CONCHAROV, V.V.; PROKOF'YEVA, Ye.A.; SHMITT-FOGELEVICH, S.F.

R_2O_3 phase in fired chromium spinellids. Dokl. AN SSSR 140 no.3:648-651 S '61. (MIRA 14:9)

1. Vsesoyuznyy institut ogneuporov. Predstavleno akademikom N.V. Belovym.

(Spinel group)

S/020/61/140/003/019/020
B103/B101

AUTHORS: Goncharov, V. V., Prokof'yeva, Ye. A., and Shmitt-Fogelevich, S. P.

TITLE: The R_2O_3 phase in roasted chromium spinellides

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 140, no. 3, 1961, 648-651

TEXT: The authors endeavored to clear up the following problems: a) Is the R_2O_3 phase in the grains of chromium spinellides roasted at 1200 and 1450°C, or should it be considered a solid solution $Fe_2O_3-Cr_2O_3$, b) What is the composition of the R_2O_3 phase, and what are the kinetics of its formation? 1) saranovskiy and 2) kempirsayskiy chromium spinellides were tested by roasting between 700 and 1600°C, and differed noticeably in their content of FeO, Cr_2O_3, Al_2O_3, and Fe_2O_3. M. Ye. Borodacheva assisted in analyses. X-ray patterns were taken with a УРС-50И (URS-50I) diffractometer with CuKα radiation. The results are given in Table 1. The R_2O_3 phase was found in the x-ray patterns for the chromium spinellide 1) between 800 and

Card 1/5

1500°C, and for 2) between 800 and 1600°C. Below 800°C it is assumed to be x-ray amorphous. The calculated values of $a_{R_2O_3}$ are always considerably lower than those found experimentally. Thus, the method of calculation according to the equation

$$a_{R_2O_3} = \frac{d \cdot \cos\frac{\alpha}{2}}{\sqrt{\sin\frac{\alpha}{2} \cdot \sin\frac{3\alpha}{2}}} \sqrt{(h^2 + k^2 + l^2) - \left(1 - \operatorname{tg}^2\frac{\alpha}{2}\right)(hk - lh - lk)}$$

has proved a failure. Because of these differences and the dimensions of the ionic radii, it is assumed that the Fe_2O_3 content of the R_2O_3 phase is higher than the calculated value. Most likely, the iron oxide formed by oxidation of the FeO in the initial chromium spinellide is part of the residual chromium spinellide up to a ratio of RO : R_2O_3 = 1. It is assumed that RO : Fe_2O_3 in the residual chromium spinellide remains constant at all temperatures. The R_2O_3 (Fe_2O_3, Cr_2O_3, and Al_2O_3) excess over RO (Δm) forms the R_2O_3 phase. Two equations were derived for calculating the

The R_2O_3 phase in roasted ...

content of Cr_2O_3 and Al_2O_3 in the R_2O_3 phase:

$m_{Fe_2O_3} + m_{Cr_2O_3} + m_{Al_2O_3} = \Delta m$; $5.42m_{Fe_2O_3} + 5.35m_{Cr_2O_3} + 5.12m_{Al_2O_3} = a_{R_2O_3}\Delta m$

where $m_{Fe_2O_3}$, $m_{Cr_2O_3}$, $m_{Al_2O_3}$ are the molecular parts of Fe_2O_3, Cr_2O_3, and Al_2O_3 in the R_2O_3 phase. If this system of equations is solved for $m_{Cr_2O_3}$ and $m_{Al_2O_3}$, where $m_{Fe_2O_3} = b$, the composition and quantity of the R_2O_3 phase are obtained. It results from these calculations that the content of Fe_2O_3 in the R_2O_3 phase of the chromium spinellide 1) increases by 2.97% with increasing temperature (800-1500°C). For 2) this increase amounts to 1.32% (800-1600°C). This interrelationship is more strongly pronounced in the case of Al_2O_3: Its content increases by 15.37 and 8.22%, respectively. Cr_2O_3 shows an inverse dependence, since its content decreases with increasing temperature. The yield in R_2O_3 phase between 800 and 1400°C is much larger in 1) than in 2). Composition and quantity of

The R_2O_3 phase in roasted ...

the R_2O_3 phase in the temperature range, where they can be identified by x-rays, depend on the chemical composition, particularly on the FeO content. There are 3 tables, 6 Soviet and 2 non-Soviet-bloc references. The two references to English-language publications read as follows: G. R. Rigby et al., The Iron and Steel Institute, special Report, no. 32, 43 (1946); J. R. Rait, Ibid., no. 32, 175 (1946).

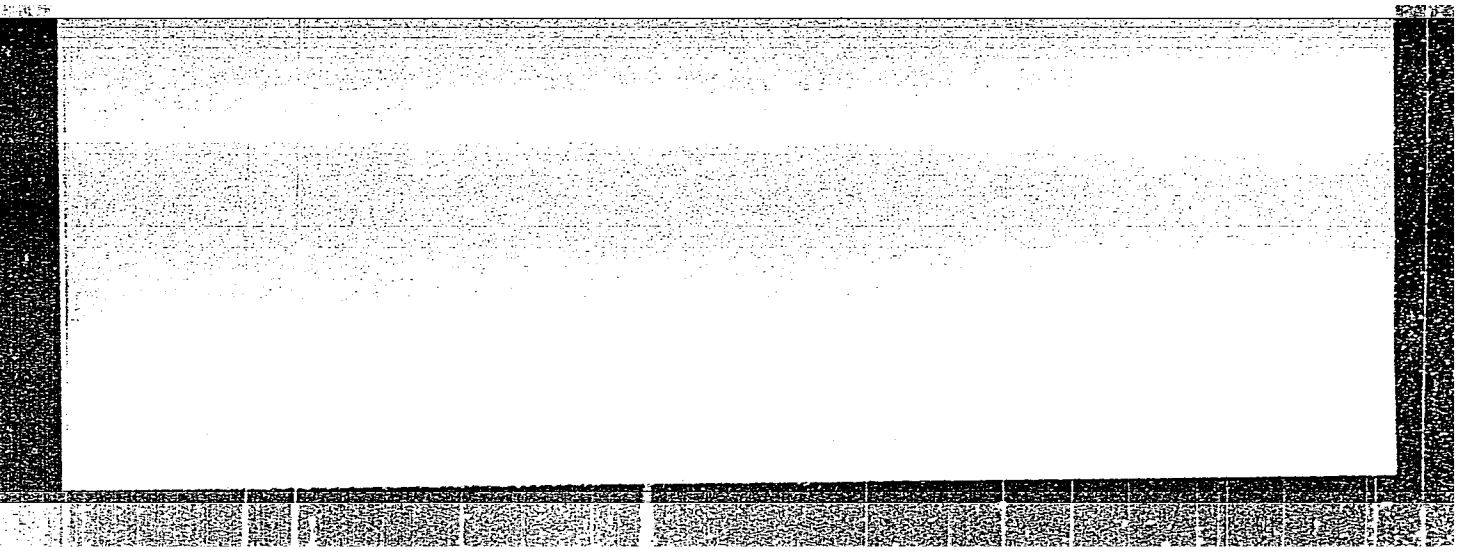
ASSOCIATION: Vsesoyuznyy institut ogneuporov (All-Union Institute of Refractory Materials)

PRESENTED: April 25, 1961, by V. N. Belov, Academician

SUBMITTED: April 24, 1961

Table 1. Experimental determination of the oxidation of FeO, of the R_2O_3/FeO ratio, and of $a_{R_2O_3}$ of chromium spinellides at 400-1700°C.

Legend: (1) saranovskiy chromium spinellide; (2) kempirsayskiy chromium spinellide; (a) temperature; (b) quantity of oxidized FeO, %; (c) molar ra-



APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210018-8"

NOVIKOVA, N.V.; PROKOF'YEVA, Ya.G. (Leningrad)

Comparative evaluation of various methods for determining the activity of alcaline phosphatase. Lab. delo no. 12:713-716 '64. (MIRA 18:1)

S/081/61/000/014/026/030
B105/B202

AUTHORS: Kusakov M. M., Konovalova L. A., Prokof'yeva Ye. A., Sidorenko V. I.

TITLE: Effect of temperature and pressure on the viscosity of mixtures of mineral oils and organosilicon liquids

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 14, 1961, 543, abstract 14M249 (Tr. 3-y Vses. konferentsii po treniyu i iznosu v mashinakh. M., AN SSSR, v. 3, 1960, 262 - 270)

TEXT: The authors present experimental data on the viscosity of the solutions of poysiloxane liquids (PL) in mineral oils at atmospheric pressure and in the temperature interval of -50 to +60° C as well as at pressures of up to 3000 kg/cm^2 in the temperature interval of from +10 to +50° C. The viscosity measurements (dynamic) at atmospheric pressure and at different temperatures were made by means of the capillary viscosimeter of the type Ubbelohde and at high pressures by means of the falling-sphere viscosimeter. The components of the mixture were mineral oils MVP and the spindle oil AU as well as ethyl- and butyl polysiloxane liquids. The

Card 1/3

S/081/61/000/014/026/030
B105/B202

Effect of temperature and pressure ...

authors give temperature curves of the viscosity of the oils MVP, AU and of three PL. An addition of PL to the oils MVP and AU improves the temperature curve of their viscosity by increasing its slope in the field of low temperatures. With simultaneous addition of PL and high-molecular thickeners to the oil, the effect of PL mainly causes an increase of the temperature slope of the viscosity temperature curve; the effect of the thickener leads to an increase of the viscosity level. The effect of PL and the thickeners becomes manifest independently. For all temperatures investigated the effect of PL is the stronger the higher the pressure. The results of the study of the piezometric dependence of the viscosity of the mixture of mineral oil and PL showed that the viscosity of the mixtures at given pressure is no additive property. The deviation of the viscosity isobars from the linearity increases with increasing pressure and with increasing difference in the piezometric coefficients of viscosity of the oil and PL. With increasing pressure and at a certain ratio of the components, the viscosity isobars of the mixtures show a certain minimum. With addition of various commercial PL to the oils, the

Card 2/3

S/081/61/000/014/026/030
B105/B202

Effect of temperature and pressure ...

character of the change of the relative viscosity depends on pressure and temperature. In this case relative viscosity decreases with increasing PL content in the mixture. With increasing concentration of PL in the mineral oil the piezocoefficient of viscosity decreases. [Abstracter's note: Complete translation.]

