

DETKOV, S.P., dotsent; VINOGRADOV, A.V., inzh.

Generalized angular coefficients for bands of a slot channel
containing an absorbing medium. Izv. vys. ucheb. zav.; energ.
7 no.10:105-109 O '64. (MIRA 17:12)

1. Ural'skiy elektromekhanicheskiy institut inzhenerov
zheleznodorozhnogo transporta (for Detkov). 2. Ural'skiy
politeknicheskiy institut imeni S.M. Kirova (for Vinogradov).
Predstavlena kafedroy fiziki Ural'skogo elektromekhanicheskogo
instituta inzhenerov zheleznodorozhnogo transporta.

L 14554-66 EWT(1)/ETC(F)/EWG(m)/T IJP(c) AT/WW

ACC NR: AP5016699

SOURCE CODE: UR/0294/65/003/003/0438/0443

AUTHOR: Detkov, S. P.

ORG: Ural Electromechanical Institute of Railway Transport (Ural'skiy elektro-
mekhanicheskiy institut zheleznodorozhnogo transporta)

TITLE: ^{21, 44, 55} Radiant energy transfer close to a plane surface

SOURCE: Teplofizika vysokikh temperatur, v. 3, no. 3, 1965, 438-443

TOPIC TAGS: heat loss, heat radiation, grey body radiation, ⁶⁷⁵

ABSTRACT: The layer of gas at a wall is isolated for purposes of calculating heat exchange between a grey gas and a wall. Approximation formulas are derived for the resistance of the layer to radiant flow. If the optical thickness of the layer is greater than 0.5, the medium behind the layer transmits an almost uniform flow to the wall. Only the most general restrictions were placed on the temperature field. As an example, the temperature field is calculated assuming heat losses in the layer of gas at the wall and reverse flow from a heated grey wall. Orig. art. has: 2 figures, 1 table, 20 formulas.

SUB CODE: 20/

SUBM DATE: 03Feb64/

ORIG REF: 009/

OTH REF: 004

^{TS}
Card 1/1

UDC: 536.244

7
3
Determination of free acidity in pyridine sulfate by the potentiometric method. N. N. Chernitsov, N. L. Hrubovaya, and E. A. Derkova. *Zhurnal Prikladnoi Khimii*, 1953, 26, 1053-1054. *Chem. Abstr.*, 1954, 48, 1053. A pyridine sulfate is a typical example of a system of a salt of a weak base in which simple titration with use of an ordinary indicator is difficult. The potentiometric method with use of the glass electrode is described and typical data are presented.

H. L. Olin

CHERKASOV, N.Kh.; GRIGOROVA, G.I.; DETKOVA, Ye.A.

Polarographic analysis used in the control of coal-chemical
production. Zav. lab. 28 no.9:1146 '62. (MIRA 16:6)

1. Nizhne-Tagil'skiy metallurgicheskiy kombinat.
(Coke industry---By-products)
(Polarography)

KULAKOVSKAYA, T.N., kand; DEM'YANOVICH, A.M.; BLITOVSKAYA, L.P., aspirantka

Use fertilizers taking into consideration soil conditions.

Zemledelie 27 no.4:20-27 Ap '65.

(MIRA 18:4)

1. Belorusskiy nauchno-issledovatel'skiy institut pochvovedeniya.

DETKOVSKIY, V.

They have gone over to administration without division into shops.
Prom.koop. no.8:7 Ag '57. (MIRA 10:0)

1. Predsedatel' pravleniya arteli "Rot-Front," Minsk.
(Minsk--Hats)

HUNGARY

DETKY, Barna, Dr., FUSY, F., Jozsef, Dr.; Medical University of Budapest, II. Surgical Clinic (director: MESTER, Endre, Dr., professor) (Budapesti Orvostudományi Egyetem, II. sz. Sebészeti Klinika).

"An Operated Case of Urachal Cyst."

Budapest, Magyar Sebészeti, Vol XIX, No 2, Apr 66, pages 126-130.

Abstract: [Authors' Hungarian summary] On hand of a case observed, the literature on persistent urachus and its complications are surveyed; it is evident that this developmental anomaly is relatively very rare. The conclusion is reached and confirmed by the case presented that the disorder may remain without symptoms for a long time. When the possibility of this anomaly is kept in mind, a single symptom of the disease will to approach the diagnosis from the right direction; it can be by examinations and the disorder can be corrected by surgery. European, 20 Western references.

1/1

DETLAF, T.A.; DETLAF, A.A.

Dimensionless characteristics of the length of development in
embryology. Dokl. AN SSSR 134 no.1:199-202 S '60. (MIRA 13:8)

1. Institut morfologii zhivotnykh im. A.N. Severtsova Akademii
nauk SSSR. Predstavleno akad. I.I. Shmal'gauzenom.
(TEMPERATURE--PHYSIOLOGICAL EFFECT)
(EMBRYOLOGY--FISHES)
(EMBRYOLOGY--AMPHIBIA)

Detlaf, A. A.

USSR/Physics - heat transfer

FD-1067

Card 1/1 Pub. 153 - 3/24

Author : Petukhov, B. S.; Detlaf, A. A.; and Kirillov, V. V.

Title : Experimental investigation of local heat transfer of a plate in a subsonic (up to 260 m/sec) presonic airflow with turbulent boundary layer

Periodical : Zhur. tekhn. fiz., 24, No 10, 1761-1772, Oct 1954

Abstract : The authors show that the influence of air's compressibility and energy dissipation upon heat transfer can be taken into account by relating the heat transfer coefficient to the difference between the surface and body temperatures. They present the data for airflows with Re up to $2 \cdot 10^6$ and M up to 0.8 and describe the test method developed by them. The results are found applicable for both high and low speeds. They did not investigate the influence upon the heat transfer of the dependence of the physical parameters of the gas on temperature and moisture content of the air.

Institution : -

Submitted : July 30, 1954

DETLAF, A.A.

24(5,7,8)

PHASE I BOOK EXPLOITATION

SOV/1817

Yavorskiy, Boris Mikhaylovich, Andrey Antonovich Detlaf, Lidiya Bronislavovna Milkovskaya, and Georgiy Petrovich Sergeyev

Kurs lektsiy po fizike, t. 1: Mekhanika, molekulyarnaya fizika i termodinamiki (A Course of Lectures on Physics, Vol 1: Mechanics, Molecular Physics, and Thermodynamics) Moscow, Gos. izd-vo "Sovetskaya nauka," 1958. 276 p. 30,000 copies printed.

Ed. of Publishing House: K.I. Anoshina; Tech. Ed.: M.D. Shlyk.

PURPOSE: This book is intended as a text for a correspondence course in basic physics for engineering students.

COVERAGE: This is the first volume of a three-volume correspondence course in physics for engineering students. The content of this course approximates that of the physics course offered to engineering students attending regular technical institutions of higher learning. Each chapter includes test problems, intended to develop

Card 1/8

A Course of Lectures on Physics (Cont.)

SOV/1817

the student's ability to apply the physical principles, as well as examples of how to solve various problems in physics. The text, however, does not include material which is of direct importance to the future engineer. Therefore, the authors suggest that such material be offered in all the higher technical institutions of learning during the third and senior years. No personalities are mentioned. No references are given.

