

SOV/56-36-3-54/71

21(8)

AUTHORS:

Poginov, Yu. Ye., Yakovlev, K. I.

TITLE:

On the γ -Rays of As^{74} ($O\gamma$ -luchakh As^{74})

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959,
Vol 36, Nr 3, p 940 (USSR)

ABSTRACT:

The As^{74} - γ spectrum represented by a figure in this paper was investigated by the authors by means of a single-channel scintillation spectrometer which operated with a NaJ(Ta)-crystal with the photomultiplier FEU-S. The effective curve of the spectrometer was obtained by measuring standard samples with known decay numbers. The lines, energies, and relative intensities observed in the γ -spectrum are shown in a table and are compared with the data obtained by Ye. P. Grigor'yev et al. (Ref 1) and by Horen and Wells (Khoren, Uells) (Ref 2). The following measurements were carried out by the authors of this paper:

Card 1/2

On the γ -Rays of As⁷⁴

S07/56-36-3-54/71

$h\nu$ [keV]	relative intensity
610 ± 30	1
960 ± 50	0.015 ± 0.008
1200 ± 30	0.023 ± 0.008
2230 ± 70	$\sim 10^{-4}$

The existence of γ -lines of energies of 1190 and 2220 keV (also Grigor'yev, Horen, Wells) may thus be assumed to be certain. Those with 960 and 1600 (the latter found only by Horen and Wells), must yet be investigated). There are 1 figure, 1 table, and 2 references, 1 of which is Soviet.

ASSOCIATION: Radiyevyy institut Akademii nauk SSSR (Radium Institute of the Academy of Sciences, USSR)

SUBMITTED: November 21, 1958

Card 2/2

POGINOVA, R. A. --

"Data on a Basis for Limiting the Concentration of Hydrogen Sulfide
in the Atmosphere." Cand Med Sci, Central Inst for the Advanced Train-
ing of Physicians, 22 Nov 54. (VM, 29 Oct 54)

Survey of Scientific and Technical Dissertations Defended at USSR
Higher Educational Institutions (10)

SO: Sum. No. 481, 5 May 55

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

101 AND 102 OPEN 103 AND 104 OPEN

PROCESSES AND PROPERTIES INDEX

COMMON ELEMENT

OPEN MATERIAL INDEX

COMMON ELEMENT

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

ADSORPTION CHARACTERISTICS OF GAS PROMOTED NICKEL K. ABLESOVA, S. FUGINSKY AND T. ZELINSKAYA (COMPT. REND(DOKL.) AKA. SCI. URSS 1941, (N.#) 30 (1), 29-31) (In English) The adsorption curves of argon, ethane, ethylene, molecular hydrogen, and atomic hydrogen on unpromoted nickel films and on films containing the amount of oxygen of hydrogen necessary to catalyze most actively the hydrogenation of ethylene, have been determined and have been found to be identical. The velocity of activated adsorption of molecular hydrogen and ethylene is greater, however on promoted than on unpromoted nickel, particularly at low temperatures. -NEV.

ASB-55A METALLURGICAL LITERATURE CLASSIFICATION

FROM SOURCE

101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200

LOGINSKIY, S. Z. i KLEYER, N. P.

25541

Kinetika Desorbtsii Aktivirovannoadsorbirovannogo Vodoroda. Zhurnal Fiz. Khimii,
1949, VYP. 8, s. 897 - 916 - "Ibliogr: 7 Nazv

SO: LETOPIS

LEONTE, V.; POGIRNEATA, N.

Contributions to the knowledge of the age and dimension of the migration of the Danube sturgeon in connection with industrial fishing. Hidrologia 4:287-297 '63.

POGISYAN, M.O., mladshiy nauchnyy sotrudnik

Effect of ionizing radiation on the concentration of vitamin
B₁₂. Vop. radiobiol. [AN Arm. SSR] 1:103-105 '60. (MIRA 15:3)

1. Iz Sektora radiobiologii AN Armyanskoy SSR.
(CYANOCOBALAMINE)
(~~RADIATION~~-PHYSIOLOGICAL EFFECT)

MEISEL, M.N., REMYZOVA, T.S., GALZOVA, R.D., MEDVEDEVA, G.A., POISSHEVNIKOVA, N.A.,
SOKUROVA, YE.N., SELIVERSTOVA, L.A., POGLASOVA, M.N. and NOVICHEVA, A.T.

"Cytophysiological and biochemical investigation of micro-organisms in the
process of post-radiation reactivation."

Report submitted to the 2nd Intl. Congress of Radiation Research,
Harrogate/Yorkshire, Gt. Brit. 5-11 Aug 1962

POGLAZOV, B. F.

Adenonucleotidphosphatase (ATPase) activity and motor reaction in plants. B. F. Pogozov (B. F. Pogozov) Blochem Inst., Moscow). *Doklady Akad. Nauk S.S.S.R.* 109, 597-9 (1956).—It was shown that ATPase activity of leaf macerate from *Mimosa* is high; the enzyme shows max. activity at pH 5-6 and is unaffected by Ca or Mg, but is repressed by Na salt of ethylenediaminetetraacetic acid. The activity declines in the fall when the leaves lose their motor function. *Desmodium gyrans*, *D. canadensis* and *D. viridiflora*, the first of which shows motor ability, show ATPase activity only in the 1st species; the 2 latter species are devoid of the enzyme. *Acacia* species capable of leaf-motion also contain high ATPase activity, while immobile species are devoid of it. G. M. Kozlovoff

POGLAZOV, B.F., BILUSHI, V., BAYEV, A.A.

Sulfhydryl groups of myosin adenosinetriphosphatase [with summary in English]. Biokhimiia 23 no.2:269-284 Mr-Apr '58 (MIRA 11:6)

1. Institut biokhimiia im. A.N. Bakha AN SSSR, Moskva.

(ADENYLPIROPHOSPHATASE,

activity of myosin, relation to sulfhydryl group content (Rus))

(MUSCLE PROTEINS,

myosin sulfhydryl group content, determ. & reaction with ATP (Rus))

(SULFHYDRYL COMPOUNDS, determination

sulfhydryl group content of myosin, relation to ATPase activity (Rus))

POGLAZOV, B. F., Cand of Bio Sci — (diss) "Study of Adenosintriphosphatase in Muscles and Certain Plants," Moscow, 1959, 23 pp (Institute of Biochemistry im A. N. Bakh, Acad Sci USSR) (KL, 5-60, 125)

SMIRNOVA, T.I.; POGLAZOV, B.F.; KRETOVICH, V.L.

Amperometric titration of SH-groups in glycinin. Biokhimiia
24 no.4:758-760 J1-Ag '59. (MIRA 12:11)

1. Institut biokhimii im. A.N.Bakha Akademii nauk SSSR, Moskva.
(PROTEINS chem.)
(SULFHYDRYL COMPOUNDS chem.)

17(4)

AUTHORS:

Kafiani, K. A., Poglazov, B. F.

