

PAVLOVA, A.P.

USSR/General Biology, Genetics.

B-5

Abs Jour: Ref. Zh.-Biol., No 9, 1957, 35193

Author : Bystrov, B.A., Pavlova, A.P., Falkenburg, E.A.

Inst :

Title : The Quality of Fecundation and the Intensity of the Assimilation and Respiration Processes in Pumpkin and Sunflower Plants

Orig Pub: Fiziol. rasteniy, 1956, 3, No 3, 185-190

Abstract: The intensity of the respiration and photosynthesis of inbred plants of pumpkin and sunflower and mixed variety hybrids was studied. Pumpkins of the Mozolevskaya type and sunflowers of the Fuksink 10 type served in the capacity of the inbred plants, having multiplied by means of self fertilization in the course of several generations. Hybrids of pumpkins were gotten as the result of fertilizing plants of the Mozolevskaya type with a mixture of pollen taken from the Grey Volga and Astrakhan types. Hybrids of sunflower were gotten by fertilizing plants of the

Card : 1/2

-2-

USSR/General Biology, Genetics.

B-5

Abs Jour: Ref. Zh.-Biol., No 9, 1957, 35193

Fuksink 10 type with the Chernianka 35 type. The hybrids of both types in capacity of development surpassed the plants of the inbred line. It was shown that the intensity of respiration was higher in plants of the inbred line, and that photosynthesis was higher in the hybrids. The excess of the photosynthesis of carbon over its expenditure during the respiration of hybrids was expressed more strongly. The materials were not worked out biometrically and it is therefore difficult to judge on their trustworthiness.

Card : 2/2

-3-

BYSTROV, B.A.; PAVLOVA, A.P.; PAL'KENBERG, B.A.

Quality of fertilization and intensity of assimilation and respiration
in the pumpkin and sunflower [with English summary in insert]. Fiziol.
rast. 3 no.3:185-190 My-Je '56. (MIRA 9:9)

1. Plodoveshchnoy institut imeni I.V. Michurina, Michurinsk.
(Pumpkin) (Plants--Respiration) (Photosynthesis) (Sunflowers)

PAVLOVA, A.S.

Device for marking numbers and graduations on parts.
Mashinostroitel' no.12:25 D '63. (MIRA 17:1)

PAVLOVA, A.S., inzh.

New repair method. Vest.Vozd.Fl. no.1:71-72 Ja '60.
(MIRA 13:8)
(Airplanes—Maintenance and repair)

VOROB'YEV, S.I.; PAVLOVA, A.S., red.; FOMICHEV, P.M., tekhn.red.

[Handbook of specifications on the cooling, refrigeration,
salting, and smoking of fish] Sbornik tekhnologicheskikh
instruktsii po okhlezhdeniiu, zamorazhivaniiu, posolu i
kopcheniiu ryby. Moskva, Izd-vo Tsentrosoiuzna, 1958. 61 p.
(MIRA 13:8)

(Fish as food)

ent
the

ABSTRACTS MEDICA Sec 7 Vol 13/7 Pediatrics July 50

1547. THE DIAGNOSTIC IMPORTANCE OF THE AGGLUTINATION REACTION IN ACUTE DYSENTERY IN INFANTS (Russian text) - Pavlova A. T., Soloveva O. I., Chernova V. N. and Kheisina S. N. - VOPR. OKHR. MATER. I DETS. 1957, 3 (14-21)

Serological investigations were made on 4,497 infants aged 1 year suffering from acute dysentery. In Flexner dysentery high titres (1:400 or 1:800) of the agglutination reaction were found in 33.6% of infants, in Sonne dysentery in 37.9%, and in the Newcastle type in 47.6%. In a group of patients in which the diagnosis of dysentery was not confirmed bacteriologically high titres of the reaction were found in 16.5% of cases. In a control group of patients with whooping cough and scarlet fever (306 infants) in no case was a positive agglutination reaction found in a titre of 1:800. The frequency of positive reactions increased with age. They were less common in a group of infants in whom the dysentery was not confirmed bacteriologically. The author concludes that agglutination titres with homologous antigen exceed the titres with heterologous culture. There is a correlation between the results of the agglutination reaction and changes in the aetiological make-up of dysentery during the period 1945-1955. The reaction may be used as a valuable additional method of diagnosis of dysentery in infants.

PAVLOVA, A.V.

Some problems of marine cartography in the field of compiling
bathymetric maps. Vest. LGU 19 no.24:153-157 '64 (MIRA 18:1)

PAVLOVA, Aleksandra Vasil'yevna; BOGDANOV, K.A., otv. red.; KULAGINA, I.I., red.; ZHUKOVA, Ye.G., tekhn. red.

[Marine charts] Morskie navigatsionnye karty. Leningrad, Izd-vo
Leningr. univ., 1961. 179 p. (MIRA 14:9)
(Nautical charts)

PAVLOVA, A.V.

Projects of students-cartographers. Vest. LGU 14 no.24:165 '59.
(MIRA 12:12)

(Cartography)

PAYLOVA, A.V.

Representation of submarine relief on navigational maps. Vest.LGU 13
no.24:109-111 (MIRA 12:4)
(Ocean bottom--Maps)

MARGULIS, A.Sh., prof., prepodavatel'; BARNGOL'TS, S.B., prepodavatel';
PAVLOVA, A.V., prepodavatel'; SHCHENKOV, S.A., prepodavatel';
D'YACHKOV, M.P., prepodavatel'; KOHRAT'YEVA, A., red.;
MEDVED'VA, R., red.; LEBKOV, A., tekhn.red.

[Economic analysis of the work of an enterprise; based on accounting and reports.] Ekonomicheskii analiz raboty predpriatii; po dannym ucheta i otchetnosti. Avtorskii kollektiv pod rukovodstvom A.Sh. Margulisa. Moskva, Gosfinizdat. Pt.1. 1960. 470 p.

(MIRA 14:3)

1. Vsesoyuznyy sochnyy finansovo-ekonomicheskii institut (for Margulis, Barngol'ts, Pavlova, Shchenkov, D'yachkov).
(Industrial management) (Accounting)

GALANOV, O.P.; SETKINA, O.N.; UR'YAN, R.S.; PAVLOVA, A.Yu.

Quantitative spectral determination of titanium dioxide in rubber
compounds. Kauch. i rez. 24 no.5:53 My '65. (MIRA 18:70)

1. Leningradskiy tekhnologicheskii institut im. Lenseveta i zavod
"Krasnyy treugol'nik."

MYDLIL, F.; PROKHAZKA, Ya. [Prochazka, J.]; KREYZEK, M. [Kreizek, M.];
PAVLOV, B. (Chekhoslovatskaya Sotsialisticheskaya Respublika)

Results of treating tuberculous patients for the past 20 years
(1940-1959). Probl.tub. no.1:60-62 '62. (MIRA 15:8)

1. Iz tuberkuleznoy lechebnitsy v Zhanberge (dir. F. Mydlil) i
khirurgicheskoy kliniki v Gradets Kralove (rukovoditel' - prof.
Ya. Prokhazka).

(TUBERCULOSIS)

BENDL, J.; ELEKTA, M.; PAVLOVA, D.; TRNKA, V.; VINSOVA, N.

Fate of children of mothers with late toxemias. *Cesk. gynec.*
28 no.7:458-462 S '63.

1. II gyn.-por. klin. fak. vseob. lek. KU v Praze, prednosta
prof. dr. J. Lukas, DrSc. IV detska klinika fak. vseob. lek.
KU v Praze, prednosta prof. dr. F. Blazek III detska klinika
fak. vseob. lek. KU v Praze, prednosta prof. dr. O. Vychytil.
(PREGNANCY TOXEMIAS) (ELECTROENCEPHALOGRAPHY)
(VENTRICULOGRAPHY) (PSYCHOLOGICAL TESTS)
(NEUROLOGY) (GENETICS, HUMAN) (INFANT MORTALITY)

BALIK, J.; PAVLOVA, D.; URBANOVA, S.

Influence of nicotine on secretion of tears in smokers. Cas. lek. cesk.
97 no.50:1553-1555 12 Dec 58.

1. I. oční klinika Karlovy university v Praze, přednosta prof. dr.
E. Dienstbier. J. B., Praha 2, U nemocnice 2.

(LACRIMAL APPARATUS, eff. of drugs on
nicotine on lacrimation in smokers (Cz))

(SMOKING, eff.
on lacrimation (Cz))

(NICOTINE, eff.
same)

USENKO, V.M., kand.tekhn.nauk; LYASHENKO, N.A., inzh.; PAVLOVA, D.A.

State and standard of work mechanization in constructing apartment
houses and public buildings. Opyt stroi. 15:3-42 '58.

(Building machinery)

(MIRA 11:11)

LYASHENKO, N.A., inzh.; PAVLOVA, D.A.

