STARTSEV, V.I., Inzh.; STREL'CHENKO, I.I.; ANTIPOV, V.A.; BOYKO, A.M.; FILIPENKO, G.I.; STOLIKA, S.I.

Performance of Communist Youth League brigades. Ugol' 39 no.11:27-32 N '64. (MIRA 18:2)

1. Kombinat Kuzbassugol' (for Startsev). 2. Shakhta No.9-bis "Trudovskaya" (for all except Startsev).

L 29346-66 EWP(k)/EWT(d)/EWP(h)/EWP(l)/EWP(v)

ACC NR: AR6027745 SOURCE CODE: UR/0137/65/000/008/D009/D009

AUTHOR: Gurkov, A. A.; Antipov, V. F.

39
B

TITLE: Contact pulse transmitter of volume and direction dispalcement

SOURCE: Ref. zh. Metallurgiya, Abs. 8D58

REF SOURCE: Sb. Teoriya i praktika metallurgii. Vyp. 7. Chelyabinsk, 1964, 134-138

TOPIC TAGS: automatic electric device, [redacted], metalworking machinery, PULSE ANALYZER

ABSTRACT: A description is given of a pulse transmitter of volume and direction displacement. This transmitter is currently used for recording the rpm of the drive engines for an NIIM 200 laboratory mill. A similar transmitter was tested for recording the displacement of the upper roller of mill 1120 at the Orsko-Khalilovskiy metallurgical combine. Good results were obtained at a recording velocity of 10 mm/sec and a rotation velocity of 300 rpm. The reading accuracy was 0.1 revolution. Orig. art. has: 3 fig. L. Kochenova

SUB CODE: 09, 11/ SUBM DATE: none

Card 1/1 CC UDC: 621.771.001

16(1) 06301
AUTHOR: Antipov, V.G. SOV/140-59-6-2/29

TITLE: Singular Integral Equation With a Sum Kernel

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1959, Nr 6, pp 9-13 (USSR)

ABSTRACT: With the aid of the one-sided Laplace transformation

$$(1) \quad g(t) + \lambda \int_0^\infty k(t+\tau) g(\tau)\, d\tau = \varphi(t), \quad t>0$$

is transformed into

$$(7) \quad G(p) + \lambda K(p) G(-p) = \Phi(p), \quad a<\mathrm{Re}\ p<b$$

so that

$$(8) \quad G(p) = \frac{\Phi(p) - \lambda K(p)\Phi(-p)}{1-\lambda^2 K(p)K(-p)}$$

and

$$(9) \quad g(t) = \frac{1}{2\pi i} \int_{c-i\infty}^{c+i\infty} G(p) e^{pt}\, dp, \quad a<c<b.$$

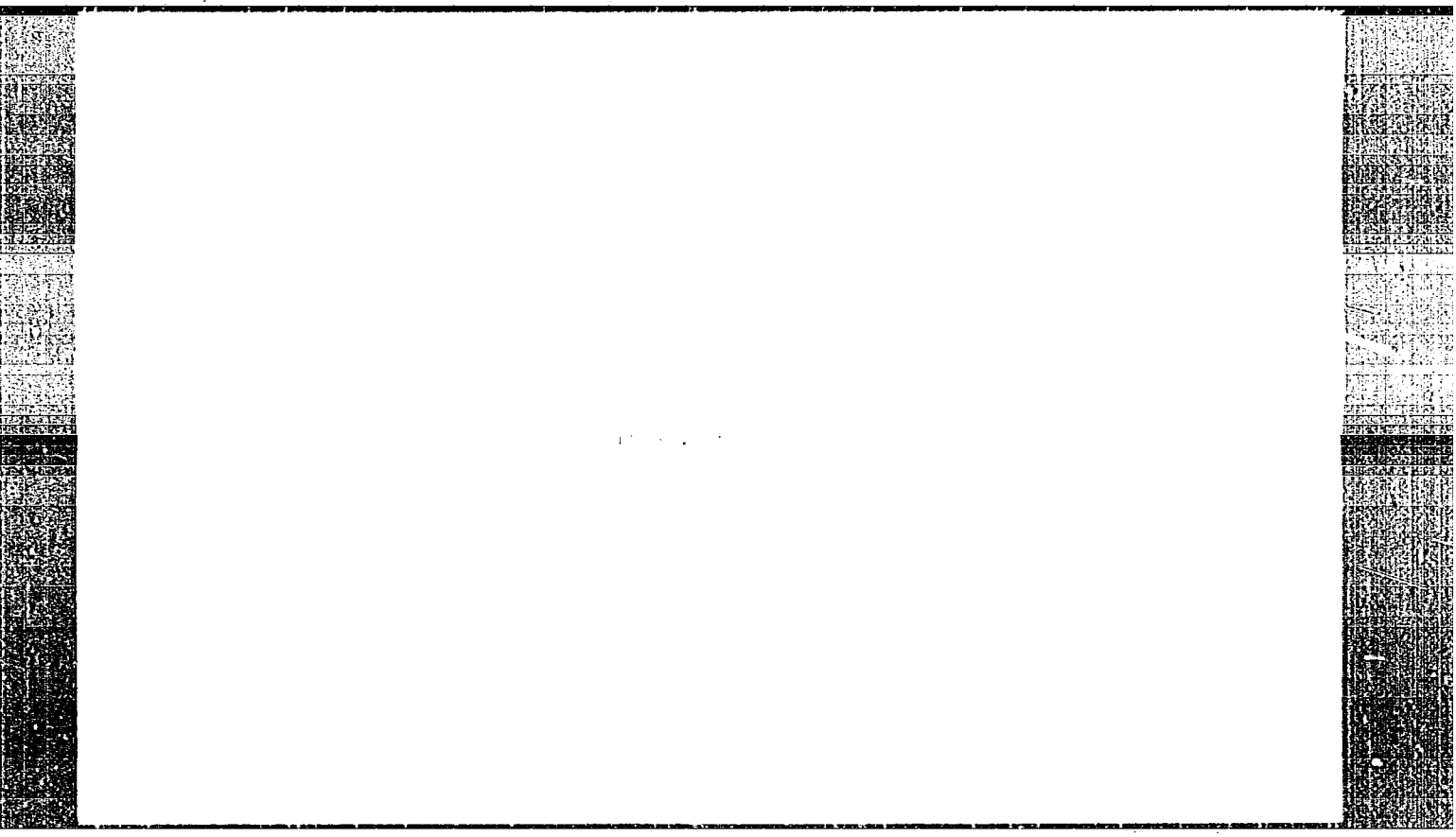
The question how to determine in general the characteristic

Card 1/2

ANTIPOV, V. G.

ANTIPOV, V. G.: "Providing greenery around industrial enterprises in the city of Leningrad". Leningrad, 1955. Min Higher Education USSR. Leningrad Order of Lenin Forestry Engineering Academy imeni S. M. Kirov. (Dissertations for the Degree of Candidate of Agricultural Sciences.)

So: Knizhnaya letopis' No. 49, 3 December 1955. Moscow.



APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101720007-3"

ANTIPOV, V.G. (Leningrad).

The effect of smoke and gases discharged by industrial plants on the seasonal development of trees and shrubs. Bot.zhur.42 no.1:92-94 Ja '57. (MLRA 10:2)
(Air--Pollution) (Trees) (Shrubs)

MAURIN', A.M.; ANTIPOV, V.G.