TABLE OF CONTENTS:

Preface	3
Introduction	4

PART I. MECHANICS

Ch. I. Kinematics of Translational and Rotational Motions	
1.1 Preliminary concepts	7
1.2 Velocity	10
1.3 Acceleration	12
1.4 Some aspects of the motion of a material point	15
Card 2/8	

A Course of Lectures on Physics (Cont.)	SOV/1817	
1.5 Kinematics of an absolute solid		18
Test problems. Examples		20
Ch. II. Dynamics of Translational Motion		
2.1 The first law of Newton		23
2.2 Force and mass		25
2.3 The second law of Newton		27
2.4 The third law of Newton. Law of conservation of quantity of motion		31
2.5 Law of universal gravitation		35
Test problems. Examples		42
Ch. III. Energy and Work		
3.1 Energy, work, and power		44
3.2 Kinetic and potential energies		47
3.3 Law of conservation and transformation of energy in mechanics		52
Test problems. Examples		56

Card 3/8

A Course of Lectures on Physics (Cont.)	SOV/1817
Ch. IV. Dynamics of Rotational Motion	
4.1 Energy of an absolute solid rotating around a stationary axis	59
4.2 Basic law of dynamics for an absolute solid rotating around a stationary axis	66
4.3 Law of conservation of angular momentum	68
Test problems. Examples	70
Ch. V. Vibratory Motion	
5.1 Harmonic vibratory motion	75
5.2 Dynamics of natural harmonic vibrations	81
5.3 Composition of harmonic vibrations along a straight line	86
5.4 Composition of vibrations perpendicular to each other	90
5.5 Damped vibrations	92
5.6 Forced vibrations	96
Test problems	100
Examples	101

Card 4/8

A Course of Lectures on Physics (Cont.)

SOV/1817

PART II. PRINCIPLES OF MOLECULAR PHYSICS AND THERMODYNAMICS

Ch. VI. Ideal Gases	
6.1 Introduction	104
6.2 Laws of ideal gases	107
Test problems. Examples	111
Ch. VII. First Law Thermodynamics	
7.1 Internal energy of a system	113
7.2 Heat and work	114
7.3 First law of thermodynamics	116
7.4 Graphic presentation of thermodynamic processes and work	118
7.5 Thermal capacity of a substance. Isoprocesses in ideal gas	120
Test problems. Examples	127
Ch. VIII. Kinetic Theory of Gases	
8.1 Basic equation of the kinetic theory of gases	130
Card 5/8	

A Course of Lectures on Physics (Cont.)	SOV/1817
8.2 Law of velocity distribution for gas molecules	134
8.3 The barometric formula. Perrin's experiment	138
8.4 Length of the free path of molecules	141
8.5 Law of uniform distribution of kinetic energy according to the degree of freedom	143
8.6 Theory of thermal capacity of gases	149
8.7 Transfer phenomena in gases	152
8.8 Regularity and coefficients of transfer phenomena	154
8.9 Concept of the properties of rarified gases	161
Test problems. Examples	165
Ch. IX. Second Law of Thermodynamics	
9.1 Cyclic operations. The Sadi Carnot cycle	168
9.2 Reversible and nonreversible processes	172
9.3 Second law of thermodynamics	174
9.4 Entropy and free energy	178
9.5 Statistical interpretation of the second law of thermodynamics	183
Test problems. Examples	188

Card 6/8

A Course of Lectures on Physics (Cont.)

SOV/1817

Ch. X. Real Gases and Vapors

10.1	Forces of molecular interaction in gases	190
10.2	The Van der Waals equation	194
10.3	Isotherms of real gases. Concept of phase transitions	199
10.4	Inner energy of real gas. The Joule-Thomson effect	203
10.5	Liquefaction of gases and generation of low temperatures	206
	Test problems. Examples	207

Ch. XI. Fluids

11.1	Structure and some properties of fluids	209
11.2	Surface tension of fluids	211
11.3	Moistening and capillary phenomena	215
11.4	Pressure of saturated vapors above the curved surface of the fluid	220
11.5	Boiling of fluids	222
	Test problems. Examples	225

Card 7/8

A Course of Lectures on Physics (Cont.)	SOV/1817
Ch. XII. Solid Bodies	
12.1 Structure of solids	227
12.2 Thermal expansion of solids	230
12.3 Thermal conductivity of solids	233
12.4 Thermal capacity of solids	235
12.5 Change of phase of solids	242
12.6 Concept of the elastic properties of solids	249
Test problems	254
Supplement: Systems of Units for Mechanical Magnitudes	
1. Measuring physical magnitudes	254
2. Principal units of mechanical unit systems	255
3. Derived units of measurement and relationship of the units of the various systems	256
4. Formulas of dimensions	262
Subject index	269

AVAILABLE: Library of Congress

Card 8/8

TM/jb
6/30/59

YAVORSKIY, Boris Mikhaylovich; DETLAP, Andrey Antonovich; MILKOVSKAYA,
Lidiya Bronislavovna; GORBATOV, Yu.B., starshiy prepodavatel',
red.; KHRUSHCHEVA, N.I., red.izd-va; VORONINA, R.K., tekhn.red.

[Lecture course in physics] Kurs lektsii po fizike. Moskva, Gos.
izd-vo "Vysshaya shkola." Vol.2. [Electricity and magnetism]
Elektrichestvo i magnetizm. 1960. 421 p. (MIRA 14:2)

1. Kafedra fiziki Moskovskogo energeticheskogo instituta (for
Gorbatov).

(Electricity)

(Magnetism)

YAVORSKIY, Boris Mikhaylovich; DETLAF, Andrey Antonovich; GUROV, K.P.,
red.; MURASHOVA, N.Ya., tekhn. red.

[Manual on physics; for engineers and university students]
Spravochnik po fizike; dlia inzhenerov i studentov vuzov.
Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1963. 847 p.
(MIRA 16:8)

(Physics)

YAVORSKIY, Boris Mikhaylovich; DETLAF, Andrey Antonovich.
Prinimali uchastiye: KHAZANOVICH, T.N.; PANOVKO,
Ya.G.; GUROV, K.P., red.

[Physics handbook for engineers and students of institutes
of higher learning] Spravochnik po fizike dlia inzhenerov
i studentov vuzov. Izd. 2., ispr. Moskva, Nauka, 1964.
847 p. (MIRA 17:12)

YAVCRSKIY, Boris Mikhaylovich; DETLAF, Andrey Antonovich;
MILKOVSKAYA, Lidiya Bronislavovna; SERGEYEV, Georgiy
Petrovich; PERKOVSKAYA, G.Ye., red.

[Physics course] Kurs fiziki. Moskva, Vysshaya shkola.
Vol.1. Izd.3., 1965. 375 p. (MIRA 18:7)

BC

A-4

PROCESSES AND PROPERTIES

Relative positions of outer and inner layers of neural plate in
 formation of neural tube in *Ammocete*. T. Doherty (Compt. rend. Acad.
 Sci. U.S.S.R., 1961, 16, 100-102). Transplant experiments (*Rana*
temporaria-*R. escholtzi*, *Rana* *verrucosa*-*R. escholtzi*, *R. temporaria*-
R. temporaria) are described which appear to demonstrate that the outer
 layer of the neural plate in *Ammocete* gives origin to the neuroglia while
 the inner layer produces the nerve sheath. It is concluded that these
 two components of the central nervous system are "determined"
 early in development. J. D. B.

METALLURGICAL LITERATURE CLASSIFICATION

1974 BOMING

CHERNY, T.

Lab., Institute of Evolutionary Morphology in. A.M. Leventsov, Mosk. Sci. -1946.

"Conditions for the Differentiation of the Mesoderm into Myo, Epithelium, and Vascular System," Dok. AN, 55, No. 1, 1947

"The Origin of Hypochordal Plates in Anura," Dok. AN, 54, No. 2, 1946

"Oxogastrulation in Adipenser Stellatus emarginatus," Dok. AN, 55, No. 6, 1947.

"On the Question as to the Existence of the 'Nerve' Layer of the Epidermis," Dok. AN, 55, No. 6, 1946

"The Topographic Map of Presumptive Areas in Anura Revisited with Reference to Speciation," Dok. AN, 54, No. 3, 1946.