Construction of the Northern Donets-Donets Basin Canal.
Opyt Stroi. no.8:86-95 '57. (MIRA 11:1)
(Donets Basin--Canals)

KONYUSHOV, A.M., starshiy nauchnyy sotrudnik, kandidat tekhnicheskikh nauk;
~~PAVLOVA, D.A.~~ nauchnyy sotrudnik; SOKOLINSKAYA, L.B., inzhener,
nauchnyy redaktor; MUNITZ, A.P., redaktor izdatel'stva; MEDVEDEV,
L.Ya., tekhnicheskiiy redaktor

[Laying pipe lines without trenches] Bestransheinaia ukladka truboprovodov. Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekture, (MIRA 10:1)
1956. 57 p.

1. Moscow. Tsentral'nyy institut informatsii po stroitel'stvu. 2.
Tsentral'nyy institut informatsii po stroitel'stvu (for Konyushov, Pavlova)
(Pipe lines)

PAVIOVA, D.A.

Earthwork and road machinery. Opyt stroi. no.9:39-52 '57.

(MIRA 11:6)

(Road machinery) (Earthmoving machinery)

PAVLOVA, D.A.

Building machinery abroad. Biul. stroi. tekhn. 13 no.9:35-44 S '56.
(Building machinery) (MIRA 9:11)

PAVLOVA, D.A.

Precast reinforced concrete foundations for electric line poles
with narrow bases. *Biul.stroi.tekh.* 13 no.2:11-13 F '56.
(MLBA 9:5)

1. TsIINS.
(Electric lines--Poles)

1. PAVLOVA, D.I.

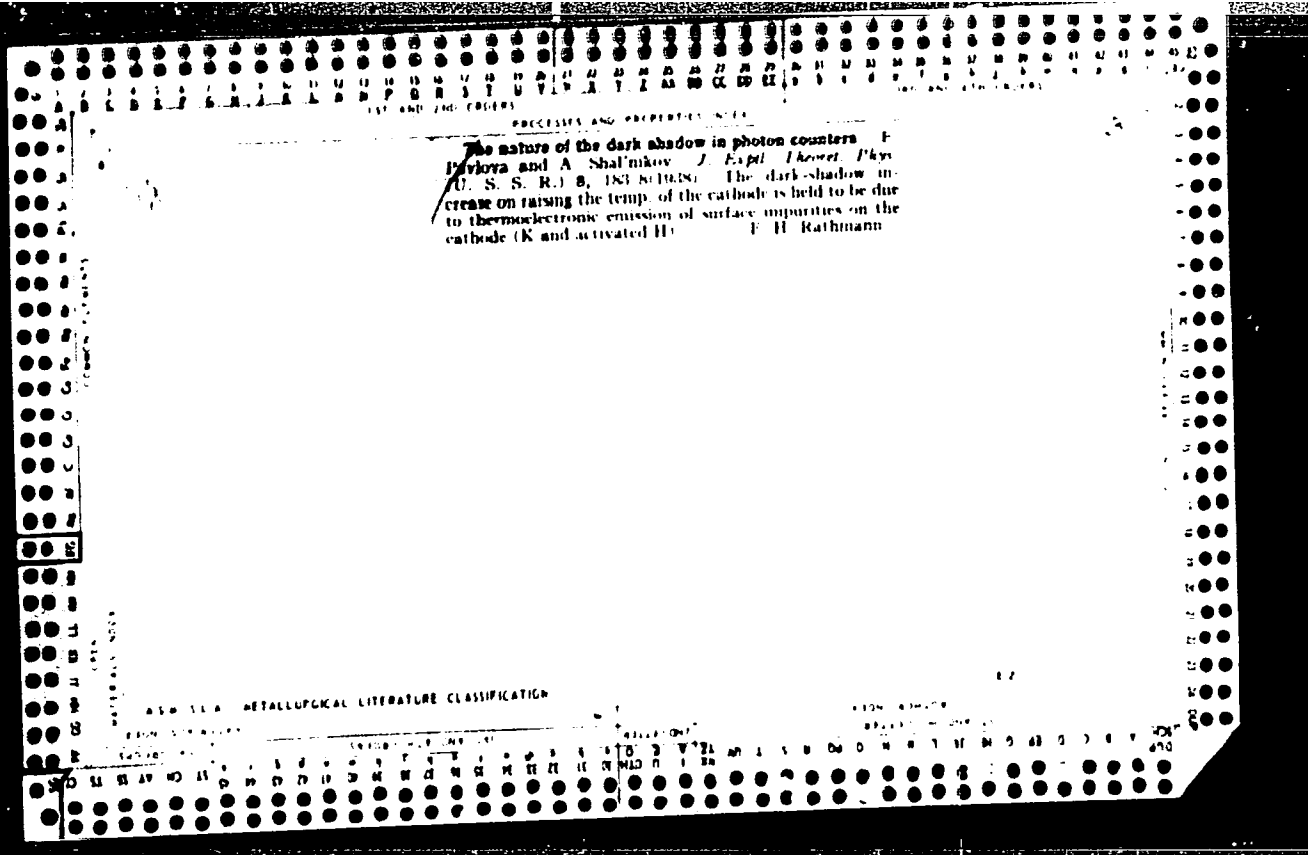
Cranes used for erecting buildings. Biul. stroi. tekhn. 14 no.9:
40-46 S '57. (MIRA 10:12)

1. Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'stva
Akademii stroitel'stva i arkhitektury SSSR.
(Cranes, derricks, etc.)

PAVLOVA, D. I.

Loaders and dump trucks used abroad. *Biul.stroi.tekh.*13 no.11:44-
46 N '56. (MIRA 10:1)

1. *TsINIS Akademii stroitel'stva i arkhitektury SSSR.*
(Industrial power trucks)
(Dump trucks)



COUNTRY : USSR T
CATEGORY : Human and Animal Physiology, The Nervous System
ABS. JOUR. : RZhBiol., No. 5 1959, No. 22517
AUTHOR : Pavlova, E.
INST. : ---
TITLE : The Effect of Strong Sound Stimulation on Higher Nervous Activity.
ORIG. PUB. : Zh. vyssh. nervn. deyat-sti, 1957, 7, No. 5, 754--764
ABSTRACT : Among adult mice, which reacted with motor excitation to a loud noise (employed daily for 2 minutes over a 3 to 10 day period), a disturbance was noted in higher nervous activity (conditioned feeding motor reflex responses to auditory and visual stimuli were established by L.I. Kotlyarevskiy's method). Neurosis, manifested in the falling off of all conditioned reflexes and phase phenomena (primarily the paradoxical phase), was noted for 7 to 24 days after the experiments with the loud noise were terminated. Motor excitation
Card: 1/2

T-107

PAVLOVA, B.A., zaslushennaya uchitel'nitsa shkoly RSFSR.

Organizing and conducting classes on a school experimental plot.
Politekh. obuch. no.4:28-32 Ap '58. (MIRA 11:3)

1. Sartaval'skaya gorodskaya semiletnyaya shkola Karel'ukoy ASSR.
(School gardens)

KRESHKOV, A. P.; KARATEYEV, D. A. [deceased]; FYURST, V.; PAVLOVA, E. N.

Reactions of dialkyldichlorosilanes and alkyltrichlorosilanes
with potassium dihydrophosphate. Zhur. ob. khim. 33 no.1:
261-265 '63. (MIRA 16:1)

1. Moskovskiy khimiko-tekhnologicheskij institut imeni D. I.
Mendeleeva.

(Silane) (Potassium phosphates)

S/079/63/033/001/020/023
D204/D307

AUTHORS: Kreshkov, A. P., Karateyev, D. A., Fyurst, V. and Pavlova, E. N.

TITLE: A study of the reactions of dialkyldichlorosilanes and alkyltrichlorosilanes with potassium dihydrogen phosphate

PERIODICAL: Zhurnal obshchey khimii, v. 33, no. 1, 1963, 261-265

TEXT: Compounds $\text{EtO} \begin{array}{c} \diagup \\ \text{P} \\ \diagdown \\ \text{HO} \end{array} \begin{array}{c} \text{R} \\ | \\ \text{C} \\ | \\ \text{Si} \end{array} \left[\begin{array}{c} \text{OH} \\ | \\ \text{O} \\ | \\ \text{P} \\ | \\ \text{OH} \end{array} \right]_2$, where R=Me or Et were obtained by the dropwise addition of RSiCl_3 in absolute ether to $\text{KH}_2\text{PO}_4/\text{abs. Et}_2\text{O}$, over 1 hour, with cooling. The mixtures were then gently boiled for 3 hours, and the solid products were subsequently refluxed for 7 - 8 hours with abs. alcohol. The solutions were then filtered and the alcohol was removed from the filtrates. The

Card 1/2

A study of the reactions ...