Card 3/3

PROKOF'YEVA, Ye. A.

PHASE I BOOK EXPLOITATION SOV/5055

Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh. 3d, 1958.

Gidrodinamicheskaya teoriya smazki. Opory skol'zheniya. Smazka i smazochnyye materialy (Hydrodynamic Theory of Lubrication. Lubrication and Lubricant Materials) Moscow, Slip Bearings. 3,800 copies Izd-vo AN SSSR, 422 p. Errata slip inserted. printed. (Series: Its: Trudy, v. 3)

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya. Eds for the Section "Hydrodynamic Theory of Lubrication Res. Slip Bearings": Ye. M. Gutman, Professor, Doctor of Tech- and Slip Bearings"; Ye. M. Gutman, Professor, Doctor of Tech- and A. K. Dyachkov, Professor, Doctor of Tech- nical Sciences; Resp. Ed. for the Section, Lubrication and nical Sciences; Resp. Ed. for the Section, Lubrication and Lubricant Materials: G. V. Vinogradov, Professor, Doctor of Chemical Sciences; Ed. of Publishing House: M. Ya. Kiebanov; Tech. Ed.: O. M. Gus'kova.

PURPOSE: This collection of articles is intended for practicing engineers and research scientists.

COVERAGE: The collection, published by the Institut mashinovedeniya AN SSSR (Institute of Science of Machines, Academy of Sciences USSR) contains papers presented at the III Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh (Third All-Union Conference on Friction and Wear in Machines) which was held April 9-15, 1958. Problems discussed were in Hydrodynamic Theory (Cont.) SOV/5055

Card 1/17

KUSAKOV, M.M.; PROKOF'YEVA, Ye.A.; SHISHKINA, M.V.

Electronic absorption spectra of some indan homologs.
Opt.i spektr. 8 no.1:27-35 Ja '60. (MIRA 13:7)
(Indan--Spectra)

AZOS, S.; AREF'YEV, A.; ARTAMONOV, I.; BABINA, I.; BERGOVSKIY, V.; BLOZHKO,V.; BRAVERMAN, A.; BYKHOVSKIY, Yu.; VINOGRADOVA, M.; GALANKINA, Ye.; GIL'DENGERSH, F.; GLOBA, T.; GREYVER, N.; GORDON, G.; GUL'DIN, I.; GULYAYEVA, Ye.; GUSHCHINA, I.; DAVYDOVSKAYA, Ye.; DAMSKAYA, G.; DERKACHEV, D.; YEVDOKIMOVA, A.; YEGUNOV, V.; ZABELYSHINSKIY, I.; ZAYDENBERG, B.; AZMOSHNIKOV, I.; ITKINA, S.; KARCHEVSKIY, V.; KLUSHIN, D.; KUVINOV, Ye.; KUZNETSOVA, G.; KURSHAKOV, I.; LAKERNIK, M.; LEYZEROVICH, G.; LISOVSKIY, D.; LOSKUTOV, F.; MALEVSKIY, Yu.; MASLYANITSKIY, I.; MAYANTS, A.; MILLER, L.; MITROFANOV, S.; MIKHAYLOV, A.; MYAKINENKOV, I.; NIKITINA, I.; NOVIN, R.; OGNEV, D.; OL'KHOV, N.; OSIPOVA, T.; OSTRONOV, M.; PAKHOMOVA, G.; PETKER, S.; PLAKSIN, I.; PLETNEVA, N.; POPOV, V.; PRESS, Yu.; PROKOF'YEVA, Ye.; PUCHKOV, S.; REZKOVA, F.; RUMYANTSEV,M.; SAKHAROV, I.; SOBOL', S.; SPIVAKOV, Ya.; STRIGIN, I.; SPIRIDONOVA,V.; TIMKO, Ya.; TITOV, S.; TROITSKIY, A.; TOLOKONNIKOV, K.; TROFIMOVA, A.; FEDOROV, V.; CHIZHIKOV, D.; SHEYN, Ya.; YUKHTANOV, D.

Roman Lazarevich Veller; an obituary. TSvet. met. 31 no.5:78-79 My '58. (MIRA 11:6)
(Veller, Roman Lazarevich, 1897-1958)

SOV/51-8-1-5/40

AUTHORS: Kusakov, M.M., Prokof'yeva, Ye.A. and Shishkina, M.V.

TITLE: Electronic Absorption Spectra of Some Indan Homologues

PERIODICAL: Optika i spektroskopiya, 1960, Vol 8, Nr 1, pp 27-35 (USSR)

ABSTRACT: The authors report their measurements of the electronic absorption spectra of indan and 15 of its derivatives. These spectra were obtained using a "Uvispek" spectrophotometer at wavelengths between 2200 and 2850 Å at room temperature. Among the indan derivatives there were ten monosubstituted, three disubstituted and two trisubstituted indans. The results are shown in Figs 1-6, in the form of $\log \epsilon(\lambda)$, where ϵ is the molar extinction coefficient. Positions of the absorption maxima and minima of these compounds are listed in Tables 1-4. The spectrum of each compound is discussed briefly. There are 6 figures, 4 tables and 32 references, 13 of which are Soviet, 14 English, 3 French and 2 German.

SUBMITTED: July 15, 1959

Card 1/1

GONCHAROV, V.V.; PROKOF'YEVA, Ye.A.

Phase changes in chromium spinels upon heating. Dokl.AN SSSR 124 no.3: 638-641 Ja '59. (MIRA 12:3)

1. Leningradskiy institut ogneuporov. Predstavleno akademikom N.V. Belovym.

(Spinels) (Iron oxides)

5(1), 15(2) SOV/20-124-3-41/67

AUTHORS: Goncharov, V. V., Prokof'yeva, Ye. A.

TITLE: On Phase Changes in Chrome Spinelides on Heating (O fazovykh izmeneniyakh khromshpinelidov pri nagrevanii)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 3, pp 638-641 (USSR)

ABSTRACT:: Chrome spinelides of accurately analyzed compositions were heated to 1400 - 1700° in air or argon. This was followed by either slow cooling or immediate chilling in water. The polished grindings showed needle-shaped crystalline precipitations. In addition to the lines of the chrome spinelides, the R_2O_3 phase detected by Rait (Rayt) (R = Fe, Al, Cr) was recognizable in the x-ray photographs. The substances concerned are solid solutions. The values found depend on the initial FeO content of the mineral. The R_2O_3 phase found after heating to 1400 - 1600° is a secondary new formation, caused by oxidation. It must be distinguished from the primary phase resulting on heating to 1400°C. (1385°C - transition of Fe_2O_3 into Fe_3O_4). All of the previous papers

Card 1/3

On Phase Changes in Chrome Spinelides on Heating

did not take this fact into account. The following pattern of phase changes emerges:

Chrome spinelide $\xrightarrow{700\text{-}1300^\circ}$ chrome spinelide enriched in MgO + phase R_2O_3 $\xrightarrow[\text{slow cooling}]{1400\text{-}1600^\circ}$

$\longrightarrow$ solid solution chrome spinelide + R_2O_3 (with excess of R_2O_3 against $RO.R_2O_2$) $\xrightarrow{1700^\circ}$ chrome spinelide approaching the form $RO.R_2O_3$

$\longleftarrow$

The mineral analyses were carried out by M. Ye. Borodacheva. S. P. Shmitt-Fogelevich and G. G. Mel'nikova participated in the work. There are 4 figures, 5 tables, and 9 references, 5 of which are Soviet.

Card 2/3

SOV/20-124-3-41/67

On Phase Changes in Chrome Spinelides on Heating

ASSOCIATION: Leningradskiy institut ogneuporov
(Leningrad Institute of Refractories)

PRESENTED: September 27, 1958, by N. V. Belov, Academician

SUBMITTED: September 27, 1958

Card 3/3

PROKOF'YEVA, Ye.D.

Work of the Tuvinian detachment of the Sayan-Altai Expedition. Krat. soob.Inst.etn. 20:8-16 '54. (MLRA 7:6)
(Tuva Autonomous Province--Description and travel)

PROKOF'YEVA, Ye.D.

Materials on the religious concepts of the Entsy. Sbor.Muz.ant.i etn. 14:194-230 '53. (MLRA 7:4)
(Samoyeds) (Religion, Primitive)

PROKOF'YEVA, YE.D.

Shamanism

Costume of the YEnets' shaman, Shor. Muz. ant. i etn, 13, 1951

Monthly List of Russian Accessions, Library of Congress, May 1952, UNCLASSIFIED

PROKOF'YEVA, Ye.F.

BAKHMAN, V.I.; PROKOF'YEVA, Ye.F.

Gases dissolved in silt deposits (muds). Gidrokhim.mat. no.21: 144-151 '53. (MLRA 7:3)

1. Fiziko-khimicheskaya laboratoriya TSentral'nogo instituta kurortologii. (Silt) (Gases in soils) (Baths, Moor and mud)

PROKOF'YEVA, YE. F.

