C greater than the monthly average and it is 2--3 C smaller for summer months. The temperature limits between which one or another form of precipitation fall are established (see table).

Card 1/2

ACC NR: AT6036740

LATITUDE	AIR TEMPERATURE DURING PRECIPITATION		
	Solid	Mixed	Liquid
North of 55°	Less than 0 C	from 0 to 2 C	greater than 2 C
South of 55°	Less than -1 C	from -1 to 2 C	greater than 2 C

Orig. art. has: 4 tables and 2 figures.

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 006

Card 2/2

L 29564-66 EWT(1)/FCC GN

SOURCE CODE: UR/2531/65/000/181/0114/0120

ACC NR: AT6006615

AUTHOR: Kuznetsova, L. P.; Shver, Ts. A.

20
B+1

ORG: none

TITLE: Effect of the Caspian Sea on coastal temperature conditions from data accumulated by the Gasan-Kuli weather station

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy, no. 181, 1965.
Voprosy obshchey i sinopticheskoy klimatologii (Problems in general and synoptic climatology), 114-120

TOPIC TAGS: climatology, weather station, atmospheric temperature

ABSTRACT: The records of the Gasan-Kuli weather station are analyzed to determine the effect of a large body of water (the Caspian Sea) on air temperature. The changes in thermal conditions on the eastern coast of the sea are quantitatively determined as a function of the drop in sea level. There has been a reduction in sea level from 291 cm in 1927 to 183 cm in 1958 which has exposed a considerable portion of the bottom. This change has affected both the average air temperature and the amplitude of the yearly variation in air temperature. It is shown that the minimum average yearly temperature has decreased by nearly two degrees. The exposure of the sea bottom has also had a considerable effect on the average monthly air temperature, the maximum air tempera-

Card 1/2

L 29564-66

ACC NR: AT6006615

ture and the annual variation in temperature. The changes are well pronounced for all months and reach considerable magnitudes. Before 1938, the records of the Gasan-Kuli station indicate a climate which is typical for the narrow coastal zone of the Caspian Sea. The records for the last 15 years show relatively stable conditions which indicate a transition from a coastal to a continental type of climate. Orig. art. has: 3 figures, 5 tables.

SUB CODE: 08/

ORIG REF: 002

Card 2/2 cc

KUZNETSOVA, L.P.; SHVER, TS.A.

Effect of the Caspian Sea on the temperature regime of the coast
based on the example of the Casan-Kuli station. Trudy GGO no.181:114-
120 '65. (MIRA 18:10)

DROZDOV, C.A.; KUZNETSOVA, I.F.; NEMCHAYEV, I.M.

Determine the characteristics of precipitation within a region.
Trudy GGO no.181:121-136 '65.

(MIRA 18:10)

KUZNETSOVA, I.P.

Diurnal precipitation maximum in the Altai. Trudy GGO no.181:167-175
165. (MIRA 18:10)

RIVKIND, A.I.; KUZNETSOVA, L.P.

Breakdown of the hydrate shells of vanadyl ions under the effect of the electrostatic field of diamagnetic ions. Study by the electron paramagnetic resonance method. Dokl. AN SSSR 164, no.4:860-863 0
'65. (MIRA 18:10)

1. Kazanskiy fiziko-tekhnicheskiy institut AN SSSR. Submitted March 22, 1965.

KUZNETSOVA, L.P.

Effect of dark adaptation on the sensitivity of individual elements of the frog retina to different monochromatic radiations. *Biofizika* 8 no.2:234-237 '63. (MIRA 17:10)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

KUZNETSOVA, L.S., red.; MATVEYEVA, A.Ye., tekhn. red.

[Petroleum products and products of the refining of solid
fuels; standards] Nefteprodukty i produkty pererabotki
tverdykh topliv; tekhnicheskie trebovaniia. Izd. ofitsial'-
noe. Moskva, Gos.izd-vo standartov, 1963. 526 p.
(MIRA 16:8)

(Petroleum products--Standards)
(Fuel--Standards)

FEDIN, A.A., kand.tekhn.nauk; BERDYSHEV, S.K., inzh.; KALASHNIKOV, A.V.,
inzh.; KUZNETSOVA, L.S., inzh.

Large aerated silicate blocks. Stroi. mat. 6 no.12:22-23 D '60.
(MIRA 13:11)

(Sand-lime products)

KUZNETSOVA, L.S., red.; MATVEYEVA, A.Ye., tekhn. red.

[Lacquers, paints and auxiliary materials] Laki, kraski
i vspomogatel'nye materialy. Moskva, Standartgiz. Pt.2.
1963. 373 p. (MIRA 17:2)

SOV/16-59-9-7/47

The Comparative Indices of the Immune Response in Children Vaccinated With Pertussis Vaccine, Pertussis-Diphtheria Vaccine and Diphtheria Toxoid

vaccine. Similarly, the agglutination reaction was positive 5-10 times more often. The complement fixation reaction proved unreliable and subsequently was rejected. In children vaccinated with pertussis-diphtheria vaccine, the level of diphtheria toxoid in the blood and the percentage of negative Schick reactions was higher than in children vaccinated with diphtheria toxoid alone. The pertussis and diphtherial components of the pertussis-diphtheria vaccine evoke different immune response: whereas the pertussis component appears to give inferior allergic and immune response than pertussis monovaccine, the diphtherial component is apparently superior to crude diphtheria toxoid. The author concludes that still more work is needed to determine the reasons for the inferior action of the pertussis component in pertussis-diphtheria vaccine and to work out ways of intensifying its action. There are 6 tables and 7 references, 3 of which are Soviet and 4 English.

ASSOCIATION: Kafedra epidemiologii I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova (Department of Epidemiology at the I Moscow Order

Card 2/3

SOV/16-59-9-7/47

The Comparative Indices of the Immune Response in Children Vaccinated With Pertussis Vaccine, Pertussis-Diphtheria Vaccine and Diphtheria Toxoid

of Lenin Medical Institute (imeni Sechenov)

SUBMITTED: April 20, 1959

Card 3/3

KUZNETSOVA, L.S.

Allergic cutaneous reaction and serological reactions in children following immunization with whooping cough monovaccine. Zhur, mikro-biol. epid. i immun. 30 no.7:85-89 JI '59. (MIRA 12:11)

1. Iz I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova.

(WHOOPING COUGH - immunology)
(VACCINE)

KUZNETSOVA, L. S., Cand Med Sci (diss) -- "The comparative immunological effectiveness of pertussis monovaccine, pertussis-diphtheria vaccine, and diphtheria anatoxin". Moscow, 1960. 11 pp (First Moscow Order of Lenin Med Inst im I. M. Sechenov), 200 copies (KL, No 15, 1960, 139)

MAURMAN, O.Ye.; KUZNETSOVA, L.S.

Whooping cough morbidity and mortality in individual regions of the R.S.F.S.R. during a period of active immunization. Zhur. mikrobiol.; epid. i immun. 41 no.6:42-47 Je '64.