PA 5872

DETLAF, T.

USSR/Medicine - Morphology
Medicine - Ectoderm

Jan 1947

"Transformation of the Polarization of the Ectoderm Anura," T. Detlaf, Inst Evolutional Morph imeni A. N. Severtsov, Acad Sci USSR, 4 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LV, No 1

Describes experiments which show that ectoderm Anura has sharply polarized structure in which its heterogeneity and nonreversibility are clearly revealed. Submitted by Academician I. I. Shmal'gauzen, 3 Jul 1946.

5872

DETLAF, T.A.; GINZBURG, A.S.

Analysis of sources of extrusion of eggs of the stellated sturgeon during the incubation period. Trudy Inst.morf.zhiv. no.5:184-201 '51.

(MLRA 6:9)

(Sturgeons)

GTRSP L Vol. 5-No. 1 Jan. 1952

Dobol, I. A. and Ginzburg, A. S. (A. N. Severtsov Institute of Animal Morphology, U.S.S.R. Academy of Sciences). Sources of non-fertilizability of sturgeon eggs upon spawning in a laboratory. 1065-R

zoology

Akademiya Nauk, S.S.S R., Doklady Vol. 78, No. 5, 1951

DETLAF, T.A.

Discovery of embryonic felium by C.F.Wolff and C.Pander, and K.M.Baer's study on embryonic felium; outline history of Russian embryology. Trudy Inst.ist.est. 5:281-316 '53.

(MLRA 6:7)

(Embryology)

DETLAF, T.A.; SKRYABIN, K.I., akademik.

www.dia.ic.gov

Effect of temperature on the egg-cell division rate in sturgeons (family Acipenseridae). Dokl.AN SSSR 91 no.3:695-698 J1 '53. (MLRA 6:7)

1. Institut morfologii zhivotnykh imeni A.N.Severtsova Akademii nauk SSSR (for Detlaf). 2. Akademiya nauk SSSR (for Skryabin). (Sturgeons)

DETLAF, T.A.; GINZBURG, A.S.; KRYZHANOVSKIY, S.G., doktor biologicheskikh nauk, redaktor.

[Embryonic development of Acipenseridae (sevruga, sturgeon and white sturgeon) in connection with breeding problems] Zarodyshevoe razvitie osetrovykh ryb (sevrugi, osetra i belugi) v svyazi s voprosami ikh razvedeniia. Moskva, Izd-vo Akademii nauk SSSR, 1954. 212 p. (MLRA 7:11)
(Sturgeons) (Embryology--Fishes)

DETLAF, T.A.

Shape of the egg and the location of the first fissural sulci
in sturgeon-like fishes. Dokl.AN SSSR 94 no.2:361-364 Ja '54.
(MLRA 7:1)

1. Institut morfologii zhivotnykh im. A.N.Severtsova Akademii
nauk SSSR. (Sturgeons) (Embryology--Fishes)

ДЕТЛАЕТА

KRYZHANOVSKIY, S.G.; DETLAF, T.A., doktor biologicheskikh nauk, otvetstvennyy redaktor; ~~SOBIRIN, I.B.~~, redaktor izdatel'stva; POLESITSKAYA, S.M., tekhnicheskiy redaktor.

[Materials on the development of clupeid fishes] Materialy po razvitiyu sel'devykh ryb. Moskva, Izd-vo Akademii nauk SSSR, 1956. 253 p. (Akademiia nauk SSSR. Institut morfologii zhivotnykh. Trudy, no.17) (Herring) (Embryology--Fishes) (MLRA 9:11)

USSR / General Biology. Individual Development

B-4

Abs Jour : Ref Zhur - Biol., No 2, 1958, No 4826

Author : Detlaf, T.A.

Inst : Not given

Title : Species Differences in Form-Producing Properties of Embryonic Material and Displacement of Gastrulation in Regard to Fragmentation Stages (Significance of Correlation Between Stages of Development and Cell Generations).

Orig Pub : Dokl. AN SSSR, 1956, 111, No 5, 1149-1152

Abstract : Species differences in the speed of latent differentiation of ectoderm, chordomesoderm, and their derivatives, established by experimental investigation on amphibia, are compared with structural characteristics of triton, axolotl, and different species of frogs during the periods of gastrulation and neurulation.

Card : 1/3

USSR/General Biology - Individual Development

B-4

Abs Jour : Ref Zhur - Biol., No 2, 1958, No 4826

It was found that gastrulation in tritons begins at a lesser number of cells than in axolotl and frogs, and the difference in cell quantities persists during the period of neurulation; consequently the triton embryo in like stages of gastrulation and neurulation is formed by younger cell generations than embryos of axolotl and different species of Ranidae. The sequence of these differences is characterized by data on the number of nuclei in central sagittal cuts through embryos of *Ambystoma mexicanum*, *Triturus vulgaris* and *Rana terrestris* at the very beginning of gastrulation, and their ratio to comparable species. The gastrulation in tritons begins when the number of cells in a central cut is one-half that in the axolotl and equals $1/3$ of the cells in a pointed-snout frog. Only at the end of neurulation does a triton attain the same number of cells in the cut at which the frog begins gastrulation; the axolotl occupies an intermediate position. Thus the variations in differentiation of ectoderm and chordomesoderm in *Tr. vulgaris*, *Ambystoma mexicanum*, and Ranidae at the same stages of development correspond to realistic differences in

Card : 2/3

USSR/General Biology - Individual Development

B-4

Abs Jour : Ref Zhur - Biol., No 2, 1958, No 4826

the age of their component cells determined by cell generations. The displacement at the beginning of the gastrulation process to earlier or later fragmentation stages may be one of the reasons for species differences in the tempo of ectoderm and chordomesoderm differentiation in similar stages of development and in formative interactions.

Card : 3/3

DETIAE, T.A.
DETIAE, T.A.; TURPAYEV, T.M.

Specificity of the action of calcium in the processes of fertilization, activation, and muscular contraction, and the possibility of substituting it by strontium. Izv. AN SSSR. Ser.biol. no.5:572-577 S-0 '57.

(MIRA 10:10)

1. Institut morfologii zivotnykh im. A.N.Severtseva AN SSSR.

(METALS IN THE BODY) (FERTILIZATION (BIOLOGY))

(HEART)

Country : USSR
CATEGORY :

ABS. JOUR. : RZBiol., No. 1, 1959, No. 248

AUTHOR : ~~DeLaf, T. A.~~
: Institute of History, Natural Sciences and
TITLE : Notions Concerning Germ Layers During the
Period of Evolvement of Cell Doctrine.
(Elaboration of Data Concerning structure**
ORIG. PUB. : Tr. In-ta istorii, Yestestvozn. i tekhn. AN
SSSR, 1957, 14, 65-97

ABSTRACT : A study of the influence of the cell theory
of Schwann on notions concerning germ layers (GL). A criti-
cal review of the work of Reichert, who believed that the
yolk granules are transformed into blastomers in a frog's
egg. Just as erroneous was Reichert's negatory attitude
as concerns the doctrine of GL. At the same time Reichert
made some important embryological observations, for example,
the ascertainment of cleavage of lateral plates of the
mesoderm in two strata, and the discovery of the outer
layer of ectoderm, which is of great physiological im-
portance. A detailed description is given of the studies
of Remak, which demonstrated for the first time the cellu-
lar nature of GL, and showed their origin, and which

CARD: 1/2 ... Academy of Sciences USSR. ... cellular

(Soviet).
COUNTRY : USSR B-1
CATEGORY :
ABS. JOUR. : RZBiol., No. 7, 1959, No. 248
AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : substantiated the notion of the existence of GL among all vertebrates. During the period between the establishment of the cell theory and the origination of the theory of Darwin, a number of investigations (by Stricker, Bambeke, Vogt, Lereboullet, Kupffer) of embryos of amphibia and fishes, revealed different types of division that are characteristic of holoblastic and meroblastic eggs, and also the specific features of formation and differentiation of GL among animals the eggs of which undergo complete or partial division.