USSR/Cosmochemistry - Geochemistry. Hydrochemistry. D

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61331

Author: Bakhman, V. I., Prokof'yeva, Ye. F.

Institution: None

Title: Changes in Physicochemical Properties of Peat During Weathering

Original Periodical: Sb. Vopr. izucheniya kurort. resursov SSSR, Moscow, Medgiz, 1955, 266-271

Abstract: Different varieties of natural peat, acidic, ferrigenous, hydrogen sulfidic, calcium sulfatic and bland, are used for therapeutic purposes. Best therapeutic properties are possessed by decomposed peat of high moisture capacity, swelling capability and thermal capacity but low heat conductivity. In practice use is made of artificial weathering by exposure to air during several months. The authors have found that on weathering the peat changes some of its properties: plasticity, tenacity, colloidalness, etc, losing thereby its balneological value.

Card 1/1

NIKOL'SKAYA, Ye.B.; PROKOF'YEVA, Ye.G.

Changes in alkaline and acid phosphatases induced by Co^{60} γ-irradiation effect on their solutions. Radiobiologiia 5 no.4:618-619 '65. (MIRA 18:9)

SOURCE CODE: UR/0218/66/031/003/0463/0467

AUTHOR: Novikova, N. V.; Prokof'yeva, Ye. G.--Prokof'eva, E. G.

ORG: Sanitary-Hygienic Medical Institute, Leningrad (Sanitarno-gigiyenicheskiy meditsinskiy institut)

TITLE: Kinetics of simultaneous hydrolysis of phenylphosphate and glycolphosphate under the action of alkaline phosphatase

SOURCE: Biokhimiya, v. 31, no. 3, 1966, 463-467

TOPIC TAGS: hydrolysis, phosphatase, organic phosphate

SUB CODE: 06,07

ABSTRACT: In view of an earlier investigation by Yu. G. Zhukovskiy dealing with the simultaneous hydrolysis of phenylphosphate and glycolphosphate under the action of acid phosphatase, the authors considered it of interest to conduct an analogous investigation with alkaline phosphatase. It was found that under the very same conditions (37°, 0.075 M carbonate buffer, pH 10, concentration of alkaline phosphatase preparation 0.004 mg/ml and substrate concentration 2 millimoles) the rate of enzymic hydrolysis of sodium glycolphosphate is almost 32-fold less than that of sodium phenylphosphate, i. e. much less than for acid phosphatase according to Zhukovskiy's data. The quantities K_m and V are determined for both substrates. It was found that when both esters are present un-

UDC: 577.153.3

0932 1330

ACC NR: AP7012403

der identical conditions, phenylphosphate displays strong inhibitor action in relation to glycolphosphate, while the latter has practically no such effect vis-a-vis phenylphosphate. Equations are derived permitting computation of the rate of enzymic hydrolysis of each of the esters when either or both are present in the reaction mixture. Orig. art. has: 2 formulas. [JPRS: 40,422]

2/2

BRESTKIN, A.P.; NOVIKOVA, N.V.; PROKOF'YEVA, Ye.G.; RZHEKHINA, N.I.

Kinetics of sodium phenyl phosphate hydrolysis by alkaline phosphatase. Biokhimiia 26 no.2:266-275 Mr-Ap '61. (MIRA 14:5)

1. Chair of Inorganic Chemistry, Sanitary-Hygienic Medical Institute, Leningrad.
(PHOSPHATASE) (SODIUM PHENYL PHOSPHATE)

PROKOFYEVA, YE. G., NOVIKOVA, N.V., BRESTKIN, A.P., RZHEKHINA, N.I. (USSR)

"Kinetics of Enzymic Hydrolysis of Phenyl Phosphate."

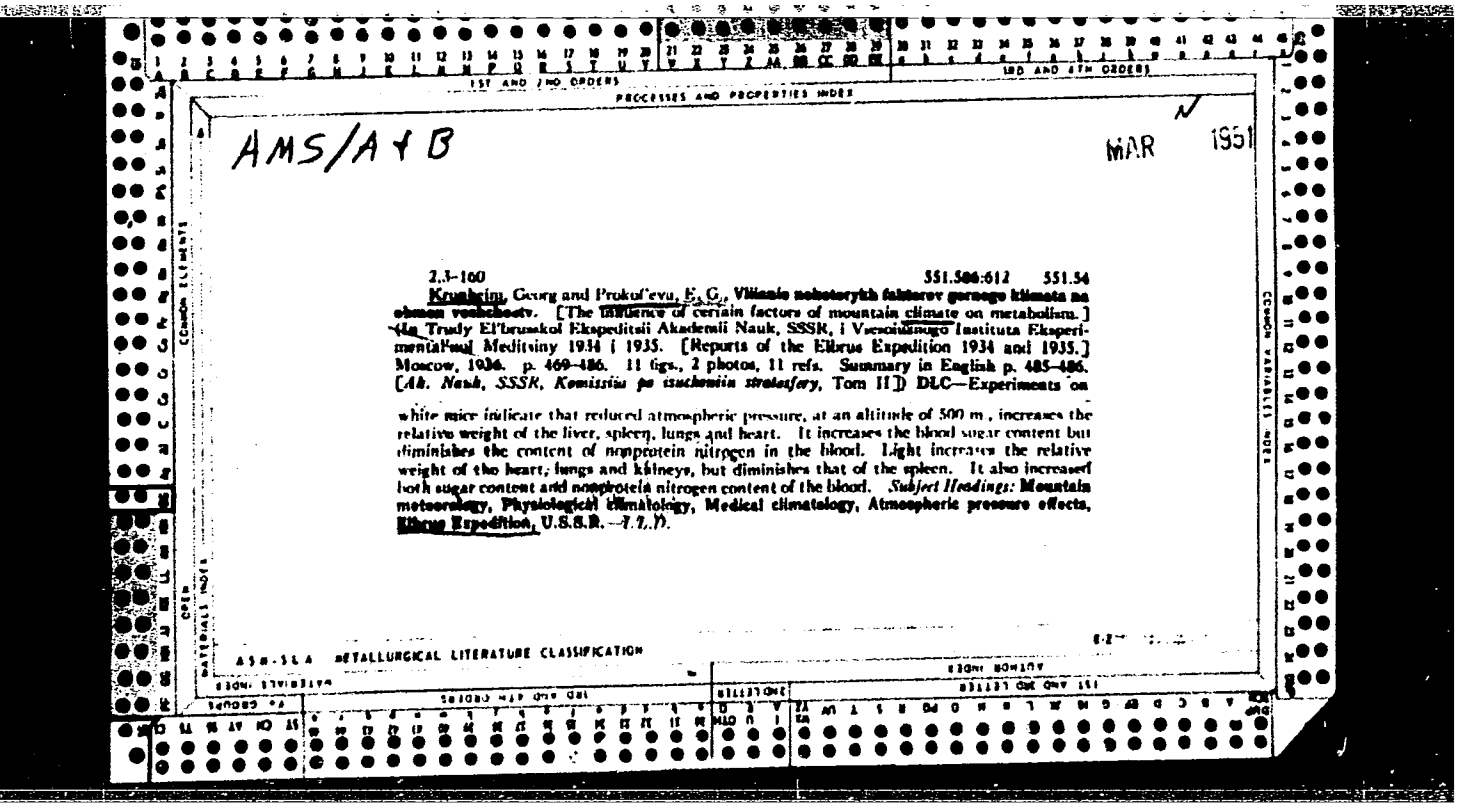
Report presented at the 5th Int'l. Biochemistry Congress, Moscow, 10-16 Aug 1961.

PROKOF'YEVA, Ye.G., RZHEKHINA, N.I., SVECHNIKOVA, V.V.

Effect of fluorine ions on catalase and phosphatase activity of the blood [with summary in English]. Trudy LSGMI 44:335-341 '58
(MIRA 11:12)

1. Kafedra neorganicheskoy khimii Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (zav. kafedroy - prof. A.P. Brestkin).

(FLUORINE, eff.
on blood catalase & phosphatase activity in rabbits (Rus))
(PHOSPHATASES, in blood,
same (Rus))
(CATALASE, in blood
eff. of fluorine ions in rabbits (Rus))



AMS/A & B

MAR 1951

2.3-160 551.506:612 551.54

Krunkrin, Georg and Prokof'eva, E. G., **Vliianie nekotorykh faktorov gornogo klimata na obmen veshchestv.** [The influence of certain factors of mountain climate on metabolism.] (In Trudy El'brusskoi Ekspeditsii Akademii Nauk, SSSR, i Vsesoiuznogo Instituta Eksperimental'noi Meditsiny 1934 i 1935. [Reports of the Elbrus Expedition 1934 and 1935.] Moscow, 1936. p. 469–486. 11 figs., 2 photos, 11 refs. Summary in English p. 485–486. [*Ak. Nauk, SSSR, Komissiia po izucheniiu stratosfery*, Tom II]) DLC—Experiments on white mice indicate that reduced atmospheric pressure, at an altitude of 500 m, increases the relative weight of the liver, spleen, lungs and heart. It increases the blood sugar content but diminishes the content of nonprotein nitrogen in the blood. Light increases the relative weight of the heart, lungs and kidneys, but diminishes that of the spleen. It also increased both sugar content and nonprotein nitrogen content of the blood. *Subject Headings:* **Mountain meteorology, Physiological climatology, Medical climatology, Atmospheric pressure effects, Elbrus Expedition, U.S.S.R.**—*T.T.P.*

PERFILOV, N. A., PROKOF'YEVA, Ye. I., NOVIKOVA, N. R., LOZHKIN, O. V., DAROVSKIKH, V. F., and DENISENKO, G. F. (Institut du Radium, Leningrad, USSR)

"Sur Les Principes de Preparation d'emulsions a Grains Tres Fins Pour Les Recherches Nucleaires et Leurs Proprietes."

paper presented at Program of the Second International Colloquium on Corpuscular Photography. Montreal, 21 Aug - 7 Sep 1958.