(MIRA 18:1)

1. Moskovskiy institut epidemiologii i mikrobiologii.

KUZNETSOVA, L.S.; CHIRVINSKIY, P.N.

The probable origin of calcite film on water surfaces in karst formations. Min.sbor. no.5:319-324 '51. (MLBA 9:12)

1. Gosuniversitet imeni A.M.Gor'kogo, Molotov.
(Karst) (Mineral waters)

S/137/61/000/012/025/149
A006/A101

AUTHORS: Kuznetsova, L. S., Zaletkina, M. Yu.

TITLE: Investigating the dressing ability of titanium-zircon sands of one of the Ukrainian deposits

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 12, 1961, 8, abstract 12058 ("Tr. Tsent. n.-i. gorno-razved. in-ta", 1960, no. 39, 40)

TEXT: The sands are represented by ilmenite (5.14%), zircon (0.79%); the dead rock consists of quartz. The basic sand mass is concentrated in the -3+0.15mm class. The possibility was established of obtaining satisfactory results of concentration with the aid of the gravitation methods. Best results are obtained with dressing on a concentration table. At a content of 38.3% Ti, 93.6% of it are extracted into the initial gravitational concentrate; zircon is almost completely extracted, at 6.7% content in the concentrate. The finishing scheme includes electromagnetic separation and concentration on the table of the concentrate, preliminary divided into classes +3+1 and -1 mm. As a result ilmenite concentrate is obtained with extraction of 91.3% TiO₂ and its content as high as

Card 1/2

Investigating the dressing ability of...

S/137/61/000/012/025/149
A006/A101

99.2%, and zircon concentrate with extraction of 94.9% ZrO_2 and 92.5% content.

A. Shmeleva

[Abstracter's note: Complete translation]

Card 2/2

KUZNETSOVA, L.S.; IGNAT'YEV, N.A.

Mottled dolomites of the Chusovoy region in the western
slope of the Urals. Dokl. AN SSSR 157 no.4:82-885 Ag '64
(MIRA 17:8)

1. Permskiy gosudarstvennyy universitet im. A.M. Gor'kogo.
Predstavleno akademikom N.M. Strakhovym

ACC NR: AP7005687

SOURCE CODE: UR/0413/67/000/002/0159/0159

INVENTOR: Shabashov, V. I.; Viktorov, N. V.; Deliyev, K. N.; Kuznetsov, L. S.

ORG: None

TITLE: A catch for uncoupling the free ends of a parachute. Class 62, No. 190797

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1967, 159

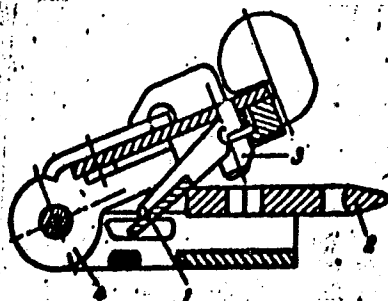
TOPIC TAGS: parachute, auxiliary aircraft equipment, mechanical fastener

ABSTRACT: This Author's Certificate introduces a catch for uncoupling the free ends of a parachute. The device includes a frame, a cover with spring-loaded flanges, a safety lock which holds a spring-loaded lug and a clasp for fastening the free ends of the parachute. To reduce opening stresses and improve the operational reliability of the catch under a load of up to 400 kg, the clasp with the locking lug is operated by a rotating lever hinged to the cover.

Card 1/2

UDC: 629.13.01/06

ACC NR: AP7005687



1—lever; 2—clasp; 3—lug; 4—cover

SUB CODE: 01/ SUBM DATE: 10Nov65

Card 2/2

Dissertation: "Study of the Structural and Mechanical Properties of Chocolate Products."
Cand Tech Sci, Moscow Technological Inst of the Food Industry, 28 Apr 54. (Vechernyaya
Moskva, 20 Apr 54)

80: SUM 243, 19 Oct 1954

SOKOLOVSKIY, A.L., prof., doktor tekhn. nauk; KUZNETSOVA, L.S., kand. tekhn. nauk;
PUKHOVSKAYA, Ye.I., starshiy prepodavatel'

Using sedimentation analysis in the control of chocolate production.
Trudy MTIPP no.10:50-58 '57. (MIRA 10:12)
(Sedimentation analysis) (Chocolate)

SOKOLOVSKIY, A.L.; STEPANOVICH, Z.Z.; KUZNETSOVA, L.S.; PTUSHKIN, A.T.

Effect of methods and conditions of roasting cacao beans on changes in their physical and chemical properties. Izv.vys.ucheb.zav.pishch. tekh. no.4:78-82 '58. (MIRA 11:11)

1. Moskovskiy tekhnologicheskii institut pishchevoy promyshlennosti, Vsesoyuznyy zaachnyy institut pishchevoy promyshlennosti, Kafedra tekhnologii konditerskogo i makaronnogo proizvodstva. (Cacao)

KUZNETSOVA, L.S.; SOKOLOVSKIY, A.L.

Investigating the phenomenon of the sticking of confectionary masses to various surfaces. *Izv.vys.ucheb.zav.; pishch.tekh.*
no.5:126-129 '59. (MIRA 13:4)

1. *Vsesoyuznyy nauchnyy institut pishchevoy promyshlennosti i Moskovskiy tekhnologicheskii institut pishchevoy promyshlennosti, kafedra tekhnologii konditerskogo i makaronnogo proizvodstva.*
(Confectionery)

KUZNETSOVA, L. T.

USSR/Medicine - Veterinary

FD-1316

Card 1/1 : Pub 137-16/22

Author : Smirnov, A. M., Candidate of Veterinary Sciences; Elina, Z. N. and
Kuznetsova, L. T., Senior Veterinary Physicians; Makush, A. I., Acting
Senior Veterinary Physician of the Sovkhoz "Udarnik;" Milovidova, E. G.,
Student

Title : Treatment of calves that are ill with dyspepsia of A-hypovitaminosis
etiology

Periodical : Veterinariya, 9, 49, Sep 1954

Abstract : Natural gastric juice of horses was successfully used in the treatment
of calves that had dyspepsia of A-hypovitaminosis etiology; its use as a
prophylaxis prevented the development of dyspepsia in calves born with
symptoms of A-hypovitaminosis. Combination therapy, consisting of natural
gastric juice of horses and either sintomycin or disulfan, is recommended.
No mortality was recorded among calves that were treated with gastric
juice of horses.

Institution : Leningrad Veterinary Institute

Submitted :

VOSKRESENSKIY, S.S.; POSTOLENKO, G.A.; SIMONOV, Yu.G.; PATYK-KARA,
N.G.; ANAN'YEV, G.S.; PIMENOVA, R.Ye.; YEVTEYEVA, I.S.;
KUZNETSOVA, L.T.; SOROKINA, Ye.P.; ZORIN, L.V.;
SLADKOPEVTSEV, S.A.; ARISTARKHOVA, L.B.; MEDVEDEVA, N.K.;
LOPATINA L.I., red.