SOV/20-126-2-52/64

TITLE:

On the Contractile Properties of Surface-spread Fibers of Muscle Proteins (K voprosu o sokratitel'nykh svoystvakh plenochnykh nitey myshechnykh belkov)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 2, pp 414-416 (USSR)

ABSTRACT:

The fibers of the proteins of the actomyosin complex mentioned in the title have been since 1952 an object of most intensive investigations as a system in which the muscle contraction can be to a certain extent imitated (modelled). The same operation as earlier (Ref 2) was used for the production of these fibers. The fibers are shortened by 3-7% in a borate buffer, pH 9, without adenosin triphosphoric acid (ATPh) in the case of a load of 4-7 mg. The addition of ATPh led to a similar contraction. Figure 1 shows that an addition of ATPh does not cause an additional contraction even at different pH (6.9). The authors are forced to conclude that the mentioned contraction has no specific character. Furthermore the actomyosin fibers were investigated. They are shortened without ATPh; however, only inconsiderably in contrast to the myosin fibers. An addition of ATPh leads to a considerable additional contraction (up to 50%) with a weight increase up to 20 mg (Fig 2). A considerable

Card 1/2

**On the Contractile Properties of Surface-spread Fibers of
Muscle Proteins**

SOV/20-126-2-52/64

influence of the KCl concentration in the base occurred in the actomyosin fibers. Figure 3 shows the behavior of the surface-spread actomyosin fibers of different hydration degrees (stepeni gidratirovannosti) in the case of a load 5 mg with and without ATPh. It is rather obvious that the increased hydration leads to a more considerable contraction under the influence of ATPh. The detection of the non-specific character of the contraction of the surface-spread myosin fibers forces the authors to admit that the usual conception according to which actin is necessary for the contraction under the ATPh influence holds in this case as well. The rôle of the actin is not yet completely clarified (Refs 7,8). There are 3 figures and 8 references, 5 of which are Soviet.

ASSOCIATION: Institut biokhimii im. A. N. Bakha Akademii nauk SSSR (Institute of Biochemistry imeni A. N. Bakh of the Academy of Sciences, USSR)

PRESENTED: January 23, 1959 by V. A. Engel'gardt, Academician

SUBMITTED: January 22, 1959
Card 2/2

POGLAZOV, B.F. (Moskva)

Structural interrelationships of muscle proteins during the contraction of striated muscles. Usp. sov. biol. 49 no.2:183-199 Mr-Apr '60. (MIRA 13:11)

(MUSCLE)

(PROTEINS)

POGLAZOV, B. F., (USSR)

"Interrelation between ATP and Myosin-
like Proteins of Organs and Tissues."

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

POGLAZOV, B.F.

Effect of adenosine triphosphates and of reducing agents on the
achromatin apparatus of loach eggs (experiments in vivo).

TSitologiya 3 no. 2:204-206 Mr-Apr '61. (MIRA 14:4)

1. Laboratoriya funktsional'noy enzimologii Instituta radiatsionnoy
i fiziko-khimicheskoy biologii AN SSSR, Moskva.

(ADENOSINE TRIPHOSPHATES) (LOACHES)

VOROB'YEVA, I.A.; POGLAZOV, B.F.

Isolation of contractile proteins from the alga *Nitella flexilis*.
Biofizika 8 no.4:427-429 '63. (MIRA 17:10)

1. Institut biologicheskoy fiziki AN SSSR, Moskva i Institut radia-
tsionnoy i fiziko-khimicheskoy biologii AN SSSR, Moskva.

POGLAZOV, B.F.; BAYEV, A.A.

Role of sulphydryl groups in the polymerization of actin. *Biokhimiia*
26 no.3:535-540 My-Je '61. (MIRA 14:6)

1. Institute of Radiation and Physico-Chemical Biology, and
Institute of Biochemistry, Academy of Sciences of the U.S.S.R.,
Moscow.

(ACTINS)

(MERCAPTO GROUP)

(POLYMERIZATION)

POGLAZOV, B.F. (Moskva)

Mechanism of elementary movements in living organisms. Usp. sov. biol. 51 no.1:62-73 Ja-F '61. (MIRA 14:3)
(MOVEMENT (PHYSIOLOGY)) (ADENOSINE TRIPHOSPHATE)
(ACTOMYOSINS)

POGLAZOV, B.F.

Myosin-like proteins in the brain tissue. Biol. eksp. biol.
i med. 52 no.9:56-59 S '61.. (MIRA 15:6)

1. Iz laboratorii funktsional'noy enzimologii (zav. - akademik
V.A. Engel'gardt) Instituta radiatsionnoy i fiziko-khimicheskoy
biologii (direktor - akademik V.A. Engel'gardt) AN SSSR, Moskva.
Predstavlena akademikom V.A. Engel'gardtom.
(BRAIN) (PROTEIN)

POGLAZOV, B.F.

Physics and chemistry of the achromatinic apparatus.. *TSitologiya* 4
no.2:117-127 Mr-Apr '62. (MIRA 15:8)

1. Laboratoriya funktsional'noy enzimologii Instituta radiatsionnoy
i fiziko-khimicheskoy biologii AN SSSR, Moskva.
(KARYOKINESIS)

POGLAZOV, B.F.

Study of myosin-like adenosinetriphosphatase in the internal organs.
Biokhimiia 27 no.1:161-166 Ja-F '62. (MIRA 15:5)

1. Institute of Radiation and Physico-Chemical Biology, Academy of
Sciences of the U.S.S.R.
(ADENOSINETRIPHOSPHATASE)

ZOTIN, A.I.; POGLAZOV, B.F.

Excitability of the surface layer of the cytoplasm and egg
segmentation in fish and Amphibia. Dokl. AN SSSR 143 no.5:
1233-1236 Ap '62. (MIRA 15:4)

1. Institut morfologii zhivotnykh im. A.N.Severtsova AN SSSR i
Institut radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR.
Predstavleno akademikom V.A.Engel'gardtom.
(Embryology--Fishes) (Embryology--Amphibia)

TIKHONENKO, A.S.; POGLAZOV, B.F.

Adenosinetriphosphatase activity of various phages. Dokl. AN SSSR
145 no.1:218-221 JI '62. (MIRA 15:7)

1. Institut radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR.
Predstavleno akademikom V.A.Engel'gardtom.
(BACTERIOPHAGE) (ADENOSINETRIPHOSPHATASE)

KISELEV, N. A.; POGLAZOV, B. F.

Molecular organization of the caudal sheath of phage T₂.
Dokl. AN SSSR 155 no. 2:442-444 Mr '64. (MIRA 17:5)

1. Predstavleno akademikom V. A. Engel'gardtom.

POGLAZOV, B.F.; TIKHONENKO, A.S.; ENGEL'GARDT, V.A., akademik

Effect of ATP on the passage on DNA from a bacteriophage. Dokl.
AN SSSR 145 no.20450-452 II '62. (MIRA 15:7)

1. Institut radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR.
(ADESINE TRIPHOSPHATE) (NUCLEIC ACIDS) (BACTERIOPHAGE)

BUZNIKOV, G.A.; VERZHBITSKAYA, N.A.; MANOYLOV, S.Ye.; NEYFAKH, S.A.;
POGLAZOV, B.F.; SEVERIN, S.Ye.