Encl: B-3,114,647.

PROKOF'YEVA, Ye. I.

21 (0) CHICOM/28-3-5-4/20

AUTHOR: N. A. Perfilov, N. P. Novikova, E. I. Prokofeva

TITLE: Extremely Fine-Grained Nuclear Emulsion

PERIODICAL: Yüan Tzŭ Nêng, 1958, Vol 3, Nr 5, pp 438-443

ABSTRACT: The authors discovered a method for manufacturing extremely fine-grained nuclear emulsion. A method of potential control reportedly can provide good reproducibility . The most probable size of the grains were 0.04-0.08 u. The principle and process are described. Three different types of emulsion are presented and illustrated by microphotographs and figures. The first type is a low-sensitivity "π-9 fragment" emulsion, that can be used to detect particles with specific ionization losses, such as highly charged fragments, α-particles with energies from 20-30Mev. and 5-7Mev. protons. The second type is "π-9 sensitive" emulsion which can be used to detect protons with energies of approximately 50 Mev. The third type is the "πP relativistic" emulsion, that can detect minimum ionization charged particles. The authors also reported that the first type emulsion film will not change in characteristics after a year storage period. The second type

Card 1/2

137

Extremely Fine-Grained Nuclear Emulsion (Cont.) CHICOM/28-3-5-4/20

does not change in a period of 6-8 months. The storage properties of the third type has not been investigated in detail. There are 10 figures, 1 table and 6 non-Chicom references.

/35

Card 2/2

PROKOF'YEVA, Ye. I.

AUTHORS. Perfilov, N. A., Novikova, N. P., Prokof'yeva, Ye. I. 69-1-5/29

TITLE: A Particular Fine Emulsion for Nuclear Investigations (Osobo melkozernistyye emul'sii dlya yadernykh issledovaniy).

PERIODICAL: Atomnaya Energiya, 1958, Vol. 4, Nr 1, pp. 45 - 51 (USSR).

ABSTRACT: A production method for nuclear photoemulsions is described, in which the measurements of the microcrystals are 0.04 - 0.08 μ and which are very uniformly distributed in the entire layer. In order to warrant reproducibility in production, a method of "potentiometer control" is given. By this method it is possible with great accuracy to attain the aim that, in the mixing of the components of the photoemulsion, the ratio between bromine- and silver ions always remains constant. The time of emulsion fixation is determined by the quantity to be produced. For 100 ml liquid emulsion it is ~ 18 m.
According to the registration sensitivity with respect to charged particles the photoemulsions produced can be divided into 3 groups which differ only as to small additions and the manner of sensibilization.

Type I. Emulsion "P - 9 for Fission Products", with [illegible] emulsion highly ionized ions of fission fragments, 20 [illegible] MeV α-particles, and 5 - 7 MeV protons can be recorded.

Card 1/2

A Particular Fine Emulsion for Investigations. 89-1-5/29

Type II. Emulsion "P - 9 - sensitive", by means of which it is possible to record protons with an energy of up to 50 MeV. These plates are used especially if it is intended to determine the energy of the charged particles occurring in nuclear reactions with 600 MeV protons.

Type III. Emulsion "P - 9 - relativistic". These plates record only particles with minimum ionization. The emulsion e. g. records relativistic electrons up to an average track density of 60 grains per 100 μ particle range.

There are 12 figures, 1 table, and 6 references, 3 of which are Slavic.

SUBMITTED: May 21, 1957.

AVAILABLE: Library of Congress.

Card 2/2

PROKOFIYEVA, Ye. I.

PHASE I BOOK EXPLOITATION SOV/3503

Akademiya nauk SSSR. Radiyevyy institut

Trudy, t. IX (Transactions of the Radium Institute, Academy of Sciences USSR, Vol. 9) Moscow, Izd-vo AN SSSR, 1959. 287 p. Errata slip inserted. 1,700 copies printed.

Ed.: K.A. Perfilov, Doctor of Physical and Mathematical Sciences; Ed. of Publishing House: G.M. Aron; Tech. Ed.: A.V. Smirnova.

PURPOSE: The volume is intended for physicists.

COVERAGE: The book represents volume 9 of the Transactions of the Radium Institute and contains the results of studies conducted at the Institute chiefly from 1955 to 1956. There are a number of articles dealing with the study of nuclear reactions occurring with particles of different energies ranging from several eV up to hundreds of MeV. Others treat different problems of the physics of neutrons. Results of studies of various neutron sources, neutron energy distribution in a moderator (water), and other problems connected with the theory of neutron interaction with matter are presented. The majority of the articles are concerned with problems of method. The authors provide a complete description of the construction of equipment and of the results of tests performed under laboratory conditions. No personalities are mentioned. References accompany individual articles.

PERFILOV, N.A.; PROKOF'YEVA, Ye.I.; NOVIKOVA, N.R.; LOZHKIN, O.V.; DAROVSKIKH, V.F.; DENISENKO, G.F.

Manufacturing principle and properties of extra-fine grain emulsions for nuclear investigations. Zhur.nauch.i prikl.fot. i kin. 5 no.4:262-273 Jl-Ag '60. (MIRA 13:8)

1. Radiyevyy institut im. V.G.Khlopina AN SSSR.
(Photographic emulsions)
(Photography, Particle track)

ALEKHIN, S.V., doktor tekhn. nauk, prof.; GROKHOL'SKIY, K.F., kand. tekhn. nauk, dots.; ZOLOTNIKOV, I.M., kand. tekhn. nauk, dots.; KOCHUGOV, P.I., kand. tekhn. nauk, dots.; MALYSHEV, G.N., kand. tekhn. nauk, prof.; KHLEBNIKOV, M.S., kand. tekhn. nauk, retsenzent; PISAREV, N.G., kand. tekhn. nauk, dots., retsenzent; ODING, B.A., kand. tekhn. nauk, dots., retsenzent; KURENKOV, I.I., kand. tekhn. nauk, retsenzent; PROKOF'YEVA, Ye.I., inzh., retsenzent; YAKOVLEV, D.A., inzh., retsenzent; SERGEYEVA, I.N., red.

[Design of technological processes for the manufacture of billets and parts for the rolling stock of railroads; methodological manual on the technological aspects of diploma projects prepared in institutions of higher learning of railroad transportation] Proektirovanie tekhnologicheskikh protsessov proizvodstva zagotovok i detalei podvizhnogo sostava zheleznykh dorog; uchebno-metodicheskoe posobie po tekhnologicheskoi chasti diplomnogo proektirovaniia v vuzakh zheleznodorozhnogo transporta. Moskva, Vses. zaochnyi in-t inzhenerov zhel-dor. transporta, Pt.1. 1964. 202 p.
(MIRA 18:3)

PROKOF'YEVA, Ye.I.

Data on the clinical and X-ray characteristics of chondroblastoma of the bones. Vop. onk. 8 no. 10:3-10 '62. (MIRA 17:7)

1. Iz rentgenologicheskogo otdeleniya (zav. - d-r. med.nauk, prof. L.M.Gol'dshteyn [deceased]) Instituta onkologii AMN SSSR (direktor-deystvitel'nyy chlen AMN SSSR, prof. A.I. Serebrov). Adres avtora: Leningrad, P-129, 2-ya Berezovaya alleya 3, Institut onkologii AMN SSSR.

GOL'DSHTEYN, L.M., prof. [deceased]; PROKOF'YEVA, Ye.I., kand.med.nauk

Possibilities of fluorography and roentgenocinematography in diagnosing tumorous and nontumorous diseases of the lungs, esophagus and stomach in prophylactic examinations. Vest. rent. i rad. 37 no.2:3-10 Mr-Ap '62. (MIRA 15:4)

1. Iz Instituta onkologii (dir. - deystvitel'nyy chlen AMN SSSR prof. A.I.Serebrov) AMN SSSR.
(LUNGS--RADIOGRAPHY) (ESOPHAGUS--RADIOGRAPHY)
(STOMACH--RADIOGRAPHY) (CINEFLUOROGRAPHY)

PERFILOV, N.A.; PROKOF'YEVA, Ye.I.; NOVIKOVA, N.R.

Increasing the sensitivity of an extra-fine-grained emulsion by the use of the double sensitization method. Trudy Radiev.inst.AN SSSR 9:268-270 '59. (MIRA 14:6)
(Photographic emulsions)

GOL'DSHTEYN, L.M., PROKOF'YEVA, Ye.I.

Results of combined fluorography in preventive examinations of various groups of the population. Vop. onk. 6 no.5:51-62 My '60. (MIRA 14:3)

(LUNGS--CANCER) (ESOPHAGUS--TUMORS)
(STOMACH--TUMORS)

GOL'DSHTEYN, L.M.; OL'SHANETSKIY, A.S.; PROKOF'YEVA, Ye.I.

Some aspects of the treatment of patients with osteogenic sarcoma of the bone; according to data from the Institute of Oncology of the Soviet Academy of Medical Sciences collected from 1926-1955. Vop. onk. 6 no. 11:38-58 N '60. (MIRA 14:1)

(BONES—TUMORS)

PROKOF'YEVA, Ye. I.

"Certain Principles in Development and Growth of Induced Osteosarcoma (Experimental Roentgenomorphological Investigation.)" Cand Med Sci, Joint Council of the Group of Leningrad Institutes, Leningrad, 1954. (RZhBiol, No 7, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutes (16).

USSR / General Problems of Pathology. Tumors. U
Cancer.

Abs Jour: Ref Zhur-Biol., No 11, 1958, 51628.