CARD: 2/2

DETLAF, T.A.

Role of calcium ions in activation processes taking place during fertilization and parthenogenesis in certain Acipenseridae [with summary in English]. Zhur. ob. biol. 18 no.1:3-16 Ja-F '57
(MIRA 10:4)

1. Institut morfologii zhivotnykh AN SSSR.
(CALCIUM) (FERTILIZATION (BIOLOGY)) (PARTHENOGENESIS (ANIMALS))
(STURGEONS)

BLYAKHER, L.Ya.; ~~DETLAF, T.A.~~; KABAK, Ya.M.; KRUSHINSKIY, L.V.;
KUDRYASHOV, B.A.

Mikhail Mikhailovich Zavadovskii, obituary. Biul.MOIP. Otd.biol.
62 no.4:105-109 J1-Ag '57. (MIRA 10:11)
(ZAVADOVSKII, MIKHAIL MIKHAILOVICH, 1891-1957)

DETlaf, T. A.

20-2-50/50

AUTHOR: Detlaf, T. A.

TITLE: Cortical Granulae and Substances Secreted From the Animal Part of the Egg at the Period of Activation in Acipenseridae (Kortikal'nyye granuly i veshchestva, vydelyayushchiesya iz animal'noy chasti yaytsa v period aktivatsii u osetrovykh ryb)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 2, pp. 341-344 (USSR)

ABSTRACT: The problem of the nature of the substances which are secreted from the egg during the mentioned time interval as well as their importance for the egg itself and the egg shells is studied actively. The main attention is attracted by the cortical granules of alveoli of the echinus-, saccoglossus-, teleostae, amphibia-, and other eggs. To the substances which are known as hyaline layer in echinus less attention is paid. In present paper both formations are described and it is tried to recognize these substances according to their chemical properties in the perivitelline liquid of the activated eggs. If in the echinus- and teleostae eggs the presence of acid mucopolysaccharides in the cortical granules could be proved, more precise special methods were used for the detection and identification of the polysaccharides in the eggs of acipenseridae. This became especially interesting in connexion with the Runnstrom theory according to which the mucopolysaccharides

Card 1/3

Cortical Granulae and Substances Secreted From the Animal Part of the Egg at the Period of Activation in Acipenseridae. 20-2-50/50

of the cortical layer of the ripe egg are assumed to prevent the cell division. As material served eggs of acipenser stullatus Pall., Acipenser gueldenstaedti colchicus v. marti, and huso huso which were studied in the IVth maturity stage, unimpregnated and ripe and at the time of fertilization. The fixation- and colouring methods are described in detail. There are cortical granules in the eggs of all acipenseridae investigated. Their position and colouring methods, also of Saccoglossus were described. One did not succeed by means of the used methods to detect in the cortical layer of the unimpregnated egg of the acipenseridae diffusely distributed acid mucopolysaccharides. The egg shells which have the greatest chemical affinity to the cortical granules contain neutral mucopolysaccharides. Also no lichenin (could be found in acipenseridae and the teleostae investigated in this connexion. Lipoids are contained diffusely in the cortical layer of the cytoplasm, however, not in the granules. The process of egg activation is described. 30-60 minutes after the fertilization a lot of substances are secreted from the animal part of the egg of the acipenseridae into the perivitelline space which are described in detail. In the egg of the acipenseridae these substances are coloured with aniline blue light

Card 2/3

20-2-50/50

Cortical Granules and Substances Secreted From the Animal Part of
the Egg at the Period of Activation in Acipenseridae.

blue and not green as it is the case with the granular layer. Thus these substances do not contain acid mucopolysaccharides, but glycogen in great granules which are distributed regularly in the basic substance. Apparently these substances contain also traces of ribonuclein acid since they are tinted faintly red in the case of a pyronine colouring. This lacks if the cut was treated before with ribonuclease solution. It is difficult to say what the above mentioned substances are. There are 3 figures, 25 references 6 of which are Slavic.

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

PRESENTED: April 26, 1957 by I.I.Shmal'gauzen, Academician

SUBMITTED: April 26, 1957

AVAILABLE: Library of Congress

Card 3/3

BEGLAV, T. A. (Moscow) Institute of Animal Morphology, USSR Academy of Sciences

"The Differences in Structure and Properties of the Ectoderm and
Chordamesoderm in Various Representatives of Anamnia, and their
Significance in Development"

Soviet paper presented at the 15th Intl. Congress of Zoology, London, 16-23 Jul 58

AUTHOR: Detlaf, T. A. SOV/20-120-5-66/67

TITLE: The Coupling of Gametes in the Absence of Ca Ions in Acipenseridae (Soyedineniye gamet v otsutsviye ionov kal'tsiya u osetrovyykh ryb)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 120, Nr 5, pp. 1165 - 1168 (USSR)

ABSTRACT: The allegation made by Loeb (Lé^ob, Refs 1,2) that Ca-ions represent a penetration of the spermatozoon into the egg and that they are necessary for the unification of gametes has remained a hypothesis up to now (Ref 3). Since fertilization without calcium does not take place owing to various reasons (Refs 4-8) the author tried to obtain a direct answer to the problem concerning the role of the Ca-ions by investigating microscopically eggs impregnated without Ca. Eggs of the sturgeon (Acipenser g^oldenstädti colchicus v. Marti) and of the sterlet (Ac.stellatus Pall) were used for the experiment. The spermatozoa of these fish are mobile in media without calcium (e.g.in a 0,01 M oxalate solution). However, the eggs loose their

Card 1/3

The Coupling of Gametes in the Absence of Ca Ions in
Acipenseridae

SOV/20-120-5-66/67

capability of getting fertilized. The results of the experiments have shown that the unification of the gametes of the sturgeons may take place also in the absence of Ca-ions, or to express it more precisely, with a number of ions insufficient for the activation reaction of the egg. The presence of Ca-ions is absolutely necessary for the activation of the egg under the influence of a spermatozoon. Apparently they are necessary at the very moment of the contact between the spermatozoon and the cortical layer of the egg. There are 1 figure, 1 table, and 12 references, 3 of which are Soviet.

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

PRESENTED: March 4, 1958, by I.I.Shmal'gauzen, Member, Academy of Sciences, USSR

Card 2/3

The Coupling of Gametes in the Absence of Ca-Ions in
Acipenseridae

SOV/20-120-5-66/67

SUBMITTED: January 16, 1958

1. Eggs--Physiology
2. Calcium ions--Physiological effects
3. Fertility--Analysis

Card 3/3

AUTHOR: Detlaf, T. A. SOV/20-121-5-48/50

TITLE: The Role of Calcium Ions in the Stimulation of Eggs and the Propagation of Cortical Reaction in Acipenseridae (Znachenije ionov kal'tsiya dlya stimulyatsii yaits i rasprostraneniya kortikal'noy reaktsii u osetrovnykh ryb)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 121, Nr 5, pp. 944-947 (USSR)

ABSTRACT: The union of gametes of the Acipenseridae in media free from calcium (Ref 1) permits to approach the problem of the exact determination of the moment of the activation of the egg by the spermatozoid at which moment the presence of Ca^{2+} is necessary. On this point the authors' opinions are diverging (Refs 1-4). With Acipenseridae the spermatozooids penetrate into the little micropylar canals even in a medium free from calcium (Ref 1). If eggs are put after their being inseminated in an oxalate solution into water they do not develop the same as those left in the oxalate solution. Therefore no stimulation is caused without Ca^{2+} or the impulse received by the eggs ceases rapidly. On the other hand the eggs of Acipenseridae need