International symposium on molecular cellular physiology in
Berlin and the annual meeting of biochemists in Jena. Vop.
med. khim. 10 no.1:95-103 Ja-F '64.

(MIRA 17:12)

POGLAZOV, B.F.; BORKHSENIUS, S.N.; BELAVTSEVA, Ye.M.

Reconstruction and crystallization of tail sheaths of the T₂
phage. Biokhimiia 29 no.6:1143-1149 N-D '64. (MIRA 18:12)

1. Institut radiatsionnoy i fiziko-khimicheskoy biologii AN
SSSR, Moskva; kafedra biokhimi Gosudarstvennogo universiteta,
Leningrad, i Institut elementoorganicheskikh soyedineniy
AN SSSR, Moskva. Submitted June 10, 1964.

POGLAZOV, B.F.; VAZINA, A.A.; BELAVTSEVA, Ye.M.; KITAYGORODSKIY, A.I.

Roentgenographic and electron microscopic study of tail coatings of the phage T-2. Dokl. AN SSSR 163 no.2:488-490 J1 '65. (MIRA 18:7)

1. Institut radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR; Institut biologicheskoy fiziki AN SSSR i Institut elementoorganicheskikh soyedineniy AN SSSR. Submitted September 30, 1964.

POGLAZOV, Boris Fedorovich; SHPIKTER, V.O., doktor biol. nauk,
soy. red.; USIKHINA, A.V., red.

[Structure and functions of contractile proteins] Struktura
i funktsii sokratitel'nykh belkov. Moskva, Nauka, 1965.
222 p. (MIRA 18:9)

POGLAZOV, Boris Fedorovich; SHPIKITER, V.O., doktor biol. nauk,
otv. red.; UMRIKHINA, A.V., red.

[Structure and functions of contractile proteins] Struk-
tura i funktsii sokratitel'nykh belkov. Moskva, Nauka,
1965. 222 p. (MIRA 18:7)

POGLAZOV, B.F.; VOLKOVA, T.Ya.; ZOTIN, A.I.

Contractile protein from the liver mitochondria. TSitologii 5 no.3:
338-339 My-Je '63. (MIRA 17:5)

1. Laboratoriya funktsional'noy enzimologii Instituta radiatsionnoy i fiziko-khimecheskoy biologii AN SSSR i Gruppy kosmicheskoy biologii i biofiziki razvitiya Instituta morfologii zhivotnykh AN SSSR, Moskva.

1. POGIAZOV, F.
2. USSR (600)
4. Kindergarten
7. Trade-union group among kindergarten workers. V pom. profakivu 14 no. 6, 1953

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

Card
POGLAZOVA, M. N.: ~~Master Biol Sci (diss)~~ -- "Biological aspects of radiation
inactivation of microorganisms (On the problem of radiation sterilization)".
Moscow, 1958. 17 pp (Inst of Microbiology Acad Sci USSR) (KL, No 3, 1959, 109)

BEKHTEREVA, M.N.; MEDVEDEVA, G.A.; POGLAZOVA, M.N.; SAPOZHNIKOVA, G.A.;
FEOFILOVA, Ye.P.

Rapid method of detecting bacterial infection in culture fluid
during the production of streptomycin. Prikl. biokhim. i
mikrobiol. 1 no. 6:726-730 N-D '65. (MIRA 18:12)

1. Institut mikrobiologii AN SSSR. Submitted Dec. 24, 1964.

POGLAZOVA, M.N.

Fluorescence microscopic study of the structure of Actinomyces.
Mikrobiologiya 33 no.3:459-462 My-Je '64.

(MIRA 18:12)

1. Institut mikrobiologii AN SSSR. Submitted April 29, 1963.

POGOCKI, Tadeusz, inz.

Structure made of steel stampings jointed by screws as protection conductor. Wiad elektrotechn 33 no.10:309-310 0 '64.

1. Experiment and Research Office, Elektromontaz, Industrial Enterprise of Electric Works, Warsaw.

WAGNER, T., Inc.

New magnetic limit switch. Wirt elektrotech 33 no.12:367-368
p. 164.

The principle of cyclic operation during mechanical cabling. Ibid.:
369-370

POGOCKI, Tadeusz, inz.

Testing of cable lines. Wiad elektrotechn 32 no.2:57-60
F '65.

1. Office for Research and Experiments of the "Elektromontaz"
Enterprise for Electric Works, Warsaw.

MEYSEL', M.N.; REMEZOVA, T.S.; BIRYUZOVA, V.I.; GAL'TSOVA, R.D.; MEDVEDEVA, G.A.;
POMOSHCHNIKOVA, N.A.; SELIVERSTOVA, L.A.; POGLAZOVA, M.N.; NOVICHKOVA,
A.T.; VOLKOVA, T.M.

Cytophysiological and biochemical studies of yeasts during their
recovery following radiation injury. Izv. AN SSSR. Ser. biol. no.6:
827-851 N-D '64. (MIRA 17:11)

1. Institute of Microbiology, Academy of Sciences of U.S.S.R., and
Institute of Radiation and Physico-Chemical Biology, Academy of
Sciences of U.S.S.R., Moscow.

MEYSEL, M. N. (Moskva); POGLAZOVA, M. N. (Moskva)

Microbiological characteristics and problems of radiation sterilization of food products. Acta chimica Hung 23 no.1/4:529-523 '60.
(EEAI 10:9)

1. Biokhimicheskiy institut Akademii nauk SSSR, Moskva.

(Radiation sterilization) (Food)

MEYSEL, M. N.; MANTEYFEL, V. M.; BARSKIY, V. Ye.; POGLAZOVA, M. N.

"Fluorescent cytochemistry of cell damage, necrobiosis and intracellular digestion."

report submitted for 2nd Intl Cong, Histochemistry & Cytochemistry, Frankfurt, 16-21 Aug 64.

Moscow.

Inst Physico-Chemical & Radiation Biology, AS USSR, Vavilov Street 18, Moscow B-312.

MEYSEL', M.N.; BEMKOVA, T.S.; MEDVEDOVA, G.A.; POMOSHCHNIKOVA, N.A.;
POGLAZOVA, M.N.

