

USSR / Microbiology. Microbes Pathogenic to Man and Animals. Bacteria of the Intestinal Group. F

Abs Jour : Ref. Zhur - Biol., No. 21, 1958, No 95151

Author : Ignat'yeva. A. A.

Inst : Voronezh Medical Institute.

Title : Experimental Study of Antibiotic Vaccines From a Typhoid Carrier.

Orig Pub : Avto-ref. diss. kand. med. n., Voronezhsk. med. in-t, Voronezh, 1958.

Abstract : No abstract

Card 1/1

IGNAT'YEVA, A.M.

Minimum design expenditures on power transmission lines with various carrying capacities, lengths, and current types. Izv.AN Kazakh. SSR. Ser. tekhn. i. khim. nauk' id. 1981, 163. (MIRA 17:3)

IGNAT'YEVA, A K

8/5
742.2
.12

Operativnoye planirovaniye proizvodstva na zavodakh sel'skokhozyaistvennogo mashinostroyeniya (tipovoy proyekt) (Operational planning of production in agricultural machinery factories) Moskva, Mashgiz, 1959.

221 p. tables.

"Ferechen' ispol'sovannoy literatury i istochnikov": p. (219)

At head of title (Russia) Ministerstvo Mashinostroyeniya.

IGNAT'YEVA, A. M.; LOYTER, E. E.

Minimum calculated cost of electric power transmission
lines with different carrying capacity and length. Isv. AN
Kazakh. SSR. Ser. energ. no.2:11-18 '62. (MIRA 16:1)

(Electric lines--Overhead)
(Electric power distribution)

ALEKSEYEV, A.N.; IGNAT'YEVA, A.P., laborant

Toxicity of some organic phosphoric insecticides for the larvae
of blood-sucking blackflies. Med. paraz. i paraz. bol. 32 no.5:
546-548 S-0'63 (MIRA 16:12)

1. Iz Tsentral'nogo nauchno-issledovatel'skogo dezinfektsionno-
go instituta (dir. - prof. V.I.Vashkov) Ministerstva zdravo-
okhraneniya SSSR.

IGNATIYEVA, A. V.

DALIN, Valeriy Nikitich, kandidat tekhnicheskikh nauk; ~~IGNATIYEVA, A.V.,~~
kandidat fiziko-matematicheskikh nauk, redaktor; KUZNETSOVA,
A.G., izdatel'skiy redaktor; PUKHLIKOVA, N.A., tekhnicheskii
redaktor.

[Investigating heating systems of airtight cabins of passenger
planes]. Issledovanie sistem panel'nogo obogreva germetiche-
skikh kabin passazhirskikh samoletov. Moskva, Gos. izd-vo
obor. promysl., 1957. 37 p. (Moscow. Aviatsionnyi institut.
Trudy, no.80). (MIRA 10:6)
(Airplane--Heating and ventilation)

CHERNYAYEV, M.P.; IGNAT'YEVA, A.V., redaktor; SHIKIN, S.T., tekhnicheskiy redaktor

[Collection of problems on synthetic geometry; manual for pedagogical institutes] Sbornik zadach po sinteticheskoi geometrii; posobie dlia pedagogicheskikh institutov. Moskva, Gos. uchebno-pedagog. izd-vo Ministerstva prosveshcheniia RSFSR, 1954. 72 p. (MLRA 8:4)
(Geometry--Problems, exercises, etc.)

IGNAT'YEVA, A.V.

IGNAT'YEVA, A.V. --"On a Specific Presentation of the Functions of Many Variables."
(Dissertations For Degrees In Science And Engineering Defended
At USSR Higher Educational Institutions)(29) Moscow Oblast'
Pedagogical Inst, Min of Education RSFSR, Moscow, 1955

SO: Knizhnaya Letopis' No 29, 16 July 1955

* For the Degree of Candidate in Physicomathematical Sciences

KISELEV, A.P.; IGHAT'YEVA, A.V., redaktor; MIROMTSEVA, M.I., tekhnicheskiy redaktor.

[Algebra; textbook for classes 6-8 of the seven-year and secondary school] Algebra; uchebnik dlia 6-8 klassov semiletnei i srednei shkoly. Izd. 29-e Moskva, Gos. uchebno-pedagog. izd-vo Ministerstva prosveshcheniia RSFSR. Pt. 1. 1955. 111 p. (MLRA 8:7)
(Algebra)

STAL'KOV, Grigoriy Alekseyevich; IGNAT'YEVA, A.V., redaktor; DZHATIYEV,
S.G., tekhnicheskii redaktor;

[Mental arithmetic] Ustnyi schet; posobie dlia uchashchikhsia
srednei shkoly. Moskva, Gos.uchebno-pedagog. izd-vo Ministerstva
prosveshcheniia RSPSR, 1955. 126 p. (MIRA 8:5)
(Arithmetic, Mental)

DORF, Petr Yakovlevich; IGNAT'YEVA, A.V., redaktor; RYBIN, I.V., tekhnicheskii redaktor

[Visual aids in mathematics and ways of using them; teacher's manual] Nagliadnye posobia po matematike i metodika ikh primeneniia; posobie dlia uchitelei. Moskva, Gos. uchebno-pedagog. izd-vo Ministerstva prosveshcheniia RSFSR, 1955. 157 p. (MLRA 8:7)
(Visual instruction) (Mathematics--Study and teaching)

KISELEV, Andrey Petrovich; IGMAT'YENVA, A.V., redaktor; MAKHOVA, N.N.,
tehnicheskii redaktor

[Algebra; textbook for classes 8-10 of the secondary schools]
Uchebnik dlia 8-10 klassov srednei shkoly. Izd. 32-e. Moskva, Gos.
uchebno-pedagog. izd-vo Ministerstva prosveshchenia RSPSR. Pt.2.
1955. 231 p. (MLRA 8:7)
(Algebra)

KUTUZOV, Boris Veniaminovich; IGNAT'YEVA, A.V., redaktor; MAKHOVA, N.N.,
tekhnicheskii redaktor

[Geometry; a textbook for normal schools] Geometriia; posobie dlia
pedagogicheskikh i uchitel'skikh institutov. Izd. 2-e. Moskva, Gos.
uchebno-pedagog. izd-vo Ministerstva prosveshcheniia RSFSR, 1955.
295 p. (MLRA 8:7)

(Geometry)

FROLOV, Nikolay Andrianovich; IGNAT'YEVA, A.V., redaktor; MAKHOVA, N.N.,
tekhnicheskiy redaktor

[Differential and integral calculus; textbook for pedagogical
institutes] Differentsial'noe i integral'noe ischislenie;
uchebnoe posobie dlia pedagogicheskikh institutov. Moskva,
Gos. uchebno-pedagog. izd-vo Ministerstva prosveshchenia
RSFSR, 1955. 339 p. (MIRA 9:4)
(Calculus, Differential) (Calculus, Integral)

GONCHAROV, Vasilii Leonidovich; IGNAT'YEVA, A.V., redaktor; MAKHOVA, N.N.
tekhnicheskii redaktor.

[Theory of functions of complex variables; textbook for pedagogical
institutes.] Teoriia funktsii kompleksnogo peremennogo; uchebnoe
posobie dlia pedagogicheskikh institutov. Moskva, Gos.uchegno-
pedagog.izd-vo Ministerstva prosveshcheniia RSFSR, 1955. 350 p.
(Functions of complex variables) (MLRA 8:11)

SECRET 4509, A.C.

PHASE I BOOK EXPLOITATION

350

Vedrov, V. S., Romanov, G. L., and Surina, V. N.

Samolet kak ob"yekt regulirovaniya; strukturnyye skhemy uravneniy vozmushchennogo dvizheniya samoleta (The Control of Aircraft; Block Diagrams of Equations for Disturbed Motions of an Aircraft) Moscow, Oborongiz, 1957. 42 p. 1,020 copies printed.

Sponsoring Agency: USSR Ministerstvo aviatsionnoy promyshlennosti (Its Trudy, Nr 74)

Ed.: Ignat'yeva, A. V.; Tech Ed.: Lebedeva, L. A.

PURPOSE: Presentation of results of scientific research.

Card 1/5

The Control of Aircraft (cont.)