Foundation of the botanical garden of the Academy of Sciences of the Latvian S.S.R. Bot.zhur.42 no.1:153 Ja '57. (MLRA 10:2)

1. Botanicheskiy sad Akademii nauk Latviyskoy SSR, Riga.
(Salaspils--Botanical gardens)

ANTIPOV, V.G.

Effect of gases, discharged by industrial enterprises, on tree and shrub seeds. Bot.zhur.42 no.8:1230-1232 Ag '57. (MLRA 10:9)
(Plants, Effect of gases on) (Germination) (Trees)

ANTIPOV, V.G.

"City landscaping." Reviewed by V.G. Antipov. Bot.zhur. 43 no.9:1348-1349 S '58. (MIRA 11:10)

1. Botanicheskiy sad AN Latviyskoy SSR, Riga.
(Landscape gardening)

MAURIN', A.M. [Mauriņš, A.]; ANTIPOV, V.G.

Expedition of the Botanical Garden of the Academy of Sciences of the Latvian S.S.R. Bot.zhur. 43 no.10:1526-1527 O '58. (MIRA 11:11)

1. Botanicheskiy sad Latviyskoy SSR, Riga.
(Latvia--Botany)

32268
S/612/59/000/008/007/016
D218/D304

16.4400

AUTHOR: Antipov, V. G., Acting Docent

TITLE: A special integral equation with a summary kernel

SOURCE: Kuybyshev. Industrial'nyy institut. Sbornik nauchnykh trudov. No. 8, 1959. Teplotekhnika; voprosy teorii, rascheta i proyektirovaniya, 83-88

TEXT: The author states that a paper by Parodi on the subject contains an error, since the transformed equation obtained there is correct only for an even function. He considers the solution of

$$g(t) + \lambda \int_0^\infty K(t+\tau) g(\tau) d\tau = \varphi(t), \quad t > 0 \qquad (1)$$

assuming that Laplace transform can be applied to $k(t)$ and $\varphi(t)$. The transformed Eq. (1) is

Card 1/4

A special integral ...

$$G(p) + \lambda K(p)G(-p) = \Phi(p), \quad a < \mathrm{Re}\, p < b \tag{11}$$

Replacement of p by - p and elimination of G(-p) yields

$$G(p) = \frac{\Phi(p) - \lambda K(p)\Phi(-p)}{1 - \lambda^2 K(p)K(-p)} \quad a < \mathrm{Re}\, p < b \tag{12}$$

The solution of Eq. (1) is given by

$$g(t) = \frac{1}{2\pi i} \int_{c-100}^{c+100} G(p)e^{pt}dp, \quad a < c < b \tag{13}$$

The common convergence band is

Card 2/4

A special integral ...

$$a = \max(\alpha_1; \alpha_2) < \mathrm{Re}\, p < b = \min(-\alpha_1; -\alpha_2)$$

$$\alpha = a, \ \alpha < 0, \ b = -\alpha$$

If the path of the integration lies in the common convergence band, then the denominator in Eq. (12) is finite and Eq. (13) gives a unique solution of Eq. (1) for the above class of functions. If the denominator is equal to zero, then determination of the characteristic values of Eq. (1) remains an open question. It is shown that when

$$\varphi(t) \in L^2(0;\infty), \ k(t) \in L^2(0;\infty)$$

the following result holds:

$$\int_0^\infty k(t+\tau) g(\tau) d\tau \in L^2(0;\infty), \ t > 0$$

Card 3/4

32268
S/612/59/000/008/007/016
D218/D304

A special integral ...

This result also holds for a difference kernel. Solution of the special case $k(t+\tau) = e^{-(t+\tau)}$ is considered as an example. There are 5 references: 3 Soviet-bloc and 2 non-Soviet-bloc. The reference to the English-language publication reads as follows: D. V. Widder, "The Laplace transform", Princeton, 1946.

Card 4/4

ANTIPOV, V.G., ispolnyayushchiy obyazannosti dotsenta

One particular case of a generalized multiplication theorem and its application to the solution of integral equations. Sbor. nauch. trud. Kuib. indus. inst. no.8:89-101 '59. (MIRA 14:7)
(Integral equations)

ANTIPOV, V.G.

Gas resistance of lawn grasses. Bot. zhur. 44 no.7:990-992 Jl '59.
(MIRA 12:12)

1. Botanicheskiy sad AN Latviyskoy SSR, Riga.
(Plants, Effect of gases on) (Lawns)

ANTIPOV, V.S.

Some landscape composition methods in the parks of southwestern White Russia. Sbor. nauch. rab. TSNIIL no.1:73-77 '60.
(MIRA 14:10)
(White Russia--Landscape architecture)

ANTIPOV, V.G.

Effect of smoke and gas on flowering and fruiting of some trees and shrubs. Sbor. bot. rab. Bel. otd. VBO no.2:167-172 '60.
(MIRA 15:1)

(Plants, Effect of smoke on)
(Plants, Effect of gases on)

ANTIPOV, V.G. [Antsipau, V.H.], kand. sel'skokhozyaystvennykh nauk

New and rare woody plants introduced into the parks of southwestern White Russia. Vestsi AN BSSR. Ser. biial. nav. no.3:13-16 '60.
(MIRA 14:1)

(WHITE RUSSIA--TREES) (PLANT INTRODUCTION)

KAUROV, I.A.; ANTIPOV, V.G.

Large specimen of the Weymouth pine in Leningrad Province.
Biul. Glav. bot. sada no. 38:95-96 '60. (MIRA 14:5)

1. Botanicheskiy sad AN Belorusskoy SSR, Minsk.
(Leningrad Province—Pine)

ANTIPOV, V.G.

Regular park plans of White Russia. Sbor. nauch. rab. TSBS no.2:136-143 '61. (MIRA 15:7)

(White Russia--Parks)

ANTIPOV, V.G. [Antsipau, V.H.]

Memorial parks of White Russia. Vestsi AN SSSR. Ser. biial. nav. no.3:22-26 '61. (MIRA 14:10)
(WHITE RUSSIA—NATIONAL PARKS AND RESERVES)

ALTIKOV, V.G.

Exotic trees and shrubs in the parks of Latvia. Biul. Glav. bot. sada no.40:39-44 '61. (MIRA 14:10)

1. Botanicheskiy sad AN Belorusskoy SSR, Minsk.
(Latvia--Trees)
(Latvia--Shrubs)

ANTIPOV, V.G.

Rare ornamental exotic forms of woody plants in southwestern White Russia. Biul. Glav. bot. sada no.45:22-26 '62.
(MIRA 16:2)

1. TSentral'nyy botanicheskiy sad AN Belorusskoy SSR, Minsk.
(White Russia—Woody plants)
(White Russia—Plants, Ornamental)

ANTIPOV, V.G.

Effect of industrial smoke and gases on the coniferous forests of the Moscow Region as related to increased humidity. Biul. Glav. bot. sada no.46:41-46 '62. (MIRA 16:5)

1. TSentral'nyy botanicheskiy sad AN Belorusskoy SSR, Minsk.
(Moscow region--Coniferae) (Plants, Effect of smog on)

ANTHOW, V.G.

Effect of specific industrial gases on the growth of some woody plants. Bot. i issl. Pol. otd. VIC no.5:1-0-124 '63. (MIRA 17:5)

ANTIPOV, V.G. [Antsipau, V.H.]; FEDOROVA, R. [Fiodarava, R.]