Nature of the structures obtained by V.O. Kalinenko in
distilled water under the influence of an electric current.
Mikrobiologiya 33 no.2:364-367 Mr-Apr '64. (MIRA 17:12)

1. Institut mikrobiologii AN SSSR.

BUGROVA, V.I., kand. med. nauk; VINOGRADOVA, I.N., kand.biol. nauk;
D'YAKOV, S.I., kand. med. nauk; ZHDANOV, V.M., prof.;
ZHUKOV-VEREZHNIKOV, N.N., prof.; ZEMTSOVA, O.M., kand.
med. nauk; IMSHENETSKIY, A.A., prof.; KALINA, G.P., prof.;
KAULEN, D.R., kand. med. nauk; KOVALEVA, A.I., doktor med.
nauk; KRASIL'NIKOV, N.A., prof.; KUDLAY, D.G., doktor biol.
nauk; LEBEDEVA, M.N., prof.; PERETS, L.G., prof. [deceased];
PEKHOV, A.P., doktor biol. nauk; PLANEL'YES, Kh.Kh., prof.;
POGLAZOVA, M.N., kand. biol. nauk; PROZOROV, A.A.; SINITSKIY,
A.A., prof.; FEDOROV, M.V., prof. [deceased]; SHANINA-VAGINA,
V.I., kand.biol. nauk; VYGODCHIKOV, G.V., prof., zastavitel'
otv. red.; ADO, A.D., prof., red.; BAROYAN, O.A., prof., red.;
BILIBIN, A.F., prof., red.; BOLDYREV, T.Ye., prof., red.;
VASHKOV, V.I., doktor med. nauk, red.; VYAZOV, O.Ye., doktor
med. nauk, red.; GAUZE, G.F., prof., red.; GOSTEV, V.S., prof.,
red.; GORIZONTOV, P.D., prof., red.; GRINBAUM, F.T., prof.,
red. [deceased]; GROMASHEVSKIY, L.V., prof., red.; YELKIN, I.I.,
prof., red.; ZASUKHIN, L.N., doktor biol. nauk, red.;
ZDRODOVSKIY, P.F., prof., red.; KAPICHNIKOV, M.M., kand. med.
nauk, red.; KLEMPARSKAYA, N.N., prof., red.; KOSYAKOV, P.N.,
prof., red.; LOZOVSKAYA, Ye.S., kand. med. nauk, red.;
MAYSKIY, I.N., prof., red.; MUROMTSEV, S.N., prof., red.
[deceased]; (Continued on next card)

BUGROVA, V.I.---(continued) Card 2.

NIKIFIN, M.Ya., red.; NIKOLAYEVA, T.A., red.; PAVLOVSKIY, Ye.N.,
akademik, red.; PASTUKHOV, A.P., kand. med. nauk, red.;
PETRISHCHEVA, P.A., prof., red.; POKROVSKAYA, M.P., prof.,
red.; POPOV, I.S., kand. med. nauk, red.; ROGOZIN, I.I., prof.,
red.; RUDNEV, G.P., prof., red.; SERGIYEV, P.G., prof., red.;
SKRYABIN, K.I., akad., red.; SOKOLOV, M.I., prof. red.;
SOLOV'YEV, V.D., prof., red.; TRIBULEV, G.P., dotsent, red.;
CHUMAKOV, M.P., prof., red.; SHATROV, I.I., prof., red.;
TIMAKOV, V.D., prof., red.toma; TROITSKIY, V.L., prof., red.
toma; PETROVA, N.K., tekhn.red.;

[Multivolume manual on the microbiology, clinical aspects,
and epidemiology of infectious diseases] Mnogotomnoe rukovod-
stvo po mikrobiologii klinike i epidemiologii infeksionnykh
boleznei. Otv. red. N.N.Zhukov-Verezhnikov. Moskva, Medgiz.
Vol.1. [General microbiology] Obshchaya mikrobiologiya. Otv.
red. N.N.Zhukov-Verezhnikov. 1962. 730 p. (MIRA 15:4)

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for
Zhdanov, Zhukov-Verezhnikov, Vygodchikov, Bilibin, Vashkov,
Gromashevskiy, Zdrodovskiy, Rudnev, Sergiyev, Chumakov,
Timakov, Troitskiy).

(Continued on next card)

BUGROVA, V.I.---(continued) Card 3.

2. Chlen-korrespondent Akademii nauk SSSR (for Imshenetskiy, Krasil'nikov). 3. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Planel'yes, Baroyan, Boldyrev, Gorizontov, Petrishcheva, Rogozin). 4. Deyatvitel'nyy chlen Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I.Lenina (for Muromtsev).

(MICROBIOLOGY)

POGLORODNIKOV, F.P.

"Treatment of Gaseous Phlegmons,"

Vet. Dr. Skorodinsky Rayon Vet. Hosp.,

Kursk Oblast.

1. POGNERYBKO, I.
2. USSR (600)
4. Cranks and Crankshafts
7. Decreasing crankshaft wear, MTS 13 no. 5, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

POGNOR, G.; ZEMPLEN, G.; BOGNAR, R.

Attempts to synthesize salicyloyl-populin and salicyloyl-salicin; a new way of formation of l voglucosan triacetate. p.285

ACTA CHIMICA. Budapest, Hungary. Vol. 19, no. 2/3, 1959

Monthly List of East European Accessions (EEAI), LC. Vol. 8, No. 9, September 1959

Uncl.

POYOCKI, T., inz.

Transformers for antishock protection. Wlad elektrotechn 33
[i.e.32] no.4:115-116 Ap '64

POGOCKI, Tadeusz, inż.

Soviet-made excavators for cable trenches. Wiad elektrotechn
31 no.11:277-278 N°63.

1. Zjednoczenie Przemysłu Robot Elektrycznych Elektromontaz.

POGOCKI, Tadeusz, inż.

Paste with metal raspings in the joints of aluminum rails.

Wiad elektrotechn 31 no.12:296-299 D'63.

1. Zjednoczenie Przemysłu Robot Elektrycznych Elektromontaz.

POGOCKI, Tadeusz, inż.

Transportation of cables. Wiad elektrotechn 32 no.3:72-72
Mr'64.

Some streamlining methods in the technology of wireman's
work as applied abroad. Ibid.s85-86

1. ZBiD Zjednoczenia Przemyslu Robot Elektrycznych, Elektromontaz,
Warszawa.

POGOCKI, Tadeusz, inz.

Method of soil defrosting. Wiad elektrotechn 34 no.1:19-22
Ja '65.

1. "Elektromontaz" Research and Studies Institute, Warsaw.

MARKOV, A.; POGODA, A.

Improved console. Sov.shakht. 11 no.4:31 Ap '62. (MIRA 15:3)
(Mine surveying) (Goniometers)

MARKOV, A.I.; POGODA, A.S.

Console with "GS" supports for fixing the angle measuring instrument. Ugol' 37 no.5:47 My '62. (MIRA 15:6)

1. Shakhta "Proletarskaya-Glubokaya" tresta Makeyevugol'.
(Mine surveying—Equipment and supplies)

POGODA, N.

"State farm in Srebrna leads in pig breeding." p. 18
(Plon, Vol 4 No 1 Jan 53 Warszawa)

SO: Monthly List of East European Accessions, Vol 2 No 9 Library of Congress Sept 53 Uncl

POGOCKI, T., inz.

New magnetic condition switches. Wlad elektrotechn 32 no.3:85-
87 Mr '65.

POGOCKI, Tadeusz, inz.

Tools for electric installation works. Wiad elektrotechn 32
no. 1:23-24, 25 Ja '64.

. POGODA, W.