350

COVERAGE: This paper treats the representation of the equations of disturbed motion of an aircraft in terms of block diagrams of closed-loop systems with first- and second-order components, where the input and output signals have a definite physical meaning. The characteristics of the individual components and their variation with aircraft speed and altitude are briefly analyzed. A derivation of the transfer functions in rudder and aileron control is given, and also simplified expressions for the transfer functions in relation to the frequency band, which corresponds to the degeneration of the disturbed motion into simple types. The method of representing the equations of disturbed motion of an aircraft in terms of block diagrams of closed-loop systems permits ready application of the techniques of modern control theory, such as the frequency-response method, the theory of feedback loops, block-diagram analysis, etc., to the analysis of aircraft motion in stability and control problems, and also makes it possible to set up simplified equations of motion as well as transfer functions for control of motion by means of control surfaces. In contrast to existing methods, which

Card 2/5

The Control of Aircraft (cont.)

350

yield approximate transfer functions for rapid angular motions about the center of gravity, these methods readily permit obtaining approximate expressions for transfer functions for the slow motions associated with displacements of the center of gravity. The report contains 7 tables and 15 figures. There are 15 bibliographic references, 4 Russian, 5 American, 1 British, 4 French, and 1 Belgian. The authors express their gratitude for valuable advice to M.A. Tayts, Doctor of Technical Sciences, and Ye.N. Arsen'yev, Engineer.

TABLE OF CONTENTS:

Summary	1
Introduction	1
Conventional Signs	2
Card 3/5	

The Control of Aircraft (cont.)	350
Ch. I. Longitudinal Motion	3
1. Block diagram for disturbed longitudinal motion	3
2. Brief analysis of the characteristics of the elements	6
3. Transfer functions of control components. Simplification of equations of motion and of transfer functions.	13
Ch. II. Lateral Motion	21
4. Block diagram for disturbed lateral motion	21
5. Brief analysis of the characteristics of the elements	25
6. Transfer functions of control components. Simplification of equations of motion and of transfer functions	31

Card 4/5

• The Control of Aircraft (cont.)	350
Conclusions	37
References	37
Appendix I. Equations of Lateral Disturbed Motion of an Aircraft	38
Appendix II. Formulae for Converting Lateral Rotary Derivatives to New Coordinate Axes	41

AVAILABLE: Library of Congress

Card 5/5

IS/EDeV
7-1-58

VOSTRETSOV, B.A.; IGNAT'YENVA, A.V.

Approximation speed of analytic functions on random continua.

Uch. zap. MOPI 57 no.4:45-50 '57.

(MIRA 11:6)

(Functions, Analytic)

AUTHORS: Ignat'yeva, A.V., and Vostretsov, B.A. SOV/140-58-4-12/30

TITLE: The Representation of Functions of Several Variables With the Aid of Plane Waves and the Solution of the Cauchy Problem for Hyperbolic Systems (Predstavleniye funktsiy mnogikh peremennykh s pomoshch'yu ploskikh voln i resheniye zadachi Koshi dlya giperbolicheskikh sistem)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1958, Nr 4, pp 100-112 (USSR)

ABSTRACT: The paper contains a detailed, rather complete representation of the results announced in [Ref 1,2]. There are 5 references, 4 of which are Soviet, and 1 German.

ASSOCIATION: Moskovskiy aviatsionnyy institut (Moscow Aviation Institute)

SUBMITTED: February 17, 1958

Card 1/1

16.3500 16.2600

34584
S/044/62/000/001/030/061
C111/C444AUTHOR: Ignat'yeva, A. V.

TITLE: On a special representation of a function of several variables

PERIODICAL: Referativnyy zhurnal, Matematika, no. 1, 1962, 50, abstract 1B238. ("Uch. zap. MGU", 1959, vyp. 186, 235-244)

TEXT: An elementary method for the representation of a function $f(x_1, \dots, x_n)$ in the form

$$f(x_1, \dots, x_n) = \lim_{N \rightarrow \infty} \int_{p_1^2 + \dots + p_n^2 = 1} \varphi_N(x_1 p_1 + \dots + x_n p_n) d\sigma$$

is given; the method is applicable under relatively small suppositions on the function f . Further on the author brings an example for the application of this representation to the solution of the Cauchy problem for a linear hyperbolic system of differential equations with constant coefficients.

[Abstracter's note: Complete translation.]

Card 1/1

IGNAT'YEVA, A.V.

Special representation of functions of several variables.
Uch.sap.Mosk.un. no.186[a]:235-244 '59. (MIRA 13:6)
(Functions of several variables)

OCHAN, Yuriy Semenovich; SHNEYDER, Vladimir Yevgen'yevich; IGNAT'YEVA,
A.V., red.; SMIRNOVA, M.I., tekhn.red.

[Mathematical analysis; textbook for teachers' institutes] Matema-
ticheski analiz; uchebnoe posobie dlia pedagogicheskikh institutov.
Moskva, Gos.uchebno-pedagog.izd-vo M-va prosv.RSFSR, 1961. 879 p.
(MIRA 14:6)

(Mathematical analysis)

IGNAT'YEVA, Alla Venediktovna; KRASNOSHCHEKOVA, Taisiya
Ivanovna; SMIRNOV, Viktor Fedorovich; ROMANOVSKIY,
P.I., prof., red.; TAL'SKIY, D.A., red.

[Course in higher mathematics] Kurs vysshei matematiki.
Moskva, Vysshaia shkola, 1964. 682 p. (MIRA 18:1)

KOZHEVNIKOV, Naum Iosifovich; KRASNOSHCHENKOVA, Taisiya Ivanovna;
SHISHKIN, Nikolay Yefimovich; IGARAT'YEVA, A.V., red.;
MOROZOVA, I.Ye., red.

[Fourier series and the Fourier integral. Field theory.
Analytic and special functions. Laplace transformation]
Riady i integral Fur'ye. Teoriya polya. Analiticheski i
spetsial'nye funktsii. Preobrazovanie Laplasa. Moskva,
Nauka, 1964. 183 p. (MIRA 18:2)

L 33334-66 EWT(m)/EWP(j) RM

ACC NR: AP6021776

SOURCE CODE: UR/0413/66/000/012/0036/0036

INVENTOR: Kuznetsov, Ye. V.; Ignat'yeva, E. K.; Kostromina, S. Ya.

ORG: none

TITLE: Preparative method for nitrogen and phosphorus-containing organotitanium compounds. Class 12, No. 182722¹⁵ [announced by Kazan Chemical Technology Institute im. S. M. Kirov (Kazanskiy khimiko-tehnologicheskii institut)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 12, 1966, 36

TOPIC TAGS: organotitanium compound, nitrogen containing organotitanium compound, phosphorus containing organotitanium compound, titanium compound

ABSTRACT: An Author Certificate has been issued for a preparative method for nitrogen and phosphorus-containing organotitanium compounds. Bis-(2-hydroxyethoxy)-bis-(aminoethyl)-titanium is reacted with derivatives of methylphosphonic acid substituted in methyl in a solvent. Hydroxymethylphosphonic acid is used as a derivative of the substituted methylphosphonic acid for preparing new compounds. [BN]

SUB CODE: 07/ SUBM DATE: 03May65/ ATD PRESS: 5026

Card 11 ULR

UDC: 547.419.1'258.2.07

IGNAT'YEVA, E.K.; KUZNETSOV, Ya.V.

Interaction of acetone cyanohydrin and allyl alcohol with
trialkoxystibine. Zhur.ob.khim. 33 no.2:617-622 F '63.
(MIRA 16:2)

1. Kazanskiy khimiko-tekhnologicheskij institut imeni S.M.
Kirova.

(Lactonitrile) (Allyl alcohol) (Stibine)

I 34858-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM
ACCESSION NR: AP5007159 8/0286/65/000/003/0025/0025

AUTHOR: Kuznetsov, Ye. V.; Ignat'yeva, E. K.; Heronova, L. Ye. 21 B 1

TITLE: Preparative method for nitrogen- and phosphorus-containing organotitanium compounds. Class 12, No. 167873

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 3, 1965, 25

TOPIC TAGS: organotitanium compound, titanium compound

ABSTRACT: An Author Certificate has been issued for a preparative method for nitrogen- and phosphorus-containing organotitanium compounds. Di- β -hydroxyethyl-diethylaminotitanium [sic] is treated with trimethylolphosphine or bis(hydroxymethyl)phosphonic acid in methanol with heating. [SM]

ASSOCIATION: none

SUBMITTED: 02Oct63

ENCL: 00

SUB CODE: OC, CC

NO REF SOV: 000

OTHER: 000

ATD PRESS: 3211

Card 1/1

LEBEDINSKIY, N.F.; OKTYABR'SKIY, P.Ya.; SMIRNOV, D.V.; VINLGRADOV, N.I.;
KUZ'MAK, B.S.; BLYAKHMAN, L.S.; RYASHCHENKO, B.R.; POLOZOV, V.R.;
SHALGIN, G.N.; MARKIN, A.A.; IG'NAT'YEVA, E.P.; VOROTILOV, V.A.;
KLYUYEV, A.I., dots., otv.red.; KARPOVA, L.A., red.; YELIZAROVA,
N.A., tekhn. red.