Coniferous exotic plants in Kaliningrad Province. Vestsi AN BSSR. Ser. biial. nav. no.4:34-39 '63. (MIRA 17:8)

ANTIPOV, V.G.

History of the creation of botanical collections in White Russia. Bot. i issl. Bel. otd. VBO no.6:262-271 '64. (MIRA 18:7)

ANTIPOV, V.G. [Antaipau, V.H.] [illegible]

Decorative forms of broad-leaved varieties in Volintorrad Province. Vestsi AN BSSR. Ser. biial. nav. no.1 '65. (MIRA 18:5)

ANTIPOV, V.G.

History of the creation of botanical collections in White Russia. Report No.2. Botanical garden in Vitebsk. Bot.; issl.Bel.otd.VBO no.7:218-226 '65.

(MIRA 18:12)

ANTIPOV, V.I.

Mechanizing the sowing of Indian Hemp seeds in nurseries. MTS 12 no. 3, 1952

SO: MLRA. August 1952.

ANTIPOV, Vasiliy Ivanovich; KAMYSHNIKOV, A.Ya., redaktor

[Over-all mechanization of ensilage] Kompleksnaia mekhanizatsiia silosovaniia kormov. Alma-Ata, Kazakhskoe gos. izd-vo, 1955. 57 p. (Ensilage) (MLRA 10:2)

L 02980-66 EWI(m)/EWP(w)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/HW

ACC NR: AP6032455 SOURCE CODE: UR/0129/66/000/009/0030/0033

60
59
B

AUTHOR: Gorshorov, M. Kh.; Antipov, V. I.; Senin, A. M.; Belov, V. V.

ORG: Institute of Metallurgy, AN SSSR (Institut metallurgii AN SSSR)

TITLE: Polygonization of austenite subjected to low temperature thermomechanical treatment

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 9, 1966, 30-33 and appropriate insert facing p. 49

TOPIC TAGS: polygonization, ~~mechanical treatment~~, high strength steel/15Kh11MF steel, 15Kh12NMVFA steel, 25Kh2GSNVM steel, 28Kh3SNMVFA steel

ABSTRACT: The effect of polygonization annealing on the properties of superstrength steels subjected to low temperature thermomechanical treatment (LTMT) has been investigated. The schematic layout of the continuous process combining LTMT and polygonization annealing (Author Certificate 155161) is shown in Fig. 1. Specimens of 15Kh11MF, 15Kh12NMVFA, 25Kh2GSNVM, and 28Kh3SNMVFA steels were heated to 1050, 1100 and 1200C and cooled in an air jet to 550C, at which temperature they were stretched by 30—37%, immediately rapidly reheated to 550—700C, kept at that temperature from 0 to 5000 sec (polygonization annealing), and then cooled in an air jet. It was found that polygonization annealing improved the strength only very

Card 1/2 UDC: 621.789.669.14.018.85

L 02980-67

ACC NR: AP6032455

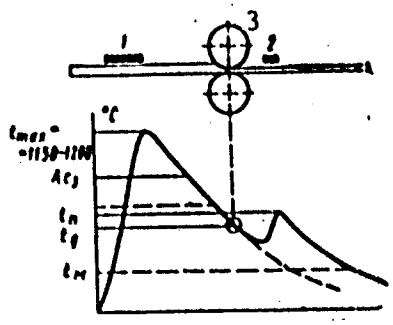


Fig. 1. Layout of continuous LTMT with polygonization annealing

1 - Inductor for recrystallization annealing;
2 - inductor for polygonization annealing; 3 - rolls.

slightly, but greatly increased the ductility. For instance, conventionally heat treated 25Kh2GSVM and 28Kh3SNMVFA steels had a tensile strength of 190 kg/mm^2 and 198 kg/mm^2, and a reduction of area of 20% and 17%, respectively. The same steels, after LTMT but without polygonization, had a strength of 212 kg/mm^2 and 223 kg/mm^2, and a reduction of area of 26.8% and 26%, respectively. After polygonization annealing at 600C for 20—100 sec (optimal conditions), the strength was 217—218 kg/mm^2 and 225 kg/mm^2, and the reduction of area 36.6—38% and 34%, respectively. Orig. art. has: 4 figures and 1 table.

SUB CODE: 11/13/ SUBM DATE: none/ ORIG REF: 003/ ATD PRESS: 5099

Card 2/2

ANTIPOV, V.I.; BATALOV, A.L. (REVIEWER)

"Geography of the Pacific." [in English]. O.W.Freeman. Reviewed by V.I.Antipov, A.L.Batalov. Izv.AN SSSR Ser.geog. no.2:82-85 Mr-Ap '54. (MLRA 7:5)

(Freeman, Otis Willard, 1889-) (Pacific area)

[redacted]

ANTIPOV, V. I., CAND GEOL-MIN SCI, "PLUTONIC STRUCTURE AND PETROLEUM AND GAS CONTENT OF SOVIET CARPATHIAN AREA." L'VOV, 1960. (MIN OF HIGHER AND SEC SPEC ED UKSSR, L'VOV POLYTECH INST). (KL, 3-61, 206).

LADYZHENSKIY, Nikolay Romanovich, prof.; ANTIPOV, Viktor Ivanovich; PORFIR'YEV, V.B., akademik, red.; YUNGANS, S.M., vedushchiy red.; VORONOVA, V.V., tekhn. red.

[Geology, and gas and oil potentials of the Soviet cis-Carpathian region] Geologicheskoe stroenie i gazoneftenosnost' Sovetskogo Predkarpat'ia. Moskva, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, 1961. 265 p. (MIRA 14:10)

1. Akademiya nauk USSR (for Porfir'yev)
(Carpathian Mountain region—Petroleum geology)
(Carpathian Mountain region—Gas, Natural—Geology)

ANTIPOV, V.I.

A new scientific geographical journal in Indonesia. Izv. AN SSSR. Ser. geog. no.2:102-103 Mr-Ap '61. (MIRA 14:3)

1. Institut geografii AN SSSR.
(Indonesia—Geography—Peridocials)

ANTIPOV, V.I.

Tectonic division of the cis-Carpathian region on the basis of geophysical data. Geol.sbor. [Lvov] no.7/8:477-480 '61.
(MIRA 14:12)

1. Zapadnoukrainskaya razvedochnaya geofizicheskaya kontora, L'vov.
(Carpathian Mountain region—Geology, Structural)

ANTIPOV, Viktor Ivanovich; LADYZHENSKIY, N.N., doktor geol.-miner. nauk, otv. red.; MEL'NIK, A.F., red.