S/079/63/033/001/020/023
D204/D307

products were then dried to constant weight at 100 - 150°C. Compounds $(\text{HO})_2\text{P}(=\text{O})-\text{O}-\text{Si}(\text{R})(\text{R}')-\text{O}-\text{P}(=\text{O})(\text{OH})_2$ (where (a) R=R'=Me, (b) R=R'=Et, and

(c) R=Me, R'=vinyl) were prepared in an analogous manner, from ethereal KH_2PO_4 and (a) Me_2SiCl_2 , (b) Et_2SiCl_2 and (c)

$\text{CH}_3(\text{CH}_2=\text{CH})\text{SiCl}_2$, except that the refluxing with absolute alcohol was only for 2 hours. The above 5 compounds, which were thus prepared in 85 - 85% yields, are new. Two of the structures were confirmed by ir spectroscopy. There are 2 figures and 2 tables.

ASSOCIATION: .Moskovskiy khimiko-tekhnologicheskii institut imeni D. I. Mendeleeva (Moscow Institute of Chemical Technology imeni D. I. Mendeleev)

SUBMITTED: December 1, 1961

Card 2/2

GERASIMOV, V.V.; GROMOVA, A.I.; GCLOVINA, Ye.S.; MOSKVICHEV, G.S.;
~~PAVLOVA, E.S.~~; SMIRNOV, V.V.; SHAPOVALOV, E.T.;
PANASENKOVA, Ye.I., red.; MAZEL', Ye.I., tekhn. red.

[Corrosion and irradiation] Korrozia i obluchenie. [By]
V.V.Gerasimov i dr. Moskva, Gosatomizdat, 1963. 267 p.
(MIRA 16:11)

(Corrosion and anticorrosives)
(Materials, Effect of radiation on)

AM:036546

BOOK EXPLOITATION

S/

Gerasimov, V. V.; Gromova, A. I.; Golovina, YE. S.; Moskvichev, O. S.;
Pavlova, F. S.; Sairnov, V. V.; Shapovalov, E. T.

Corrosion and irradiation (Korroziya i oblucheniye), Moscow, Gosatomizdat, 1963,
267 p. illus., biblio. 3,000 copies printed.

TOPIC TAGS: corrosion, irradiation, nuclear reactor, nuclear reactor material,
metallurgy, stainless steel, chromium steel, carbon steel, low alloy steel,
aluminum alloy, protective coating, electrochemical behavior

PURPOSE AND COVERAGE: The basis of this monograph was the research conducted by
the authors in recent years that has been published in the periodical literature
and the work of Soviet and foreign authors on the problems of the corrosion resis-
tance of structural materials. The monograph consists of ten chapters in which
corrosion and the protection of structural materials used in reactors, the inter-
action of radiation of the nuclear reactor with a substance and the effect of radia-
tion on the corrosion and electrochemical behavior of metals are examined. The
general and systematized material on the corrosion resistance of metals used in
reactors will be useful to a wide circle of designers, researchers, and engineers

Card 1/3

AM4036546

concerned with problems of reactor construction. Chapters I, VII, IX, and X were written by V. V. Gerasimov, Chapters II, IV -- E. T. Shapovalov, Chapter III -- A. I. Gromova, Chapter V -- V. V. Smirnov, Chapter VI -- G. S. Moskvichev, Chapter VIII -- F. S. Pavlova and Ye. S. Golovina. The authors express their gratitude to I. Ye. Zimakov for assistance in writing Chapter IX and their associates who participated in the research.

TABLE OF CONTENTS:

- Ch. I. Effect of the composition of the water on the resistance of structural materials -- 3
- Ch. II. Corrosion of stainless steels in water at high temperatures -- 26
- Ch. III. Corrosion resistance of chromium steels -- 47
- Ch. IV. Corrosion behavior of carbon and low alloy steels in water at high temperatures -- 73
- Ch. V. Corrosion of aluminum and its alloys in water-cooled reactors -- 89
- Ch. VI. Corrosion cracking of austenitic stainless steel -- 126
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Card 2/3

AM1036546

Ch. VIII. Protective coatings in reactor construction -- 167

Ch. IX. Radiation of a nuclear reactor -- 199

Ch. X. Effect of radiation on the electrochemical behavior of materials -- 229

SUB CODE: ML, NS

SUBMITTED: 11Mar63 NR REF SOV:0179

OTHER: 308

DATE ACQ: 07May64

Card 3/3

L 05872-67 ENT(m)/EMP(t)/ETI IJP(c) JD/WB

ACC NR: AP6030863

(N)

SOURCE CODE: UR/0365/66/002/005/0545/0549

27
B

AUTHOR: Pavlova, F. S.; Kuznetsova, V. N.

ORG: none

TITLE: Use of multilayer plating for the protection of springs in water at high temperatures and pressures ¹⁶ ₁₇

SOURCE: Zashchita metallov, v. 2, no. 5, 1966, 545-549

TOPIC TAGS: steel spring corrosion, corrosion resistance, steel hydrogen embrittlement, copper, nickel, chromium plating, /60S2 spring steel ¹⁶

ABSTRACT: The ¹⁶corrosion resistance of variously plated ¹⁶60S2 steel springs, operating in distilled water at 330C under a pressure of 100 kg/cm², has been investigated. The best results were obtained with a three-layer copper-nickel-chromium plating. For instance, ¹⁶spring specimens plated with copper (35 μ), nickel (25 μ) and chromium (1-5 μ) 500 hr tests without showing any sign of corrosion or any other external changes. To reduce the hydrogen absorption during plating, the following recommendations are suggested. Copper plating should be done in ethylenediamine electrolytes and followed by annealing at 300-350C. Nickel plating should be done without luster-forming additives. Orig. art. has: 6 figures and 2 tables. [TD]

SUB CODE: ¹¹13/ SUBM DATE: 08Jul65/ ORIG REF: 004/ OTH REF: 005

Cord 1/1

UDC: 621.357.7/620.197.7

DMITRENKO, O. I., PAVLOVA, G. A.

Binding of water by highly dispersed deposits. Part 3: Effect of the structure of the adsorbents, of the extent of hydration, and of the charges of the cations associated with the indicator anion. Koll. zhur 22 no.2:154-158 Mr-Apr '60. (MIRA 13:8)

1. Institut okeanologii AN SSSR, Moskva.
(Adsorption) (Electrolytes)

15.2120

68266

SOV/81-59-10-34333

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 10, p 71 (USSR)

AUTHOR: Pavlova, G.A.

TITLE: The Investigation of the Dependence of the Transfer Numbers and Electric Conductivity on the Chemical Composition in Glasses Containing Two Different Mobile Ions

PERIODICAL: Tr. Leningr. tekhnol. in-ta im. Lensovet, 1958, Nr 46, pp 56-74

ABSTRACT: The dependence of the value of the transfer numbers and the electric conductivity of silicate and borosilicate glasses containing $\text{Na}_2\text{O} + \text{K}_2\text{O}$ or $\text{Li}_2\text{O} + \text{K}_2\text{O}$ on the composition and the temperature has been investigated. The ion character of the conductivity of the glasses containing alkali oxides at temperatures from 300°C to the beginning of the softening temperature has been confirmed. The numbers of transfer for glasses with one alkali oxide are 1 ± 0.01 . The dependence of the transfer numbers on the ratio $\text{K}_2\text{O} : \text{R}_2\text{O}$ is expressed by an S-shaped curve, the bend of which is different for glasses containing as second oxide Li_2O or Na_2O . At a temperature change of $100 - 170^\circ\text{C}$ the transfer numbers change only by 8 - 10%.