[Hidden potentials for increasing labor productivity in the national
economy] Rezervy rosta proizvoditel'nosti truda v narodnom khoziaistve.
Leningrad, Izd-vo Leningr. univ., 1962. 223 p. (MIRA 16:2)

1. Leningrad. Universitet.

(Labor productivity)

USSR/Biology - Restoration of Organs Dec 51

"Modification of the Histological Structure of Skin Upon Transplantation Into the Eye of Tailless Amphibia," G. M. Ignat'yeva

"Dok Ak Nauk SSSR" Vol LXXXI, No 4, pp 701-704

V. V. Popov showed that young (larval) skin of amphibia develops into a cornea on transplantation into the eye of a larva or adult animal the cornea of which had been extirpated. Similar operations could be carried out on rats. The series of expts described in this instance deals with transplantation of skin from the back of a tadpole into the eye of another tadpole in such a manner that the

202120

USSR/Biology - Restoration of Organs (Contd) Dec 51

Graft is influenced not only by tissue of the eye, but also skin tissue surrounding the eye. Further development of the graft involves retention or loss of pigmentation (i. e., change into cornea) and depends on the age of the recipient and mech condit- tions. It is apparently influenced by contact of the graft with old skin.

202120

IGNAT'YEVA, G. M.

IGNAT'YEVA, G.M.

Formation of the retina in tadpole from the skin of Triton taeniatus larvae. Doklady Akad. nauk SSSR 82 no.1:167-170 1 Jan 52. (CML 21:5)

1. Presented by Academician A.I. Abrikosov 9 November 1951.
2. Institute of Animal Morphology imeni A.N. Severtsov, Academy of Sciences USSR.

IGNATYEVA, G. M.

USER/ Medicine - Experimental morphology

Card 1/1 Pub. 22 - 49/50

Authors : Ignatyeva, G. M.

Title : ~~Cornea revivification of tailless amphibians during its partial or complete removal~~
Cornea revivification of tailless amphibians during its partial or complete removal

Periodical : Dok. AN SSSR 100/1, 187-190, Jan. 1, 1955

Abstract : A new method of cornea revivification during partial or complete removal of the former was tested on several tailless amphibians (frogs), and the results obtained are described. Nine references: 6 USSR, 1 Japanese and 2 German (1915-1952). Illustrations.

Institution : Acad. of Sc., USSR, The A. A. Severtsov Institute of Animal Morphology

Presented by : Academician A. I. Abrikosov, October 23, 1954

IGNATYeva, G. M.

USSR/Medicine - Experimental morphology

Card 1/1 Pub. 22 - 49/52

Authors : Ignatyeva, G. M.

Title : Cornea transplantation of adult frogs with larval skin

Periodical : Dok. AN SSSR 100/2, 385-388, Jan 11, 1955

Abstract : Experimental data are presented on the transplantation of adult frog cornea with larval skin. The results obtained from such operations are described. Eight USSR references (1947-1955). Table; Illustrations.

Institution : Academy of Sciences USSR, The A. N. Severtsov Institute of Animal Morphology

Presented by : Academician A. I. Abrikosov, October 23, 1954

IGNATYEVA G.M

USSR/ Biology - Embryology

Card 1/1 Pub. 22 - 45/47

Authors : Ignatyeva, G. M.

Title : Formation of a hatching ferment in embryos of sturgeon

Periodical : Dok. AN SSSR 100/6, 1199-1202, Feb 21, 1955

Abstract : The spawn of Black and Azov Sea sturgeon incubated in industrial conditions was investigated to determine the possibility of formation of a hatching fermentation in the embryos of the fish. Results obtained are described. Six references: 5 USSR and 1 French (1912-1954). Table.

Institution : Academy of Sciences USSR, The A. N. Severtsov Institute of Animal Morphology

Presented by : Academician V. A. Engel'gardt, November 30, 1954

USSR / General Biology. Individual Development. Embryonal
Development.

B-2

Abs Jour : Ref Zhur - Biol., No 14, 1958, No 61897

Author : Ignat'yeva, G. M.

Inst : AS USSR

Title : The Role of Membranes in Sturgeon Embryos for Secreting
Hatching Ferments.

Orig Pub : Dokl. AN SSSR, 1956, 107, No. 3, 493-496

Abstract : It was shown that presence of membranes does not constitute
a necessary prerequisite for secretion of hatching ferments.
For sturgeon and starred sturgeon embryos which were artifi-
cially freed of membranes at stages close to the onset of
hatching, secreted hatching ferments into the water. Exis-
tence and activity of ferments were estimated by the fact
that durability of egg-indicator (embryos at early develop-
ment stages) membranes diminished after they spent some time

Card 1/2

⁴
Inst. Animal Morphology im A. N. Severtsov, AS USSR

B-4

IGNAT'YEVA, G.M.
USSR / General Biology. Individual Development

Abs Jour : Ref Zhur - Biol., No 12, 1958, No 52411

Author : Ignat'eva, G. M.

Inst : AS USSR

Title : Some Conditions Affecting Sturgeon Hatching.

Orig Pub : Dokl. AN SSSR, 1956, 109, No. 6, 1222-1225

Abstract : The effect of water movement (currents), oxygen regimen and embryo mobility on hatching of sturgeon fish (beluga, osetra and sevryugi) was studied. Under laboratory conditions the currents (made by rocking the embryos in flasks) stimulated the production of hatching enzymes and even hatching itself if sufficiently developed embryos were used (at stages 34-35 according to Detlaf and Ginzburg), and had no effect on embryos at earlier stage of development. Improvement of aeration conditions also helped hatching. Elimination of mobility of embryos by narcotization and urethane markedly

Card 1/2

IGNAT'YEVA, G.M.

ROSKIN, Grigoriy Iosifovich; LEVINSON, L.S.; IGNAT'YEVA, G.M., red.;
PARSADANOVA, K.G., red.isdatel'stva; GAMZAYEVA, M.S., tekhn.red.

[The technique of the microscope] Mikroskopicheskaya tekhnika.
Iss.3-e. Pod obshchei red.G.I.Roshina. Moskva, Gos.isd-vo (MIRA 10:12)
"Sovetskaya nauka," 1957. 466 p.
(Microscope-Technique)

SOV/20-114-4-63/63

AUTHOR: Ignat'yeva, G. M.

TITLE: Morpho-Physiological Studies of the Hatching Gland in Huso huso (L.)
(Morfo-fiziologicheskoye issledovaniye zhelezy vylupleniya belugi
Huso huso (L.))

PERIODICAL: Doklady AN SSSR, 1957, Vol. 114, Nr 4, pp. 908 - 911 (USSR)

ABSTRACT: It was proved (references 1 - 3) that the secretion of the hatching-enzyme which loosens the solidity of membrane before hatching takes place under the control of a number of conditions which act differently according to the embryo's stage of development. As this enzyme is produced by the hatching gland, it was assumed that the differences of action of the above-mentioned conditions are in connection with the state of development of the hatching gland. Knowledge concerning the entire development and the modification of function of this provisional organ is also of importance in fishery due to its influence upon the duration of hatching. Beside the investigation mentioned in the title the author studied the enzymatic activity of the hatching gland according to Zotin (reference 1). Embryos of the stages 25 - 35 (stages see reference 2), larvae during sporadic and mass hatchings as well as larvae on the

Card 1/4

SOV/20-114-4-63/63

.Morpho-Physiological Studies of the Hatching Gland in Huso huso (L.)