[Geomorphological studies; work experience in southeastern
Transbaikalia, eastern Fergana, central Kazakhstan, and
the Caspian Lowland] Geomorfologicheskie issledovaniia;
opyt rabot v Iugo-Vostochnom Zabaikal'e, Vostochnoi Fergane,
Tsentral'nom Kazakhstane i Prikaspiiskoi nizmenosti. Mo-
skva, Izd-vo Mosk. univ., 1965. 275 p. (MIRA 18:7)

KUZNETSOVA, L. V.

"Accumulation and Distribution of Manganese Inhaled in the Form of Aerosol in the Organism of Animals." Sub 24 Dec 51, First Moscow Order of Lenin Medical Inst

Dissertations presented for science and engineering degrees in Moscow during 1951.

SC: Sum. No. 480, 9 May 55

1-11-68 10:00 AM

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000928220009-9

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000928220009-9"

KUZNETSOVA, L.V.

Influence of a manganese aerosol on the nervous system. Trudy
1-go MMI 5:81-84 '59. (MIRA 13:8)

1. Iz kafedry obshchey gigiyeny (zav. - prof. A.I. Pakhomychyev)
1-go Moskovskogo ordena Lenina meditsinskogo instituta im.

I.M. Sechenova.

(MANGANESE—TOXICOLOGY) (NERVOUS SYSTEM)

KUZNETSOVA, L.V.; STOLYAROVA, Ye.N.; DOBYCHIN, S.L.

Rapid gas chromatographic method for determining oxygen in
organic compounds. Zhur. anal. khim. 20 no.8:836-839 '65.
(MIRA 18:10)

I. Gosudarstvennyy institut prikladnoy khimii, Leningrad.

MOSKVINA, A.A.; KUZNETSOVA, L.V.; DOBYCHIN, S.I.; ROZOVA, M.I.

Microelementary analysis using gas chromatography. Determination of carbon, hydrogen, and nitrogen in organic compounds. Zhur. anal. khim. 19 no.6:749-753 '64. (MIRA 18:3)

1. Gosudarstvennyy institut prikladnoy khimii, Leningrad.

SOV/137-58-8-18206

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 286 (USSR)

AUTHOR: Kuznetsova, L. V.

TITLE: Some Problems of Labor Hygiene in the Work With Betatrons in the Detection of Defects (Nekotoryye voprosy gigiyeny truda pri rabote na betatronakh pri defektoskopii)

PERIODICAL: Tr. Vses. konferentsii po med. radiol. Vopr. gigiyeny i dozimetrii. Moscow, Medgiz, 1957, pp 19-21

ABSTRACT: To decrease the effect of radiation in work with the betatron it is imperative to provide for correct planning of the working space and the auxiliary compartments for the photographic laboratory and for storing specimens which are to be tested for defects; to furnish the control panel with special shields; to prohibit the presence of personnel in the laboratory when the betatron is switched on; to protect the laboratory by special shielding which would decrease the radiation in adjacent compartments to 0.1 of the permissible limit dose; to conduct the observation of the work with the aid of mirrors and periscopes; and to equip the door in the laboratory with a special interlock. 1. Betatrons—Applications Ye. L.
2. Betatrons—Physiological factors

Card 1/1

SOV/5371

PHASE I BOOK EXPLOITATION

Kuznetsova, Lyutsiniya Vasil'yevna

Gigiyena truda pri rabote na nekotorykh vidakh uskoritel'nykh ustanovok (Hygienic Labor Conditions During the Operation of Certain Types of Accelerating Installations) Moscow, Medgiz, 1960. 70 p. (Series: Biblioteka prakticheskogo vracha) 3,000 copies printed.

Ed.: Ye. F. Baranova; Tech. Ed.: N. K. Zuyeva.

PURPOSE: This booklet is intended for the medical personnel of industrial establishments, and for persons concerned with accident prevention.

COVERAGE: The booklet contains information on certain harmful conditions attendant to the use of various types of accelerating installations, namely, electrostatic generators, linear accelerators, betatrons, synchrotrons, and cyclotrons, and their effect on the human organism. Protective and

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Hygienic Labor Conditions (Cont.)

SOV/5371

prophylactic measures are discussed. No personalities are mentioned. There are 23 references: 20 Soviet and 3 English.

TABLE OF CONTENTS:

Foreword	3
Ch. 1. Fields of Application and Principles of Design of Accelerating Installations	
Electrostatic generator	5
Linear resonance accelerators	7
Betatron	9
Synchrotron and synchrophasotron	11
Cyclotron	13
	15

Card 2/5

KUZNETSOVA, L.V.

Gustatory and olfactory sensitivity in subjects working betatrons.
Med. rad. 5 no.4:82-84 Ap '60. (MIRA 13:12)

(RADIATION—PHYSIOLOGICAL EFFECT)
(SMELL) (TASTE)

KUZNETSOVA, L.V.; KORSHUNOVA, N.N.

Basic factors of the environment and occupational hazards
occurring with accelerators of singly and multiply charged.
Med.rad. no.7:63-67 '61. (MIRA 15:1)
(RADIATION--TOXICOLOGY) (PARTICLE ACCELERATORS)

ALFEROVA, V.V.; KUZNETSOVA, L.V.

Condition of the peripheral vessels in persons working on the
cyclotron. Med. rad. 7 no.12:32-37 D'62. (MIRA 16:10)

*

KUZNETSOVA, L.V.; YEGOROVA, M.S.

Evaluation of B-rays as a factor in the effect of radiation on
persons working with the cyclotron. Med. rad. 8 no.3:34-38
Mr '63. (MIRA 17:9)

ZHURINA, V.S.; KOZNETSOVA, L.Ye.; SERG-~~SERBINA~~, N.N.

Structural strength of aqueous dispersions of clay minerals
as dependent on the degree of waterproofing of the surface
of particles. Koll. zhur. 26 no.4:441-446 Sl-Ag '64.

(MIRA 17:9)

L. Institut Fizicheskoy khimii AN SSSR, Moskva.

KUZNETSOVA, L.Ye.; SERB-SERBINA, N.N.; REBINDER, P.A., akademik

Some regularities in the consolidation of clay soils by the addition of synthetic aggregation agents and cation active substances as waterproofing agents. Dokl. AN SSSR 154 no.4: 933-935 F '64. (MIRA 17:3)

1. Institut fizicheskoy khimii AN SSSR.

TROFIMOV, S.S., kand. sel'khoz.nauk, st. nauchn. sotr.; BRYLEV, V.K.; KOCHERGIN, A.Ye., kand. sel'khoz. nauk; KUZNETSOVA, L.Z.; KORLYAKOV, O.I., kand. sel'khoz. nauk, st. nauchn. sotr.; KOSTROMITIN, V.B.; MIKHAYLOV, M.I.; POPOV, P.D., red.