Card 1/3

SOV/20-121-5-48/50

The Role of Calcium Ions in the Stimulation of Eggs and the Propagation of Cortical Reaction in Acipenseridae

Ca^{2+} only during the first 5 - 30 seconds (Ref 5), a period during which the cortical reaction is not yet able to expand around the egg (Ref 6). Contrary to reference 3 these facts indicate that Ca^{2+} is specially needed during the period of stimulation of the egg and during the formation of the initial impulse. For the solution of this problem experiments are necessary which would show: a) with more exactness the minimum period after the insemination during which Ca^{2+} is needed for the activation; b) what changes may take place during this period; c) whether the conclusion of the cortical changes of the egg and a typical development is possible if Ca^{2+} is present only during the very first moment of stimulation. The results of both series of experiments are shown in figure 1 and table 1. The data demonstrate that all eggs which could be impregnated at any length of time (also the shortest) during the stay in water, pursue their development in calcium-free media. The cortical changes of the egg within this shortest period become manifest in a hardly noticeable prolongation of the cortical

Card 2/3

SOV/20-121-5-48/50

The Role of Calcium Ions in the Stimulation of Eggs and the Propagation of Cortical Reaction in Acipenseridae

granulae and in the appearance of small vacuoles in-between in a small field near the micropylar canals. From the second series of experiments it can be seen that at the fertilization of eggs of Acipenseridae Ca^{2+} is needed only at the moment of stimulation of the egg by the spermatozoid, and not during the propagation of the cortical reaction. There are 1 figure, 1 table, and 11 references, 7 of which are Soviet.

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

PRESENTED: April 9, 1958, by I. I. Shmal'gauzen, Member, Academy of Sciences, USSR

SUBMITTED: April 8, 1958

Card 3/3

DETLAV, T.A.

SOURCE: Documentary: Invitation, issued by the Laboratory of Experimental Embryology of the College of France, 11 place Marcelin Berthelot, Paris 5, France

1. Source document lists the following authors and titles of papers:
AMOURY, E.L., Moscow, "On the initiation of the primary morphogenetic fields in the embryo of the chick."
DETLAV, T.A., Moscow, "The role of Ca-ion in the process of fertilization."
REZUKOV, (P.N.), Moscow (possibly same as Rezukov, M.S., Leningrad), "Demonstration of the eye development in animals."

Report to be submitted for the Intl. Embryological Conference, Paris, France, 21-24 Sep 59. Journal of Morphology and Experimental Morphology.

DETLAF, T.A.

Role of calcium ions in the activation of eggs of salmonid fishes. Zhur.ob.biol. 20 no.3:184-193 My-Je '59.
(MIRA 12:8)

1. Institute of Animal Morphology, Academy of Sciences of the U.S.S.R.

(CALCIUM--PHYSIOLOGICAL EFFECT) (SALMON) (OVUM)

LOPASHOV, Georgiy Viktorovich; DETLAF, T.A., otv.red.; IGNAT'YEVA, G.M.,
red.izd-va; KOVAL'SKAYA, I.P., tekhn.red.

[Mechanisms of development of the embryonic eye in vertebrates]
Mekhanizmy razvitiia zachatkov glaz v embriogeneze pozvonochnykh.
Moskva, Izd-vo Akad.nauk SSSR, 1960. 223 p. (MIRA 13:5)
(EMBRYOLOGY--AMPHIBIA) (EYE)

DEFLAF, Tat'yana Antonovna

"Dimensionless Criteria of the Duration of Development and their
Significance for Comparative Embryology."

Papers presented at the Symposium on Advances Since 1945 in Knowledge of Germ Cells and
Earliest Stages of Development. Pallanza, Italy, 15-20 Sept 1960.

Institute of Animal Morphology imeni A N Severtsov.

DETLAF, T.A.; DETLAF, A.A.

Dimensionless characteristics of the length of development in
embryology. Dokl. AN SSSR 134 no.1:199-202 S '60. (MIRA 13:8)

1. Institut morfologii zhivotnykh im. A.N. Severtsova Akademii
nauk SSSR. Predstavleno akad. I.I. Shmal'gauzenom. |
(TEMPERATURE--PHYSIOLOGICAL EFFECT)
(EMBRYOLOGY--FISHES)
(EMBRYOLOGY--AMPHIBIA)

ZOTIN, Aleksandr Il'ich; DETLAF, T.A., doktor biol. nauk, otv. red.
BOCHAROV, Yu.S., red. izd-va; ROMANOV, G.N., tekhn. red.

[Physiology of water metabolism in the embryos of fishes and
cyclostomes] Fiziologiya vodnogo obmena u zarodyshei ryb i
kruglorotykh. Moskva, Izd-vo Akad. nauk SSSR, 1961. 319 p.
(MIRA 14:9)

(Embryology—Fishes) (Water metabolism)

DETLAF, T.A.

Dynamics of cortical changes and development of colloid of the perivitelline space in sturgeon eggs during fertilization and artificial activation. Zhur. ob. biol. 22 no.6:411-424 N-D '61.
(MIRA 14:11)

1. Institute of Animal Morphology, U.S.S.R. Academy of Sciences.
(EMBRYOLOGY--FISHES)

DETLAF, T.A.

Propagation velocity of the fertilization impulse and dynamics of the completion of the second phase of maturation in sturgeon eggs.
Dokl. AN SSSR 140 no.4:967-969 0 '61. (MIRA 14:9)

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

DETLAF, T.A.; ZUBOV, S.E.

Correlating the duration of the periods of maturation and embryonic development in the sturgeons *Acipenser güldenstaedtii* and *A. stellatus*. Dokl. AN SSSR 143 no.3:746-748 Mr '62. (MIRA 15:3)

1: Institut morfologii zhivotnykh im. A.N.Severtsova AN SSSR.
Predstavleno akademikom Yu.A.Orlovym.
(Sturgeons)(Temperature—Physiological effect)

SKATKIN, Petr Nikolayevich; DETLAF, T.A., prof., retsenzent; NOVIKOV, P.A., prof., retsenzent; CHERFAS, B.I., prof., retsenzent; KOZHIN, N.I., prof., otv. red.; NIKITINSKAYA, I.V., red.izd-va; GUSEVA, A.P., tekhn. red.; GUS'KOVA, O.M., tekhn. red.

[Biological foundations of artificial fish culture; a historical outline] Biologicheskie osnovy iskusstvennogo ryborazvedeniia; istoricheskii ocherk. Moskva, Izd-vo Akad. nauk SSSR, 1962. 243' p. (MIRA 16:3)

1. Sektor istorii biologicheskikh nauk Instituta istorii yestestvoznaniya i tekhniki Akademii nauk SSSR (for Skatkin). (Fish culture)

DETLAF, T.A.

Dynamics of mitosis of the first cleavage divisions in the eggs
of sturgeon and trout. Zhur.ob.biol.23. no.6:401-409 N-D'62.

(MIRA 16:7)

1. Institut morfologii zhivotnykh imeni A.N.Severtsova AN SSSR.
(KARYOKINESIS) (FISHES—EGGS)

DORFMAN, Vol'f Aleksandrovich; DETLAF, T.A., doktor biol. nauk,
otv. red.; ASPIZ, M.Ye., red. izd-va; GUS'KOVA, O.M.,
tekhn. red.

[Physicochemical foundations of fertilization] Fiziko-khimi-
cheskie osnovy oplodotvorenii. Moskva, Izd-vo Akad. nauk
SSSR, 1963. 254 p. (MIRA 16:7)
(FERTILIZATION(BIOLOGY))

DETLAF, T.A.; ZUYCHENKO, S.I.