[Seismotectonics of the western provinces in the Ukraine] Seismotektonika zapadnykh oblastei Ukrainy. Kiev, Naukova dumka, 1965. 54 p. (MIRA 18:4)

AM5015203 BOOK EXPLOITATION UR/

Antipov, Viktor Ivanovich

Seismic tectonics of the western regions of the Ukraine (Seysmotektonika zapadnykh oblastey Ukrainy) Kiev, Izd-vo "Naukova dumka", 1965. 54 p. illus., biblio., maps. 650 copies printed. (At head of title: Institut geologii i geokhimii goryuchikh iskopayemykh AN USSR). Managing editor: Doctor of Geologic-Mineral Sciences N. R. Ladyzhenskiy; Editor: A. F. Mel'nik; Technical editor: N. P. Rakhlina; Proofreader: V. A. Litovkina

TOPIC TAGS: earthquake, seismology, tectonics / Western Ukraine

PURPOSE AND COVERAGE: This booklet was intended for a wide circle of geologists and geophysicists and also for research personnel in the field of seismology and neotectonics. Existing ideas concerning the seismology of the western regions of the Ukraine are reviewed critically. Certain peculiarities of the seismology of this territory and its relationship to the mixed seismically active regions of Rumania, Hungary, and Czechoslovakia are analyzed; and the basic laws governing the distribution of the foci of Carpathian earthquakes are noted. The characteristics of the newest tectonic movements both in the tectonic and in the orohydro-

Card 1/2 UDC: 551.42 A72

AM5015203

graphic planes are clarified. A schematic representation of seismic danger is presented, the first compiled for this territory according to geologic data.

TABLE OF CONTENTS:

SUB CODE: 08 /SUBM DATE: 27Jan65 /SOV REF: 065 /OTH REF: 003

Card 2/2

ANTIPOV, V.M.; RADCHENKO, V.T.; SHUBA, P.F.

Adopting the KM-87 unit at the "Annenskaia" mine. Ugol' Ukr. 10 no. 1:37-38 Ja '66. (MIRA 18:12)

1. Nachal'nik uchastka shakhty "Annenskaya" (for Antipov). 2. Nachal'nik planovogo otdela shakhty "Annenskaya" (for Radchenko). 3. Zamestitel' glavnogo inzhenera tresta Kadiyevugol' (for Shuba).

ANTIPOV, V.N. [Antipov, V.N.], kand.tekhn.nauk, dots.

Designing composed beams. Sbor.trud.VISI no.4:69-80 '58.
(MIRA 12:8)
(Girders)

ANTIPOV, V.P.; LOBKOV, M.K.; FOMIN, M.P.

Collection of tables for geodetic calculations. Geod. i kart. no.4:77-79 Ap '57. (MLRA 10:8)

(Geodesy--Tables, etc.)

Antipov V.P.

86-58-3-19/37

AUTHOR: Agamirov, V.L., Engr Lt Col; Glukharev, A.N., Engr Maj; Antipov, V.P., Engr Capt; Morozov, D.P., Engr Capt

TITLE: Automatic Aerostats (Avtomaticheskiye aerostaty)

PERIODICAL: Vestnik vozdushnogo flota, 1958, Nr 3, pp 50-54 (USSR)

ABSTRACT: The article gives a general description of automatic (pilotless) aerostats as well as of their equipment which is used for scientific research of the upper atmosphere. The authors distinguish two types of automatic aerostats: aerostats whose envelope bursts after a given task is accomplished and whose instruments are detached either automatically or by a radio signal from the ground and then descend by parachute; and aerostats whose envelope can be converted automatically into a parachute. According to the authors, extensive use of automatic aerostats for directed long-distance flights was made possible by the successful exploration of jet streams in the atmosphere. One photo, 1 diagram.

AVAILABLE: Library of Congress

Card 1/1

AUTHORS: Antipov, V. P., Loginov, N. F. SOV/50-58-7-2/20

TITLE: Methods of Calculation of the Vertical Range of Radiosondes With Respect to the Strength of the Envelope Gas Bag at Low Temperatures (Metod rascheta vysoty pod"yema radiozondov s uchetom prochnosti obolochek pri nizkikh temperaturakh)

PERIODICAL: Meteorologiya i gidrologiya, 1958, Nr 7, pp. 11-17 (USSR)

ABSTRACT: From the practical use of radiosondes with synthetic latex envelope gas bags it is known that they often do not reach the calculated height. As reasons for the reduction of the vertical range of radiosondes have hitherto been assumed: a) the destruction of the gas bags after their freezing in the stratosphere as well as under the action of local overstress and under the influence of ozone in the height, b) the balancing of the radiosondes in lower heights than the calculated ones in consequence of the reduction of the buoyancy up to the value of the gross weight. In the present paper the authors describe the aerostatic method of calculation of radiosondes taking into consideration the strength of the gas bags at low temperatures. The vertical range of radio-

Card 1/4

Methods of Calculation of the Vertical Range of Radiosondes With Respect to the Strength of the Envelope Gas Bag at Low Temperatures

sondes during day time and during the night was calculated by means of this method. The data necessary for the calculation were taken from the laboratory experiments with "nayrite-latex" (nairitovyy) gas bags for two-dimensional expansion. The basic characteristics are shown (Table 1). The temperature values of the surrounding air, of the gas bag and of the carrier gas are necessary for the calculation. The diagrams (Figs 1 and 2) were made on the strength of the calculations carried out. As a supplement to the obtained results it must be mentioned that it is impossible to take into account the action of ozone upon the strength of the gas bag, the concentration of the stress on single sections of the bag, the differences in the expansion velocity of the bag etc. The influence of these factors on the vertical range of the radiosonde can be detected only by the introduction of experimental coefficients into the calculations. These can be determined by means of special experiments. As a summary it is stated that the characteristics of the ascent of radiosondes depend in the first place on the elastic properties of the latex gas bags at low temperatures. Therefrom it may

Methods of Calculation of the Vertical Range of Radiosondes With Respect to the Strength of the Envelope Gas Bag at Low Temperatures

be concluded that the initial thickness of the gas bags has to be chosen so that it guarantees maximum prolongations even at destructive stresses. Gas bags which are mass-produced have originally a film of 0,015 cm thickness which represents an optimum thickness for the gas bags used at positive temperatures. The most favorable initial thickness for radiosondes ascending into the stratosphere for low temperatures (up to -60°) must be determined experimentally. Finally it may be stated that 1) the increase of the elasticity of the latex bags by the production of new materials or by treating the materials existing at present with special plastifiers, and 2) the reduction of the degree of filling of the gas bag on the ground are the basic conditions for reaching a greater vertical range of the radiosondes. However, these methods reduce the velocity of ascent. The weight of the apparatus has to be reduced in order to maintain the velocity of ascent. There are 2 figures, 2 tables, and 2 Soviet references,

Card 3/4

SOV/ 50-58-7-2/20

Methods of Calculation of the Vertical Range of Radiosondes With Respect to the Strength of the Envelope Gas Bag at Low Temperatures

1. Radiosondes--Range determination 2. Balloons--Mechanical properties
3. Gases--Properties 4. Mathematics

Card 4/4

SHAPCHENKO, A.A.; LETENKO, V.A., kand. ekon. nauk, retsenzent;
ANTIPOV, V.P., ekon., red.; POCHTAREVA, T., red. izd-va;
EL'KIND, V.D., tekhn. red.

[Operational planning in assembly shops]Operativnoe planirovanie v sborochnykh tsekhakh. Izd.2. i dop. Moskva, Mashgiz, 1962. 114 p. (MIRA 15:10)
(Industrial management)
(Assembly-line methods)

ANTIPOV, V.P.

Using approximations to adjust 3d- and 4th-class triangulation. Geod. i kart. no.5:14-19 My '63. (MIRA 16:7)

(Triangulation)

BOCHAROV, G.G., ekonomist, red.; ANTIPOV, V.P., red.; CHERNOVA, Z.I., tekhn.red.; GORDEYEVA, L.P., tekhn.red.