Preventing fires in mines. p. 184. (WIADOMOSCI GORNICZE, Vol. 5, No. 6, June 1954, Katowice, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

POGODA, Wiktor

Filling under pressure. Wiadom gorn 11 no. 1/2:9-12 Ja-7 '60.

P/031/62/007/003/002/013
D201/D308

16.8507

AUTHOR: Pogoda, Zdzisław

TITLE: The stability of multi-parameter automatic-control systems

PERIODICAL: Archiwum Automatyki i Telemekhaniki, v. 7, no. 3-4, 435-449

TEXT: Using the general matrix theory, the author attempts a systematic presentation of automatic closed-loop systems controlling several variables. A fundamental theorem is derived, stating that the stability of such systems depends on the roots of equation (20)

$$\det [1 + K(p)] = 0$$

K(p) being the matrix transfer function of the system open at its input. This equation may be applied to both continuous and sampled-data control systems, the matrix presentation of multi-variable circuits being achieved in the same manner as for the single variable control, irrespective of whether the multi-variable elements are connected in series or in parallel. The results are applied to the

Card 1/2

VB

P/031/62/007/003/002/013
D201/D308

The stability of ...

analysis of voltage and frequency stability of a synchronous generator. There are 12 figures.

ASSOCIATION: Politechnika Śląska, Zakład Teorii Regulacji (Silesian Polytechnic, Department of Control Theory)

VB

Card 2/2

POGODA, Zdzislaw

Stability of automatic control systems with a large number of nonlinear elements. Automatyka Gliwice no.4:27-48 '63.

1. Department of Control Theories of the Silesian Technical University, Gliwice.

ACCESSION NR: AT4022942

P/2536/63/000/004/0027/0048

AUTHOR: Pogoda, Zdzislaw

TITLE: Stability of automatic control systems with a large number of nonlinear elements

SOURCE: Gliwice. Politechnika Slaska. Zeszyty naukowe, no. 90, 1963, Automatyka (Automation) no. 4, 27-48

TOPIC TAGS: automatic control system, control system, nonlinear element control system, nonlinear element, control system stability, describing function, harmonic signal, Nyquist criterion

ABSTRACT: Paper is an attempt to expand the describing function methods to automatic control systems with a large number of nonlinear elements. Author describes parallel connections of two nonlinear elements. The input signal Y in this case is equal to the sum of the output signals of the individual elements Y_1 and Y_2 and can be written as:

Card 1/3

ACCESSION NR: AT4022942

$$\hat{Y} = \hat{Y}_1 + \hat{Y}_2 = [J_1(A) + J_2(A)]\hat{X}_1 \quad (1)$$

It can be readily seen that a system of two nonlinear elements connected in parallel behaves as one nonlinear element with a describing function equal to the sum of the describing functions of the elements:

$$J(A) = J_1(A) + J_2(A) \quad (2)$$

Series-connection of two nonlinear elements behaves as one nonlinear element with a describing function equal to the product of the describing functions for the component elements. Finding such a product of the describing functions for the equation

$$\hat{Y} = J_1(A_1) J_2(A_2) \hat{X} \quad (3)$$

would be possible when they would be functions of the same argument. Reducing these functions to the same argument can be accomplished by considering the connection between the amplitudes A_1 and A_2 :

Card 2/3

ACCESSION NR: AT4022942

$$A_2 = |J_1(A_1)| A_1 \quad (4)$$

Substituting this into equation (4), the substitute describing function for series connection is obtained:

$$J(A) = J_1(A) J_2(J_1(A)/A) \quad (5)$$

The connection of nonlinear elements with inertial and stability of a closed loop system with two nonlinear elements are also discussed. Examples illustrating these applications are given. Orig. art. has: 14 figures and 17 equations.

ASSOCIATION: Katedra Teorii Regulacji (Department of Control Theory)

SUBMITTED CO

DATE ACQ: 13Apr64

ENCL: 00

SUB CODE: CG, OE

NO REF SOV: 000

OTHER: 000

Card 3/3

L 17577-65 EWT(1)/EEC-4/EWA(h) Feb.
ACCESSION NR: AP4048893

P/0031/64/009/003/0273/0284

AUTHOR: Pogoda, Zdzislaw

TITLE: Synthesis of optimal filters with limited structure of a B system

SOURCE: Archiwum automatyki i telemekhaniki, v. 9, no. 3, 1964, 273-284

TOPIC TAGS: optimal filter synthesis, limited structure system, mean square error minimization, open system, feedback system

ABSTRACT: The problem of synthesizing optimal filters for open and feedback control systems is analyzed under the assumption that the open system contains a linear element with a given transfer function and the feedback system contains a stable, nonminimal phase element (that is, its transfer function is of the form of a fraction with the polynomials $P^+(j\omega)$ and $R^+(j\omega)$ in the nominator and denominator, respectively; $P^+(j\omega)$ and $R^+(j\omega)$ have zeros only in the upper half of the complex plane.) The method for determining the transfer functions of such a system which minimize the mean-square error is presented.

Card 1/2

L 17577-65

ACCESSION NR: AP4048893

In the case of feedback systems, an algorithm for determining the optimal transfer function is presented. The solution of the synthesis problem is reduced to solving polynomial equations to which computers can be applied. It is shown that only nonminimal phase or unstable elements affect the form of the transfer function of an optimal filter. The influence of structural restrictions upon the minimal value of the mean-square error is analyzed. It is established that only non-minimal phase elements increase the minimal value of the mean-square error. Therefore, their presence is unfavorable for the filtration process. Orig. art. has: 2 figures and 51 formulas.

ASSOCIATION: Politechnika Slaska, Katedra teorii Regulacji (Silesian Polytechnical Institute, Department of Automatic Control Theory)

SUBMITTED: 16Apr63

ENCL: 00

SUB CODE: IE, MA

NO REF SOV: 002

OTHER: 004

ATD PRESS: 3152

Cord 2/2

POLAND

POGODA, Zdzisław

Department of Regulation Theory, Silesian Polytechnic (Katedra
Teorii Regulacji, Politechnika Slaska)

Warsaw, Archiwum automatyki i telemekhaniki, No 3, July-September
1965, pp 340-352

"Assortment of the correction element in linear mutidimension
systems."

L 29946-66 EWP(k)/EWP(h)/EWP(l)/EWP(v) BC

ACC NR: AP6004521

SOURCE CODE: PO/0031/65/010/003/0341/0352

AUTHOR: Pogoda, Zdislaw

ORG: Slask Politechnical Institute (Politechnika Slaska)

TITLE: Selection of the correction element in linear multidimensional systems

SOURCE: Archiwum automatyki i telemekhaniki, v. 10, no. 3. 1965, 341-352

TOPIC TAGS: linear system, matrix element, matrix function, polynomial

ABSTRACT: This study deals exclusively with linear multidimensional systems of which the dynamic characteristics can be described with the aid of the operators of a transfer matrix. It is assumed that the structure of the system has a limitation in the form of an element of an invariable transfer function matrix subsequently named the object in the article. The problem, then, is to find the transition matrix of the correction element (corrector) which makes it possible to obtain in advance the given transfer function matrix for the whole system. Two simple structures consisting of an open and a closed system with one feedback loop are investigated. The transfer matrix of multidimensional elements is given in the form of the quotient of two polynomial matrices. In this study a multidimensional matrix is defined as one whose

Card 1/2

L 29946-66

ACC NR: AP6004521

elements are polynomial. The corrector must satisfy the insensitivity conditions. The concept is introduced of the generalized minimum phase element, and it is shown that in the case of a minimum phase object there exists a limitation in the form of an arbitrary transfer matrix for the whole system. It is also shown that in the case of an unstable object in a closed system, a series corrector does not exist which makes it possible to obtain autonomy in the separate channels and which satisfies the insensitivity conditions at the same time. A method is given for choosing the series and parallel corrector for this case. Orig. art. has: 40 formulas and 2 figures.