Metaphase of the first maturation division in the oocytes of sturgeons. Dokl. AN SSSR 152 no.1:246-248 S '63. (MIRA 16:9)

1. Institut morfologii zhivotnykh im. A.N.Severtsova AN SSSR.
Predstavleno akademikom Yu.A.Orlovym.
(Fishes--Eggs) (Karyokinesis)

DETLAF, T.A.; GINZBURG, A.S.

Acrosomal reaction in sturgeons and the role of calcium ions in the coupling of gametes. Dokl. AN SSSR 153 no.6: 1461-1464 D '63. (MIRA 17:1)

1. Institut morfologii zhivotnykh im. A.N. Severtsova AN SSSR. Predstavleno akademikom I.I. Shmal'gauzenom.

DETLAF, T.A.; NERIPINA, L.A.; SERUYEVA, O.G.

Analysis of the role and specificity of the germinal vesicle in the maturation of oocytes of anurous amphibians by its removal and replacement by the nuclei of somatic cells. Dokl. AN SSSR 160 no.6:1441-1443 F '65. (PINA 18:1)

1. Institut morfologii zhivotnykh im. A.N. Severtsova AN SSSR.
Submitted May 30, 1964.

DETLAF, E. I.

V. I. Iveronova, Z. I. Kuz'nina, S. I. Futergendler and E. I. Detlaf.
Atomic dispersion of x-rays in solid solutions. P. 44

Faculty of Physics
Moscow State Univ.

SO: Bulletin of the Acad. of Sciences, Izvestia (USSR) Series on Phys. Vol. 15, No. 1
(1951)
Discussion of the above paper. P. 52

24(2), 18(3), 18(7)

SOV/126-7-2-9/39

AUTHORS: Borodkina, M. M., Detlaf, Ye. I. and Selisskiy, Ya.P.

TITLE: Recovery and Recrystallisation in the Ordering Alloys Fe-Co (Vozvrat i rekristallizatsiya v uporyadochivayushchikhsya splavakh Fe-Co)

PERIODICAL: Fizika Metallov i Metallovedeniye, 1959, Vol 7, Nr 2, pp 214-224 + 1 plate (USSR)

ABSTRACT: The results of an investigation carried out with the aim of elucidating the characteristics of recovery of the initial stage of recrystallisation of Fe-Co alloys in relation to cobalt content are described in this paper. Alloys, the compositions of which are shown in Table 1, were cast from Armco iron and cobalt K-1 into ingots weighing 1 kg. These were forged at 1180°C into billets and subsequently rolled at 1100 to 1150°C into strip of 3 mm thickness. The hot rolled strip was cut into squares which were water quenched from 900°C and cold rolled to thicknesses of 0.5 and 0.1 mm. Square specimens 20 x 20 mm were cut from the cold rolled strip. These were sealed in evacuated quartz ampules and annealed at temperatures of: 150, 300, 400, 450, 500, 550, 600, 700 and 750°C,

Card 1/6

SOV/126-7-2-9/39

Recovery and Recrystallisation in the Ordering Alloys Fe-Co

at which they were soaked for 5, 10 and 15 mins, 1 and 2 hours. In special cases the soaking time was 8 hours. Cocling was carried out in air. Specimens of 0.5 mm thickness were used for hardness tests on a Vickers machine using a load of 5 kg and for an X-ray investigation in a RKE camera for rapid exposure (Ref 2) and in a KROS camera. Exposure in this case was carried out in a Co irradiation, both the adaptor and the specimen were rotated. The distances between the object and the film was 100 mm. In the X-ray photographs the K_{α} -doublet lines from the plane (013) were visible which in the case of deformed specimens appeared diffuse and merged into the background of the X-ray picture. An increase in Co content of Fe-Co alloys above 25% is associated with a decrease in lattice parameter (Ref 3), as a result of which the doublet of (013) shifts in the direction of large Bragg angles - for a 25% Co alloy $\theta = 81^{\circ}$, for a 75% Co alloy $\theta = 86^{\circ}$. For this reason the sensitivity of the method to change in line width was great and increased with increasing Co content. In order to estimate the

Card 2/6

SOV/126-7-2-9/39

Recovery and Recrystallisation in the Ordering Alloys Fe-Co

changes in width and intensity of the doublet line during annealing, the X-ray films were photometered in the micro-photometer MF-4. The beginning of recrystallisation was indicated by the appearance of separate interference spots in the doublet line on exposure to the KROS camera with a rigid specimen and adaptor. Besides, specimens of 0.1 mm thickness were investigated in a Mo irradiation in a camera with a flat adaptor in order to obtain textural X-ray pictures at an object-film distance of 60 mm. Here the interference rings of the (011), (002) and (112) planes were clearly apparent, from which the nature of the texture obtained could be established and the progress of recrystallisation could be seen. In Fig 1 the annealing temperature and minimum soaking time required for the appearance of the maxima $K_{\alpha 1}$ and $K_{\alpha 2}$ in the photometric curve is shown in relation to the Co content of the alloy. Fig 2 shows micro-photometric curves for alloys with different Co content which have been annealed at 400°C for 30 mins. Figs 3 and 4 show micro-photometric curves for 65% Co and

Card 3/6

SOV/126-7-2-9/39

Recovery and Recrystallisation in the Ordering Alloys Fe-Co

35% Co alloys respectively which had been annealed at various temperatures and for various soaking times. Fig 5 shows micro-photometric curves for a 42% Co alloy which had been annealed at various temperatures for 2 hours. Fig 6 shows the temperature ranges of recovery and recrystallisation of alloys with differing Co contents: I - $K_{\alpha 1}$ and $K_{\alpha 2}$ maxima; II - sharp $K_{\alpha 1}$ and $K_{\alpha 2}$ maxima; III-appearance of separate interference spots in the ring; IV - complete disappearance of the continuity of the ring. The region of supplementary diffuseness of the interference lines is indicated by brackets. On the basis of their experiments, the authors arrived at the following conclusions:
1) A relationship between the temperature range of recovery and the composition of the Fe-Co alloys investigated has been established. The beginning of the breaking up of the K_{α} doublet in X-ray photographs, characterising the initial stage of recovery, is observed at very low temperatures in alloys of the stoichiometric compositions Fe_3Co , $FeCo$ and $FeCo_3$. This

Card 4/6

SOV/126-7-2-9/39

Recovery and Recrystallisation in the Ordering Alloys Fe-Co

is due to the fact that in a number of solid solutions, the ordering alloys after deformation are thermodynamically least stable.

2) All cold deformed Fe-Co alloys containing between 25 and 75% Co can harden on low temperature annealing. The hardening takes place at annealing temperatures which are not high enough to give a broken up doublet. This hardness is due to ordering in the non-uniformly stressed lattice and formation of mixed regions of a different degree of ordering. In spite of some increase in stress in the distortion of the lattice at various intervals of the ordering process which brings about hardening, the process on the whole must lead to a decrease in free energy.

3) In alloys containing 35 and 42% Co the repeated diffuseness of the doublet coincides in temperature with a retardation in the fall of hardness after attaining a maximum in hardness-annealing temperature curves (35% Co) or even with the appearance of a second maximum (42% Co). The effect described takes place in the transformation range which was found by Masumoto,

Card 5/6

SOV/126-7-2-9/39

Recovery and Recrystallisation in the Ordering Alloys Fe-Co

Saito and Shinozaki (Ref 4) by means of thermal capacity measurements.

4) Recrystallisation in the ordering Fe-Co alloys commences at order-disorder transformation temperatures. Recrystallisation commences at the highest temperature in an alloy of the stoichiometric composition FeCo. There are 9 figures, 2 tables and 6 references, 2 of which are Soviet, 4 English.