[Accounting of the expenditures for production and the calculation of the unit costs of industrial products] Uchet zatrat na proizvodstvo i kal'kulirovanie sebestoimosti promyshlennoi produktsii. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 254 p. (MIRA 14:6)

1. Moskovskiy dom nauchno-tekhnicheskoy propagandy imeni F.Ye. Dzerzhinskogo.

(Cost accounting) (Machinery industry--Costs)

ANTIPOV, V.V.

Profilographic measurement of local wear in precision parts. Zav. lab. 21 no. 8:979-981 '55. (MLRA 8:11)
(Mechanical wear)

ANTIPOV, Vladimir Vasil'yevkch, kand. tekhn. nauk; ANDREYEV, P., red.; LUKASHEVICH, V., tekhn. red.

[Repair and adjustment of the fuel system of diesel tractors] Remont i regulirovanie toplivnoi apparatury dizel'nykh traktorov. Saratov, Saratovskoe knizhnoe izd-vo, 1961. 126 p. (MIRA 15:3)

(Diesel engines--Maintenance and repair)

ANTIPOV, V.V.

Obtaining blueprints on high-grade drawing paper. Sudostroenie 29 no.4:57-58 Ap '63. (MIRA 16:4)
(Blueprinting)

[illegible]KOV, V.K., dotsent; [illegible]
BUTAKOV, E.I., student; [illegible]

Increasing the operational durability of hydraulic coal dredger parts. Izv. vys. ucheb. zav.; gor. zhur. [illegible]

1. Moskovskiy institut radioelektroniki [illegible]
Rekomendovana kafedroy tekhnologii [illegible]
priborostroyeniya.

ANTIKOV, V. V.

ANTIKOV, V. V.: "Material on the Study of the Mechanism of Formation of Functional Systolic Heart Noise(experimental investigation)." Military Faculty, Central Inst for the Advanced Training of Physicians. Chair of Military Physiology. Moscow, 1956. (Dissertation for the Degree of Candidate in Medical Science)

So: Knizhnaya Letopis', No. 18, 1956

RAYEVSKIY, V.S.; KUZNETS, Ye.I.; ANTIPOV, V.V.; TOLOVA, S.V.; UL'YANINSKIY, L.S.

Aleksandr Ivanovich Smirnov; on his 70th birthday. Fiziol. zhur. 44 no.3:266-267 Mr '58. (MIRA 11:4)
(SMIRNOV ALEKSANDR IVANOVICH, 1887-)

4943. PROPHYLAXIS OF RADIATION SICKNESS (Russian text) - Antipov V. V. and Krasnykh I. G. - MED. RADIOL. 1959, 4/1 (63-65)

Experiments were performed on 392 mice. The protective properties against total X-ray irradiation (900 r.) of *p*-aminopropiophenone and its formaldehyde bisulphite derivative and of *p*-aminobutyrophenone were studied. The drugs were introduced into the oesophagus 1-3 hr. prior to irradiation. The first 2 agents were administered in a 20% ethyl alcohol solution, the 3rd in a 0.5% aqueous solution. The doses were 50-100 mg./kg. body weight. The greatest protective effect was shown by *p*-aminopropiophenone and its formaldehyde bisulphate derivative in a dosage of 50 mg./kg., introduced 1 hr. before irradiation: with this prophylaxis 20-25% of the mice survived.

(XIV, 2, 17)

RAYEVSKIY, V.S.; KUZNETS, Ye.I.; ANTIPOV, V.V.; TOLOVA, S.V.

Bioelectric currents of the cerebral cortex during various functional states of the respiratory center. Fiziol.zhur. 45 no.10:1192-1200 O '59. (MIRA 13:2)

1. Akademiya meditsinskikh nauk SSSR, fiziologicheskaya gruppa, Moskva.
(RESPIRATION physiol.)
(ELECTROENCEPHALOGRAPHY)

ANTIPOV, V.V. (Moskva)

Tone of the cardiac center of the vagus nerve in dogs following X-irradiation. Pat.fiziol.i eksp.terap. 4 no.4:75 Jl-Ag '60. (MIRA 14:5)

(X RAYS--PHYSIOLOGICAL EFFECT) (VAGUS NERVE)

RAYEVSKIY, V.S.; ANTIPOV, V.V.; KUZNETS, Ye.I.; TOLOVA, S.V.; UL'YANINSKIY, L.S.; SHAPOVALOVA, V.Ya.

Mechanism of the cessation of inhibition of the respiratory center during stimulation of the central portion of the vagus nerve. Fiziol. zhur. 46 no.10:1203-1209 O '60. (MIRA 13:11)

1. Fiziologicheskaya gruppa chlena-korrespondenta AMN SSSR A.I.Smirnova, Moskva.
(VAGUS NERVE) (RESPIRATION)

27 2700
27.1220

3331h
S/560/61/000/010/012/016
D298/D302

AUTHORS: Arsen'eva, M. A., Antipov, V. V., Petrukhin, V. G., L'vova, T. S., Orlova, N. N., and Il'ina, S. S.

TITLE: Changes in the blood-forming organs of mice under the effect of flight in a space-ship

SOURCE: Akademiya nauk SSSR. Iskusstvennyye sputniki Zemli. no. 10. Moscow, 1961, 82-92

TEXT: A study was made of the effects of flights in a space-ship (the 2nd Sputnik) on the blood-forming organs of mice. An attempt was made to differentiate between the action of vibration, acceleration and X-rays. The experiments were carried out on 40 black C-57 (S-57) strain and white non-species mice. Their weight fluctuated between 18 - 22 g. The same group of animals was also used for the standard. All the animals returned from cosmic flight in good condition. Cytology and

Card 1/4

Changes in the...

histology methods for investigating the brain and spleen were used. The peripheral blood and the morphology of the bone marrow were studied. Experiments showed that there is a statistically valid frequency increase of mitosis destruction in the bone marrow cells of the experimental animals compared to the controls. Obtained data on chromosome destruction of mitosis in the cells of the bone marrow in mice having been in cosmic flight showed that these differed from the results obtained in X-radiation. Two main differences were noted: (1) in cosmic flight, the frequency of chromosome destruction did not drop prior to the end of the experiment; (2) there was almost complete absence of fragmentation in chromosome changes. The morphology studies of the bone marrow showed that in mice isolated for 30 days after returning to earth a sharp rejuvination of the myelopoesis was noted, expressed through an increased number of myeloblasts, promyelocytes, myelocytes. Analysis of the peripheral blood showed no noticeable deviations from the

X

Changes in the...

controls. The hystology tests indicated that in the spleen of mice isolated for three days after the experiment the number of megacariocytes drops. Further analysis of the cytology and histology data revealed that certain changes were noted in the blood-forming organs of the mice after cosmic flight. It is assumed, however, that these changes occurred due to several factors in addition to cosmic radiation. Special tests to differentiate the effects of the various factors showed that cosmic flight caused changes in the blood-forming organs due to mechanical factors as well as primarily vibration. Listed data indicate that vibration is one of the main causes of bone marrow and spleen changes. The biological effectiveness of cosmic radiation and other flight factors is said to be still unknown, requiring further studies of cosmic radiation effects over long periods of time on biological specimens. There 6 figures, 5 tables and 4 references: 1 Soviet-bloc and 3 non-Soviet-bloc. The references to the English-language publications read as

Card 3/4

33314
S/560/61/000/010/012/016
D298/D302

Changes in the...

follows: F. Devik, Brit. J. Radiol., 27, 463, 1954; C. D. Darlington, L. F. La Cour, J. Heredity, Suppl. 6, 1952.