[Soils of the Kuznetsk Basin, a map as the face of a field, laboratory of fertility, vitamins of the earth, protectors of crops, enrichment of feed] Pochvy Kuzbassa, karta - litso polei, laboratoriya plodorodiya, vitaminy zemli, zashchitniki posevov, obogashchenie korma. Kemerovo, Kemerovskoe knizhnoe izd-vo, 1964. 92 p. (MIRA 18:5)

1. Biologicheskii institut Sibirskogo otdeleniya AN SSSR (for Trofimov). 2. Zaveduyushchiy laboratoriyey zashchity rasteniy Kemerovskoy sel'skokhozyaystvennoy opytnoy stantsii (for Kostromitin). 3. Zaveduyushchiy otdelom zhivotnovodstva Kemerovskoy sel'skokhozyaystvennoy opytnoy stantsii (for Mikhaylov). 4. Zaveduyushchiy agrokhimicheskoy laboratoriyey Sibirskogo nauchno-issledovatel'skogo instituta sel'skogo khozyaystva (for Kochergin). 5. Zaveduyushchaya agrokhimicheskoy laboratoriyey Kemerovskoy sel'skokhozyaystvennoy opytnoy stantsii (for Kuznetsova). 6. Kemerovskaya sel'skokhozyaystvennaya opytная stantsiya (for Korlyakov).

APPEN, A.A.; BRISKOR, R.I.; KUZNETSOVA, L.Z.

Effect of iron oxide on the thermal expansion of base enamel
of kitchen utensils. Zhur. prikl. khim. 29 no.11:1753-1755
N 156. (MIRA 10:6)
(Expansion of solids) (Iron oxides) (Enamelled ware)

KUZNETSOVA, M.; GORKHOV, N. (Kazan')

Problems of work hygiene and prevention of occupational diseases
at the All-Union Conference of Industrial Hygiene and Sanitary
Control Physicians. Kaz.med. zhur. no.3:115-116 My-Je'63.

(MIRA 16:9)

(INDUSTRIAL HYGIENE—CONGRESSES)

ZENKOVICH, Igor' Georgiyevich; BUZNETSOV, E., red.

[Destiny of talent; sketches on women mathematicians]
Sud'ba talanta; ocherki o zhenshchinakh-matematikakh.
Briansk, Brianskii rabochii, 1964. 40 p.
(MIRA 17:8)

RYBINA, N.Ya.; KUZNETSOVA, M.A., mladshiy nauchnyy sotrudnik

Root rot in winter crops. Zashch. rast. ot vred. i bol. 5
no.9:25-27 S '60. (MIRA 15:6)

1. Kabardino-Balkarskaya gosudarstvennaya sel'skokhozyaystvennaya
opytnaya stantsiya. 2. Zaveduyushchaya laboratoriyey zashchity
rasteniy Kabardino-Balkarskoy gosudarstvennoy sel'skokhozyaystvennoy
opytnoy stantsii.

(Grain--Diseases and pests)
(Kabardino-Balkar A. S. S. R.--Root rot)

RYBINA, N.Ya., starshiy nauchnyy sotrudnik; KUZNETSOVA, M.A., starshiy nauchnyy sotrudnik; GROZMAN, Ya.L.

European corn borer and its control. Zashch.rast. ot vred. i bol. 7
no.8:29-30 Ag '62. (MIRA 15:12)

1. Kabardino-Balkarskaya sel'skokhozyaystvennaya opytnaya stantsiya
(for Rybina, Kuznetsova). 2. Zaveduyushchiy gosudarstvennyy
sortoispytatel'nyy uchastkom, selo Vysokoye, Atakskogo rayona
(for Grozman).

(Moldavia—European corn borer)
(Kabardino-Balkar A.S.S.R.—European corn borer)

KUZNETSOVA, M.A.

24(4)

PHASE I BOOK EXPLOITATION SOV/2545

Feygel'son Ye. M., M. S. Malkevich, S. Ya. Kogan, T. D. Koron-
atova, K. S. Glazova, and M. A. Kuznetsova

Raschet yarkosti sveta v atmosfere pri anizotropnom rasseyanii,
ch. 1 (Computation of Light Intensity in the Atmosphere in
a Case of Anisotropic Scattering, Pt. 1) Moscow, Izd-vo
AN SSSR, 1958. 101 p. (Series: Akademiya nauk SSSR. Insti-
tut fiziki atmosfery. Trudy, nr 1) Errata slip inserted.
2,000 copies printed.

Ed.: G. V. Rozenberg, Doctor of Physical and Mathematical
Sciences; Ed. of Publishing House: V. I. Rydrik.

PURPOSE: This book is intended for physicists and scientists
engaged in the study of atmospheric optics.

COVERAGE: This work contains the results of computation on the
intensity of light scattered anisotropically in the atmosphere
under various physical parameters and functions of scattering.
The solution of integro-differential equations of the theory
of radiative transfer in an anisotropically scattering medium
Card 1/4

SOV/2545

Computation (Cont.)

was obtained by the method of successive approximations. The work was carried out by the staff members of the Laboratory of Atmospheric Optics within the Institute of Physics of the Atmosphere, Academy of Sciences, USSR. No personalities are mentioned. There are 23 references: 14 Soviet, 4 English, 4 German, and 1 French.

TABLE OF CONTENTS:

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Ch. I. Mathematical Solution of the Problem	5
1. Statement of the problem. Derivation of basic relationships	5
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49-58-5-12/15

AUTHORS: Kireyeva, N. M., Kogan, S. Ya., Kuznetsova, M. A.

TITLE: The Average Seasonal Distribution of Water Vapour Density with Altitude over USSR (Srednesezonnoye raspredeleniye plotnosti vodyanogo para po vysote dlya territorii SSSR)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, 1958, Nr 5, pp 669-672 (and 2 sheets) (USSR)

ABSTRACT: The water vapour distribution is important in questions of atmospheric heat balance, average air temperature at different heights and places, and humidity (Ref.1). At present, full data are only available for Moscow (Refs.2,3), together with charts of the absolute humidity distribution for two months of the year - January and July (Ref.4) and charts of the relative humidity for each month (Ref.5). In view of this lack of information on density distribution, the authors attempted to construct a chart giving variation with height for the whole of the Soviet Union and for all seasons of the year. In order to do this, material from the Scientific Research Institute for Aeroclimatology (Nauchno issledovatel'skiy institut aeroklimatologia) on the mean seasonal values of the relative humidity and temperature, for 57 stations in the USSR, was used. The water vapour density

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49-58-5-12/15

The Average Seasonal Distribution of Water Vapour Density with Altitude over USSR.

was calculated from the formula (Ref.6):

$$\rho_w = 0.29 \times 10^{-5} \frac{rE(T)}{T} \text{ gm/cm}^3 \quad (1)$$

where r is the relative humidity as a fraction of unity, T is the temperature in degrees C and $E(T)$ is the compressibility of water vapour in units of mm of Hg. To obtain the mean seasonal values for ρ_w in Eq.(1) the mean seasonal values of r and T are used together with the value for $E(T)$ for a temperature $\infty > T > -16^\circ$ taken over water or ice according to the season and the situation of the station. Thus in Spring, Summer and Autumn, almost all the stations (except those in the far North) had $E(T)$ taken over water. In the Winter, $E(T)$ was taken over ice for all except the southernmost stations or those situated by the sea. In order to estimate the error produced by