Author : Prokof'yeva, Ye. I.
Inst : Not given.
Title : The Rentgenological Picture of Preneoplastic Changes In Bones. (Experimental Investigation).

Orig Pub: Vopr. onkologii, 1957, 3, No 1, 69-75.

Abstract: A paraffin tablet with 30 mg of methylcholantrene or 8-12 mg of 9,10-dimethyl-1,2-benzanthracene was inserted in a distally located defect of the tibial metaphysis of a rabbit. Within 3-10 months, rentgenological changes occurred in 56 of 60 rabbits, consisting in transient sclerotic or osteolytic foci, varying in form and size in the course of weeks and months. Later- osteogenic sarcoma

Card 1/2 Roentgenological Dept. and Lab. Cancer Pathology Inst. Oncology 34 AMS USSR.

USSR /General Problems of Pathology. Tumors. U
Cancer.

Abs Jour: Ref Zhur-Biol., No 11,1958, 51628.

Abstract: developed in 39 of 42 rabbits. Reversible development of rentgenologically recognizable prenooplastic changes with partial reconstruction of the bone structure and manifestation of fibrosis were noted in 3 rabbits only. -- A. I. Ashkenazi.

Card 2/2

PROKOF'YEVA, Ye.I. (Leningrad, 100, pr. Karla Marksa, d.72, kv. 87)

Experimental tumors of the bone in roentgenographic representation [with summary in English]. Vop.onk. 4 no.1:23-29 '58. (MIRA 11:4)

1. Iz rentgenologicheskogo otdelelniya (zav. - prof. L.M.Gol'd-shteyn) i laboratorii rakovykh shtampov (zav. - prof. N.A.Krotkina) Instituta onkologii AMN SSSR (nauchn. rukovoditel' - deystvitel'nyy chlen AMN SSSR prof. N.N.Petrov; direktor - deystvitel'nyy chlen AMN SSSR prof. A.I.Serebrov)

(BONE AND BONES, neoplasms, exper. (Rus))
(NEOPLASMS, experimental, bones (Rus))

PROKOF'YEVA, E. I., (Cand. of Med. Sci.) GOLDSHTEYN, L. M., (Prof.), and OLSHANETSKIY, A. S., (cand Of Med. Sci.)-- Leningrad.

"Remote Results Following Treatment of 352 Patients with Osteogenic Sarcomas of Bones."

Report submitted for the 27th Congress of Surgeons of the USSR, Moscow, 23-28 May 1960.

PROKOF'YEVA, Ye.I.; RUKAVTSOV, B.I.

Rapid method for obtaining chlamydospores of Candida albicans. Vest. derm. i ven. 39 no.4:22-24 Ap '65. (MIRA 19:2)

1. Kafedra kozhnykh i venericheskikh bolezney (zav. - prof. L.A. Neradov) i kafedra mikrobiologii (zav. - dotsent A.I. Korotyayev) Kubanskogo meditsinskogo instituta, Krasnodar. Submitted June 27, 1964.

PROKOF'YEVA, Ye.I.

Characteristics of fungi of the Candida genus isolated in superficial candidiases. Zhur. mikrobiol., epid. i immun. 42 no.6:69-76 '65. (MIRA 18:9)

1. Kubanskiy meditsinskiy institut.

GOL'DSHTEYN, L.M.; PROKOF'YEVA, Ye.I.; KEVESH, L.Ye.; MEZERNITSKIY, Ye.P.

Principles of roentgenocinematography and the possibility for its use in the examniation of the esophagus and stomach. Vop.onk. 7 no.12:31-37 '61. (MIRA 15:1)

1. Iz rentgenologicheskogo otdeleniya (zav. - prof. L.M. Gol'dshteyn) Instituta onkologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. A.I. Serebrov).
(SINEFLUOROGRAPHY) (STOMACH--RADIOGRAPHY)
(ESOPHAGUS--RADIOGRAPHY)

L 16830-63 EPF(c)/BDS AFFTC/APGC/ASD Pr-4 BW/AN
ACCESSION NR: AP3003265 S/0286/63/000/003/0036/0036 61

AUTHOR: Bugay, Ye. A.; Varfolomeyev, D. F.; Zagryatskaya, L. M.; Prokof'yeva, Ye. M.

TITLE: Method of increasing stability of gasoline." Class C 10g; 23b, 1 sub 04, No. 152924

SOURCE: Byul. izobreteniy i tovarnykh znakov, no. 3, 1963, 36

TOPIC TAGS: gasoline, inhibitor, phenolic oil, oxidation, oxidation inhibitor

ABSTRACT: Method of increasing the stability of gasolines by adding oxidation inhibitors; its distinguishing feature is that the oxidation inhibitor used is acid phenolic oil. /Abstracter's note: complete translation./ Orig. art. has no figures, tables, or formulas.

ASSOCIATION: none

SUBMITTED: 09Apr62 DATE ACQ: 23Jul63 ENCL: 00

SUB CODE: FL NO REF SOV: 000 OTHER: 000

Card 1/1

RUZHENTSEVA, A.K.; PROKOF'YEVA, Ye.Ye.

Quantitative determination of lemoran and demorfan and possible admixtures in these preparations. Med. prom. 17 no.9:29-32 S '63. (MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.

L 05049-67 EWT(m) JR/GD

ACC NR: AT6027921 SOURCE CODE: UR/0000/66/000/000/0067/0071

AUTHOR: Yermakov, S. M.; Prokof'yeva, Z. A.

ORG: None

TITLE: Use of the Monte Carlo method in shielding calculations

SOURCE: Voprosy fiziki zashchity reaktorov (Problems in physics of reactor shielding); sbornik statey, no. 2. Moscow, Atomizdat, 1966, 67-71

TOPIC TAGS: Monte Carlo method, radiation shielding, computer programming

ABSTRACT: The authors consider some procedural problems associated with the compilation of programs for solving problems in nuclear radiation shielding by the Monte Carlo method. There are two classical approaches in using this method for calculating the passage of radiation through matter: 1. modeling the behavior of a neutron or γ-quantum in the medium and 2. writing out the solution for the integral equation of radiation transfer in the form of an infinite series with terms which are multiple integrals of increasingly higher order (Neumann series) with subsequent application of the Monte Carlo method for calculating these terms. Two problems are considered: the general structure of a program for shielding calculation and the structure of an elementary unit for general shielding geometry. It is assumed in the discussion that the reader is familiar with the Monte Carlo method as presented in works by Buslenko,

Card 1/2

L 05044-67

ACC NR: AT6027921

O

Zolotukhin, Vladimirov and others where it is shown that penetration of radiation through matter may be given in terms of the phase coordinates of the particles along its trajectory. A procedure is described for compiling a program to follow this trajectory. Particular emphasis is given to that part of the program for determining the distances travelled by the particle in moving from a given point in a given direction before exit from the medium. An algorithm in ALGOL-60 language is given in the form of a procedure for determining these distances and correlating the corresponding numbers. The resulting geometric unit may be useful in other computational methods, e. g. for constructing three-dimensional nets for difference methods. Orig. art. has: 1 formula.

SUB CODE: 12, 09/ SUBM DATE: 12Jan66/ ORIG REF: 003

Card 2/2

IVANOVSKAYA, Ye.V.; PROKOF'YEVA, Z.D.

Polyteny in the nuclei of wheat antipods. Dokl. AN SSSR 152 no.2:446-449 S '63. (MIRA 16:11)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova. Predstavleno akademikom A.N. Belozerskim.

TSARITSYN, M.A.; ZAKHARENKO, N.I.; ODNODVORTSEV, P.Ye.; KIRYUSHKIN, A.M.; PROKOF'YEVA, Z.I.

Mechanized working of selenium ruby sheet glass. Stek. i ker. 19 no.8:16-19 Ag '62. (MIRA 15:9)
(Glass, Colored)

PROKOF'YEVA, Z. K.

"Determination of the Extent of Water Leakage in the Hydraulic Testing of Metallic Water Supply Systems." Sub 30 Jun 51, All-Union Sci Res Inst of Water Supply, Sewerage, Hydraulic Structures and Engineering Hydrogeology (VODGEO)

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

SO: Sum. No. 480, 9 May 55

MOSHNIN, L.F., starshiy nauchnyy sotrudnik; PROKOF'YEVA, Z.M., mladshiy nauchnyy sotrudnik.

Plan of instruction on hydraulic testing of steel and cast-iron water-supply lines. (In: Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut vodosnabsheniya, kanalizatsii, gidrotekhnicheskikh sooruzheniy i inzhenernoy gidrogiologii. Issledovaniia po gidravlike truboprovodov. 1952, p.66-81) (MLRA 7:1)

(Water pipes)

MOSHNIN, L.F., starshiy nauchnyy sotrudnik; PROKOF'YEVA, Z.M., mladshiy nauchnyy sotrudnik.

New method of hydraulic testing of water-supply lines. (In: Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut vodosnabzheniya, kanalizatsii, gidrotekhnicheskikh sooruzheniy i inzhenernoy gidrogiologii. Issledovaniia po gidravlike truboprovodov. 1952, p.21-65.) (MLRA 7:1)
(Water pipes)

PROKOF'YEVA, Z.P.

FRIDMAN, G.A.; SKVORTSOV, K.A.; SERGEYEVA, A.S.; ABRAMOVICH, B.Ya., red.; PROKOF'YEVA, Z.P., red.; SHENDAREVA, L.V., tekhn.red.