1st - 7th day after hatching were fixed, dyed and microscopically studied. The results of the determinations (figure 1) show that the enzyme appears in the gland after the 28th stage. The enzymatic activity increases with the development of the embryo and reaches its maximum in the 35th stage. Then the enzyme is rapidly emptied into the perivitellin-space. The gland produces and accumulates the enzyme for still another 3 days, but this activity decreases and comes to an end on the 6th day after hatching. Certain morphological modifications of the gland correspond to the modification of the enzymatic activity. The structure and development of the gland is described in detail. In the case of larvae in the stage of sporadic hatching the gland is almost completely free of secretion. Yolk is still contained in it (figure 3 a). Consequently the above-mentioned secretion must either represent the hatching enzyme itself or must contain it. After hatching the number of accumulations of secretion begins to increase until the 3rd day (figure 3 b), then it decreases, but single accumulations of secretion may even be seen in a 6 days old larva (figure 3 v) in the remainders of the glandular tissue. This tissue is degraded and disintegrates. A comparison of the preparations of the hatching gland from Huso huso and Acipenser stellatus permits the conclusion that the physiological and morphological modifications of the hatching gland

Card 2/4

SOV/20-114-4-63/63

Morpho-Physiological Studies of the Hatching Gland in Huso huso (L.)

of the Acipenseridae in contrast to the Teleostei are bound to certain stages of development of the entire embryo. This explains why the embryo of the Acipenseridae under different conditions leave the embryonic membranes in the same stages characteristic of the beginning of hatching. The yolk apparently serves as source of the formation of secretion, as it disappears parallel with the accumulation of secretion. As yolk is abundantly present in the hatching gland, the embryo with a quantity of secretion in the gland necessary for loosening the membrane can attain the time of hatching even under different conditions of existence (above all at varying temperatures of incubation). Thus a formation of secretion in the hatching gland which at first sight seems to be insignificant in reality proves to be a consequence of an adaptation essential for life which makes it possible for the embryos of Acipenseridae to leave the embryonic membranes in time under varying conditions of the surroundings. There are 3 figures, and 7 references, which are Slavic.

Card 3/4

SOV/20-114-4-63/63

Morpho-Physiological Studies of the Hatching Gland in Huso huso (L.)

ASSOCIATION: Institute for Animal Morphology, AS USSR, imeni A. N. Severtsov
(Institut morfologii zhivotnykh im. A. N. Severtsova Akademii nauk
SSSR)

PRESENTED: February 20, 1957, by I. I. Shmal'gauzen, Academician

SUBMITTED: February 12, 1957

Card 4/4

USSR/General Biology. Individual Development. Embryonic
Development.

B

Abs Jour: Ref Zhur-Biol., No 17, 1958, 76274.

Author : Ignat'eva, G.M.

* Inst :

Title : Morpho-Physiological Investigation of the Hatching
Gland of the Starred Sturgeon at Various Incubation
Temperatures.

Orig Pub: Dokl. AN SSR, 1957, 114, No 5, 1132-1135.

Abstract: No essential differences were found in the mor-
phology of the hatching gland in the starred
sturgeon after development. The activity of the
enzyme in the gland varied strongly in different
groups; however, differences of activity depending

Card : 1/2 * [INSTITUT MORFOLOGII ZHIVOTNYKH IMENI A. N. SEVERTSEVA AKADEMII
NAUK SSSR.]

USSR/General Biology. Individual Development. Embryonic
Development.

Abs Jour: Ref Zhur-Biol., No 17, 1958, 76274.

B

on the temperature were not noted. Larvae in
stages of a single brood divided into different
groups possessed similar structures, but with lower
temperatures of incubation, they were bigger.

Card : 2/2

5

IGNAT'YEVA, G.M., kand.biol.nauk

Hatching enzyme in embryos of acipenserid fishes and the conditions
for its secretion. Trudy sov.Ikht.kom. no.8:410-420 ' 58.

(MIRA 11:11)

1. Institut morfologii zhivotnykh AN SSSR.
(Sturgeons) (Embryology--Fishes) (Enzymes)

BUZNIKOV, G.A., IGNAT'YEVA, G.M. (Moskva)

Hatching enzymes. Usp.sovr.biol. 46 no.3:337-356 N-D '58
(MIRA 11:12)

(ENZYMES)
(EMBRYOLOGY)

17(1)

AUTHOR:

Ignat'yeva, G. M.

SOV/20-128-1-57/58

TITLE:

Secretion of the Hatching Enzyme in Explants of the Hatching Gland of Acipenseridae Fishes

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 1, pp 212-215 (USSR)

ABSTRACT:

The secretion of the hatching enzyme is checked by some external factors mainly acting as increased movability of the embryo (Refs 1 and 7). In order to understand the function mechanism of these factors and the role of the nervous system in the process of enzyme secretion, it is important to explain the process of accumulation and secretion of the enzyme outside the organism without a connection between gland and nervous system and without an influence by external factors. For this purpose the spawns of *Huso huso* (L), of *Acipenser güldenstadtii colchicus* of Marti, and of *Acipenser stellatus* Pall. were examined. In doing so, an explantation of the hatching gland or its rudiment was carried out. In the first test series the rudiment of the hatching gland was removed in embryos in the stages 25-28 according to Detlaf and Ginzburg (Ref 2), i.e. before the secretion of the enzyme started.

Card 1/2

Secretion of the Hatching Enzyme in Explants of the Hatching Gland of Acipenseridae Embryos SOV/20-128-1-57/58

In the second test series the hatching gland was removed in the stage 30-33, when the accumulation of the hatching enzyme had started, but not its secretion. The experimental results showed the following: 1) The production of the enzyme may start in the hatching glands separated from the organism, and may become very intense; 2) A partial secretion of the enzyme by the glands independent of the nervous system, into the surrounding medium may occur under such conditions. Consequently this process is not caused, but only stimulated by these factors which, under normal conditions, check the secretion of the enzyme. There are 4 figures and 7 Soviet references.

ASSOCIATION: Institut morfologii zhivotnykh im. A. N. Severtsova Akademii nauk SSSR (Institute of Morphology of Animals imeni A. N. Severtsov of the Academy of Sciences, USSR)

PRESENTED: March 26, 1959, by I. I. Shmal'gauzen, Academician

SUBMITTED: March 24, 1959

Card 2/2

IGHAT'YEVA, G.M.

Regional nature of the inductive effect of the chordamesoderm in sturgeon embryos. Dokl.AN SSSR 134 no.1:233-236 S '60.

(MIRA 13:7)

1. Institut morfologii zhivotnykh im. A.N.Severtsova Akademii nauk SSSR. Predstavleno akad. I.I. Smal'gauzenom.

(EMBRYOLOGY--FISHES)

IGNAT'YEVA, G.M.

Inductive properties of the chordomesodermal bud before the beginning of invagination and regulation of its defects in sturgeon embryos.

Dokl. AN SSSR 139 no.2:503-505 J1 '61.

(MIRA 14:2)

1. Institut morfologii zhivotnykh im. A.N. Severtsova AN SSSR.
Predstavleno akademikom I.I. Shmal'gauzenom.
(Embryology--Fishes) (Sturgeons)

IGNAT'YEVA, G.M.

Comparison of the dynamics of the invagination process of the chordamesoderm material in the embryos of 'starred sturgeon, sturgeon and axolotl. Dokl. AN SSSR 151 no.6:1466-1469 Ag '63. (MIRA 16:10)

1. Institut morfologii zhivotnykh im. A.N.Savartsova AN SSSR.
Predstavleno akademikom Yu.A.Orlovym.

SHMAL'GAUZEN, Ivan Ivanovich; IGNAT'YEVA, G.M., red.; KOLPAKOVA,
Ye.A., red.izd-va; DOROKHINA, I.N., tekhn.red.

[Form control in individual development; a popular sci-
entific essay]Reguliatsiia formoobrazovaniia v indivi-
dual'nom razvitii; nauchno-populiarnyi ocherk. Moskva, Izd-
vo "Nauka," 1964. 133 p. (MIRA 17:4)

IGNAT'YEVA, G.M., SHUROVENKOV, B.G.

Brief news and information. Zool. zhur. 43 no.7:1099-1102 '64.
(MIRA 17:12)

LOPASHOV, G.V., red.; NEYFAKH, A.A., red.; STROYEVAYA, O.G.,
red.; IGNAT'YEVA, G.M., red.