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The Average Seasonal Distribution of Water Vapour Density with Altitude over USSR.

substituting average values of relative humidity and temperature in (1), Magnus' formula (Ref.6) for the compressibility of water vapour was used:

$$E(T) = E_0 \cdot 10^{\frac{aT}{b+T}} \quad \text{where } a = 7.5,$$

$b = 237.3^\circ$. The error, δ , is then:

$$\delta = \frac{\rho_{wcp} - \frac{1}{N} \sum_{i=1}^N \rho_{wi}}{\rho_{wcp}} \quad \text{where:}$$

$$\rho_{wcp} = 0.29 \times 10^{-5} \frac{r_{cp} E(T_{cp})}{T_{cp}}, \quad \rho_{wi} = 0.29 \times 10^{-5} \frac{r_i E(T_i)}{T_i}.$$

N is the number of observations at a given point and in a given season; r_i and T_i are the values of the relative

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49-58-5-12/15

The Average Seasonal Distribution of Water Vapour Density with
Altitude over USSR.

humidity and temperature for each observation; $r_{cp} = \frac{1}{N} \sum_{i=1}^N r_i$,

$T_{cp} = \frac{1}{N} \sum_{i=1}^N T_i$ are the average (per season) values of the

relative humidity and temperature for a given point and height. The magnitude of δ can be written in the form Eq.(2). Calculations indicate that members of the series (2) die away quickly and, to estimate δ , only the first two members need to be taken into account - giving the magnitude to about 5-7%. The values for water vapour density, ρ_w , at different heights for each season over the USSR are given in Figs.1-4. The maximum height, for which values of the water vapour density are given, varies with the season. Thus the maximum height in Autumn and Winter is 5 km, in Spring, it is 6 km and in Summer it goes up to 7 km. This variation is explained partly by the small number of observations at heights greater than 5 km and, partly, by the inaccuracy of humidity

Card 4/5

49-58-5-12/15

The Average Seasonal Distribution of Water Vapour Density with
Altitude over USSR.

measurements at great heights. The charts give the isolines of density in winter, autumn and spring, for heights from the Earth's surface up to 3 km at 0.5 gm/cm³, at from 5 km and higher at 0.1 gm/cm³. For the summer, the lines are given at the Earth's surface and a height of 1 km at 1.0 gm/cm³ intervals, for a height of 3 km at 0.5 gm/cm³, and for a height of 5 km at 0.1 gm/cm³. As a check a comparison was made with the charts in Ref.4 and 5. The result was completely satisfactory. There are 4 figures and 5 Soviet, 1 German references.

ASSOCIATION: Akademiya nauk SSSR, Institut Fiziki atmosfery
(Institute of Atmospheric Physics)

SUBMITTED: May 13, 1957.

1. Humidity--USSR

Card 5/5

KUZNETSOVA, M.A., red.

[Collection of articles of the Tashkent Hydrometeorological Observatory] Sbornik rabot Tashkentskoi gidrometeorologicheskoi observatorii. Tashkent, Upr. gidrometeorologicheskoi sluzhby Uzbekskoi SSR. No.1. 1961. 148 p. (MIRA 17:4)

BLINKOV, V.V., inzh.; KUZNETSOVA, M.A., inzh.

Coordinating conference on the problems of actual studies of
hydraulic engineering structures. Gidr. stroi. 33 no.11:59-60
N '62. (MIRA 16:1)

(Hydraulic structures--Congresses)

GUKIN, V.; KUZNETSOVA, M., starshiy nauchnyy sotrudnik; KHLEBNIKOV, I.,
mladshiy nauchnyy sotrudnik; AKHAPKIN, A., tekhnolog

Mechanized swine-fattening farm. Sel', stroi. no.7:12-13 '62.
(MIRA 15:8)

1. Glavnyy zootekhnik sovkhoza "Moshkovskiy" Novosibirskoy oblasti
(for Gukin). 2. Zapadno-Sibirskiy filial Akademii stroitel'stva i
arkhitektury SSSR (for Kuznetsova).
(Swine houses and equipment)

KUZNETSOVA, M.

Let's increase the meat production by 4.7 times in 1959.

Nauka i pered. op. v sel'khoz. 9 no.2:13-14 F '59.

(MIRA 12:3)

1. Predsedatel' kolkhosa "Krest'yanskiy trud" Spasskogo rayona
Ryazanskoy oblasti.

(Stock and stockbreeding)

LOPATINA, N.G., KUZNETSOVA, M.A., PANKOVA, S.V.

Physiological nature of the "dance" of bees [with summary in English]
Zhur.ob.biol. 19 no.5:376-386 8-0 158 (MIRA 11:10)

1. Laboratoriya fiziologii nizshikh zhiivotnykh Instituta fiziologii
imeni I.P. Pavlova, AN SSSR.
(BIBS)
(CONDITIONED RESPONSE)

KUZNETSOVA, M.A.

Agricultural practices in protecting winter crops, Zashch. rast.
ot vred. i bol. 8 no.8:17-18 Ag '63. (MIRA 16:10)

1. Zaveduyushchaya laboratoriyey zashchity rasteniy Kabardino-Bal-
karskoy sel'skokhozyaystvennoy opytnoy stantsii, Terskiy rayon.

KUZNETSOVA, M.A. (Gor'kiy)

Lesser blood circulation in chronic emphysema and diffuse pneumosclerosis in the tomographic image. Klin. med. 41 no.4:78-84 Ap '63. (MIRA 17:2)

1. Iz kafedry rentgenologii i radiologii (zav. - dotsent V.F. Sigachev) Gor'kovskogo meditsinskogo instituta imeni S.M. Kirova (rektor - dotsent I.F. Matyushin).

KUZNETSOVA, M.A.

In the Moscow Branch of the All-Russian Pharmaceutical Society.
Med. promyshl. SSSR 17 no.8:60-61 Ag'63 (MIRA 17:2)

KUZNETSOVA, M.A.

Effect of dose fractionation on the unconditioned reflex activity of the spinal cord of rabbits in total-body X irradiation. Radiobiologia 1 no.1:58-64 '61. (MIRA 14:7)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(X RAY--PHYSIOLOGICAL EFFECT) (SPINAL CORD)
(REFLEXES)

APANABENKO, Z.I.; KUZNETSOVA, M.A.

Remote effect of space flight on the vestibular-tonic and flexor reflexes in guinea pigs. Izv. AN SSSR Ser. Biol. no. 2:214-221
Mar-Apr '63. (MIRA 17:5)

1. Institut biol. gicheskoy fiziki AN SSSR.

S/865/62/002/000/019/042
D405/D301

AUTHORS: Luk'yanova, L.D., Livshits, N.N., Apanasenko, Z.I.
and Kuznetsova, M.A.