ASSOCIATION: Institut pretsizionnykh splavov TsNIICHM
(Institute of Precision Alloys TsNIICHM)

SUBMITTED: May 14, 1957

Card 6/6

24 (2), 24 (6)

AUTHORS: Borodkina, M. M., Detlaf, Ye. I.,
Selisskiy, Ya. P.

SOV/48-23-5-22/31

TITLE: X-ray Investigation of Interrelation in Processes of Recovery, of Recrystallization and of Ordering in the Alloys Fe-Co and Ni-Fe (Rentgenograficheskoye issledovaniye vzaimosvyazi protsessov vozvrata, rekristallizatsii i uporyadocheniya v splavakh Fe-Co i Ni-Fe)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 5, pp 640 - 642 (USSR)

ABSTRACT: The increase of free energy in low-temperature deformation by tensions of the 2nd kind and the increase of the surface tension occur in consequence of texture destruction. For a number of solid solutions, the increase of free energy is related to the stoichiometric energy. These relations are shown in a diagram (Fig 1), in which the solid solution consists of the components A and B. In the case of low-temperature deformation, an increase by the quantity ΔE_m occurs in the free energy of the solid solution which differs considerably from the stoichiometric composition AB. The free energy of the stoichiometric

Card 1/3

X-ray Investigation of Interrelation in Processes of Recovery, of Recrystallization and of Ordering in the Alloys Fe-Co and Ni-Fe SOV/48-23-5-22/31

composition changes by ΔE_n , and the total change of free energy is equal to the sum of both these quantities. Thermodynamic considerations are then made of the recovery, recrystallization and ordering. Next, the results of the radiographic investigation of the recovery and recrystallization of the alloys in question are dealt with. The relationship between recovery and the tensions of the 2nd kind and the distortions of the 3rd kind, revealed by an amplification of the radiographic lines, is made use of. A diagram (Fig 2) shows the microphotometrically plotted curves of the K_α doublet for three Fe-Co alloys, annealed for 30 minutes at 400°C . From the shape of these lines conclusions are drawn as to the stage of recovery. Figures 3 and 4 show series of roentgenograms of the alloys Fe-Co and Ni-Fe, annealed at various temperatures and different compositions. Conclusions as to the stage of recrystallization are drawn on the strength of the interference spots observable here.

Card 2/3

X-ray Investigation of Interrelation in Processes of Recovery, of Recrystallization and of Ordering in the Alloys Fe-Co and Ni-Fe SOV/48-23-5-22/31

There are 5 figures and 5 references, 2 of which are Soviet.

ASSOCIATION: Institut metallurgii im. A. A. Baykova Akademii nauk SSSR
(Institute of Metallurgy imeni A.A. Baykov, Academy of Sciences, USSR)

Card 3/3

Do TLAP

PLANE I BOOK EXPLOITATION 807/585

Moscow. Central'nyy nauchno-issledovatel'skiy institut Chernoy metallurgii. Institut prezitsionnykh splavov

Prezitsionnyye splavy (Precision Alloys) Moscow, Metallurgizdat, 1960. 283 P. (Series: Izd. Sbornik tradov, 779. 2) Kzrasa nrip inserted. 2,525 copies printed.

ADDITIONAL SPONSORING AGENCY: USSR. Gosudarstvennaya planovaya komissiya.

Ed.: D.I. Gabrielyan; Ed. of Publishing House: Ye.I. Levit; Tech. Ed.: Ye.S. Vaynshteyn.

NOTE: This book is intended for engineers and scientific personnel in the metallurgical, instrument-production, and other related industrial enterprises, as well as for industrial personnel engaged in the production of precision alloys. It may also be useful to students attending advanced technical schools.

CONTENTS: The articles in this collection present the results of investigations conducted in recent years by the Central Scientific Research Institute of Precision Metallurgy (Central'nyy nauchno-issledovatel'skiy institut Chernoy metallurgii). The articles deal with industrial techniques of producing soft magnetic alloys, properties and structure of the alloys at extremely low temperatures and in high-frequency magnetic fields, deformation behavior, magnetization, the galvanomagnetic effect, volume changes, etc. Some articles are concerned with the investigation of deformed high-strength alloys. So personalities are mentioned. The articles are accompanied by references, both Soviet and non-Soviet.

Evans, R.V. Effect of Vanadium on the Thermomagnetic Properties of Nitrogen	213
Kobayashi, G.H. and Ya.P. Salsitskiy. Microscopic Investigation of Iron-Cobalt Alloys	219
Reiff, J.G. and Ya.P. Salsitskiy. Interrelation Between the Ordering, Recovery, and Recrystallization Processes in Fe-Co Alloys	224
Shubert, G.V. and V.I. Gorbunov. Investigation of the Connection Between Magnetic Properties and Microstructure of Iron-Nickel Alloys	228
Bayanov, M.M. Microscopy for Recording Sound and Pulses	242
Bayanov, M.M. New Materials for Motors of Kymwensis Motors	265

AVAILABLE: Library of Congress
Card 6/6

WJ/m/ma
7-21-60

S/137/61/000/010/030/056
A006/A101

AUTHORS: Detlaf, Ye.I., Selisakiy, Ya.P.

TITLE: On the correlation of ordering, recovery and recrystallization processes in Fe-Co alloys

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 10, 1961, 42, abstract 10Zh264 ("Sb. tr. Tsentr. n.-i. in-t chernoy metallurgii", 1960, no. 23, 224 - 227)

TEXT: An investigation was made with Fe-Co alloys containing up to 20-75% Co. The alloys were subjected to cold rolling with 83.5% total deformation by the 0.5 mm thickness and subsequent annealing at 150 and 750°C in a vacuum at different duration of heating. Subsequently the specimens were electropolished, H_v was measured, and X-ray examination was carried out by the method of reverse exposure on $K\alpha$ -Co radiation. The lowest temperatures of recovery were observed in alloys of stoichiometric composition. If a decrease of free energy, connected with recrystallization, exceeds the increase of free energy connected with softening, then recrystallization has a greater thermodynamical advantage and the

Card 1/2

On the correlation of ordering, ...

S/137/61/000/010/030/056
A006/A101

recrystallization process may cause softening. In the opposite case, softening advances recrystallization. In alloys with 35, 42 and 50% Co both cases occur; this is manifested in the partial splitting-up of the doublet. ✓

P. Zubarev

[Abstracter's note: Complete translation]

Card 2/2

DETLOVS, V. K.

11 Jun 53

USSR/Mathematics - and Symbolic Logic

"Normal Algorithms and Recursive Functions," V. K. Detlovs, Leningrad Br,
Math Inst im Steklov, Acad Sci USSR

DAN SSSR, Vol 90, No 5, pp 723-725

Studies the problem of the interrelations among the concepts of algorithmic and general recursive functions, as discussed by A. Church, K. Gödel, S. Kleene, Th. Skolem, and A. Turing, in which connection the author demonstrates 7 theorems concerning the primitive recursive function, complete algorithm, partial recursive function, general recursive function, and algorithmic function. Thanks to his teacher Prof A. A. Markov, who suggested this subject and helped in its completion. Presented by Acad V. I. Smirnov. 8 Apr 53.

260T82

DETLOVS, V K.

16(1)

P. 3

PHASE I BOOK EXPLOITATION

SOV/1707

Akademiya nauk SSSR. Matematicheskiy institut

Problemy konstruktivnogo napravleniya v matematike; sbornik rabot, vyp. 1 (Problems Connected With the Construction Trend in Mathematics; Collection of Articles, Nr 1) Moscow, Izd-vo AN SSSR, 1958. 348 p. (Series: Its: Trudy, t. 52). 2,500 copies printed.