Card 1/2

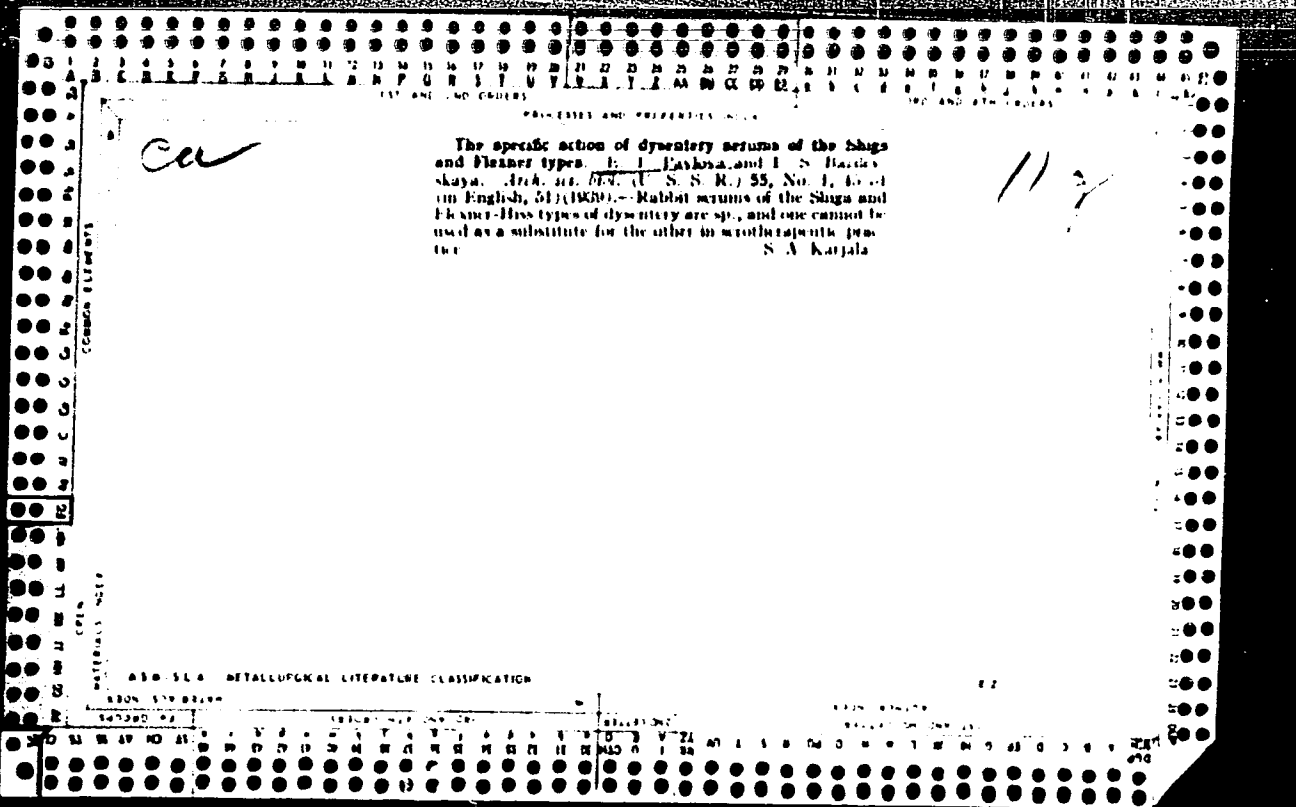
SPERANSKIY, G.N., professor; GAMBURG, R.L., dotsent; PAVLOVA, V.I., doktor

Combined chemotherapy of pneumonia in infants with a new Russian antibiotic biomycin. *Pediatrics* no.2:11-17 Mar-Apr '54. (MLRA 7:6)

L. In kafedry pediatrii (sav. deystvitel'nyy chlen AMN SSSR prof. G.N.Speranskiy) Tsentral'nogo instituta usovershenstvovaniya vrachey (dir.V.P.Lebedeva) na baze detskoy bol'nitsy im.F.E. Dzerzhinskogo.

(ANTIBIOTICS, therapeutic use,
*biomycin in pneumonia in inf.)

(PNEUMONIA, in infant and child,
*ther., biomycin)



PAVLOVA, G.

Scientific Research Institut of Labor in Sweden. Biul.
nauch.inform: trud i zar.plata 3 no.2:65-67 '60.
(MIRA 13:6)

(Sweden--Metal industries)
(Sweden--Labor and laboring classes)

FAVLOVA, G.

"Berger's rhythm in the brains of the ape." (n. 155) by Favlova, G.

SO: Advances in Contemporary Biology (Uspelki Sovremennoi Biologii) Vol. VII, o. 1, 1937.

DMITRENKO, O.I.; PAVLOVA, G.A.

Chemistry of phosphorus in the sea. Part 1. Trudy Inst. okean.
54:100-114 '62.

(Sea water--Analysis) (Phosphorus)

(MIRA 16:6)

PAVLOVA, G. A.

22648 Pavlova, G. A. I Rolle, S.D. K Voprosu O Vozkeystvii Luchistoy
Energii NA Sostav Kamernoy Vlagi Glaza. Trudy Akad. Med. Nauk SSSR, T. IV,
1949, S. 82-87---Bibliogr; 5 Nazv

So: Letopis', No. 30, 1949

PAVLOVA, G.A.

22648. PAVLOVA, G.A. K voprosu o vozdeystvii luchistoy energii na sostav kamernoy vlagi glaza. Trudy akad. med. nauk sssr, T. IV, 1949, S. 82-87 bibliogr: 5 nazv

SO: LETOPIS', No. 20, 1949

DMITRENKO, O.I.; PAVLOVA, G.A.

Binding of water by finely dispersed sediments. Part 2:
Relation between the amount of bound water and the composition
and concentration of equilibrium solutions. Koll.zhur. 21
no.4:419-426 J1-Ag '59. (MIRA 1):8

1. Institut okeanologii AN SSSR, Moskva.
(Adsorption) (Water)

L 38695-66 EWP(e)/EWI(m) WH

ACC NR: AP6008275

(A)

SOURCE CODE: UR/0080/66/039/002/0452/0453

AUTHOR: Yevstrop'yev, K. K.; Pavlova, G. A.; Pavlovskiy, V. K.ORG: State Optics Institute im. S. I. Vavilov (Gosudarstvennyy opticheskiy institut)TITLE: Nature of the conductivity of nonalkaline pyroceramic cordierite systems 64
B

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 2, 1966, 452-453

TOPIC TAGS: electric conductivity, activation energy, magnesium compound, aluminum compound, silicon compound, *glass, silicate glass*ABSTRACT: Systems of magnesium-aluminum-silicate glasses containing 0.15% Na₂O were studied to determine the dependence of electrical conductivity on temperature and to measure the diffusion coefficient of Na in the systems. Comparison of experimental data with the Einstein correlation is given as follows:

$$X_{Na^+} = \frac{D \cdot N \cdot (ze)^2}{akT}$$

where X and D are the electrical conductivity and diffusion coefficients of Na⁺; N is the number of Na⁺; z is the valence of Na⁺; e is the charge on the electron; k is the Boltzmann constant; T is the temperature; and a is the correlated ionic factor. Radioactive Na²² was used as a tracer in the measurement of D for Na⁺. Electrical conduc-

Card 1/2

ACCESSION NR: AT4019304

S/0000/63/003/001/0141/0145

AUTHOR: Pavlova, G. A.; Skorniyakov, M. M.; Chistoserdov, V. G.

TITLE: An investigation of the electrical properties of some glasses and glassy-crystalline materials based on the lithium oxide-aluminum oxide-silicon dioxide system

SOURCE: Simpozium po stekloobraznomu sostoyaniyu. Leningrad, 1962. Stekloobraznoye sostoyaniye, vyp. 1: Katalizirovannaya kristallizatsiya stekla (Vitreous state, no. 1: Catalyzing crystallization of glass). Trudy* simpoziuma, v. 3, no. 1. Moscow, Izd-vo AN SSSR, 1963, 141-145

TOPIC TAGS: glass, glassy-crystalline material, lithium glass, lithium aluminosilicate, photosensitivity, insulation, dielectric loss, electrical property

ABSTRACT: The electrical insulating properties of glassy-crystalline materials obtained from photosensitive glasses of the $Li_2O-Al_2O_3-SiO_2$ system can be increased considerably by decreasing the Al_2O_3 concentration and replacing SiO_2 with BaO , SrO , and CaO . After crystallization, the dielectric loss of lithium aluminosilicate glasses can decrease, increase, or remain the same as in the original glass, if the lithium ions are contained in the composition of the crystalline phase. The specific resistance of the crystalline material, however, is always

Card 1/2

ACCESSION NR: AT4019319

S/0000/63/003/001/0184/0190

AUTHOR: Pavlova, G. A.; Chistoserdov, V. G.

TITLE: An investigation of the electrical properties of some non-alkaline, glassy-crystalline materials as a function of the composition and conditions of thermal treatment

SOURCE: Simpozium po stekloobraznomu sostoyaniyu. Leningrad, 1962. Stekloobraznoye sostoyaniye, vy* p. 1: Katalizirovannaya kristallizatsiya stekla (Vitreous state, no. 1: Catalyzing crystallization of glass). Trudy* simpoziuma, v. 3, no. 1 Moscow, Izd-vo, AN SSSR, 1963, 184-190

TOPIC TAGS: glassy-crystalline material, electrical property, crystalline phase, heat treatment, glass crystallization, dielectric loss, glassy phase

ABSTRACT: Glassy-crystalline materials of the $MgO-Al_2O_3-SiO_2-TiO_2$ and $BaO-B_2O_3-Al_2O_3-SiO_2$ systems were investigated with respect to their electrical properties. These properties were found to depend on the different conditions of thermal treatment. Glasses crystallized at temperatures of 800, 950, 1100 and 1200C were maintained for 4-7 hours at the same temperatures before investigation of the dielectric loss over a wide range of frequencies. The results showed that the $tg\delta$ of the glassy-crystalline materials can be greater or smaller than that of the

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ACCESSION NR: A74019319

Initial glasses. The specific resistance of the non-alkaline glass samples after crystallization either remained equal to the resistivity of the initial glass or decreased considerably. Both residual glassy and crystalline phases could exert a predominant effect on the nature of the variation in the electrical properties of glassy-crystalline materials. The change in the electrical properties of glassy-crystalline materials due to the conditions of thermal treatment leads to the assumption that the structure of glassy-crystalline materials also influences their electrical properties. Orig. art. has: 5 figures.