[Cell differentiation and induction mechanisms; reports]
Kletochnaia differentsirovka i induktsionnye mekhanizmy;
sbornik dokladov. Moskva, Nauka, 1965. 269 p.
(MIRA 18:7)

1. Simpozium po kletochnoy differentsirovke i induktsion-
nym mekhanizmam. Moscow, 1963. 2. Institut morfologii
zhivotnykh im. A.N.Severtsova AN SSSR, Moskva (for Lopashov).

YEPIFANOVA, Ol'ga Igorevna; PROKOP'YEVA-BEL'GOVSKAYA, A.A.,
otv. red.; IGNAT'YEVA, G.M., red.

[Hormones and cell reproduction] Germony i razmnoshenie
kletok. Moskva, Nauka, 1965. 240 p. (MIRA 18:11)

IGNAT'YEVA, G.M.

Interrelationship between the processes of epiboly and
invagination during gastrulation in sturgeon embryos.
Dokl. AN SSSR 165 no.4:970-973 D '65.

(MIRA 18:12)

1. Institut morfologii zhivotnykh im. A.N.Severtsova AN
SSSR. Submitted January 20, 1965.

IGNAT'YEVA, G.V.

Reactogenicity and immunological effectiveness of the pertussis-
diphtheria-tetanus vaccine. Zhur. mikrobiol., epid. i immun. 40
no.9:134-135 S'63. (MIRA 17:5)

1. Iz Koskovskogo instituta epidemiologii i mikrobiologii.

IGNAT'YEVA, G.V.; SUMAROKOV, A.A.; LEDENEVA, A.G.; ALAFUZOVA, S.V.

Immunological effectiveness of pertussis-diphtheria-tetanus
vaccine. Zhur. mikrobiol., epid. i immun. 40 no.10:58-62 O '63.
(MIRA 17:6)

1. Iz Moskovskogo instituta epidemiologii i mikrobiologii i
sanitarno-epidemiologicheskoy stantsii Leningradskogo rayona
Moskvy.

SARAYEVA, N.T.; MASTYUKOVA, Yu.N.; IGNAT'YEVA, G.V.; LEDENEVA, A.G.;
KHLIYABICH, G.N.

Serological analysis of the clinical and epidemiological effectiveness of various γ -globulin doses in the prevention of measles. Zhur. mikrobiol., epid. i immun. 42 no.11: 44-48 N '65. (MIRA 18:12)

1. Moskovskiy institut epidemiologii i mikrobiologii. Submitted June 4, 1965.

IGNAT'YEVA, G.V.; SARAYEVA, N.T.; KHROMETSKAYA, T.M.; LIDNEVA, A.G.;
MASTYUKOVA, Yu.N.; NESTEROVA, T.P.; ALAFUZOVA, S.B.; YERSHOVA, A.S.;
BARANOVA, T.V.; BEKLEMESHEVA, Ye.D.; SHIPOVA, Ye.P.; SUKHANOVA, R.V.;
KHLYABICH, G.N.; KHANTISIS, S.S.

Clinical and epidemiological effectiveness of a reduced dose of
 γ -globulin (1.5 ml) in seroprophylaxis of measles. Zhur.mikrobiol.,
epid. i immun. 42 no.12:57-61 D '65. (MIRA 19:1)

1. Moskovskiy institut epidemiologii i mikrobiologii; Institut viru-
sologii imeni Ivanovskogo AMN SSSR; Moskovskaya sanitarno-epidemiolo-
gicheskaya stantsiya; Rybinskaya sanitarno-epidemiologicheskaya
stantsiya; Vladimirsкая sanitarno-epidemiologicheskaya stantsiya i
Ob'yedinennaya detskaya poliklinika, Makhachkala.

ZAMYSLOV, K.N.; IGNAT'YEVA, I.F.

Treatment of cardiac and coronary insufficiency in hypertension.
Trudy AMN SSSR 25:43-56 '53. (MIRA 8:8)
(HYPERTENSION)
(CARDIOVASCULAR SYSTEM--DISEASES)

DOROFYEVA, Z.Z., kand.med.nauk; IGNAT'YEVA, I.F.

Diagnostic significance of vectocardiography in rheumatic carditis.
Terap. arkh. 30 no.3:55-65 Mr '58. (MIRA 11:4)

1. Iz Instituta terapii AMN SSSR (dir-deystvitel'nyy chlen AMN SSSR
prof. A.L. Myasnikov)

(RHEUMATIC HEART DISEASE, diagnosis,
vectocardiography (Rus)
(VECTOCARDIOGRAPHY, in var. dis.
rheum. heart dis. (Rus)

DOROFYEVA, Z.Z.; IGNAT'YEVA, I.F.

Significance of registration in precordial vectorcardiography according to the topographical principle in the diagnosis of myocardial lesions. Terap.arkh. 31 no.9:62-67 S '59. (MIRA 12:11)

1. Iz Instituta terapii AMN SSSR (dir. - deystvitel'nyy oblen AMN SSSR prof. A.L. Myasnikov), Moskva.
(VECTORCARDIOGRAPHY)

IGNAT'YEV, I. B.

Ignat'yev, I. B. "Increasing the double quality of stock by selective seed plants at the time of seed dropping", Doklady (Mosk. s.-kh. akad. in. Tsel'nyakova), Issue 2 1948, (In index: 1949), p. 24-25.

SO: U-411, 17 July 3, (Letopis' Zhurnal 'ngkh Statey, No. 20, 1949).

IGNAT'YEVA, I.P., kand. sel'skokhozyaystvennykh nauk.

Characteristics of the development of the many-leaved lupine
[with summary in English]. Izv. TSKhA no.2:39-54 '58. (MIRA 11:6)
(Lupine)

IGNAT'YEVA, I.P., kand.sel'skokhozyaystvennykh nauk

Developmental characteristics of larkspur. [with summary in
English]. *Izv. TSKhA* no.4:43-55 '60. (MIRA 13:9)
(Larkspur)

IGNAT'YEVA, I.P.

Life cycle of *Pyrethrum roseum* M.D. *Biul.Glav.bot.sada* no.44:62-76
1961. (MIRA 15:2)

1. Moskovskaya sel'skokhozyaystvennaya akademiya imeni Timiryazeva.
(Pyrethrum)

IGNAT'YEVA, I.P.

Some ontogenetic features of the Oriental poppy. Bot. zhur. 46
no.9:1255-1270 S '61. (MIRA 14:9)

1. Sel'skokhozyaystvennaya Akademiya im. K.A.Timiryazeva, Dendrariy,
Moskva.

(Poppy)

IGNAT'YEVA, I.P.

Morphogenesis of the Alpine forget-me-not. Bot. zhur. 46 no.8:
1194-1202 Ag '61. (MIRA 15 1)

1. Sel'skokhozyaystvennaya akademiya imeni K.A. Timiryazeva,
Moskva.

(Forget-me-nots)
(Botany--Morphology)

IGNAT'YEVA, I.P.

Some characteristics of the ontogenesis of the Missouri evening primrose. Biul. Glav. bot. sada no.45:87-97 '62. (MIRA 16:2)

1. Moskovskaya sel'skokhozyaystvennaya akademiya imeni K.A. Timiryazeva.

(Evening primrose)

IGNAT'YEVA, I.P.

Some characteristics of the ontogenesis of *Gaillardia grandiflora*
Hort. Bot. zhur. 47 no.9:1258-1272 S '62. (MIRA 16:5)

1. Dendrologicheskiy sad imeni R.I.Shredera, Moskva.
(*Gaillardia*)

IGNAT'YEVA, I.P.

Morphogenesis of the garden columbine (*Aquilegia vulgaris* L.).
Bot. zhur. 49 no.3:358-371 Mr '64. (MIRA 17:3)

1. Dendrologicheskiy sad imeni R.I. Shredera, Moskva.

IGNAT'YEVA, I.P.

Shoot formation and secondary flowering in taproot and fibrous-root
polycarpic herbaceous plants. Bot. zhur. 50 no.1:16-28 Ja '65.

(MIRA 18:3)

1. Dendrologicheskiy sad imeni R.I.Shredera, Moskva.

IGNAT'YEVA, I.P.

Life cycle of the taprooted and fibrous-rooted polycarpic
herbaceous plants. Bot.zhur. 50 no.7:903-916 J1 '65.

(MIRA 18:11)

1. Sel'skokhozyaystvennaya akademiya imeni Timiryazeva,
Moskva.

BELYAYEVSKIY, I.A.; SHIROKIKH, N.T.; IGNAT'YEVA, I.S.