TITLE: Long-range effect of space flight on higher nervous
system and some unconditional reflexes

SOURCE: Problemy kosmicheskoy biologii. v. 2. Ed. by N. Siga-
kyan and V. Yazdovskiy. Moscow, Izd-vo AN SSSR, 1962,
192-205

TEXT: The higher nervous activity of rats prior to, and
after flight on the Second Space Ship was investigated, as well as
the vestibular reflexes, the latent period of the unconditional
motric defensive reflex and the spontaneous bioelectric muscular
activity of guinea pigs. Simultaneously, the morphological state
of the peripheral blood, weight, and general condition were studied.
The experiments were conducted on white male-rats by Kotlyarevskiy's
method. Conclusions: The flight on the Second Space Ship did not
lead to appreciable changes in the conditional reflex activity of

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Long-range effect ...

S/865/62/002/000/019/042
D405/D301

the two white rats during the period of the experiments (from the fourth day after landing to the natural death of the animals). The flight of the guinea pig on the Fourth Space Ship did not lead to changes in the latent period of the unconditioned reflex. An increase in the spontaneous bioelectric activity of the extremity muscles was observed in the guinea pig after the flight. In the latter, a decrease in the latent period of the vestibular reflex and an increase in its activity was also observed. It is suggested that the change in the characteristics of the vestibular reflex, observed in the guinea pig after the flight, is related to functional changes in the afferent or central neurons, and possibly in both these types of neurons. There are 7 figures.

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АИД № 974-8 22-май

DELAYED SPACEFLIGHT EFFECTS ON THE LABYRINTHINE AND FLEXION REFLEXES IN GUINEA PIGS (USSR)

Apanasenko, Z. I., and M. A. Kuznetsova, IN: Akademiya nauk SSSR, Izvestiya. Seriya biologicheskaya, no. 2, Mar-Apr 1963, 214-221.

S/216/63/000/002/002/004

In order to investigate the effect of spaceflight conditions on the functional status of the vestibular apparatus, one test guinea pig which had undergone spaceflight and eight controls which had remained on the ground were subjected to oscillation about their longitudinal horizontal axes. The flown guinea pig showed a very strong spontaneous bioelectric activity of the leg muscles which exceeded that observed in the controls. In addition, the latent period of electromyographic reaction to adequate stimulation decreased in the flown guinea pig, and the after-effect was prolonged. Amplitude of biocurrents during reaction to stimulus was very high, but its relation to background activity remained about the same as before the flight. It is assumed that flight-induced changes were localized in the afferent branch of the vestibular-reflex arc, or in central neurons which are functionally connected to the vestibular analyzer.

[AB]

Card 1/1

ACCESSION NR: AT4037697

8/2865/64/003/000/0269/0277

AUTHOR: Apanasenko, Z. I.; Kuznetsova, M. A.

TITLE: Combined effects of vibration and ionizing radiation on the vestibular and the flexor reflexes

SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy^o kosmicheskoy biologii, v. 3, 1964, 269-277

TOPIC TAGS: conditioned reflex, vibration, ionizing radiation, mouse, vestibular reflex, flexor reflex

ABSTRACT: Experiments were performed on guinea pigs and the C-57 strain of black mice in order to determine the combined effects of vibration and radiation on the survival of the function of the vestibular analyzer and the latent period of the flexor reflex. Acute whole-body irradiation was carried out by means of gamma rays from Co^{60} . The dose was 500 r for guinea pigs and 600 and 750 r for mice. The dose rate was 261 r/min. The animals were subjected to a vibration of 70 cps with an amplitude of 0.4 mm for 15 min. Animals were divided into four groups. The first group was subjected to two periods of vibration but was not irradiated.

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ACCESSION NR: AT4037697

The second group was exposed to a single dose of radiation but no vibration. The third group was subjected to vibration both before and after irradiation. The fourth group served as controls. Vibration and irradiation taken separately or combined brought about significant changes in the normal values of the parameters studied. In some respects, vibration produced greater changes than the lethal dose of radiation to which the animals were subjected. In all cases of combined irradiation and vibration, it was found that vibration substantially changed the effects of radiation on the organism. When the animals were subjected to the combined effects of irradiation and vibration, the death rate increased and the life span decreased to a greater degree than when they were exposed to radiation alone. The effects of the combined action of irradiation and vibration on the central nervous system are complex. Individual functional indices of the central nervous system examined show the separate effects of each of these two stress factors. If both vibration and irradiation shift the parameters of a given index in one direction, their combined action exceeds the effects of irradiation alone. If these stimuli act in opposite directions, the effect of their combined action can be less than, or even qualitatively different from, that of irradiation alone.

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one another. The effect of vibration on the length of the defense reflex latent period was just as significant as the effect of a lethal dose of radiation described [RM]

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APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000928220009-9"

KUZNETSOVA, M.A.; GROM, I.I. (Leningrad)

Reviews and bibliography. Apt. delo 14 no.6:83-84 N-D '65.
(MIRA 18:12)

L 47293-66 EEC(k)-2/EMP(1)/FCC/FSS-2 SGTB TT/DD/RE/GW

ACC NR: AP6031663

SOURCE CODE: UR/0216/66/000/005/0625/0643

6

AUTHOR: Frank, G. M.; Livshits, N. N.; Arsen'yeva, M. A.; Apannsenko, Z. I.;
Belyayeva, L. A.; Golovkina, A. V.; Klimovitskiy, V. Ya.; Kuznetsova, M. A.;
Luk'yanova, L. D.; Meyzerov, Ye. S.

70
69
B

ORG: Institute of Biological Physics, AN SSSR (Institut biologicheskoy fiziki AN SSSR)

TITLE: The combined effect of spaceflight factors on some functions of the organism

SOURCE: AN SSSR. Izvestiya. Seriya biologicheskaya, no. 5, 1966, 625-643

TOPIC TAGS: central nervous system, biologic oxidation, biologic metabolism, reflex activity, brain tissue, radiation effects, ~~ionizing~~ radiation biologic effect, ionizing radiation

ABSTRACT: Results of experiments studying the combined effect of spaceflight factors (acceleration, vibration, and radiation) on some functions of the organism (brain hemodynamics, CNS functions, and cell division of hematopoietic organs) are discussed. Tolerance of the CNS to accelerations depends significantly on changes of brain hemodynamics during accelerations. Brain blood flow in rabbits subjected to centrifugal accelerations in the head-foot direction (5 G in head region and 10 G in pelvis region) for 12 to 60 sec decreased. This reaction was insignificant during the first exposure, sharply increased during repeated exposure, and weakened after chronic exposure, thus indicating that tolerance to accelerations can be