ASSOCIATION: none

SUBMITTED: 17May63

DATE ACQ: 21Nov63

ENCL: 00

SUB CODE: MT

NO REF SOV: 004

OTHER: 001

Card 2/2

SHISHKINA, O.V.; PAVLOVA, G.A.

Distribution of iodine in marine and oceanic silts and silt waters.
Geokhimiia no.6:739-746 Je '65. (MIRA 13:7)

1. Institut of Oceanology, Academy of Sciences, U.S.S.R., Moscow.

YEVSTROP'YEV, K.S.; PAVLOVA, G.A.

Methods for determining transference numbers in solid glasses
containing two different mobile ions. Trudy LTI no.46:49-55
'58. (MIRA 14:4)

(Glass research)

(Ions—Migration and velocity)

PAVLOVA, G.A.

Transference numbers and electric conductivity as a function
of the chemical composition of glasses containing two different
mobile ions. Trudy IPI no.46:56-74 '58. (MIRA 14:4)
(Glass research) (Ions--Migration and velocity)

SMORCHKOV, I.Ye.; PAVLOVA, G.A.

Lode rocks from the Gavasay River region (Kurama Ridge) and some characteristics of the distribution of accessory minerals in them. Trudy IGEM no.21:186-197 ' 58. (MIRA 12:1)
(Kurama Ridge--Rocks, Igneous)

Pavlova, G. A.

57-12-3/19

AUTHORS: Mazurin, O. V., Pavlova, G. A.,
Lev, Ye. Ya., Leko, Ye. K.

TITLE: An Investigation of Silicate Glasses with Electronic
Conductivity (Silikatnyye stekla s elektronnoy provodimost'yu)

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1957, Vol. 27, Nr 12, pp. 2702
-2703 (USSR)

ABSTRACT: In the investigations of alkali-free silicate glass
conducted here special regard was given to the anomalously
high electric conductivity of glass with iron oxides. The
electric conductivity of such glass proved to be higher
than that of analogous glass, which contained a
corresponding amount of sodium oxide instead of iron oxide.
The measurements were conducted with graphite electrodes
according to the usual method (reference 7). The character
of the conductivity was determined according to the "Tuband-
method". Three glass samples, anode, a medium (control) and
cathode samples were carefully ground to fit together and
mounted between metal disks. A constant voltage was applied
to the disks. A measured amount of current was passed through

Card 1/3

An Investigation of Silicate Glasses with Electronic Conductivity.

57-12-3/19

the samples (at about 6000 C), which beforehand were weighed. A judgement can be given on the character of the conductivity by means of the change in weight. The results showed, that in the glass under investigation a practically pure electronic conductivity (experimental error $1 \pm 2\%$) is met with, the magnitude of which is strongly dependent on the Fe_2O_3 content and on the composition of the glass. It is shown, that although the glass sample no. 2 contained only 5% of Fe_2O_3 it displayed a pure electron conductivity. From this it appears, that the lattice of amorphous boron-aluminium silicate represents no insurmountable obstacle for the electrons. (Glass sample number 2: 45 molar percent of SiO_2 , 10 molar percent B_2O_3 , 10 molar percent of Al_2O_3 , 30 molar percent of CaO , 5 molar percent of Fe_2O_3). It is conjectured, that probably, a partial or total electron conductivity is also characteristic for many silicate and borate glass types free from alkaline contents with a high resistance. There are 1 figure, 2 tables, and 12 references, 7 of which are Slavic.

Card 2/3

An Investigation of Silicate Glasses with Electronic
Conductivity.

57-12-3/19

ASSOCIATION: **Leningrad Institute of Technology imeni Lensovet**
(Leningradskiy tekhnologicheskii inst. im. Lensoveta).

SUBMITTED: April 24, 1957.

AVAILABLE: Library of Congress

Card 3/3

5(4)

SOV/69-21-4-9/22

AUTHOR: Dmitrenko, O.I. and Pavlova, G.A.

TITLE: The Binding of Water by Finely-Dispersed Sediments.
2. The Dependence of the Amount of Bound Water on the Nature
and Concentration of Equilibrium Solutions.

PERIODICAL: Kolloidnyy zhurnal, 1959, Vol XXI, Nr 4. pp 419-426 (USSR)

ABSTRACT: This is a study of the water sorption capacity of extracellular
(kaolin) and intermicellar (montmorillonite, beidellite) ad-
sorbents, which are highly-dispersed in equilibrium electrolyte
solutions. Sea sediments of the Bering Sea from various depths
(95 and 3,400 m) were also investigated. The authors used the
anion indicator method. The anions selected for this purpose
were Cl^- , Br^- , J^- and SO_4^{2-} . The assumption of mutual exchange-
ability of adsorbed electrolyte and water molecules was at
the basis of the interpretation of the obtained results
[reference 5]. The experiments showed a direct dependence of
water dipole adsorption by kaolin on the electrolyte concen-

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SOV/69-21-4-9/22

The Binding of Water by Finely-Dispersed Sediments. 2. The Dependence of the Amount of Bound Water on the Nature and Concentration of Equilibrium Solutions

tration (graph 1). The position of the curves in graph 1 indicates that the quantity of adsorbed water grows in accordance with the following succession of electrolytes: $\text{NaCl} < \text{NaBr} < \text{NaJ} < \text{Na}_2\text{SO}_4$. This shows, in addition, a direct dependence of the amount of adsorbed water on the solubility of the electrolytes. The experiments with montmorillonite and beidellite, which belong to the intermicellar type of adsorbents (here sorption takes place prevalently in the interior of the disperse particles, and surface adsorption is negligible), also lead to definite results. The amount of adsorbed water, however, was found to be inversely proportional to the concentration of the electrolytes (graphs 2 and 3). The authors explain this circumstance with the growing intensity of molecular exchange in increasingly-concentrated solutions of electrolytes, the latter being capable of displacing water dipoles to the extent of the given adsorbent. Also, an inverse proportion of

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JN/69-21-4-9/22

The Binding of Water by Finely-Dispersed Sediments. 2. The Dependence of the Amount of Bound Water on the Nature and Concentration of Equilibrium Solutions.

the amount of absorbed water to the solubility of sodium halide electrolytes could be observed for the two mentioned minerals. Graphs 5 and 6 illustrate the experiments carried out with the above-mentioned sea sediments. In this case potassium halides were used as electrolytes. For both kinds of sediments an inverse proportion of the amount of absorbed water to the electrolyte concentration could again be observed. The curves, however, also show a succession of absorbed electrolytes, which is inverse to the order established for the montmorillonite and beidellite minerals. As the anions are the same and the one difference consists in the size of the ion radiuses (0.98 Å for Na and 1.33 Å for K), the obtained results can be explained by enlarged measures of the crystal lattices of adsorbents, which compose the sea sediments. The authors mention the scientist Dzh.D. Bernal

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SOV/69-21-4-9/22

The Binding of Water by Finely-Dispersed Sediments. 2. The Dependence of the Amount of Bound Water on the Nature and Concentration of Equilibrium Solutions.

[reference 1] in their introductory statements.
There are 6 graphs and 19 references, 9 of which are English, 5 Soviet, 4 German and 1 French.

ASSOCIATION: Institut okeanologii AN SSSR, Moskva (Institute of Oceanology of the AS USSR, Moscow)

SUBMITTED: 1 February, 1958.

Card 4/4

MAZURIN, O.V.; PAVLOVA, G.A.; LEV, Ye.Ya.; LEKO, Ye.K.

Silicate glasses with electron conductivity. Zhur.tekh.fiz.
27 no.12:2702-2703 D '57. (MIRA 12:4)

1. Leningradskiy tekhnologicheskii institut im. Lensoveta.
(Glass--Electric properties)

PAVLOVA, B. A.: Master's Chem Sci (Diss) -- "Investigation of the dependence of the transfer and electroconductivity numbers on chemical composition of glass and temperature". Leningrad, 1958. 16 pp (Min Higher Educ USSR, Leningrad Order of Labor Red Banner Tech Inst im Leningrad Soviet, Chair of Glass Technology), 150 copies (KL, No 6, 1959, 126)

PAVLOVA, G.A.

Investigation of the nature of the electric conductivity of
some nonalkaline glasses. Izv.vys.ucheb.zav.; khim. i khim.
tekh. 1 no.5:82-86 '58. (MIRA 12:2)

1. Leningradskiy tekhnologicheskii institut imeni Lensoвета,
kafedra tekhnologii stekla.
(Glass--Electric properties)

5(1, 4), 1958

SCV, 153-58-1-14

AUTHOR: Pavlova, G. A.