[Exchange of experience] Obmen opytom; sbornik. Moskva, TSentr. biuro tekhn. informatsii. No.1. 1957. 13 p. (MIRA 11:5)

1. Russia (1923- U.S.S.R.) Ministerstvo bumazhnoy i derevo-obrabatyvayushchey promyshlennosti. 2. Glavnyy inzhener Solikamskogo tsellyulozno-bumazhnogo kombinata (for Fridman). 3. Glavnyy inzhener Sokol'skogo tsellyulozno-bumazhnogo kombinata (for Skovrtsov). 4. Glavnyy inzhener Sibirskoy bumazhnoy fabriki (for Sergeyeva)
(Paper industry)

PROKOFYEVA-BELGOVSKAYA, A. A.

Mbr., Inst. Genetics, Dept. Biol. Sci., Acad. Sci., -1939-45-.
Mbr., Inst. Exptl. Biol., Acad. Sci., -1939-;
Mbr., Inst. Cytology, Histology, Embryology, Dept. Biol. Sci., Acad. Sci., -1946-.
"Cytological Mechanism of Mosaicism and of Chromosome Rearrangement," Dok. AN, 22, No. 5, 1939;
"Distribution of Breaks in the X-Chromosome of Drosophila Melanogaster," ibid., 23, No. 3, 1939;
"Change in the Crossover Properties of a Chromosome under the Influence of Mutation," ibid., 38, No. 8, 1943;
"Frequency of Minute Rearrangements as Dependent upon the Degree of Heterochromatization of the Chromosome Section Involved," ibid., 39, No. 6, 1943;
"Heterochromatization as a Change in the Chromosome Cycle," ibid., 47, No. 5, 1945;
"Heterocyclicity of the System 'Maternal Chromosome--Daughter Chromosome' ", ibid., 49, No. 8, 1945;
"Heterocyclicity of the System of Cell Nucleus," ibid., 53, No. 8, 1946;
"Heterocyclicity of the Parental Chromosome Sets," ibid., 54, No. 2, 1946.

PROKOFYEVA-BELGOVSKAYA, A. A.

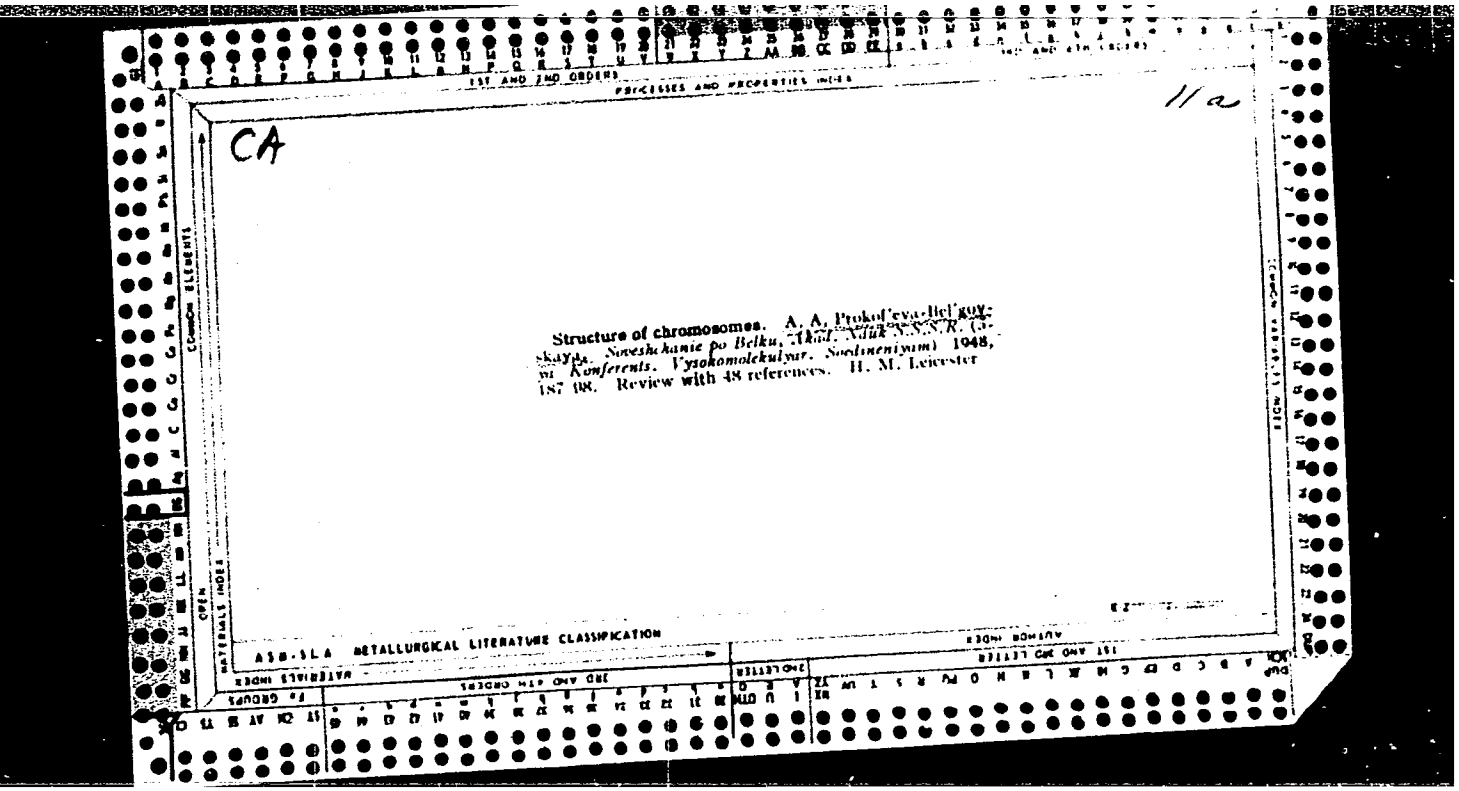
"A. A. Prokofyefa-Belgovskaya: Heterochromatization as a Change in the Pacific and Arctic Ocean Faunas Based On Zoogeographic Analysis of Echinodermata." Received on May 3, 1944. (p. 93).

SO: Journal of General Biology, Vol. VI, contents of the issues 1-6, for 1945. No. 2

PROKOF'EVA-BIELGOVSKAYA, A. A.

"Heterocyclicity In The System Of The Cellular Nucleus (Hypothesis & Its Justification)". (p. 247) by Prokofyeva-Bielgovskaya, A. A.

SO: Journal Of General Biology, Vol. VIII, No. 4 (Issues 1-6 for 1947)



PROKOF'YEVA-BEL'GOVSKAYA, A.A.

Amitosis in the starch-forming cells of the potato tuber. Izv.AN SSSR Ser. biol. no.6:22-36 N-D '53. (MLRA 6:11) (Potatoes)

PROKOF'YEVA - BEL'GOVSKAYA, A.A.
BEL'GOVSKAYA,

USSR/Microbiology. Antibiosis and Symbiosis F-2
Antibiotics

Abs Jour : Ref. Zhur-Biologiya, No 1, 1957, 513

Author : A. K. Solov'yeva, V.A. Semenova, A. A. Bel'govskaya, M. M. Tayg

Inst :

Title : On the Search for New Antibiotics of Actinomycetin Origin.

Orig Pub : Anribiotiki, 1956, 1, No 1, 11-14

Abstract : A plan for the investigation and selection of actinomyces for the purpose of finding new antibiotics is described. The plan has been approved by the All Union Scientific-Research Institute of Antibiotics. Cultures of actinomyces have been isolated by planting specimens of

Card 1/4

USSR/Microbiology. Antibiosis and Symbiosis F-2
Antibiotics

Abs Jour : Ref. Zhur-Biologiya, No 1, 1957, 513

Abstract : soil on the Chapek agar medium with glucose. The antagonistic properties were determined after 14 days of growth of all isolated cultures on hard organic and synthetic media by the method of imposition of agar blocks, and utilizing Staphylococcus aureus 209, bacterium coli, Micobacterium B-5, and Monilia as test microbes. Simultaneously the cultural and morphological indices were studied. The data which were obtained were utilized to determine the taxonomic position of the actinomycite in order to identify it as soon as possible. In this stage, 1000 cultures were tested with 30

Card 2/4

F-2

USSR/Microbiology. Antibiosis and Symbiosis
Antibiotics

Abs Jour : Ref. Zhur-Biologiya, No 1, 1957, 513

Abstract : to 40% having been declared defective. In the second stage the antagonistic properties of the cultural fluids of the active cultures obtained during the growth of the strains on fluid and synthetic media were studied. B. proteus X19, Pyocyaneus bacillus, Vibrio phosphorescens, and Bacillus anthracoides were used as test microbes in addition to those above enumerated. Hundreds of cultures, 80 to 90% of which were defective, were tested at this stage. In the presence of high titers the culture fluids were further studied, by the utilization of antibiotic resistant forms and pathogenic micro-organisms. In this stage the antivirus

Card 3/4

USSR/Microbiology. Antibiosis and Symbiosis F-2
Antibiotics

Abs Jour : Ref. Zhur-Biologiya, No 1, 1957, 513

Abstract : and antitumor properties were also determined. The toxicity of the culture fluids and their ability to combine with blood serum were further investigated. In the succeeding stages the selection of media and conditions for the cultivation and chemical purification of antibiotics were carried out. The chemotherapeutic properties of the antibiotics were then studied.

Card 4/4

PROKOF'YEVA-BEL'GOVSKAYA, A.A.

USSR/Microbiology - Antibiosis and Symbiosis. Antibiotics. F-2

Abs Jour : Ref Zhur - Biol., No 3, 1958, 9835

Author : Prokof'eva-Bel'govskaya, A.A., Orlova, N.V.
Inst :
Title : Characteristics of Growth and Development of Actinomycetes, Producers of Streptomycin, Biomycin and Terramycin, Under Conditions of Depth Antibiotic Biosynthesis.