SUB CODE: 12/ SUBM DATE: none./ ORIG REF: 001

Card 2/2 DC

5(4), 7(6)

AUTHORS:

Dobychin, D. P., Pogodayev, A. K.
(Leningrad)

SOV/76-32-11-27/32

TITLE:

A Sensitive Adsorption Method and Its Use for Investigating the Porous Structure of Thin Films on Optical Surfaces
(Chuvstvitel'naya adsorbtsionnaya metodika i yeye primeneniye dlya issledovaniya poristoy struktury tonkikh plenok na opticheskikh poverkhnostyakh)

PERIODICAL:

Zhurnal fizicheskoy khimii, 1958, Vol 32, Nr 11, pp 2637-2640
(USSR)

ABSTRACT:

As only small amounts of the sorbent film were present in the investigations mentioned in the title it was necessary to take into account the parasitic effects, as for instance, the poly-molecular adsorption on the vessel walls and on the external surface of the samples. A method was devised where the necessary sensitivity was obtained by a decrease in volume of the adsorption system (Fig 1). The determinations of the general pore volume of $2 \cdot 10^{-4} \text{ cm}^3$ can be carried out with an accuracy of 1%, which in the case of a porosity of about 20% corresponds to a sorbent film of a minimum of 1 mm^3 . One part of the apparatus was produced from chemically resistant glass Nr 23 or Nr

Card 1/2

A Sensitive Adsorption Method and Its Use for Investigating the Porous
Structure of Thin Films on Optical Surfaces

SOV/76-32-11-27/32

29. The test disks of the glass to be investigated (diameter 20 mm, thickness 0.3-0.5 mm) were polished and pickled prior to their investigation, and then the 1000 ± 50 Å thick film was applied. Surfaces of $50-100$ cm² can be measured using 1 mg of the adsorbant. The experimentally obtained adsorption isothermal lines of steam on films on glass K-8 (Fig 2) and TK-1 (Fig 3) represent a summation of the adsorption in the pores of the film as well as on the vessel surface and the external surface of the sample. The method of calculating the actual adsorption isotherm in the pores is mentioned. The calculation results obtained show (Table 2) that the condensation of water between the particles, on quartz sorbents up to $p/p_g = 0.97 - 0.98$ (at particle sizes of 5μ and more) may be neglected. With pores that are so small that no hysteresis loops occur on the adsorption isothermal lines the usual representation of the adsorption surface cannot be used. There are 4 figures, 3 tables, and 9 references, 7 of which are Soviet.

SUBMITTED: March 6, 1958

Card 2/2

YASTREBOVA, L. S., POGODAYEV, A.K., DOBYCHIN, D. P.

Effect of the state of the glass surface on the porous structure
of acid etching films on unstable glasses. Koll. zhur. 22 no.2:243-
246 Mr-Apr '60. (MIRA 13:8)

1. Gosudarstvennyy opticheskiy institut im. S.I. Vavilova,
Leningrad.

(Glass) (Films (Chemistry))

POGODAYEV, A. K., Cand. Chem. Sci. (diss) "Porous Structure and Properties of Thin Films on Glass." Leningrad, 1961, 16 pp. (Leningrad State Univ.) 180 copies (KL Supp 12-61, 256).

22433

S/080/61/034/007/008/016
D223/D305

15-2670

AUTHORS: Dobyuchin, D.P., and Pogodayev, A.K.

TITLE: The porous structure of etched films and chemical stability of optical glass

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 7, 1961, 1477 - 1485

TEXT: The present work employing the absorption method studied the porous structure of the layers directly on the polished components. Optical measurements of the thickness of the films enabled their porosity to be determined and application of the method of "molecular thickness gauge" enabled the differentiation of ultra porosity of film structure and pore dimensions. The porosity structure of films on glass of different groups of chemical stabilities was investigated. 15 different kinds of glass were used the most stable group being crown glass K8, containing 74 mol % of silica. The medium group (in respect of chem. stability) was glass BK10, type

X

Card 1/9

22433
S/080/61/034/007/008/016
D223/D305

The porous structure of ...

of baruta crown with 62 % of silica. The last group used was crown TK16, containing 52 % silica. The glass samples were cubes with side 15 mm or discs of 22 mm diameter and a thickness of 0.3 mm. The thickness control of films was achieved with a polarization goniometer directly on samples in case of cubes or on special tapers in cases of discs. Table 1 gives data on films structure and calculated ultraporosities. The initial part of isotherm of water adsorption on glass films K8, BK10 and TK16 (un-revived samples) is shown graphically. Fig. 3 shows the adsorption of water on films obtained by etching glass TK12, TF5, LK3, BK10 and TK2. The comparison of adsorption isotherms for water and ethyl alcohol for glass K8 and BK10 shows that the total volume of pores of this layer can be divided into two groups: volume approachable by the alcohol molecules and volume not penetrated by the molecules. The first group is characterized by pure dimensions of 50-80 Å while the second consists of small pores, whose diameters do not exceed 5 Å. It was found that during polishing of chemically stable glass its surface is left cracked while the glass of low stability yield

Card 2/9

22433
S/080/61/034/007/008/016
D223/D305

The porous structure of ...

gel-forming layer which "smears out" cracks and abrasions. The data shows that the change from high silica content glass to low ones appreciably increases the porosities of etched films. For films of thickness 1000 Å its value is 11-12 % for K8, 13-15 % for BK10 and 35 % for TK16, although the porosity is not directly connected with chemical stability of the glass. All investigated groups have absorption isotherms with a clearly defined hysteresis loop which enabled the use of Kelvin's equation for determining pore dimensions. Ultraporous structures of glass films from K8, BK10 and TK16 could not be analyzed using this equation so a wide relation was employed, i.e. $d = \frac{4v}{s}$ where d - pore diameter, v - volume of pore, s - surface of pore. The analysis of initial parts of isotherms in passing from K8 to BK10 and TK16 shows decrease in their gradients. Since the chemical nature of films in all samples was similar and also the adsorption of one kind of molecule was done at the same temperature, the change in gradients of initial isotherms could be explained by the different energies of molecu-

X

Card 3/9

The porous structure of ...