TITLE: Investigation of the Character of the Electric Conductivity of Some Glasses Free of Alkali (Issledovaniye kharaktera elektroprovodnosti nekotorykh besschelochnykh stekol)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 5, pp 82-86 (USSR)

ABSTRACT: As is known, the alkali-free silicate and borate glasses are the most valuable insulators. When they are moved in a constant electric field it is important to know the ion and electron components of the conductivity. To solve the problem mentioned in the title the author had to obtain borosilicate and lead silicate glasses containing iron and cobalt oxides. Such glasses show the lowest resistance (Ref 20) (Table 1). The experimental results concerning the type of current carrier in alkali-free glasses is given in table 2. The results of measuring the resistance at 150 and 300° are given in table 3. There are no suggestions in publications concerning the electron mechanism of the conductivity of the silicate and borate glasses (Refs 16, 24, 25). The results obtained by the author do not agree

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SOV/153-58-5-14/28

Investigation of the Character of the Electric Conductivity of Some Glasses
Free of Alkali

with those of reference 27. At present the author feels unable to give a theoretical explanation of the conducting mechanism of the glasses investigated. There is not even a general theory for liquid and amorphous semiconductors (Ref 28). Further investigations are required. The author concluded from the results obtained that 1) An electron mechanism of the conductivity was experimentally found in boro-silicate and lead silicate glasses containing iron and cobalt oxides, 2) based upon what was said above an assumption concerning the electron mechanism of the conductivity of lead silicate glass was expressed. Professor K. S. Yevstrop'yev and O. V. Mazurin, Assistant, supervised the work. There are 3 tables and 28 references, 19 of which are Soviet.

ASSOCIATION: Leningradskiy tekhnologicheskij institut imeni Lensovet, Kafedra tekhnologii stekla (Leningrad Technological Institute imeni Lensovet, Chair of Glass Technology)

SUBMITTED: October 14, 1957

Card 2/2

PAVLOVA, G.A.; SKORNYAKOV, M.M.; CHISTOSERDOV, V.G.

Investigating the electric properties of certain types of amorphous and crystalline glass materials on the basis of the system $SiO_2 - Al_2O_3 - SiO_2$.
Stekloobr. sost. no. 141-145 '63. (MIRA 17:10)

PAVLOVA, G.A.; CHISTOSERDOV, V.G.

Investigating the electric properties of certain alkali-free crystalline glass materials depending on their composition and conditions of heat treatment. Stekloobr. sost. no.1:184-190 '63.

(MIRA 17:10)

PAVLOVA, G.A.; SHISHKINA, O.V.

Method of determining iodine in interstitial waters. Trudy Inst. Okean.
67:165-176 '64. (MIRA 17:12)

PAVLOVA, G.D.; BLAVNIN, G.P.

Ways of improving the quality of molybdenum concentrate. Trudy
IPI no.20:88-95 '63.

Dressing of lean, molybdenum ore of the lode type. Ibid. 196-98

(MIRA 1R12)

SLAVNIN, G.P.; LEONOV, S.B.; PAVLOVA, G.D.

"Flotation" by V.A.Glembotskii, V.I.Klassen, I.N.Flaksin. Reviewed
by G.P.Slavin, S.B.Leonov, G.D.Pavlov. Izv.vys.ucheb.zav.; tsvet.
met. 5 no.1:164 '62. (MIRA 15:2)
(Flotation) (Glembotskii, V.A.) (Klassen, V.I.)
(Flaksin, I.N.)

RAMON, G. E.

Dekabrist Nikolai Vostokov - *dekhristy i revolyutsionery* [The Decembrists, revolutionaries,
as a historian of the revolution]. Moscow, [195?]

SO: Monthly List of Russian Acquisitions, Vol 7, No 3, June 1956.

COUNTRY : USSR
CATEGORY : Meadow Cultivation. L
ABS. JOUR. : RZhBiol., No. 23, 1958, No. 104593
AUTHOR : Pavlova, G. G.
INST. : Tomsk University
TITLE : Natural Hay Fields and Pastures of Ulagan Aymak in
Gorno-Altayskaya autonomous Oblast.
CITG. REF. : Tr Tomskogo un-ta, 1957, 141, 36-38
ABSTRACT : No abstract.

E N D

1/3

10

Pavlova, G. G.

Geobotany

SDV/12-91-1-8/22

3(5) .

AUTHOR: Abramovich, D.I.

TITLE: Studies of the Joint Expedition of the Novosibirsk Department of the USSR Geographical Society to the Submerged Zone of the Water Reservoir of the Novosibirsk Hydroelectric Power Plant (Raboty kompleksnoy ekspeditsii Novosibirskogo otdela geograficheskogo obshchestva soyuza SSR po issledovaniyu zony zatopleniya i podtopleniya vodokhranilishcha Novosibirskoy gidroelektrostantsii)

PERIODICAL: Izvestiya Vsesoyuznogo geograficheskogo obshchestva, Vol 91, Nr 1, pp 73-77 (USSR)

ABSTRACT: The article describes the results of studies carried out in 1956 by an expedition of the Novosibirsk Department of the USSR Geographical Society, organized on the initiative of the management of the Novosibirsk Hydroelectric Power Plant, to the submerged zone of the water reservoir. This expedition was organized in various sections: 1) V.A. Nikolayev headed the geological-geomorphological section; 2) V.M. Samochkin the hydraulic section; 3) T.T. Popova the hydrobiological section; 4) G.G. Pavlova the geobotanic section;

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SOV/12-91-1-8/22

Studies of the Joint Expedition of the Novosibirsk Department of the USSR Geographical Society to the Submerged Zone of the Water Reservoir of the Novosibirsk Hydroelectric Power Plant

5) L.A. Lamin the forest melioration section. G.V. Krylov, A.V. Kuminova and K.A. Sobolevskaya participated in the three last sections as scientific leaders. There are 2 tables and 1 chart.

Card 2/2

PAVLOVA, G.G.

Brief characteristics of vegetation in the region of Novosibirsk
Reservoir. Trudy Biol. inst. Sib. otd. AN SSSR no.7:141-161
'61. (MIRA 15:3)
(NOVOSIBIRSK RESERVOIR REGION--BOTANY--ECOLOGY)

PAVLOVA, G.G.

Pine forests in the forest-steppe and steppe regions of the Ob'
Valley. Trudy TSSBS no.6:131-162 '63. (MIRA 17:7)

PAVLOVA, G.G.

Natural forage lands of the northern forest-steppe as exemplified
by the Toguchin District collective farms. Trudy ISSS no. 5/1974
397 '63. (MIRA 1974)

PER'KOVSKAYA, Ye.F.; PAYLOVA, G.G.

Alpine meadows of the central Altai. Trudy Biol. inst. Zap.-Sib.
fil. AN SSSR no.2:203-235 '56. (MIRA 13:10)
(Altai Mountains--Pastures and meadows)

PAVLOVA, G.G.

Characteristics of feed supply and ways of its improvement on collective farms of the Chulyshman Valley and Bashkaus Basin. Trudy Biol. inst. Zap.-Sib. fil. AN SSSR no.2:305-333 '56. (VTRA 13:10)
(Chulyshman Valley--Pastures and meadows)
(Bashkaus Valley--Pastures and meadows)

ANTROPOVA, N.I.; VLASOVA, K.N.; PAVLOVA, G.I.; SAMOKHVALOV, A.V.; SHAROVA, A.V.

High molecular weight polycaproyamide. Plast.massy no.7:17-19
'61. (MIRA 14:7)

(Hexanamide)

PAVLOVA, G. I.

SP-1/61/0010/00100
D. 1/5/60

AUTHORS: Buno, V. I., Gzovskiy, M. V., Zapol'skiy, K. K.,
Koylis-Borok, V. I., Krestnikov, V. N., Palkovskaya,
L. N., Nersisov, I. L., Pavlova, G. I., Reutian, T. G.,
Reyanor, G. I., Riznichenko, Yu. V., and Smilturin, V. I.

TITLE: Methods of the detailed study of seismicity

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 10, 1961, 12-13,
abstract 10A144 (Tr. In-ta fiz. Zemli AN SSSR, no. 9,
1960, 327 p.)

TEXT: The Tadzhik complex seismologic expedition was organized with
the aim of studying the nature of earthquakes and the conditions of their
genesis. The most seismically-active zones of the USSR (Garmo and Stalina-
bad) were chosen as the work areas. The specific conditions of working
and processing the data demanded the development of special systems of ob-
servation and methods of interpretation. The large amount of recorded

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D228/D304

Methods of the detailed...

seismic phenomena permitted the use of statistical methods for studying their distribution in space and time; these methods, in their turn, provided the basis for introducing the quantitative indices of the seismicity characteristics of the seismically-active areas. The actual seismic observations were closely coordinated with geologic investigations, and this provided the possibility of exposing the tectonic basis of the seismic phenomena. A general review of the work area is given in Chapter 1, and concise data on major earthquakes are cited together with the general position of the expedition stations. A description of the standard main and auxiliary apparatus used at the stations, and also the layout and description of newly developed equipment--including an automatic seismic station with a magnetic memory--is cited in Chapter 2. The methods developed and utilized in the expedition for studying the crust's structure in the area under investigation from the records of nearby earthquakes are described in Chapter 3. Horizontal and vertical hodographs were constructed. The resulting material enabled the crust to be represented as a one-layer mass.