Orig Pub : Izv. AN SSSR, Ser. biol., 1956, No 5, 59-66

Abstract : On media with 0.5% corn extract, development of Actinomyces globisporus streptomycini Kras. (producer of streptomycin), A. aureofaciens (producer of aureomycin), and A. rimosus (producer of terramycin) occurs in 2 stages. Stage I (lasting 24-48 hours) is characterized by intensive mycelial growth (accumulation up to 70-80% of mycelial mass), utilization of 60-80% of nutrient substances, almost total absence of formation of antibiotic substances, and low state isoelectric protoplasmic point, which indicated

Card 1/2

Abs Jour : Ref Zhur - Biol., No 3, 1958, 9835

a high RNA content.
Stage II is characterized by a diminished basophile and protoplasm differentiation, diminished RNA content, and increased DNA content. At the same time retardation of culture growth and antibiotic formation occurs. Formation of the antibiotic ceases as the culture ages, approximately after 70-100 hours of fermentation. The cycle of development in each of the three actinomycetes studied possesses specific features, conditioned by the species characteristics of the microorganism.

PROKOF'YEVA-BEL'GOVSKAYA, A.A.

USSR/Microbiology - Antibiosis and Symbiosis, Antibiotics. F-2

Abs Jour : Ref Zhur - Biol., No 4, 1958, 14727

Author : Prokof'eva-Bel'govskaya, A.A., Pestereva, G.D., Rudaya, S.M.

Inst : -

Title : Characteristics of Growth and Development of Actinomyces Rimosus in Submerged Antibiotic Production.

Orig Pub : Mikrobiologiya, 1956, 25, No 6, 668-674

Abstract : A study was conducted of the life cycle of 2 strains of A. rimosus, which form terramycin in deep cultures under laboratory and industrial conditions on complex media containing supplementary sources of mineral nitrogen. Depending on the strain and medium used, the character and development of the culture is modified. In conditions favoring a retarded growth a polycyclic development is observed, i.e., an interchange of three vegetative generations of hyphae, which speedily terminate the growth phase by

Card 1/2

USSR/Microbiology - Antibiosis and Symbiosis, Antibiotics. F-2

Abs Jour : Ref Zhur - Biol., No 4, 1958, 14727

total or partial spore-formation and partial autolysis. Hyphae of different generations markedly vary in morphological structure, protoplasmic condition and ability to form antibiotics. In an intense culture growth a tendency is observed to inhibit spore-formation by the first hypha generation and transition from a polycyclic to a monocyclic type of development.

Card 2/2

USSR / Microbiology. Antibiosis And Symbiosis. Antibiotics. F

Abs Jour : Ref. Zhur - Biol., No 21, 1958, No 95031

observed in proportion to the development of the culture, the isoelectric point (IEP) moves from a more acid to a less acid area. The dimensions of the nuclear elements and the content of DNA in them (maximum at end of development) are also changed in proportion to the development of the culture. In the early stages of development (3-6 hours), DNA is not found at all in the mycelia; in these hours of development the thymine found in later stages is absent. Some still unidentified nitrogenous base "X" is found in place of thymine. Maximal formation of the antibiotic is connected with the determined period of the life cycle of the producer, with the characterized growth retardation, decrease of the basophil of

Card 2/3

USSR / Microbiology. Antibiosis and Symbiosis. Antibiotics.

Abs Jour : Ref. Zhur - Biol., No 21, 1958, No 95031

the protoplasm, transfer of the IEP of the cytoplasm into a less acid area, decrease of the content of RNA in the cytoplasm, increase of the DNA content in the nuclear substance of many parts of the mycelia, and decrease of the content of several amino-acids in the mycelia. It is proposed that the nuclein metabolism most of all determines the features of the life cycle of the culture, but is not the immediate link of the biosynthetic mechanism of the antibiotic. -- L. N. Kats.

Card 3/3

PROKOF'YEVA-BEL'GOVSKAYA, A.A.; ORLOVA, N.V.

Relation of the structure and development of Act. rimosus and its capacity to synthesine oxytetracycline from the medium. Antibiotiki 3 no.2:8-13 Mr-Ap '58. (MIRA 12:11)

1. Institut biofiziki AN SSSR, Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.

(ACTINOMYCES, culture,
rimosus, eff. of various factors on oxytetracycline synthesis (Rus))
(OXYTETRACYCLINE, metabolism,
Actinomyces rimosus synthesis, eff. of various factors (Rus))

USSR / Microbiology. General Microbiology. Effect of F
External Agents. Disinfection.

Abs Jour: Ref Zhur-Biol., No 2, 1959, 5418.

Author : Prokof'yeva-Bel'govskava, A. A.; Alikhanyan, S. I.; Kapitonova, O. N.; Yerokhina, L. I.

Inst : AS USSR. Inst Biophysics, Lab Radiation Genetics, and All Inst. Antibiotics

Title : Cytology of Radiation Mutants in Actinomycetes (Actinomyces globisporus streptomycini Kras.)

Orig Pub: Izv. AN SSSR. Ser. biol., 1958, 23, No 2, 193-201.

Abstract: Cytological and cultural characteristics, as well as antibiotic activity of four strains of A. globisporus streptomycini and 60 mutants of this species, obtained with the aid of ultra-high doses of ultraviolet rays (10,000-15,000 erg/mm^3) with intermediate photoreactivation, were studied. The ultraviolet radiation caused

Card 1/2

USSR / Microbiology. General Microbiology. Effect of F
External Agents. Disinfection.

Abs Jour: Ref Zhur-Biol., No 2, 1959, 5418.

Abstract: the formation of mutants with hereditary changes of nucleoprotein components of the cell. The mutants obtained differed from each other mainly by a basophilia of protoplasm in stage I and II of the development, structure of nuclear elements, character of their division and their content of DNA. 5 types of radiation mutants most frequently encountered in a producer of streptomycin under the influence of ultraviolet radiation were isolated. 21 microphotographs and a scheme of the development of mutants of the 5 isolated types are given. -- L. N. Kats.

Card 2/2

2

PROKOFYEVA-BELGOVSKAYA, A.A.

21(4); 17(0) PHASE I BOOK EXPLOITATION SOV/2808

International Conference on the Peaceful Uses of Atomic Energy. 2d, Geneva, 1958

Doklady sovetskikh uchenykh; radiobiologiya i radiatsionnaya meditsina (Reports of Soviet Scientists; Radiobiology and Radiation Medicine) Moscow, Izd-vo Glav. upr. po ispol'zovaniyu atomnoy energii pri Sovete Ministrov SSSR, 1959. 429 p. 8,000 copies printed. (Series: Vtoraya Mezhdunarodnaya konferentsiya po mirnomu ispol'zovaniyu atomnoy energii. Trudy, tom 5)

General Ed.: A.V. Lebedinskiy, Corresponding Member, USSR Academy of Medical Sciences; Ed.: Z.S. Shirokova; Tech. Ed.: Ye.I. Mazel'.

PURPOSE: This book is intended for physicians, scientists, and engineers as well as for professors and students at vtuzes where radiobiology and radiation medicine are taught.

COVERAGE: This is Volume 5 of a 6-volume set of reports delivered by Soviet scientists at the Second International Conference on the Peaceful Uses of Atomic Energy, held on September 1-13, 1958, in Geneva. Volume 5 contains 32 reports edited by Candidates of Medical Sciences S.V. Levinskiy and V.V. Sedov. The reports cover problems of the biological effects of ionizing radiation, future consequences of radiation in small doses, genetic effects of radiation, treatment of radiation sickness, uses of radioactive isotopes in medical and biological research, uses of atomic energy for diagnostic and therapeutic purposes, soil absorption of uranium fission products, their intake by plants, and their storage in plants and foodstuffs. References accompany each report.

SOV/2808

Reports of Soviet Scientists (Cont.)

Gulyakin, I.V., and Ye.V. Yudintseva. The Plant Intake of Strontium, Cesium, and Other Fission Products and Their Storage in the Crops (Report No. 2311) 357

Dubinin, N.P. Mechanism of the Radiation Effect on Heredity and the Problem of Radiosensitivity (Report No. 2074) 372

Tinyakov, G.G., and M.A. Arsen'yeva. Cytogenetic Effect of Ionizing Radiation in Nuclei of Monkey Germ Cells (Report No. 2476) 385

Alikhanyan, S.I., K.P. Garina, S.Yu. Gol'dat, L.I. Yerokhina, V.G. Zhdanov, A.A. Prokof'yeva-Bel'govskaya, E.I. Zhdanova, O.N. Kapitonova, F.S. Klepikova, S.Z. Mindlin, and A.P. Teteryatnik. Genetic Effect of Radiation and the Selection of Microorganisms Producing Antibiotics (Report No. 2495) 396

AVAILABLE: Library of Congress (QC770.I55)

TM/jb
1-5-60

Card 7/7

17(4) SOV/30-59-1-19/57

AUTHORS: Prokof'yeva-Bel'govskaya, A. A., Candidate of Biological Sciences
Alikhanyan, S. I., Doctor of Biological Sciences

TITLE: Important Problems of Genetics (Vazhnyye problemy genetiki)

PERIODICAL: Vestnik Akademii nauk SSSR, 1959, Nr 1, pp 98-100 (USSR)

ABSTRACT: At the International Conference for the Peaceful Use of Atomic Energy held in Geneva in September 1958, the problems of radiation genetics played an important part. Questions of genetic consequences of radiation, the mode of action of radiation and radiosensitivity, the protection from radiation, the use of tritium in scientific research, and the improvement of cultures and genetics were discussed. N. P. Dubinin outlined the basic trends of laboratory work for radiation genetics at the Institut biofiziki Akademii nauk SSSR (Institute of Biophysics, Academy of Sciences, USSR). S. I. Alikhanyan reported on successes in the field of radiation selection of antibiotics producers (mushrooms and actinomycetaceae) in the USSR. The authors of this article state that Soviet scientists are working in a number of directions on the same problems as other countries, but they met with better results in various

Card 1/2

special fields such as the selection of antibiotics producers. In the field of general theoretical genetics, radiation genetics of mammals, radiation selection of plants, etc., the work is developing insufficiently. Friendly meetings took place during the Conference at which various problems in the field of genetics were also discussed.