SUBMITTED: May 3, 1961

X

Card 4/4

ANTIPOV, V.V.

Possibility of using tissue hemolysins as indicators of the effectiveness of radiation protective preparations. Radiobiologiia 1 nb.1: 86-92 '61. (MIRA 14:7)
(RADIATION PROTECTION) (HEMOLYSIS AND HEMOLYSINS)

+ in translation

SHASHKOV, V.S.; ANTIPOV, V.V.; KUZNETS, Ye.I.

Kymographic and electromagnetic registration of drops. Farm.i toks. 24 no.2:237-238 Mr-Ap '61. (MIRA 14:6)
(INJECTIONS)

ANTIPOV, V. V., DOBROV, N. N. and SAKSONOV, P. P.

"Radiobiological Problems of Space Flight"

report presented at the Intl. Symposium on Basic Environmental Problems of Man in Space, Paris, 29 October - 2 November 1962.

ZHUKOV-VEREZHNIKOV, N.N.; MAYSKIY, I.N.; YAZDOVSKIY, V.I.; PEKHOV, A.P.; RYBAKOV, N.I.; KLEMPARSKAYA, N.N.; GYURDZHIAN, A.A.; TRIBULEV, G.P.; NEFED'YEVA, N.P.; KAPICHNIKOV, M.M.; PODOPLELOV, I.I.; ANTIPOV, V.V.; NOVIKOVA, I.S.; KOP'YEV, V.Ya.

Problems of space microbiology and cytology. Probl.kosm.biol. 1:118-136 '62. (MIRA 15:12)
(SPACE MICROBIOLOGY) (CYTOLOGY)

S/865/62/001/000/010/033
E028/E185

AUTHORS: Arsen'yeva, M.A., Antipov, V.V., Petrukhin, V.S., L'vova, T.S., Orlova, N.N., and Il'ina, S.S.

TITLE: Changes in the haemopoietic organs of mammals under the influence of space flight

SOURCE: Problemy kosmicheskoy biologii, v.1. Ed. by N.M. Sisakyan. Moscow, Izd-vo AN SSSR, 1962. 205-218

TEXT: In a study of the effect of cosmic radiation upon the haemopoietic system 40 mice of the C57 strain which had been on a space flight were killed at intervals up to 60 days after return and cytological preparations were made of the peripheral blood, spleen and bone marrow. Abnormalities of mitosis in the form of bridges and adhesions were observed in 7.12 - 10.78% of cells in anaphase and telophase, compared with 1.96 - 3.8% of abnormalities in preparations from control animals, and no decline in the proportion of affected cells had occurred by the end of the observation period. The findings differed in this respect from the effects of X-irradiation, where the proportion of chromosome

Card 1/2

abnormalities declines steadily and the usual finding is fragmentation of the chromosomes. No abnormalities were noted in preparations of the peripheral blood. Preparations of the spleen showed a decline in megakaryocytes after 3 days and shrinkage of follicles after 9 days, followed later by enlargement and the appearance of atypical cells. The chromosome abnormalities described could be largely duplicated by exposure of normal mice to vibration, which was probably of greater importance than cosmic radiation as a cause of abnormalities in animals undergoing space flights.
There are 6 figures and 5 tables.

SHASHKOV, V.S.; ANTIPOV, V.V.; RAUSHENBAKH, M.O.; CHERNOV, G.A.; MASLENNIKOVA, V.A.

Effect of space flight factors on the level of serotonin in the blood of animals. Probl.kosm.biol. 1:258-264 '62. (MIRA 15:12)
(SPACE FLIGHT--PHYSIOLOGICAL EFFECT)
(SEROTONIN)

S/865/62/001/000/015/033
L028/E185

AUTHORS: Antipov, V.V., Bayevskiy, R.M., Gazenko, O.G., Genin, A.M., Gyurdzhian, A.A., Zhukov-Verezhnikov, N.N., Zhuravlev, B.A., Karpova, L.I., Parfenov, G.P., Seryapin, A.D., Shepelev, Ye.Ya., Yazdovskiy, V.I.

TITLE: Some results of medical and biological investigations in the second and third satellites

SOURCE: Problemy kosmicheskiy biologii, v.1, Ed. by N.M.Sisakyan. Moscow, Izd-vo AN SSSR, 1962. 267-284

TEXT: The maintenance of life conditions is discussed with special reference to the second Soviet satellite. During the flight the proportion of oxygen in the air of the cabin could be maintained at 21 to 24%, whereas the relative humidity rose from 37 to 47%. The temperature ranged from 16 to 19°C. Water and food were provided together in a mixture solidified with agar, in order to facilitate automatic dispensing in conditions of weightlessness. This was carried out twice daily by command signals from Earth. Telemetric recording of the physiological parameters of the dogs Belka and Strelka during space flight showed the

Card 1/2

occurrence of tachycardia as a result of acceleration, noise and vibration; there was also a rise in the respiration rate: a return to normal pre-flight values occurred during the condition of weightlessness. Movements of the animals were observed by television cameras and also by potentiometric sensors mounted in the harness. No abnormalities were observed in the behavior of the animals after return to earth or during the following 3 months. It was concluded from the experiments carried out in the second satellite that dogs could readily be accustomed to space flight conditions. Genetic changes were noted in the progeny of actinomycetes, plant seeds and fruit flies after return from space flight. The third space satellite contained two dogs (Pchelka and Mushka), two guineapigs, two rats, twenty six mice, fruit flies, seeds and other biological materials which were included in order to study the effects of cosmic radiation. The results are not described.

S/865/62/002/000/012/042
D405/D301

AUTHORS: Arsen'yeva, N.A., Antipov, V.V., Petrukhin, V.G., L'vova, T.S., Orlova, N.N., Il'ina, S.S., Kabanova, L.A., and Kalyayeva, E.S.

TITLE: Cytologic and histologic changes in blood-forming organs of mice under the effect of space flight conditions

SOURCE: Problemy kosmicheskoy biologii. v. 2. Ed. by N. Sisakyan and V. Yazdovskiy. Moscow, Izd-vo AN SSSR, 1962, 116-127

TEXT: In the investigations, an attempt was made at differentiating between the effects of dynamic factors of flight such as vibration, acceleration and weightlessness. The experiments were conducted on males of black-linear (C^{57}) mice, and on white mice. A cytological analysis of the bone marrow cells revealed a disturbance of mitosis under the effect of space flight. It was found that the majority of chromosome abberations appeared not as a result

Card 1/3

of chromosome disruption, but through sticking together with possible subsequent anomalous separation. Morphological studies of the bone marrow showed, after 30 days, an increase in the number of myeloblasts, promyelocytes and myelocytes. Histologic investigations of the spleen of the mice showed, during the first days of the experiment, a decrease in the number of follicules and megacaryiocytes; towards the 30th day the number of the latter increased again and on the 60th day the blood formation was renewed. Special experiments were conducted in order to ascertain the specific effects of vibration, acceleration and weightlessness. It was found that Serotonin, introduced intraperitoneally into the mice 10 minutes before the experiment, was an effective means of protection against vibration damage of cells. Conclusions: Space flight caused disturbances in the bone marrow and spleen of mice that were recorded two days after the flight and lasted for a month. Both vibration and weightlessness experiments produced such alterations as chromosome fusion. Acceleration in a state of weightlessness can lead to a disruption in the spindle apparatus of the cell. It is evident that the effects of space flight on the cell constitute a complex problem, involving

many factors. However, the biological action of cosmic radiation is altogether undetermined as yet, requiring further studies. There are 9 figures and 3 tables.