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1/10/1971/010/009/033
DATE/DIGIT

Methods of the detailed...

with a longitudinal-wave velocity of 6.0 - 6.1 km/sec. At the Mohorovicic boundary, the velocity suddenly changes to 8.0 km/sec. and then somewhat decreases, but at a depth of 300 km it subsequently increases to 9.2 km/sec. These data underlay the construction of isochrone charts used to localize the epicenters and to determine the focal depths. The isochrone charts were constructed with an account of the heterogeneity of the work area's geologic structure and the peculiarity of the seismic stations' location. This enabled the precision of hypocenter localization to be substantially increased, reducing it to 1 - 2 km at the center of the work area's topographic map. In Chapter 4, the definition of the concept of seismic energy at the focus is given, and the basic formulas are derived for its calculation. On the basis of experimentally obtained laws for the dying out of energy with distance, nomographs were constructed to determine practically the energy at the focus from the records of nearby earthquakes. Appraisal of the precision of calculation of the energy in relation to different factors shows that it may be determined accurately to the order of its magnitude. In this connection, the value $K = 16 E_j$.

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Methods of the detailed...

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D228/D304

is introduced for characterizing the energy class of earthquakes. The value of K is compared with the earthquake magnitude M . The study of the iso-energy lines shows that the different degrees of the dying out of seismic energy along and across the strike of geologic structures exert a decisive influence on the form of the isoseisms. In Chapter 5, the frequencies of seismic vibrations are studied--in relation to the earthquake energy, the distance from the source, the geologic conditions at the point of observation and at the hypocenter, etc.--from recordings at both the customary stations and a special WCC (ChISS) seismic-station intended for frequency analysis of seismic waves directly at their place of registration. A detailed description is given for the frequency-selective seismic-station WCC-1954 (ChISS-1954) and for the results of the investigation of its recordings. Certain epicentral zones with an anomalous frequency are thereby revealed. The procedure for theoretically calculating the focal characteristics, and also for appraising these latter from empirical data, is given in Chapter 6. Several formulas are

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Methods of the detailed...

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D228/D304

cited for determining the size of a focus in relation to its energy on the basis of different physical propositions. The dynamic parameters of the foci are determined; there appear to be definite predominant directions for both the strike and dip of the fracture planes. The characteristics of the seismic conditions of the Garms and Stalinabad seismically-active regions--both as a whole and in individual areas--are quoted together with the variations in the parameters of the conditions in time. The quantitative expression of the seismicity during constant seismic conditions is determined by the seismic activity. The possibility is shown of constructing graphs of the recurrence of earthquakes from short observations of weak shocks, and methods are given for determining the period required to obtain the parameters of the seismic conditions with a pre-set precision in relation to the energy of the recorded earthquakes. The statistical constancy of the seismic conditions is determined by the so-called measure of dispersion of the frequency of earthquakes. A brief description of the area's stratigraphy and the history of its geologic development is given in Chapter 8. The structural schemes and descriptions of the most important

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D228/D304

deep faults are cited. The contemporary structure of the Garro area is depicted as two main regions: the alpine geosynclinal zone in the south and the activated ophi-Hercynian platform in the north. In section, it is drawn as several steps of Paleozoic basement adjoining each other along deep faults. A comparison of the seismicity with the tectonics of the study areas is made in Chapter 9. The construction of maps of isolines of seismic activity and gradients of the rate of tectonic movements is recommended for appraising the connection between the seismicity and the tectonics. Methods are cited for constructing such maps. The congruence between these magnitudes is established for the regions under investigation, and areas with the maximum gradient values correspond to those with the highest values of seismic activity. 272 references. [Abstracter's note: Complete translation.]

Card 6/6

L 20805-66 EWP(j)/EWT(m)/I IJP(c) RM/WH

ACC NR: AP6005944

(A)

SOURCE CODE: UR/0191/66/000/002/0008/0009

AUTHORS: Vlasova, K. N.; Antropova, N. I.; Dobrokhotova, M. K.; Pavlova, G. I.; Iyadyasheva, Ye. K.

ORG: none

TITLE: Copolymers of ϵ -caprolactam and mixture of isomers of C-methylcaprolactamSOURCE: Plasticheskiye massy, no. 2, 1966, 8-9

TOPIC TAGS: copolymerization, elasticity, lactam, isomer, copolymer, solid mechanical property, elasticity

ABSTRACT: A mixture of isomers of C-methylcaprolactam (I), b.p. 124-126C/5--6 mm, was copolymerized with ϵ -caprolactam in the presence of alkaline (metallic sodium) or acid (orthophosphoric acid) catalysts. Physical and mechanical properties were investigated. Melting point and specific viscosity of the copolymer are lowered with increased proportion of I, as illustrated in Fig. 1. Copolymers containing more than 40% of I are soluble in alcohol and can be used for preparation of films. The product is more highly elastic than polycaprolactam. It can be manufactured from the melt by a continuous method on machines used for manufacturing film PK-4, making its production even more attractive.

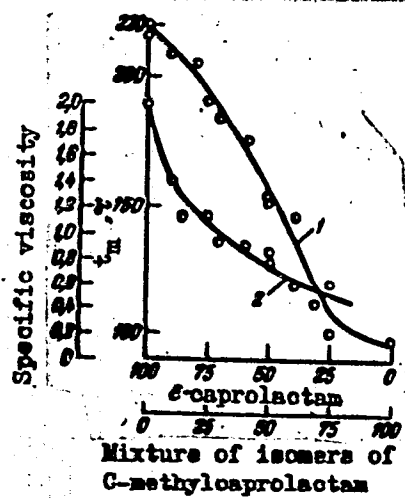
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UDC: 678.675

L 20805-66

ACC NR: AP6005944

Fig. 1. Melting point t_m and specific viscosity of copolymers as functions of the ratio of ϵ -caprolactam and mixture of γ -methylcaprolactam (weight %); 1 - melting point; 2 - specific viscosity.



Orig. art. has: 1 table and 2 figures.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 001/ OTH REF: 002

Card 2/2

KUKHTIKOVA, T.I.; FRANTSUZOVA, V.I.; YEFERINA, G.P.; ABRAMOVICH, I.B.;
PAVLOVA, G.I.

Prevailing periods of surface waves. Dokl. AN Tadz. SSR 6
no.3:17-21 '63. (MIRA 17:4)

1. Institut seysmostoykogo stroitel'stva i seysmologii AN
Tadzhikskoy SSR. Predstavleno chlenom-korrespondentom AN
Tadzhikskoy SSR R.B.Baratovym.

KEYLIS-BOROK, V. I., PAVLOVA, G. I.

Generalization of data on the mechanism of earthquakes. Trudy
Inst. fiz. zem. no.11:121-132 '60. (MIRA 13:8)
(Earthquakes)

PAULOVA, G. I.

Abstracts and Books. Institute of Earth Sciences, USSR Academy of Sciences, Moscow, 1960, 177 p. (Series: Ser. Phys., no. 11 (196)) Error only inserted. 1,700 copies printed. Reporting Agency: Abstracts and Books. Institute of Earth Sciences, USSR Academy of Sciences.

1961, 81: 1, A. Magdaleny, Doctor of Technical Sciences; Ed. of Publishing House: I. A. Kalinin; Tech. Ed.: S. O. Piskunova.

REPORT: This collection of articles is intended for astrophysicists, geophysicists, and astrometrists.

CONTENTS: This issue of the Proceedings of the Institute of Physics of the Earth and the Earth Sciences contains articles on theoretical problems in astrometry and on methods of observations in the field of astrometry. Four out of fourteen articles in the collection have been abstracted. References accompany individual articles.

Lyubskaya, Ye. A. Best Transport by Earths in the Earth's Mantle 72

Magnetostriction. Position of Interpretation of Principal Irregularities of Geostrophical Field of the Earth 75

The author discusses the basic deviations of the earth's geostrophical field from the normal values, and reports on the calculation of the deviations of the geostrophical field by the well-known Boltzmann formula in order to evaluate the magnitude of the disturbing masses. It is pointed out that similar calculations made by E. Hestrom and L. Bond in 1931 (see items) are not entirely satisfactory. The author's calculations are based on good data obtained by L. Bond in 1960 (see item).

The present article gives values of equivalent layer density and geostrophical vector from data by L. D. Zhuravskaya. The error in geostrophical vector is 10% of the maximum value. The error in geostrophical density is 10% of the maximum value. The error in geostrophical vector is much smaller. General theories as to the connection mass distribution and geostrophical vector are advanced. The author concludes that the geostrophical vector and other factors are not independent. The geostrophical vector is a function of the geostrophical density, the geostrophical vector and other factors are the cause of extensive perturbations in the geostrophical field.