KUZIN, A.M.; ALIKHANYAN, S.I.; PROKOF'YEVA-BEL'GOVSKAYA, A.A.

Biological problems at the second international conference of the UNO on the peaceful uses of atomic energy. Izv.AN SSSR. Ser.biol. no.2:293-296 Mr-Ap '59. (MIRA 12:5)
(GENEVA--ATOMIC ENERGY--CONGRESSES)

ALIKHANYAN, S.I.; PROKOF'YEVA-BEL'GOVSKAYA, A.A.

Problems in radiation genetics. Izv.AN SSSR.Ser.biol. no.2:296-299 Mr-Ap '59. (MIRA 12:5)
(RADIATION--PHYSIOLOGICAL EFFECT) (GENETICS)

PROKOF'YEVA-BEL'GOVSKAYA, A.A.

Interaction of the nucleus and cytoplasm in amylogenic cells of potato tubers. TSitologiia 1 no.3:257-269 My-Je '59. (MIRA 12:10)

1. Laboratoriya radiatsionnoy genetiki Instituta biofiziki AN SSSR, Moskva.
(PLANT CELLS AND TISSUES) (POTATOES)

KATS, L.N.; PROKOF'YEVA-BEL'GOVSKAYA, A.A.

Effect of the source of nitrogen nutrition on the structure and development of the producer of chlortetracycline (Actinomyces aureofaciens). TSitologiia 1 no.6:707-713 N-D '59. (MIRA 13:4)

1. TSitologicheskaya gruppa Laboratorii selektsii Vsesoyuznogo nauchno-issledovatel'skogo instituta antibiotikov, Moskva.
(BACTERIOLOGY--CULTURES AND CULTURE MEDIA) (NITROGEN)
(ACTINOMYCES)

PROKOF'YEVA-BEL'GOVSKAYA, A.A.; POPOVA, L.A.

Effect of phosphorus on the development of Actinomyces aureofaciens and on its capacity for chlortetracycline biosynthesis [with summary in English]. Mikrobiologiia 28 no.1:7-13 Ja-F '59. (MIRA 12:3)

1. Institut biofiziki AN SSSR i Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.

(PHOSPHORUS, eff.
on Actinomyces aureofaciens develop. & chlortetracycline synthesis (Rus))
(ACTINOMYCES, effect of drugs on,
aureofaciens, phosphorus on develop. & chlortetracycline synthesis (Rus))
(CHLORTETRACYCLINE, metab.
Actinomyces aureofaciens, eff. of phosphorus on synthesis (Rus))

PROKOF'YEVA-BEL'GOVSKAYA, A.A.

Chromosome structure. Itogi nauki: Biol. nauki no. 3:7-60 '60. (MIRA 13:10)

(CHROMOSOMES)

PROKOF'YEVA-BEL'GOVSKAYA, A.A.; SHAMINA, Z.B.

Studies on the structure of Actinomyces streptomycini Kras colonies. Mikrobiologiia 29 no.1:56-61 Ja-F '60. (MIRA 13:5)

1. Institut biofiziki AN SSSR.
(ACTINOMYCES culture)

PROKOF'YEVA-BEL'GOVSKAYA, A.A.; KATS, L.N.

Volutin in actinomycetes and its chemical nature. Mikrobiologiia 29 no.6:826-833 N-D '60. (MIRA 14:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov. (ACTINOMYCES) (VOLUTIN)

33313
S/560/61/000/010/011/016
D298/D302

27.12.20

AUTHORS: Glembotskiy, Ya. L., Prokof'eva-Bel'govskaya, A. A., Shamina, Z. B., Gol'dat, S. Yu., Khvostova, V. V., Valeva, S. A., Eyges, N. S., and Nevzgodina, L. V.

TITLE: Effect of cosmic flight factors on the heredity and development of actinomycetes and higher plants

SOURCE: Akademiya nauk SSSR. Iskusstvennyye sputniki Zemli. no. 10. Moscow, 1961, 72-81

TEXT: The second cosmic space-ship was utilized to study the combined genetic effect of cosmic flight on organisms. This article deals with the study of the following cultures: actinomyces erythreus, stems 2577 and 8594, and actinomyces streptomycini Kras., stem ЛС-3 (LS-3). After the cosmic flight, the

Card 1/4

Effect of cosmic...

standards and experimental cultures were investigated according to: (1) vitality and (2) a microscopic characteristic of growth and development. The 2577 and 8594 stems differ by the sizes of their nuclear element in the spore and by their sensitivity to ultra-violet rays (UV). It is also assumed that they differ in their reaction to ionizing radiation. All the 4 tested stems were found to be sensitive to conditions of cosmic flight. The vitality (i.e., the number of spores which survived and developed colonies) of the radio-resistant act. erythreus 2577, as compared to the standards, increased 6 times; the no. 8594 decreased 12 times; the act. aureofaciens ЛСБ-2201 (LSB-2201) dropped in vitality by about 75% on the average. In the roots of all 5 types of experimental seeds, the percentage of chromosome changes was somewhat increased. However, only in the case of 2 types was this increase statistically valid. In 3 types of plants, in increase of mitosis was noted. In the case where the percentage of anaphases with chromosome changes was found

Card 2/4

33313
S/560/61/000/010/011/016
D298/D302

Effect of cosmic...

to be high (about 5%), the tempo of mitosis fell. The conditions of cosmic flight stimulated the growth intensity compared to the standards. The following microscopic morphology features of the experimental cultures confirm this fact: (a) development of a more basiphyllic and powerful gif, (b) growth of a thicker intertwining of mycelia, (c) lengthy growth of well-developed gifs. Data on the survival of the 8594 and 2577 stems are not completely valid since the concentrations of the spore suspensions of the control and experimental cultures were determined visually from the suspension turbidity. The morphology changes in the colonies were investigated on the act. erythreus 8594 and act. aureofaciens LSB-2201. Obtained data show that the morphology changes in the actinomyces, both in the experiment (cosmic flight) and control, lie within the same limits. The cytology analysis of agricultural plant seeds affected by cosmic flight was conducted by studying the chromosome impairment in the ana- and telophases of the first mitosis. Obtained results

Card 3/4

Effect of cosmic...

showed that in all the investigated plants there is a certain increase of cells with chromosome changes, and in only 2--winter wheat and Spartanet's peas--is this increase statistically valid. There are 4 figures, 2 tables and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: S. B. Pipkin, W. N. Sullivan, Aerospace Med., 30, 585, 1959.

SUBMITTED: May 3, 1961

Card 4/4

PROKOF'YEVA-BEL'GOVSKAYA, A.A.; KAPITONOVA, O.N.; SHAMINA, Z.B.

Radiosensitivity of actinomycetes strains and species as related to the structural characteristics of their nuclear elements. (MIRA 14:7)
Radiobiologiia 1 no.1:112-118 '61.

1. Institut biologicheskoy fiziki AN SSSR i Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov, Moskva.
(ACTINOMYCES) (RADIATION--PHYSIOLOGICAL EFFECT)
(CELL NUCLEI)

PROKOF'YEVA-BEL'GOVSKAYA, A.A.

Radiation damage of chromosomes during early developmental stages of salmon. TSitologiia 3 no.4:437-445 Jl-Ag '61. (MIRA 14:8)

1. Laboratoriya radiatsionnoy genetiki Instituta biofiziki AN SSSR, Moskva.
(X RAYS--PHYSIOLOGICAL EFFECT) (CHROMOSOMES)
(EMBRYOLOGY--FISHES)

ORLOVA, N.V.; PROKOF'YEVA-BEL'GOVSKAYA, A.A.

Effect of the quality and age of the inoculation material on the growth and development of Act. rimosus and the synthesis of oxytetracycline. Antibiotiki 6 no.1:15-20 Ja '61. (MIRA 14:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(TERRAMYCIN) (ACTINOMYCES)

PROKOF'YEVA-BEL'GOVSKAYA, A.A.; CHZHAN CHZHUN-KHE [Chai Chung-ho]

Electron microscope study of spermatogenesis in mice. Biofizika 6 no.6:681-686 '61. (MIRA 15:1)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(SPERMATOGENESIS IN ANIMALS) (ELECTRON MICROSCOPE)

PROKOF'YEVA-BEL'GOVSKAYA, A.A.; MIKHAYLOVA, G.R.; YEROKHINA, L.I.

Cytological study of the effect of ultraviolet rays and photoreactivation of the spores of Actinomyces olivaceus. Izv. AN SSSR Ser. biol. 26 no.1:93-100 Ja-F '61. (MIRA 14:3)

1. Institute of Biological Physics, Academy of Sciences of the U.S.S.R., All-Union Research Institute of Antibiotics.
(ACTINOMYCES) (ULTRAVIOLET RAYS--PHYSIOLOGICAL EFFECT)

PROKOF'YEVA-BEL'GOVSKAYA, A.A.; SHAMINA, Z.B.

Studies on the structure of colonies of a highly active radiation mutant of Actinomyces streptomycini Kras. Mikrobiologiia 30 no.2: 203-206 Mr-Ap '61. (MIRA 14:6)

1. Institut biofiziki AN SSSR.
(ACTINOMYCES) (RADIATION—PHYSIOLOGICAL EFFECT)