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UDC: 611.8:629.195.2

L 47293-56

ACC NR: AP6031663

increased by training. Participation of CNS reflex mechanisms in these processes is probable. The 15-min exposure of guinea pigs to radial accelerations (8 G), centrifuged twice with a one-day interval, increased the spontaneous bioelectrical activity of extensor muscles; however, the effect was not lasting. It was lowered the day after the second centrifugation and was essentially the same as the control from the sixth day. The 15-min exposure of the animals to vibrations (70 cps, 0.4 mm amplitude), twice with a one-day interval, produced less distinct but more stable changes, with normalization more than 25 days after the first vibration exposure. Changes in myoelectric activity during spaceflight (Sputnik-4), incorporated features of both acceleration and vibration effects, appreciably exceeding them in intensity. Oxidation processes in brain tissues, judged by PO₂ and "oxygen test" results, were initially increased in intensity by the effect of vibrations (using the above parameters), and subsequently underwent phase changes, including depression of oxidation metabolism during the aftereffect period. Changes in unconditioned defense and vestibulotonic reflexes and upper nervous activity were observed later than 12 days after vibration. Inhibition of food-procuring conditioned and defensive unconditioned reflexes in the majority of animals, with pronounced parabiologic phenomena, was also found. Exposure to 8-, 10-, and 20-G accelerations and vibration (700 cps, 0.005 mm, 60 min) resulted in decreased mitotic activity of bone-marrow cells for 30 days. Disturbances of cell division involved chromosomal stickiness and increase in the number of chromosomal aberrations. Ionizing radiations and the above dynamic factors produced a similar effect on oxidation metabolism in brain tissues and cellular division in hematopoietic organs. They differed

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L 47293-66

ACC NR: AP6031663

0

only in the level and dynamics of changes caused. The combined effect of irradiation and dynamic factors either did not exceed or was less than the effect of each of the indicated factors separately, a phenomenon seen as a radioprotective action of dynamic factors. The relations observed are similar to phenomena of dominance and parabiosis. Typical radiation reactions were intensified when irradiation was combined with factors having directly opposed effects. The variation and complexity of results of the combination of dynamic factors and irradiation are explained by the multiplicity of the mechanisms of the combined effect of radiation and nonradiation factors. The combined exposure to vibration and whole-body acute irradiation at a lethal dose shows that in a majority of cases the vibration effect on metabolism and CNS function was dominant at early stages, while that of irradiation prevailed at later stages. At the latest stages of exposure, the combined effect of vibration and irradiation was diverse and complicated. According to some indices, the trend of changes corresponded to the effect of one of the factors while the dynamics of the processes reflected the effect of the other one. Under the uniform action of both factors, the phenomena of partial summation of weakening of the radiation effect, and in several cases of a sharp increase of radiation effect by the opposite action of the vibration effect, were observed. Probable mechanisms of the phenomena described are considered. Orig. art. has: 13 figures. [SW]

SUB CODE: 06/ SUBM DATE: 14Dec65/ ORIG REF: 032/ OTH REF: 008/ ATD PRESS:

5095

Card 3/3

ACC NR: AT6036607

SOURCE CODE: UR/0000/66/000/000/0246/0247

AUTHOR: Kuznetsova, N. A.

ORG: none

TITLE: Combined effect of repeated exposures to vibration and fractional irradiation on the state of the spinocerebral reflex arc [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24-27 May 1966] 1

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 246-247

TOPIC TAGS: space physiology, combined stress, biologic vibration effect, unconditioned reflex, central nervous system

ABSTRACT:

The effect of repeated vertical vibration, of fractionated irradiation, and their combined effect on the latent period of unconditioned defense motor reflex, were investigated.

Exposure to repeated vertical vibration (amplitude 0.4 mm, frequency 70 cps, exposure 15 min) caused the development of parabiologic inhibition of various degrees in the reflex arc under investigation. During the first five exposures to vibration the cumulative effect of repeated exposures was noted.

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ACC NR: AT6036607

During the second five exposures a tendency to a difficult and incomplete adaptation appeared.

Fractionated irradiation (total dose 500 r, dose rate 52 r/min) caused a statistically significant, but not very great, change in the functional condition of the reflex arc under investigation. This manifested itself in an increase of latent periods of reaction to a weak stimulus and a contraction of latent periods to strong stimuli. Thus, changes in unconditioned reflex activity followed an anesthetized phase pattern with retention of the power relationship.

Animals which had been exposed to the combined effects of vibration and irradiation can be divided into two groups. In one group changes in unconditioned reflex activity in general followed the pattern of animals which had been subjected to vibration, while the other group followed the pattern of those which had been irradiated. However, in both cases the effect of the additional stress factor left its imprint on the changes in the reaction being investigated.

[W. A. No. 22; ATD Report 66-116]

SUB CODE: 06 / SUBM DATE: 00May66

Card 2/2

ACC NR: AT6036639

SOURCE CODE: UR/0000/66/000/000/0257/0258

AUTHOR: Livshits, N. N.; Apanasenko, Z. I.; Kuznetsova, M. A.; Luk'yanova, L. D.;
Moyzerov, Y. S.

ORG: none

TITLE: Combined effect of vibration and ionizing radiation on the metabolism and
function of the central nervous system [Paper presented at the Conference on
Problems of Space Medicine held in Moscow from 24-27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy
kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii,
Moscow, 1966, 257-258

TOPIC TAGS: space physiology, combined stress, biologic vibration effect,
ionizing radiation biologic effect, muscle physiology, electrophysiology, central
nervous system, rat, rodent

ABSTRACT:

Rats and guinea pigs were exposed to the complex effects of vibration
(70 cps, 0.4 mm, 15 min) before, or both before and after, exposure to a
single lethal dose (500--600 r) of ionizing radiation. The effect of this
particular combination of stress factors was tested on oxidative processes
in the brain tissues, on the characteristics of the vestibular reflex, and
on the bioelectrical activity of skeletal muscles in a state of relative rest.

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ACC NR: AT6036639

Results showed a complete dominance of the effects of vibration.

Completely analogous results for vestibular reflexes were obtained when vibration was combined with prolonged gamma irradiation (500 r over a 14-hr period). Vibrational effects were also dominant with respect to conditioned feeding reflexes when vibration was followed by irradiation with a dose of 50 r.

This masking of the radiation effect was observed in those cases in which the effects of the two factors tended to counteract each other. But the masking effect was also observed when influences of the two factors were analogous and could be distinguished from each other only by their magnitude or dynamics. In this last case no summation of similar effects was observed, which can be attributed to the protective effect of vibration. The protective effect was confirmed by the fact that vibration tended to weaken leukopenia produced by radiation.

At the same time results were not completely uniform. The combined effect of vibration and either acute or fractionated irradiation on the basic characteristics of the unconditioned defense reflex showed that vibrational effects were dominant in some cases and radiation effects were domi-

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ACC NR: AT6036639

nant in others. Radiation effects tended to dominate as the time after exposure increased. Investigation of the oxidative processes in the brain tissues showed no summation of analogous effects even at the later stages of the investigation. However, when observations were made of functional changes of various parts of the central nervous system, a complex combined effect of both factors was found, which does not fit the pattern of the protective effects of vibration.