Cheltopov, F. P. Generation of Solid Solids in the Parallel Phase over High Pressures 86

1961, 81: 1, A. Some Functional Methods in the Local Linear Theory of Gravity 91

1961, 81: 1, A. and G. M. Pervin. Generalization of Data on the Properties of Earthquake Aftershocks 121

A method for finding the characteristics of observations in earthquakes is described. The method is based on the analysis of observations in the aftershock zone. The method is applied to observations for the aftershock zone of the earthquake of the Garm region, and for the aftershock zone of the earthquake of the Bolshoy Bolshoye earthquake (Burmalya). The authors conclude that the method described in this paper has made it possible to obtain the resulting simplifications in the plotting for which there have been no formal reasons. The authors emphasize the importance of the method in the study of aftershocks and the possibility of its application in the study of aftershocks of earthquakes. The authors indicate that without preliminary analysis of a series of observations there is no reason for overall study in a new region of the aftershock zone. The authors emphasize that the method described is a preliminary method for studying the general strikes and dips, strikes of dislocations, etc., can be applied in the solution of a number of other problems. In particular, the authors are mentioned.

ANTROPOVA, N.I.; VLASOVA, K.N.; PAVLOVA, G.I.; SAMOKHVALOV, A.V.; SHAROVA,
A.V.; PARLASHKEVICH, N.Ya.

Study of the anion polymerization of epsilon-caprolactam by the
changes in the melt resistance. Plast. massy no.1:12-14 '65.
(MIRA 18:4)

PARLOVA, E. I.

SVT/5096

FILES: BOOK REPLICATION

Bum, V. I., M. V. Gornally, E. E. Zapol'skiy, V. I. Koptse-Borok, V. I. Kravtsov, L. S. Malinovsky, I. L. Krasov, G. I. Parlova, I. G. Kautlan, G. I. Rejner, Yu. V. Klichenko, and V. I. Klichenko

Metody detal'nogo izucheniya sayuzhnoy (Methods of Detailed Seismic Research) Moscow, Izd-vo AN SSSR, 1969. 377 p. No. of copies printed not given. (Series: Akademiya nauk SSSR. Institut fiziki zemli. Trudy, vyp. 9 [1963])

Resp. Ed.: Yu. V. Klichenko, Corresponding Member AN USSR; Ed. of Publishing House: S. I. Nosovskiy; Tech. Ed.: G. G. Ul'yanova

PURPOSE: This book is intended for geophysicists, particularly seismologists. COVERAGE: The book summarizes the principal results of the work of the USSR Institute of Physics of the Earth of the AN USSR and the Institute of Geology of the Institute of Geology of the AN USSR during the period 1955-1957. Among the topics discussed are seismic apparatus used, new methods for determining the coordinates of earthquake

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Methods of Detailed Seismic Research

Goal, detailed methods for determining the structure of the earth's crust, some results of these determinations, methods of determining seismic energy on the basis of series of criteria, analysis of dominant frequencies, the use of frequency-selective apparatus, a general description of the geological structure of the USSR and the history of its development, and a description of the spatial distribution of seismicity and the geological structure of the area. The foreword for this work was written by the director of the USSR Institute of Physics of the Earth, V. I. Krasov. The individual chapters of the book were written by: Introduction and Chapter 1 - I. L. Krasov and V. I. Krasov; Chapter 2 - I. L. Krasov, Chapter 3 - I. L. Krasov and I. G. Kautlan; Chapter 4 - I. G. Kautlan; Chapter 5 - I. L. Krasov and I. G. Kautlan; Chapter 6 - V. I. Kravtsov, L. S. Malinovsky, G. I. Parlova, and V. I. Krasov; Chapter 7 - V. I. Krasov and G. I. Rejner; Chapter 8 - I. L. Krasov, K. V. Gornally and I. L. Krasov. There are 272 references: 185 Soviet, 73 English, and 14 German.

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Review

Methods of Detailed Seismic Research

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Absolute spectra of displacements, velocities and accelerations for perceptible earthquakes

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Ch. 6. Earthquake Foci

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2. Estimations of the size of the focus on the basis of several empirical relationships

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Estimation on the basis of wave lengths

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Estimation on the basis of maximum tension and deformation

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PAVLOVA, G. I.

Changes in the stress field resulting from earthquakes. Trudy Inst.
fiz. zem. no.11:148-154 '60. (MIRA 13:8)
(Strains and stresses) (Earthquakes)

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S/191/61/000/007/004/010
B101/B215



AUTHORS: Antropova, N. I., Vlasova, K. N., Pavlova, G. I.,
Samokhvalov, A. V., Sharova, A. V.

TITLE: High-molecular polycaproadamide

PERIODICAL: Plasticheskiye massy, no. 7, 1961, 17-19

TEXT: At present, polycaproadamide is synthesized in industry by hydrolytic polymerization. The process takes 16-18 hr at 250°C. The polymer has an intrinsic viscosity of 0.6-0.8 and contains 10-12 % of substances soluble in water. The polymerization of caprolactam in the presence of alkaline catalysts was studied on the basis of western publications. The authors aimed at stabilizing the viscosity of the polymer. 1) Polymerization in the presence of metallic sodium or KOH (US Patent 2251519 (1941)). In the presence of these catalysts, commercial caprolactam polymerizes at 220°C. The reaction is exothermic and takes no more than 10-15 min. A 0.5 % solution of the obtained polymers in tricresol had an intrinsic viscosity of 1.8-3.0. The impact strength varied between 80 and

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High-molecular polycaproamide

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133 kg·cm/cm², and the Brinell hardness between 7.8 and 13.5. After casting under pressure, the impact strength was reduced. The polymers were thermally unstable, and their intrinsic viscosity during heating was reduced to 250-260°C. Stabilization according to the patent was not successful. The granulated polymers were therefore treated with dilute mineral acid (dilute acetic acid showed no stabilizing effect) and washed. After heating up to 250-260°C subsequent polycondensation and formation of a network occurred. To eliminate the action of the residual mineral acid, the granules were treated with dilute NH₃. After that, the intrinsic viscosity of the polycaproamide heated up to 250-260°C remained stable for 4-6 hr (0.81). This polymer was suited for extruding and other processes. Now, the impact strength was 125-155 and the Brinell hardness 12.7-15.2. A unit for continuous production of 4 kg of polycaproamide per hr was designed. 2) On the basis of papers by O. Wichterle, Sebenda et al. (Makromol. Chem. 35, 174, (1960) Czechoslovakian Patent 93016 (1957)), acetyl caprolactam (ACL) was used as a co-catalyst besides Na or KOH. The physico-mechanical properties of the polymers depended upon the ratio of the catalyst components. With KOH/ACL = 2:1 the intrinsic viscosity was 2.07-3.1, the impact strength 150-160, and the Brinell hardness 24.0-26.0.

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High-molecular polycaproamide

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For KOH/ACL = 1:1 the corresponding values are 1.3-2.05, 100-125, 15-17. respectively; for KOH/ACL = 2:3: 0.9-1.1, 86-96, 9-10. For Na/ACL = 2:1: intrinsic viscosity 2.11-3.36; impact strength 110-160; Brinell hardness 24-26.6; and for Na/ACL = 1:1: 2.19-2.23, 125-135, 11.0-17.0. Polymerization was conducted in molds of aluminum, galvanized iron, stainless steel, or aluminum foil. Stainless steel proved to be most suitable. Coz wheels very resistant to abrasion were made from polymers by mechanical processing. In the presence of reinforcing material such as metal plates (Al, Fe, Cu, and steel), graphite, molybdenum sulfide, ceramics, microlite, fluoroplast-4, 45-50 % glass fiber or glass fabric, the course of polymerization was normal and the metal inserts in the ready-made block were well fixed due to considerable shrinkage (5 %). 3) On the basis of a paper by S. Chrzczonowicz (Makromol. Chem., 38, 159 (1960), Polish Patent 41536 (1958)) the polymerization of caprolactam was examined in the presence of Na and CO₂. Also in this case, the polymerization took place below the melting point of the polymer. Time of reaction: 35-60 min; yield of the polymer: 85-90 %; viscosity: 2.0-4.5; melting point: 215-225°C; impact strength: 140-165 Brinell hardness: 15.5-22.5. The polymer differed largely from that obtained by ACL addition. There are 3 tables

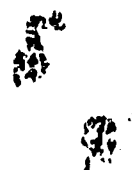
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High-molecular polycapromide

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and 5 references: 3 Soviet-bloc and 2 non-Soviet-bloc.



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PAVLOVA, G. K., Cand. Tech. Sci. (diss) "On Equilibration of
City Triangulation Nets," Moscow, 1961, 19 pp. (Moscow Inst. of
Land-use Engineers) 200 copies (KL Supp 12-61, 271).