Production of weld carbon dioxide in hydrolysis plants. Gidroliz.
i lesokhim. prom. 14 no.5:13-15 '61. (MIRA 16:7)

1. Leningradskiy gidroliznyy zavod (for Belyayevskiy, Shirokikh).
2. Gosudarstvennyy nauchno-issledovatel'skiy institut gidroliznoy
i sul'fitnospirovoy promyshlennosti (for Ignat'yeva).
(Carbon dioxide) (Hydrolysis)

85883

S/048/60/024/011/019/036
B006/B056

9.2181 (2303, 3203)
~~24.7800~~ (1144, 1162)

AUTHORS: Lur'ye, M. S., Vasil'yeva, Ye. I., and Ignat'yeva, I. V.

TITLE: Ferroelectric Films With Rectangular Hysteresis Loop

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 11, pp. 1376 - 1379

TEXT: The present paper is a reproduction of a lecture delivered on the 3rd Conference on Ferroelectricity, which took place in Moscow from January 25 to 30, 1960. The authors give a report on experimental investigations of influencing the rectangularity of the dielectric hysteresis by various factors. In the introduction, the influences exerted by the anisotropy of the unit cell (G. A. Smolenskiy) and the domain orientation and crystallographic structure (Ya. M. Ksendzov) are discussed. In the following, the opinion is expressed that the chemical bonds in the crystal lattice essentially influence the shape of the hysteresis; thus, e.g., it is known that when in the system of the solid solution (Ba,Pb)TiO₃, Ba²⁺ ions are replaced by Pb²⁺ ions, the

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Card 1/4

Ferroelectric Films With Rectangular
Hysteresis Loop

85883

S/048/60/024/011/019/036
B006/B056

homeopolarity increases and also the rectangularity of the hysteresis, although the anisotropy of the unit cell increases (Smolenskiy had assumed that an improvement of rectangularity is due to a decrease of anisotropy). The authors investigated solid solutions of the system $Pb(Ti,Zr,Sn)O_3$ in form of thin disks, to which silver electrodes were fitted. Fig.1 shows $\xi(E_{\sim})$ for some of the investigated compositions. It was found that the nonlinearity of the samples increases with increasing $PbTiO_3$ content, and has a maximum near the morphotropic transition from the rhombohedral into the tetragonal phase (near 45% $PbTiO_3$). As may be seen from Fig.2, the rectangularity increases with increasing $PbTiO_3$ content. As shown in Fig.3, the parameters remain unchanged within a wide temperature range. From the compositions given in the Table, the authors produced 2 μ thick polycrystalline films on platinum foils or on platinum-plated ceramics, which they investigated. Fig.4 shows the hysteresis loops for films with Pt - Ag-electrodes and for films with Pt - In electrodes. Fig.5 shows $\xi(E)$, as in the usual samples recorded at 50 cps, and Fig.6 shows the dependence of the nonlinearity of the

Card 2/4

85883

Ferroelectric Films With Rectangular Hysteresis Loop

S/048/60/024/011/019/036
B006/B056

$\xi(E)$ -curves on the electrode material (measured at 500 cps). There are 7 figures, 1 table, and 8 references: 3 Soviet, 3 US, 1 German, and 1 Japanese.

Образец Sample	Состав, Состав, мол. %			P, 10 ⁴ и см ⁻²	E _к , V см ⁻¹	$k_{н} \approx k_{rectang.}$
	PbZrO ₃	PbTiO ₃	«PbSnO ₃ »			
P:10	90	10	—	8,4	8350	0,65
P:24	76	24	—	10,4	6950	0,78
P:36	64	36	—	12,2	6350	0,83
P:36-10	54	36	10	15	5850	0,85
P:40	60	40	—	13	6650	0,85
P:45	55	45	—	14	6900	0,83

Table

Card 3/4

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S/048/60/024/011/019/036
B006/B056

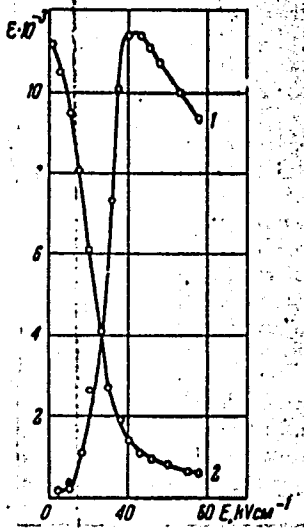


Fig.5

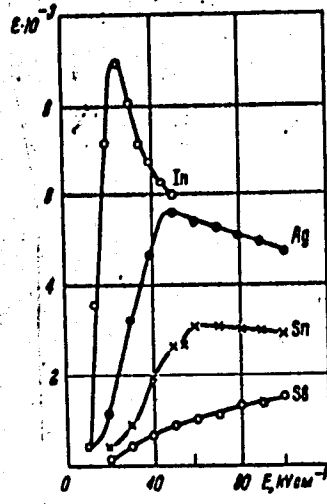


Fig.6

Legend to Fig.5:
Dependence of the 2μ thick films on the variable and constant field strength, respectively: 1) $\epsilon = f(E_{\sim})$, $E_{\sim} = 0$; 2) $\epsilon = f(E_{\sim})$, $E_{\sim} = 40 \text{ kv/cm}$.

Legend to Fig.6: .
Dependence of the non-linearity of ferroelectric films on the electrode material.

Card 4/4

PROCEEDINGS AND CONCEPTS

IGNAT'YEVA, L. A.

ANALYSIS OF STEEL ALLOYS IN THE ULTRAVIOLET SPECTRUM REGION. L. A. Ignat'eva and N. N. Sobolev. *Zavodskaya Lab.* 7, 940-6A(1938). — A tabular presentation of the best suitable spectrum lines for the detn. of Cr, Ni, W, V, Mn, Mo and Si in steel alloys at various concns. based on literature data and some exper. evidence. Chas. Blanc

7

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

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
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IGNAT'YEVA, L.A.

USSR/Electricity - Resistance of Metals Apr 52

"Resistance of Metals at High Current Density in a Pulse System," L. A. Ignat'yeva, and S. G. Kalashnikov

"Zhur Kasper i Teoret Fiz" Vol XXII, No 4, pp 385-399

Elect resistance of thin wires of gold, silver, copper, platinum and tungsten was studied for current pulses of duration of the order of tens of microseconds and for current densities up to $5 \cdot 10^6$ A/sq cm, depending on energy introduced into the wires. It was found that in the case of gold,

219721

silver and copper the resistance coincides with that down to low currents. In case of platinum and tungsten for current densities over $1 \cdot 10^6$ A/sq cm the resistance increases rapidly. The rise increases with a lowering of temp. Indebted to N. M. Sobolev and N. A. Pekar. Received 20 Jul 51.

219721

"APPROVED FOR RELEASE: 04/03/2001

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APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000518410013-8"

И. Е. НИКИТИЧЕВА, Л. А.

USSR/Chemistry of Colloids - Dispersed Systems.

B-14

Abs Jour : Referat Zhur - Khimiya, No 6, 1957, 18794

Author : I.F. Karpova, L.A. Ignat'yeva.

Inst : Leningrad University.

Title : Structural and Osmotic Properties of Collodion and Precipitation Membranes of Copper Ferricyanide.

Orig Pub : Vestn. Leningr. un-ta, 1956, No 16, 105-109

Abstract : The osmotic pressure of the 0.4% saccharose solution on collodion membranes (average pore radius 1 to 10 μm) and precipitation membranes produced of $\text{Cu}_2/\text{Fe}(\text{CN})_6$ impregnated into the collodion film (average pore radius 1 to 10 μm) was measured. It was shown that for osmotic pressure measurements, the average pore radius of collodion membranes should not exceed 1 μm , and that of precipitation membranes should not exceed 4.1 μm .

Card 1/1

- 342 -

BABUSHKIN, A.A.; UVAROV, A.V.; IGNAT'YNA, L.A.

Infrared spectroscopic analysis of the adsorption and surface reactions of ethyl and methyl alcohols on aluminum oxide. Fiz. sbor. no.3:161-167 '57. (MIRA 11:8)

1. Moskovskiy ordena Lenina i ordena Trudovogo Krasnogo Znameni gosudarstvennyy universitet im. M.V. Lomonosova i Institut fizicheskoy khimii AN SSSR.
(Ethanol--Spectra) (Methanol--Spectra) (Aluminum oxide)

69787

S/055/59/000/06/13/027
B006/B00524.2410
5.3700(B)

AUTHORS:

Ignat'yeva, L. A., Bazhulin, P. A., Bayeva, I. K.