The variety of changes in radiation effects due to the influence of vibration can be explained by the multiplicity of mechanisms of combined effects of radiation and vibration. The more significant factors which can affect the influence of radiation are: the oxygen effect, changes in the functional condition of the central nervous system due to effects of vibration, interaction between centers of the nervous system, the course of reparative and compensatory processes, and others. [W. A. No. 22; ATD Report: 66-116]

SUB CODE: 06 / SUBM DATE: 00May66

Card 3/3

ACC NR: AT6025373

A SOURCE CODE: UR/0000/66/000/000/0045/0067

AUTHOR: Kuznetsova, M. A.

ORG: none

TITLE: Influence of multiple exposure to vibration on the functional state of the cerebrospinal reflex arc.

SOURCE: AN SSSR, Institut biologicheskoy fiziki. Vliyaniye faktorov kosmicheskogo poleta na funktsii tsentral'noy nervnoy sistemy (Effect of space flight factors on functions of the central nervous system). Moscow, Izd-vo Nauka, 1966, 45-67

TOPIC TAGS: biologic vibration effect, nervous system, reflex activity, brain, experiment animal, audio frequency oscillator, unconditioned reflex

ABSTRACT:

The author divided 14 guinea pigs weighing 250-500 g into two groups. The first group exposed to vibration twice in a series of 5 tests (10 exposures); the second (control) group was exposed to 75 db of noise from the vibration stand, the parameters of which were: frequency-70 cps; amplitude-0.4 mm. Animals were exposed to vibration and noise for 15 min per test.

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UDC: 612.014.482

ACC NR: AT6025373

Indices of reflex function were the excitability threshold and the latent period of the unconditioned defensive motor reaction. An audiofrequency oscillator (70 cps) served as a pain stimulus. To preclude the influence of sharp shifts in thresholds on the value of reflex reactions, stimuli of constant value were used as follows: 1) a weak stimulus was always equal to the tripled value of the threshold; 2) a moderate stimulus was always equal to the tripled value multiplied by six; 3) a strong stimulus was always equal to the threshold value multiplied by 10. The duration of stimulus was always 0.03 sec.

The experimental sequence proceeded as follows: 1) Threshold determination; 2) determination of the latent period of the reflex to a weak stimulus; 3) confirmation of the threshold value; 4) determination of the latent period of a reflex to a moderate stimulus; 5) confirmation of the threshold value; 6) determination of the latent period of a reflex to a strong stimulus. After variations in these parameters had been established, the animals were exposed to vibration.

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ACC NR: AT6025373

Exposure to vertical vibration 10 times in the course of 16 days affected the functional state of the defensive reflex arc. These radical, statistically reliable changes persisted for 34 days. They were characterized by complex shifts in the latent period of the unconditioned reaction and by an inverse relationship between changes in this reaction and the strength of the threshold stimulus. The dynamics of changes in the value of the latent period in reactions to stimuli of various strength indicated the development of parabiologic states of various depths and magnitudes. Changes in which reflex excitability increased and physiological lability decreased predominated.

The first half of the period of exposure to vibration resulted in a cumulation of vibration effects. The second period was characterized by a moderate recovery of reflex activity. In this period a sequential succession of parabiologic phases occurred, indicating change from a more severe to a less severe state of inhibition. This may indicate a process of adaptation; however, adaptation was incomplete. It was concluded that the completeness of adaptation depends on the magnitude of the

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ACC NR: AT6035373

initial reactions to vibration.

Noise from the vibration stand produced some pronounced shifts in reflex activity which were judged statistically unreliable. Orig. art. has: 8 figures and 1 table. [W.A. No. 22; ATD Report 66-99]

SUB CODE: 06 / SUBM DATE: 01Feb66 / ORIG REF: 001

Card 4/4

FEDENYUK, V.G.; KUZNETSOVA, M.A.; RUMYANTSEVA, A.S. (Moskva)

Use of adhesive perchlorovinyl tape for sealing the edges of
artificial fur parts. Shvein. prom. no.3:20-23 My-Je '65.
(MIRA 18:9)

YEGOROV, A.M.; ODINETS, Z.A.; Prinsipala uchastiye: KUZNETSOVA, M.G.,
laborant

Behavior of the sulfides of copper, zinc, lead, and iron during
roasting in presence of sodium chloride. Sbor. nauch. trud.
Gintsvetmeta no.19:293-307 '62. (MIRA 16:7)

(Nonferrous metals--Metallurgy)
(Sulfides--Metallurgy)

MAZILKIN, I.A.; KUZNETSOVA, M.G.

Nuclease and phosphatase activity of soil bacteria. Izv. AN SSSR.
Ser. biol. no.4:587-594 J1-Ag '64. (MIRA 17:10)

1. Institut biologii Bashkirskogo filiala AN SSSR, Ufa.

ACC NR: AP7007205

SOURCE CODE: UR/0186/66/008/006/0691/0692

AUTHOR: Sotnikov, V. S.; Kuznetsova, M. I.

ORG: none

TITLE: Adsorption of indium, cobalt and zinc ions from acetone on the surface of graphite, germanium, silicon and quartz

SOURCE: Radiokhimiya, v. 8, no. 6, 1966, 691-692

TOPIC TAGS: adsorption, indium, cobalt, zinc, graphite, quartz, germanium, silicon

ABSTRACT: The adsorption of In, Co and Zn from acetone on graphite, germanium, silicon and quartz surfaces was studied as a function of concentration of the impurities and time of contact with the solution at concentrations of 10^{-4} - $10^{-2}\%$ with the aid of In^{114} , Co^{60} and Zn^{65} isotopes. It is shown that the adsorption of indium on graphite, germanium, silicon and quartz obeys the Freundlich equation up to a concentration of $\sim 10^{-3}\%$, and the adsorption of zinc on Ge and quartz, up to $10^{-2}\%$. Adsorption saturation for Zn and Co on Ge, Si and SiO_2 takes place in 5-10 min, and for indium in less than 1 min. The lack of adsorption saturation in the case of graphite plates (which were porous) is attributed to diffusion processes. Values of the adsorption obtained were 10^{14} - 5×10^{15} atoms per cm^2 . Orig. art. has: 2 figures.

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L 18852-66 EWT(m)/EPF(n)-2/EWP(t) IJP(c) JD/JG/WB

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AUTHOR: Layner, D. I.; Solov'yev, V. Ya.; Kuznetsova, M. I.; Krupnikova-Perlina, Ye. I.; Slesareva, Ye. N.

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TITLE: Study of the oxidation of niobium

SOURCE: Moscow. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut splavov i obrabotki tsvetnykh metallov. Trudy. no. 24, 1965. Metallovedeniye i obrabotka tsvetnykh metallov i splavov (Metal science and the treatment of nonferrous metals and alloys), 75-85

TOPIC TAGS: niobium, niobium oxide, oxidation, oxide formation, polymorphism, crystal structure analysis, lattice parameter, temperature dependence

ABSTRACT: The niobium (melted in an electron-beam furnace) had the following composition: 0.1-0.8% (by wt) C, 0.01-0.05% O₂ and 0.01-0.05% N₂. The ingots were forged, machined and vacuum annealed at 1250°C. Kinetic oxidation curves were ob-

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