22433
S/080/61/034/007/008/016
D223/D305

les of water adsorbing on pore surface. In the given case the change in interaction energy (adsorption temperature) is connected with change in adsorption potential connected with decrease of pore dimensions. The smaller the pore the higher the adsorption potential and hence the steep rise of adsorption isotherm in its initial stage. The adsorption of polarized molecules of water on silica surface proceeds mainly through the hydrogen bond and orientation of Van der Waal's forces but for small pores, whose dimensions approach those of molecules, the dispersive interaction of molecules with walls of pore could not be ruled out. As shown by B.P. Bering, M.M. Dubimin, Ye.G. Zhukovskaya and V.V. Serpinskiy (Ref. 14: DAN SSSR 131, 865, 1960), adsorption of non-polar molecules on ultraporous sorbents molecular sieves is well covered by the equation of potential theory for sorbents of first structural type:

$$\lg W = \lg W_0 = 0.43 \frac{BT^2}{\beta^2} \left[\lg \frac{p_s}{p} \right]^2.$$

Card 4/9

22433

S/080/61/034/007/008/016
D223/D305

The porous structure of ...

This was used to compare the pore dimensions of investigated films. The authors finally discuss what governs the protective effect of film: porosity or dimensions of pores. It has been suggested that leaching rate of glass with acid solutions depends on the energy of binding cations in the mass of glass but this is rejected by recently published experimental data of Yevstrop'yev, O.V. Mazurin, and V.S. Molchanov (Ref. 15: Zh. vses. khim. obshch; 6, 1, 114, 1961). The investigated glass (K8, BK10 and TK16) gave a specific resistance increase of 10^5 with a fall of chemical stability (Ref. 16: V.A. Khar'yuzov, Optico-mekh. prom. 4, 32, 1959; 7, 31, 1959). The chemical stability of glass which characterized the decomposition of glass for a given thickness could not determine the porosity of the protective film. The glass decomposition is governed by diffusion processes in the protective film at the decomposition rate fixed by the diffusion constant. The value of this coefficient, proportional to the size of pore and linear diffusion in porous medium depends on the value of effective cross-section of equivalent capillary and not on porosity. The protective action

Card 5/9

22433

S/080/61/034/007/008/016
S223/D305

The porous structure of ...

of films as well as their rate of formation during acid etching of the glass is determined by the dimensions of pores obtained, but it is independent of the total volume of pores. There are 3 figures, 1 table and 20 references: 16 Soviet-bloc and 4 non-Soviet-bloc. The references to the English-language publications read as follows: I.R. Beattie, J. Soc. Glas. Techn., 37, 178, 1953, Trans. Faraday Soc., 49, 1959, 1953; R.W. Douglas, I.O. Isared, J. Soc. Glas. Techn., 33, 154, 1949; R.M. Barrer, Brit. Chem. Ind., 5, 267, 1959; H. Adzumi, Bl. Chem. Soc. Japan, 12, 304, 1937.

SUBMITTED: October 17, 1960

Card 6/9

25224

S/080/61/034/008/006/018
D204/D305

15-2600

AUTHORS:

Dobychin, D.P. and Pogodayev, A.K.

TITLE:

Determining the diffusion coefficient of water in fine films on glass surfaces

PERIODICAL:

Zhurnal prikladnoy khimii, v. 34, no. 8, 1961.
1748-1752

TEXT: This is the second of a series of reports on porous film structures produced by acid pickling of silicate glasses. Thin films produced on polished silicate glass surfaces by acid treatment have a structure of very fine pores. The adsorption isotherms of water in these films, except with unstable glasses, are free from hysteresis loops. The diameters of the pores are shown by a molecular probe technique to be of the order of 4 - 15 Å. The first approximate solution of non-stationary kinetics of desorption from a porous membrane is given by

$$Q_0 - Q = \frac{8Q_0}{\pi^2} \cdot e^{-\frac{\pi^2 Dt}{l^2}}$$

(1)

X

Card 1/3

S/080/61/034/008/006/018
D204/D305

Determining the diffusion...

where Q_0 is the initial material content of the membrane, Q - the amount desorbed during time t ; $Q_0 - Q$ the present desorbing material content in the membrane; l - membrane thickness, D - diffusion coefficient. Films were saturated with water vapor at $p/p_s = 1$ and evacuated at 17°C for varying periods, after which water adsorption was measured. The adsorption isotherms of water vapor in films formed by acid treatment of glasses K8 and TK16, having respective thicknesses of 1000 and 1500 Å, are shown in Fig. 1. In these films, the low diffusion coefficients of water are significant - $1.7 \cdot 10^{-14}$ and $0.55 \cdot 10^{-14}$ cm^2/sec . The values of D for pore radii of 40 and 1000 Å are, respectively, 0.008 and 0.04 cm^2/sec , and are not markedly different from the diffusion coefficient of water vapor in air (0.282 at 18°). This indicates that the dimensions of the pores in the films studied are similar to these of molecular screens. "Ageing" at 120°C of the film of glass TK16 causes reduction of pore size. There are 4 figures, 1 table and 11 references: 7 Soviet-bloc and 4 non-Soviet-bloc. The references to the English-language publications read as follows: R.M. Barrer, Brit. Chem. Eng. 1959, vol

Card 2/3

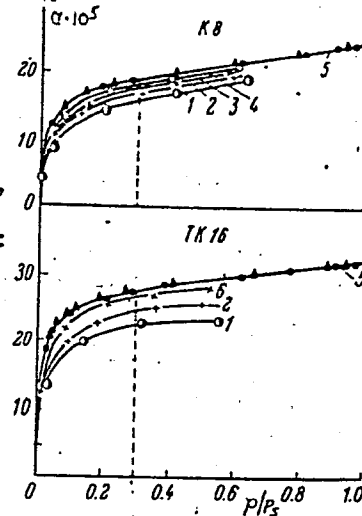
Determining the diffusion...

S/080/61/034/008/006/018
D204/D305 ²⁵²²⁴

5, 267; W. Jost, Diffusion in Solids, Liquids and Gases (1952);
R.M. Barrer and D.W. Brown, Trans. Faraday Soc. 1953, vol. 49, 1049;
R.M. Barrer, L.V. Ries, Trans. Faraday Soc., 50, 989 (1954).

SUBMITTED: November 26, 1960

Fig. 1 Legend: Adsorption isotherms of water on films. a - water adsorption $a \cdot 10^5$ (g), p/p_s - relative pressure
Evacuation time (min): 1-15, 2-30, 3-60, 4-120, 6-150, 5-initial isotherm (complete water desorption). Film on glass: A-K8, B-TK16.



Card 3/3

ACC NR: AP0002804

SOURCE CODE: UR/0237/60/000/002/0049/0053

AUTHOR: Pogodayev, A.K.