TITLE:

The Integral Intensities of Infrared Absorption Bands in the Series of $(\text{CH}_3)_n\text{SiCl}_{4-n}$ Compounds ↑

PERIODICAL:

Vestnik Moskovskogo universiteta. Seriya matematiki, mekhaniki, astronomii, fiziki, khimii, 1959, No. 6, pp. 127 - 130

TEXT: This article reproduces a report delivered at the Conference on Chemistry and Use of Organosilicon Compounds in September 1958. The results of infrared absorption spectrum investigations are listed in a table, and subsequently described in detail. To exclude intermolecular interactions, the spectra of the gaseous compounds were recorded at low pressures. The spectra were registered by means of a split-beam infrared spectrometer of the type IKS-2 in the range of from 4,000 to 530 cm^{-1} . A bismuth bolometer with a sensitivity of 25 v/w was used as a radiation receiver. To avoid distortions of the band form, recording was carried out at small velocities. The samples were placed in glass cuvettes, 45 and 100 mm long, with a KCl window. Vapor pressure was measured by a mercury

Card 1/3

69787

The Integral Intensities of Infrared Absorption Bands in the Series of $(\text{CH}_3)_n\text{SiCl}_{4-n}$ Compounds

S/055/59/000/06/13/027
B006/B005

manometer. The experiments were carried out at pressures of 4 and torr (i.e. 1-10% of the saturation pressure). Cuvettes evacuated to $5 \cdot 10^{-3}$ torr were introduced for compensation into the second channel of the spectrometer. The

integral absorption coefficient $A = \int_{-\infty}^{+\infty} \alpha_\nu d\nu$, where α_ν is the absorption coefficient referring to unit length and pressure, was used as a measure for the integral absorption intensity. It was possible to measure the pressure with an accuracy of 10-15%. Without corrections, the total error of intensity measurement was 20-25%. Results (ν in cm^{-1}):

Card 2/3

69787

The Integral Intensities of Infrared Absorption Bands in the Series of $(CH_3)_n SiCl_{4-n}$ Compounds S/055/59/000/06/13/027
B006/B005

Substance	Oscillation type											
	symmetr. valency- CH ₃		asymmetr. valency- CH ₃		symmetr. deforma- tion-CH ₃		symmetr. valency- Si-C		asymmetr. valency- Si-C		asymmetr. valency- Si-C	
	γ	Δ	γ	Δ	γ	Δ	γ	Δ	γ	Δ	γ	Δ
$(CH_3)SiCl_3$	2920	48	2985	103	1266	310	764	490	-	-	575	458
$(CH_3)_2SiCl_2$	2920	100	2980	170	1264	370	691	220	804	407	538	258
$(CH_3)_3SiCl$	2905	145	2975	280	1261	415	631	105	761	239	-	-
$(CH_3)_4Si$	2900	210	2970	360	1259	500	-	-	690	225	-	-

M. I. Batuyev, A. D. Petrov, V. A. Ponomarenko, and A. D. Matveyeva are mentioned. There are 1 table and 4 references, 1 of which is Soviet.

ASSOCIATION: Kafedra optiki (Chair of Optics)

SUBMITTED: April 23, 1959

Card 3/3

24(7), 24(2)

SOV/51-6-5-19/34

AUTHOR: Ignat'yeva, L.A.

TITLE: Study of α - and β -spodumenes by Means of Infrared Spectroscopy
(Izucheniye α - i β -spodumenov metodom infrakrasnoy spektroskopii)

PERIODICAL: Optika i spektroskopiya, 1959, Vol 6, Nr 6, pp 807-810 (USSR).

ABSTRACT: α -spodumene is a natural mineral $\text{LiAl}[\text{Si}_2\text{O}_6]$ containing ~65% of SiO_2 , ~27% of Al_2O_3 , ~7% of Li_2O and certain impurities. Heating of α -spodumene to temperatures of the order of 1000°C transforms it into β -spodumene. The transition is endothermic and it is accompanied by large changes in volume and other physical constants (specific gravity, refractive index, interplanar distance in Debye X-ray patterns, see the table on p 807). All these effects suggest that important changes occur in the crystal lattice on $\alpha \rightarrow \beta$ transition. The structure of α -spodumene is similar to that of clino-enstatite with two atoms of Mg replaced by Al and Li surrounded by six atoms of oxygen (coordination number of Al equal to 6). The structure of β -spodumene is not known. It was suggested that it is similar to that of silicates with aluminium at tetrahedral sites surrounded by four oxygen atoms (coordination number of Al equal to 4). In order to check this suggestion the author obtained infrared spectra of both spodumene modifications. These spectra were measured using a two-beam infrared spectrometer IKS-2 in the region from 550 to 3000 cm^{-1} . In order to study the changes on transition from

Card 1/2

SOV/51-6-6-19/34

Study of α - and β -Spodumenes by Means of Infrared Spectroscopy

α -Spodumene to β -Spodumene samples which underwent various heat treatments were used. Fig 1 shows the transmission spectra of spodumenes heated to various temperatures (curves I-IV) and that of α -Spodumene which did not undergo any heat treatment (curve α). These spectra show that the transition occurs near 900°C. Comparison of the spodumene spectra of Fig 1 with the spectra of minerals containing Al surrounded by six oxygen atoms (topaz, beryl and kyanite, shown in the lower part of Fig 2) and by four oxygen atoms (analcite, milarite and sodalite, shown in the upper part of Fig 2) proves that the suggestion made above is correct, i.e. in α -Spodumene each Al atom is surrounded by six oxygens and in β -Spodumene each such atom is surrounded by four oxygens. There are 2 figures, 1 table and 8 references, 4 of which are Soviet, 3 German and 1 English.

Card 2/2

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SOV/70-4-6-3/31

AUTHORS: Kolontsova, Ye. V., Ignat'yeva, L. A.

TITLE: Diffuse Scattering of X-Rays by Quartz Crystals Before and After the Exposure to Neutron Radiation

PERIODICAL: Kristallografiya, 1959, Vol 4, Nr 6, pp 821-825 (USSR)

ABSTRACT: The X-ray diffraction photographs of quartz crystals were taken by Mo radiation, monochromatized reflecting from a slightly bent topaz crystal which proved to be better than pentaerythrite. The intensity of the X-ray beam was controlled taking photographs of a standard polycrystalline specimen parallel with those of the quartz under test. The intensities of diffuse maxima were measured photometrically, reciprocal lattice coordinates computed according to formulas derived by Yu. A. Bagaryatskiy, contour lines of equal diffusion drawn on reciprocal lattice projections, and the intensity changes in certain directions represented graphically. The latter disclosed that the exposure of both natural and artificial quartz crystals to neutron radiation, up to 10^{18} neutrons per cm^2 , does

Card 1/4

Diffuse Scattering of X-Rays by Quartz
Crystals Before and After the Exposure to
Neutron Radiation

77102
SOV/70-4-6-3/31

not alter the pattern and intensity of diffuse scattering to an extent greater than possible experimental errors. The exposure to neutron radiation of 10^{19} neutrons per cm^2 intensity increased the intensity of diffusion by 50%, but did not change the forms and positions of diffraction maxima (see Fig. 4).

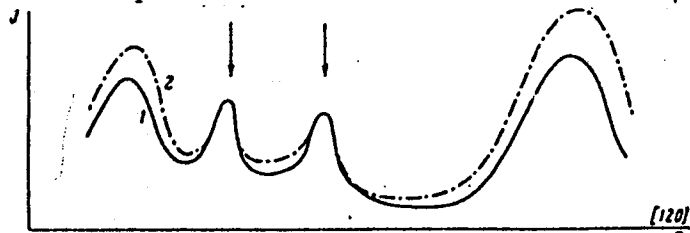


Fig. 4. Intensity distribution of diffracted X-rays along $[120]$. (1) before; and (2) after the exposure of quartz crystals to neutron radiation of 10^{19} neutrons per cm^2 intensity. Arrows point to the diffuse maxima of a standard specimen.