Card 3/3

ZHUKOV-VEREZHNIKOV, N.N.; MAYSKIY, I.N.; YAZDOVSKIY, V.I.; IYKHOV, A.P.; GYURDZHIAN, A.A.; RYBAKOV, N.I.; ANTIPOV, V.V.

Microbiological and cytological studies in spaceships. Probl. kosm.biol. 2:140-148 '62. (MIRA 16:4)
(SPACE BIOLOGY)

SAKSONOV, P.P., ANTIPOV, V.V.

"Effects of space radiation on earth's forms of life."

Report submitted to the Conf. on the Application of Science and Technology for the Benefit of the Less Developed Areas.
Geneva, Switzerland 4-20 February 1963

ANTIPOV, V. V., SAKSONOV, P. P., YAZDOVSKIY, V. I.,

"Investigation of Biological Effect of Cosmic Radiation Under Conditions of Space Flights"

report submitted for the 14th Intl. Astronautical Federation (IAF), Congress, Bioastronautics Committee, Paris, France, 25 Sep-1 Oct 63

ANTIPOV, V. V., SHASHKOV, V. S., RAZGOVOROV, B. L., MURIN, S. F., and MOROZOV, V. S., SAKSONOV, P. P.,

"On the Biological Effect of High-Energy Protons"

report submitted for the 14th Intl. Astronautical Federation (IAF) Congress, Bioastronautics Committee, Paris, France 25 Sep-1 Oct 63

ANTIPOV, V. V., DOBROV, N. N., NIKITIN, M. D., VOLYNKIN, Yu. M., and SAKSONOV, P. P.,

"Ensuring of Radiation Safety During Flights of Soviet Cosmonauts Yu. A. Gagarin, G. S. Titov, A. G. Nikolayev, and P. R. Popovich."

report submitted for the 14th Intl. Astronautical Federation (IAF) Congress, Bionstronautics Committee, Paris, France 25 Sep-1 Oct 63

ANTIPOV, V. V., SAVENKO, I. A., VOLYNKIN, Yu. M., and SAKSONOV, P. P.,

"Problems of Radiation Safety of Space Flights,"

report submitted for the 14th Intl. Astronautical Federation (IAF) Congress, Bioastronautics Committee, Paris, France 25 Sep-1 Oct 63

ACCESSION NR: AT4042646 S/0000/63/000/000/0023/0026

AUTHOR: Antipov, V. V.; Vy*sotskiy, V. G.; Davy*dov, B. I.; Dobrov, N. N.; Morozov, V. S.; Murin, G. F.; Nikitin, M. D.; Saksonov, P. P.

TITLE: Some problems in providing radiation safety in space flight

SOURCE: Konferentsiya po aviatsionnoy i kosmicheskoy meditsine, 1963. Aviatsionnaya i kosmicheskaya meditsina (Aviation and space medicine); materialy* konferentsii. Moscow, 1963, 23-26

TOPIC TAGS: radiation safety, space flight, spaceflight factors, cosmic radiation effect, vibration, acceleration, radiation protection, dosimetric control, biological dosimeter, solar flare, antiradiation drug/RBE

ABSTRACT: Although protons are an important component of primary cosmic radiation, experimental data on their biological action under space conditions and their RBE compared with x-rays and gamma-rays are lacking. It has been established that the RBE of protons with energies in excess of 100 Mev (LD_{50} for rodents) is a little less than one. However, the data on which this figure is based were obtained with various particle accelerators of high-dose power and pulsed radiation,

Card 1/4

conditions not found in space. The RBE of alpha-particles and high-energy nuclei of the heavier elements has been estimated as lying between 2 and 10. Laboratory verification with animals is unfortunately impossible, since sufficiently powerful accelerators do not exist. The combined effect of radiation and other space-flight factors (vibration, acceleration, modified atmosphere, etc.) is another important area where few experimental data are available. It is necessary to know in what ways and to what extent cosmic radiation contributes to the total effect of space flight on the human body, and what is the qualitative and quantitative influence of other space-flight factors on the biological effect of radiation, in order to formulate scientifically-based antiradiation drugs and safety measures. Experiments have shown that the development of radiation damage is modified by acceleration and vibration, the effect depending on when and in what sequence these factors occur. Animals subjected to vibration and acceleration 5 to 7 days after irradiation showed a poorer tolerance to these factors than nonirradiated animals. In addition, the vibration and acceleration aggravated the course of the radiation sickness. Vibration and acceleration prior to irradiation not only failed to aggravate radiation sickness, but even somewhat abated its severity. Without experimental data on RBE and the combined effects of spaceflight factors, permissible levels of radiation cannot be scientifically established. A conditional

Card 2/4

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101720007-3"

permissible dose of 25 ber (biological equivalent roentgen) has been set, but is subject to revision upward or downward as actual data on the effect of various cosmic radiation components and the effectiveness of antiradiation measures are accumulated. The ideal type of radiation protection would be mechanical shielding (i. e., an actual screen of lead or some other material) but this is technologically impossible at present. The majority of chemical antiradiation agents cannot be used under space-flight conditions. Since radiation effects are not confined to humans, not only the crew members but the whole spaceship biocomplex (plants, animals on board, etc.) must be protected lest the equilibrium of the closed ecology be upset by hereditary or other effects. Basic elements of a radiation safety system for spacecraft will be: 1) dependable dosimetric control of the radiation level in the spaceship cabin by means of ship, individual, and biological dosimeters; 2) scientific forecasting of radiation conditions in space, especially solar chromoshpheric flares; and 3) effective pharmacological and biological agents for protection against the harmful effects of cosmic radiation.

ASSOCIATION: none

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101720007-3"

ACCESSION NR: AT4042646

SUBMITTED: 27Sep63 ENCL: 00 SUB CODE: LS

NO REF SOV: 000 OTHER: 000

Card 1 4/4

ACCESSION NR: AT4042674

S/0000/63/000/000/0149/0153

AUTHOR: Delone, N. L.; Popovich, P. R.; Antipov, V. V.; Vysotskiy, V. G.

TITLE: Alterations in mitotic activity following space flights

SOURCE: Konferentsiya po aviatsionnoy i kosmicheskoy meditsine, 1963. Aviatsionnaya i kosmicheskaya meditsina (Aviation and space medicine); materialy konferentsii. Moscow, 1963, 149-153

TOPIC TAGS: microspore, spaceflight effect, mitotic activity, Tradescantia paludosa, Vostok 3, Vostok 4

ABSTRACT: Tradescantia paludosa microspores were cultivated in special biological cartridges on Vostok 3 and Vostok 4 to determine how conditions of space flight affect mitotic processes. In one experiment on Vostok 4, P. R. Popovich fixed cultures after an orbiting time of 56 hours. In two other tests, cultures were examined 18 and 48 hours after re-entry. Significant alterations in mitotic processes were observed as a result of exposure to conditions of space flight. The authors suggest that the basic mechanism of these alterations must have been weightlessness because other experiments have shown that gravitational forces and

Card 1/2

ACCESSION NR: AT4042674

radiation doses higher than those encountered during space flights are required to produce mitotic aberrations.