ORG: None

TITLE: Influence of atmospheric humidity and temperature upon optical properties of thin films

SOURCE: Optiko-mekhanicheskaya promyshlennost', no. 2, 1960, 49-53

TOPIC TAGS: optics, optic film, optic film property, optic coating, optic coating property, optic glass

ABSTRACT: This paper discusses the influence of water vapor adsorption and temperature upon the optic properties of thin films formed by etching or deposition on the surface of polished optical glass. Etching was done in nitric and acetic acids; deposition was from hydrolysing solutions of ethyl ethers of orthosilicic and orthotitanic acids. A parallel study on water adsorption was conducted, using the same samples, to elicit relations between optical constants, film structure and degree of adsorption. This relation was analytically expressed as

$$n = n_1\theta_1 + n_2\theta_2 + n_3\theta_3 \quad (1)$$
 where n - the resultant index of refraction (i.r) of the film, n_1 - the i.r. of the film glass skeleton; n_2 - the i.r of water, 1.33; n_3 - the i.r. of air, 1.00. θ_1 , θ_2 and θ_3 - the relative volumes of film skeleton, adsorbed water and air: $\theta_1 + \theta_2 + \theta_3 = 1 \quad (2)$. Referenced literature methods were

Card 1/2

ACC NR: AP6002804

used for the measurement of water adsorption, index of refraction and thickness of films. Samples were placed in vacuum and then the required water vapor pressure was established by connections to containers with varied concentrations of H_2SO_4 in water. Temperature was controlled by a conductive film heater and a thermocouple. Etched films on a number of optical glasses as well as deposited films of SiO_2 and TiO_2 were investigated. Film thickness was of the order of 1000 Å, with an error under 50 - 80 Å. Analysis of the experimental results showed that the optical properties of films are closely related to the nature of their porous structure and to the atmospheric humidity. Increased humidity increases their index of refraction by increasing the relative volume of adsorbed water, in accord with the equation:

$$n = n_0 + .33\theta_2 \quad (3) \quad \text{which can be obtained by the simultaneous solution of (1)}$$

and (2). Heating of films decreases their index of refraction by decreasing the content of adsorbed water. In conclusion, the author notes that films with an ultraporous structure (such as SiO_2) do not change their water content (and hence their refractive index) much in the visible region at room temperature in the relative humidity range between .2 and .8. Orig. art. has 6 figures, 4 formulas and 1 table.

SUB CODE: 20/ SUBM DATE: 20Jul59/ ORIG REF: 010/ OTH REF: 003

Cord 2/2

POGODAYEV, P. G., Cand Tech Sci -- "Study of the ^{to give} ~~surface~~
(mechanical) ^{compressions} ~~consolidations~~ of airplane ^{craft} hydraulic ^{units} outfits."
Kiev, 1961. (Main ^{Admin} ~~part~~ of the Civil Air Fleet attached to the
Council of Ministers USSR. Kiev Inst of the Civil Air Fleet)
(KL, 8-61, 247)

POGODAYEV, K. and MEKHEDOVA, A.

"The Intensification of the Restoration of Cerebral Albumins 1
to 2 days after a 3-days Artificial Sleep". Paper submitted at 2nd
Conference on Biochemistry of the Nervous System, AS USSR, 12-16 Feb 1957,
Kiev.

Translation 1122802

POGODAYEV, Konstantin Il'ich, doktor biol. nauk; PROMYSLOV, M.Sh.,
red.

[Biochemistry of the epileptic seizure; experimental studies]
Biokhimiia epilepticheskogo pristupa; eksperimental'nye is-
sledovaniia. Moskva, Meditsina, 1964. 296 p.
(MIRA 17:6)

PODOLAYEV, K. I.

"Oxidation-Reduction Potential of Blood." Thesis
for degree of Cand. Biological Sci. Sub 23
Jan 50 Moscow City Pedagogical Inst imeni V. P.
Potemkin

Summary 71, 4 Sep 52, Dissertations Pre-
sented for Degrees in Science and Engineering in
Moscow in 1950. From Vechernyaya Moskva,
Jan-Dec 1950.

POGODAYEV, K.I.

Modification of the oxidation-reduction blood potential in relation to time. *Klin.med., Moskva* 29 no.5:86-87 May 1951. (CJML 20:9)

1. Of the Institute of Psychiatry (Director--Prof. V.A. Gilyarovskiy, Active Member of the Academy of Medical Sciences USSR) of the Ministry of Public Health USSR.

POGODAYEV, KONSTANTIN IL'ICH

USOV, Aleksandr Aleksandrovich; POGODAYEV, Konstantin Il'ich; DERVIZ, G.V.,
professor, redaktor; SENCHILO, K.K., tekhnicheskii redaktor

[Universal nomographic chart for computation and methods of
determination of reaction of oxidation-reduction potential of
biological liquids] Universal'naya nomogramma dlia vuchislenia
i metody opredelenia aktivnoi reaktsii i okislitel'no-vosstano-
vitel'nogo potentsiala biologicheskikh zhidkostei. Moskva, Gos.
izd-vo med.lit-ry, 1956. 30 p. (MLRA 10:7)
(BLOOD--ANALYSIS AND CHEMISTRY)
(OXIDATION-REDUCTION REACTION)

POGODAYEV, K. and MECHEROVA, A.

"The intensification of the restoration of cerebral albumins 1 to 2 days after a 3-days artificial sleep," a paper submitted at the 2nd Conference on Biochemistry of the nervous System, AS UkrSSR, 12-16 Feb 1957, Kiev.

1122802

706-01111-0751
POGODAYEV, K.I.

Oxidation-reduction potential of the blood flowing to and from the brain in schizophrenics. Zhur.nevr. i psikh. Supplement:67-68 '57. (MIRA 11:1)

1. Institut psikhiiatrii (dir. - dotsent D.D.Fedotov) Ministerstva zdravookhraneniya SSSR, Moskva.

(SCHIZOPHRENIA)

(OXIDATION-REDUCTION REACTION)

(BLOOD--ANALYSIS AND CHEMISTRY)

POGODAYEV, K.I.

POGODAYEV, K.I.

Studying the swelling and moisture content of brain tissues in rats under conditions of excitation and ionizing radiation [with summary in English]. Ukr.biokhim.zhur. 29 no.4:428-436 '57.
(MIRA 11:1)

1. Institut vysshey nervnoy deyatel'nosti AN SSSR.
(BRAIN) (RADIATION--PHYSIOLOGICAL EFFECT)
(WATER IN THE BODY)

POGODAYEV, K.I.

Principal source of errors in determining the oxidation-reduction potential of blood in vitro. Lab. delo 5 no.1:29-35 Ja-P '59.

(MIRA 12:3)

1. Iz Instituta vysshey nervnoy deyatel'nosti (dir. - prof. L.G. Voronin) AN SSSR, Moskva.

(BLOOD--ANALYSIS AND CHEMISTRY)
(OXIDATION-REDUCTION REACTION)

FOGODAYEV, K.I.; TUROVA, N.F.

Incorporation of radiomethionine and radiotyrosine into the brain tissue in single and repeated epileptic seizures induced experimentally. Ukr.biokhim.zhur. 31 no.6:849-858 '59. (MIRA 13:5)

1. Institute of Higher Nervous Activity of the Academy of Sciences of the U.S.S.R.
(TYROSINE) (METHIONINE) (EPILEPSY)