Card 2/4

Diffuse Scattering of X-Rays by Quartz
Crystals Before and After the Exposure to
Neutron Radiation

77102
SOV/70-4-6-3/31

This seems to indicate that exposure to neutron radiation does not alter the irregular nature of defect distribution but only the number of defects. After six months relaxation of the exposed crystals, the intensity increase of diffusion dropped from 50 to 20%. This obviously points to the decreased number of defects after relaxation. The quartz crystals, exposed to neutron radiation and etched by HF for 15 minutes, were studied under an electron microscope at 200-8,000 X enlargements. The tests failed to show any relationship between etch pits and dislocations. The etch pits on artificial crystals were smaller and sharper than on natural crystals. The crystals exposed to neutron radiation showed waved etch figures. L. I. Tsinober is acknowledged for the specimens made available and T. T. Filippova for electron-microscope studies. There are 4 figures; and 17 references, 9 Soviet, 6 U.K., 1 U.S., 1 French. The 5 most recent U.K. and U.S. references are: P. Clemens, Philos. Mag., 1, 10, 938 (1956); K. Huang, Proc. Roy.

Card 3/4

Diffuse Scattering of X-Rays by Quartz
Crystals Before and After the Exposure to
Neutron Radiation

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SOV/70-4-6-3/31

Soc., A, 190, 1020, 102 (1957); M. Wittels, Philos.
Mag., 2, 24, 1445 (1957); M. Wittels, F. Sherrill,
Phys. Rev., 93, 5, 1117 (1954); M. Born, Proc. Roy.
Soc., A, 180, 983, 397 (1942).

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SUBMITTED: February 7, 1959

Card 4/4

S/153/60/003/004/015/040/XX
B020/B054

AUTHORS: Fiochin, M. Ya., Khazova, O. A., Ignat'yeva, L. A.

TITLE: Study of the Anode Process in the Electrolysis of Mixtures of Sulfuric and Acetic Acid. II. Effect of the Solution Composition on the Ratio of Components in the Mixture of Anode Gases

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1960, Vol. 3, No. 4, pp. 637 - 641

TEXT: The authors attempted to study the composition of gases liberated from the anode in the electrolysis of an anhydrous mixture of sulfuric and acetic acid, and their dependence on the composition of the solution. The gases liberated from the anode were analyzed by a BTM-2 (VTI-2) gas analyzer. The analytical method was based on a successive and selective absorption of the principal components of the gas mixture by various absorbents, and on a combustion of hot gases with subsequent analysis of the combustion products. The authors determined CO₂ by 33% KOH, the

Card 1/4

Study of the Anode Process in the S/153/60/003/004/015/040/XX
Electrolysis of Mixtures of Sulfuric and B020/B054
Acetic Acid. II. Effect of the Solution Composition on the
Ratio of Components in the Mixture of Anode Gases

unsaturated hydrocarbons by a KBr solution saturated with bromine vapors, O₂ by a basic pyrogallol solution, CO by a Cu₂O suspension in concentrated H₂SO₄ absorbed with β-naphthol, H₂ by combustion over CuO at 270-280°C, and the saturated hydrocarbons by combustion over CuO at 850-950°C. Sulfuric and acetic acid must be highly pure, and not contain any water. Electrolysis was conducted in a cylindrical glass vessel with a ground-in glass stopper, with fused-in electrodes, and a tube to draw off the gas. The anode used was a smooth platinum net with a surface of 63.5 cm². The anode space was separated from the cathode space by a ceramic diaphragm. The current source used was a storage battery with a voltage of 80 v. Electrolysis was conducted in an anhydrous H₂SO₄ - CH₃COOH mixture in an interval of 20-80 mole% of H₂SO₄. Ten different compositions (20, 25, 30, 33, 35, 45, 50, 55, 60, and 80% H₂SO₄) were analyzed. For each composition, the gas analysis was conducted at three current densities: $2.78 \cdot 10^{-4}$, $5.5 \cdot 10^{-4}$, and

Card 2/4

Study of the Anode Process in the Electrolysis of Mixtures of Sulfuric and Acetic Acid. II. Effect of the Solution Composition on the Ratio of Components in the Mixture of Anode Gases

S/153/60/003/004/015/040/XX
B020/B054

$1.58 \cdot 10^{-3}$ a/cm², which corresponded to the lower, central, and upper part of the curve $\varphi_a = f(\log I_a)$. The change in the ethane- (Fig.1), carbon dioxide- (Fig.2), and oxygen content (Fig.3) in dependence on the solution composition was observed. The Kolbe synthesis proceeded in a mixture containing up to 50 mole% of H₂SO₄ at current densities of from $2.78 \cdot 10^{-4}$ to $1.58 \cdot 10^{-3}$ a/cm². Besides the Kolbe synthesis, an intensive oxidation of acetic acid to CO₂ and water is likely to proceed on the anode. At concentrations higher than 50 mole% of H₂SO₄, this reaction proceeds jointly with the release of oxygen. The formation of solvates influences the composition of anode gases. In the diagram $C_{O_2} = f(C_{H_2SO_4})$, the points of solvate formation correspond to the maximum, in the diagram $C_{CO_2} = f(C_{H_2SO_4})$ to the minimum. N. I. Dedusenko (Ref.5) is mentioned. There are 3 figures and 10 references: 3 Soviet,

Card 3/4

Study of the Anode Process in the
Electrolysis of Mixtures of Sulfuric and
Acetic Acid. II. Effect of the Solution Composition on the
Ratio of Components in the Mixture of Anode Gases

S/153/60/003/004/015/040/XX
B020/B054

3 British, 3 German, and 1 Swiss.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskii institut im.
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Electrochemical Industry)

SUBMITTED: October 20, 1958

Card 4/4

IGNAT'YEVA, L.A.; FILIPPOVA, K.I.

Study of α - and β -spodumenes by means of infrared spectroscopy.
Zhur.fiz.khim. 34 no.9:2092-2090 S '60. (MIRA 13:9)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
(Spodumene--Spectra)

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15.8170
5.5310S/661/61/000/006/062/031
D243/D302AUTHORS: Ignat'yeva, L. A., Bazhulin, P. A. and Bayeva, I. K.TITLE: The intensities of the infrared absorption bands of silico-organic compounds of the series $(\text{CH}_3)_n\text{SiCl}_{4-n}$

SOURCE: Khimiya i prakticheskoye primeneniye kremneorganicheskikh soyedineniy; trudy konferentsii, no. 6: Doklady, diskussii, resheniye. II Vses. konfer. po khimii i prakt. prim. kremneorg. soyed., Len. 1958. Leningrad Izd-vo AN SSSR, 1961, 277-282

TEXT: The authors studied the integral intensities of the infrared absorption bands of the above compounds, where $n = 1, 2, 3, 4$, and follow the change of intensity and frequency of the absorption bands for separate bonds in the molecule when Cl's were substituted by CH_3 groups. All investigations were carried out in the vapor phase at low pressures to exclude intermolecular reactions. The spectra were recorded with a two-ray ИКC-2 (IKS-2) infrared spectrometer

Card 1/3

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The intensities of ...

in the region 4000 to 530 cm^{-1} , a bismuth bolometer acting as radiation receiver and the spectra being recorded at low speeds to avoid distortion. The experiments were carried out at 4 mm and 10 mm pressures. The average error in measuring the integral intensity was $20 - 25\%$. A. L. Smith's interpretation of the I-R absorption bands was accepted but the 761 cm^{-1} frequency band was taken as the valence asymmetric oscillation of Si-C in $(\text{CH}_3)_3\text{SiCl}$. The results

are given in tabulated form and show the characteristic changes which occur. It is suggested that the rise in intensity of the Si-C oscillation may be due to the large difference in electronegativity between the Si atoms (1.8) and the Cl atoms (3.0), which increases the dipole moment of the Si-C bond. Reference is made to the work of M. I. Batuyev, A. D. Petrov, V. A. Ponomarenko and A. D. Matveyeva in this connection. Also, with a high number of chlorine atoms in the molecule, changes in dipole moment of the Si-Cl bonds may have an induction effect on the Si-C bonds, and cause the oscillation intensity of the latter to rise. There are 1 table and 4 references: 1 Soviet-bloc and 3 non-Soviet-bloc. The references to

Card 2/3

The intensities of ...

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the English-language publications read as follows: T. Shimanouchi,
I. Tsuchiya and Y. Mikawa, J. Chem. Phys., 18, 1306, (1950); I. Du-
chesne, J. Chem. Phys., 16, 1006, (1948).

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nosova (Moscow State University im. M. V. Lomonosov)

Card 3/3

X