ASSOCIATION: none

SUBMITTED: 27Sep63 ENCL: 00 SUB CODE: LS

NO REF SOV: 000 OTHER: 000

Card 2/2

ACCESSION NR: AT4042681 S/0000/63/000/000/0185/0188

AUTHOR: Zhukov-Vereshnikov, N. N.; Mayskiy, I. N.; Yazdovskiy, V. I.; Pokhov, A. P.; Rybakov, N. I.; Tribulev, G. P.; Saksonov, P. P.; Dobrov, N. N.; Antipov, V. V.; Kozlov, V. A.; Vysotskiy, V. G.; Mishenko, B. A. Rybakova, D. K.; Parfenov, G. P.; Pantyukhova, V. V.; Yudin, Ye. V.; Aniskin, Ye. D.

TITLE: The evaluation of the biological effectiveness of space-flight factors with the aid of lysogenic bacteria

SOURCE: Konferentsiya po aviatsionnoy i kosmicheskoy meditsine, 1963. Aviatsionnaya i kosmicheskaya meditsina (Aviation and space medicine); materialy* konferentsii. Moscow, 1963, 185-188

TOPIC TAGS: lysogenic bacteria, biological sensor, radiation detector, bacteriophage, phage, vibration, irradiation/Vostok III, Vostok IV

ABSTRACT: Lysogenic bacteria, E. coli K-12 (λ), was carried on spaceships

Card 1/3

ACCESSION NR: AT4042681

Vostok III and Vostok IV as a biological sensor. The advantages of lysogenic bacteria as biological sensors stem not only from their extreme sensitivity to various types of radiation, but also from the fact that induced changes are directly proportional to the dose of irradiation. In addition, E. coli was subjected to the combined effects of radiation and vibration in ground experiments. Vibration was produced by means of a vibrator with frequencies of 35, 70, and 700 cps, an amplitude ranging from 0.4 to 0.005 mm with a load equal to 10 g, for periods of 15, 30, and 60 min. Co^{60} in doses of 100 r at a rate of 21 r per min served as a source of radiation. Lysogenic bacteria carried on spaceships Vostok III and Vostok IV revealed induction of genetic changes produced by space-flight factors which was indicated by a significant increase in the number of phage particles. The induced effect was more pronounced on Vostok III than on Vostok IV. Forty-eight hours after its return to earth, the bacteria carried by Vostok III had produced 4.6 times as many phage particles as controls which had remained on earth. Ground experiments with vibration indicate that the combined vibration and gamma irradiation, followed by a second exposure to vibration, double the biological effectiveness of gamma rays.

Card 2/3

ACCESSION NR: AT4042681

However, when the bacteria is subjected to only a single dose of vibration following irradiation, there is no increase in the number of phage particles as compared to samples which were exposed to irradiation alone. This fact indicates that under space flight conditions vibration sensitizes the lysogenic bacteria to the effect of ionizing radiation. This as yet hypothetical explanation should be substantiated by additional experiments.

ASSOCIATION: none

SUBMITTED: 27Sep63 ENCL: 00 SUB CODE: LS

NO REF SOV: 000 OTHER: 000

Card 3/3

L 18080-63 EWT(l)/EWT(m)/FCC(w)/BDS/EEC-2/ES(a)/ES(j)/ES(c)/ES(k)/
ES(v) AMD/AFFTC/ASD/AFMDC/ESD-3/APGC Pb-4/Pi-4/Po-4/Pe-4/Pq-4 A/RB/AR/K/DD

ACCESSION NR: AP3005662 S/0248/63/000/008/0013/0020

AUTHOR: Saksonov, P. P.; Antipov, V. V.; Dobrov, N. N.

TITLE: Achievements and aims in the field of cosmic radiobiology

95

SOURCE: AMN SSSR. Vestnik, no. 8, 1963, 13-20

TOPIC TAGS: radiobiological problem, space flight, cosmic radiation, relative biological efficiency, proton, alpha particle, chromosome aberration, vibration, X-irradiation, radiation protection

ABSTRACT: This article is a survey of radiobiological problems of space flight based on 16 Russian and foreign sources. With cosmic radiation in the form of radiation belts and sun flares presenting many difficulties, the relative biological efficiency of protons, alpha particles, and heavy nuclei together with other flight factors require considerable study. The combined action of cosmic radiation and other flight factors on biological specimens are being investigated in laboratories and under actual flight conditions. Various biological specimens have been taken aloft by Soviet and American

Card 1/2

L 18080-63
ACCESSION NR: AP3005662

astronauts for study of life processes and radiation effects. In the laboratory white mice have been subjected to vibrations of 70 hz/15 min and X-rays of 100 r to determine the frequency of chromosome aberrations. Effective physical, biological, and pharmacological means of radiation protection need to be developed. Orig. art. has: 2 tables.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 06Sep63 ENCL: 00

SUB CODE: AM NO REF SOV: 011 OTHER: 005

Card 2/2

L 19452-63 EWT(l)/FCC(w)/FS(v)-2/BDS/ES(a)/ES(j)/ES(c)/ES(k)/EEO-2/ES(v)/ES(t)-2 AFFTC/AMD/AFMDC/ESD-3 Pb-4/Pi-4/Po-4/Pe-4/Pq-4 TT/A/RD/DD

ACCESSION NR: AP3007351 S/0293/63/001/001/0182/0185

AUTHOR: Gordon, L. K.; Delone, N. L.; Antipov, V. V.; Vy*sotskiy, V. G. 18

TITLE: Effect of space-flight conditions on Vostok-3 on seeds of higher plants

SOURCE: Kosmicheskiye issledovaniya, v. 1, no. 1, 1963, 182-185

TOPIC TAGS: space flight effect, Vostok 3, wheat seed, lettuce seed, beans, pine seed, chromosome reconstruction

ABSTRACT: Dry seeds of 14 different kinds of higher plants were taken on board Vostok-3. Three criteria were used to determine the effects of space flight: sprouting, rate of growth, and percentage of chromosome reconstructions. Examination revealed that flight conditions produced a statistically significant increase (27 ±7.44%) in sprouting of PPG-186 (a wheat-agropyron hybrid) and a significant decrease (7.8 ±1.96%) in sprouting of Berlin lettuce. Similar effects were noted in growth rates. The seeds of black Russian beans and pine were tested for chromosome reconstructions,

Card 1/2

L 19452-63
ACCESSION NR: AP3007351

and in both cases a definite tendency towards an increase in the number of reconstructions was observed. Orig. art. has: 3 tables.

ASSOCIATION: none

SUBMITTED: 24Apr63 DATE ACQ: 21Oct63 ENCL: 00

SUB CODE: AM NO REF SOV: 003 OTHER: 000

Card 2/2

ANTIPOV, V.V.; YEFREMOV, Yu.I.; NIKITIN, M.D.; SAVENKO, I.A.; SAKSONOV, P.P.

Safety measures against radiation during flights of the spaceships "Vostok-3" and "Vostok-4". Kosm. issl. 1 no.2:303-308 S-O '63. (MIRA 17:4)