Ed.: N.A. Shanin; Resp. Ed.: I.G. Petrovskiy, Academician; Deputy Resp. Ed.: S.M. Nikol'skiy, Professor; Tech. Ed.: R.A. Arons.

PURPOSE: This book is intended for mathematicians.

COVERAGE: The book is a collection of works presented at the seminar on mathematical logic of the Leningrad Branch of the Matematicheskiy institut imeni V.A. Steklova (Mathematical Institute imeni V.A. Steklov) of the Academy of Sciences, USSR. The articles deal primarily with problems connected with the constructive trend in mathematics. A detailed study is made of the theory of algorithms and constructive mathematical logic. The book is divided into

Card 1/5

Problems Connected With the Construction (Cont.)

SOV/1707

three main parts: I. The General Theory of Algorithms and Its Application to the Theory of Associative Calculations. II. Constructive Mathematical Logic. III. Constructive Mathematical Analysis;

TABLE OF CONTENTS:

PART I. THE GENERAL THEORY OF ALGORITHMS AND ITS APPLICATION TO THE THEORY OF ASSOCIATIVE CALCULATIONS

Nagorny, N.M. Certain Generalized Concepts of a Normal Algorithm 7

Introduction 1. Definition of σ -type algorithms 2. Closure of σ -type algorithms 3. σ -type algorithms and normal algorithms 4. σ -type algorithms and normal algorithms (continuation) 5. Canonical σ -type algorithms 6. Composition of σ -type algorithms 7. Branching of σ -type algorithms 8. Recursion of σ -type algorithms 9. σ -type algorithms 10. σ -type algorithms. References

Nagorny, N.M. On the Minimum Alphabet of Algorithms Over a Given Alphabet

66

Card 2/5

Problems Connected With the Construction (Cont.)

SOV/1707

Detlovs, V.K. The Equivalence of Normal Algorithms and Recursive Functions 75

I. Introduction 1. Brief History of the problem 2. Formulation of fundamental theorems II. Algorithms of recursive functions 3. Recursive functions 4. The algorithms of primitive recursive function 5. The algorithms of an operator of the smallest number 6. The decidability partially recursive function III. The recursiveness of algorithmic functions 7. The device of arithmetization 8. The recursiveness of a substitution 9. The recursiveness of algorithmic functions of one argument 10. The recursiveness of functions of n-arguments IV. The equivalence of Normal and recursive algorithms 11. Normal algorithms of arithmetization 12. The equivalence of normal and recursive algorithms. References

Orlovskiy, E.S. Certain Problems of the Theory of Algorithms 140

Introduction I. Construction of normal algorithms inverse to a given algorithm 1. Formulation of provable theorems 2. Construction of unknown algorithms 3. Proof of theorem 2 II. Construction of a universal algorithm system 4. A universal algorithm system 5. Fundamental lemmas 6. Proof of fundamental lemmas. References

Card 3/5

Problems Connected With the Construction (Cont.) SOV/1707
 Tseytin, G.S. Associative Calculation With the Unsolvable Problem 172
 of Equivalence

PART II. CONSTRUCTIVE MATHEMATICAL LOGIC

Vorob'yev, N.N. A New Algorithm of Deducibility in Constructive 193
 Proposition Calculus

Introduction 1. Deducibility from hypothesis 2. Normal
 formulas 3. Deduction of conclusions 4. Properties of deduc-
 tions of conclusions 5. The connection between deducible for-
 mulas and deducible conclusions 6. Deducibility algorithm for
 normal conclusions 7. Examples.. References

Shanin, N.A. On the Constructive Meaning of Mathematical 226
 Reasoning

1. Constructive mathematical objects 2. Historical informa-
 tion. Critique of S.C. Kleene's theory 3. Fundamental logico-
 mathematical languages 4. Algorithms of the behavior of a con-
 structive problem 5. An algorithm for deciphering elementary
 formulas 6. On the meaning of supporting formulas 7. Some in-
 formation from the constructive theory of sets 8. Certain ex-
 tensions of fundamental logicomathematical languages

Card 4/5

Problems Connected With the Construction (Cont.)

SOV/1707

PART III. CONSTRUCTIVE MATHEMATICAL ANALYSIS

Markov, A.A. On Constructive Functions

315

Introduction 1. Recursive functions with rational values
2. Regularly converging sequences 3. Constructive real
numbers 4. Constructive sequences of real numbers 5. Con-
structive functions of a real variable. References

AVAILABLE: Library of Congress

Card 5/5

LK/ad
6-15-59

DETLOVITSKAYA, F.G., kand.khim.nauk

Method for the determination of cyanides in the sewage of coke
chemical plants and gas generating stations. Gig.i san. 25 no.2:
51-54 P '60. (MIRA 13:6)

1. Iz Ukrainskogo instituta kommunal'noy gigiyeny.
(SEWAGE)
(CYANIDES chemistry)

KOSSOV, V.V.; BARANOV, E.F.; VOLODIN, L.N.; LEYDKIND, Yu.R.;
MIKHALEVSKIY, B.N.; SUVOROV, B.P.; DETNEVA, E.V.

[The interbranch balance of production and production
distribution of an economic region] Mezhotraslevoi balans
produktstva i raspredeleniia produktsii ekonomicheskogo
ralona. Moskva, Izd-vo "Nauuka," 1964. 209 p.

(MIRA 17:5)

1. Akademiya nauk SSSR. Tsentral'nyy ekonomiko-matematicheskii
institut.

VYPERAYLENKO, Aleksandr Ivanovich, inzh.; DETOCHKA, I.I., inzh.,
retsensent; TANCHAROVA, V.F., red.izd-va; ROZUM, T.I.,
tekhn. red.

[Automation of industrial transport] Avtomatizatsia pro-
myshlennogo transporta. Kiev, Gostekhzdat USSR, 1963.
307 p. (MIRA 17:4)

DETONI S.

✓ Absorption spectra and structure of sulfinic acids. S.
Detoni and D. Hadzi (Univ. Ljubljana, Yugoslavia).
Chem. Ber. 1955, 8163-4; cf. C.A.B. 1955, 4296c. — Infrared
spectral data and probable assignments of infrared bands
are presented for benzene-, p-toluene-, 2-naphthalene-, and
o-methoxybenzenesulfinic acids, their life esters, K salts,
chlorides, and deuterated analogs (prepd. by hydrolysis of
corresponding chlorides with D₂O). Infrared and ultra-
violet spectra favor the structure RS(O)OH for sulfinic
acids. Dissoc. equil. of FHSO_2H in dry and moist CCl_4
indicate formation of polymers of an order higher than 2.

Ruth P. Trosset

EE

CH

PH

(1)

Detoni, S

PA
12
①
✓ Infrared spectra and structure of sulfonic acids. S. Detoni
and B. FUGZI (Inst. Ljubljana, Yugoslavia). Ann. Inst.
Conseil. Acad. R.P.F. Yugoslavia 2, 44-5 (1956) (in English).
Spectra of benzene-, p-toluene-, and 2-naphthalenesulfonic
acids are given. On the basis of these spectra evidence is
found for the resonance $\text{OS:O}^- \leftrightarrow \text{O:SO}^-$ in the ionized
sulfonic groups. N. Physik.

Small
RM

24,6810

40191

S/081/62/000/013/007/054
B158/B144

AUTHORS: Blinc, R., Detoni, S., Pintar, M., Poberaj, S.

TITLE: Electron paramagnetic resonance in γ -irradiated
ferroelectric $\text{LiH}_3(\text{SeO}_3)_2$

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 13, 1962, 73, abstract
13B466 (Croat. chem. acta, v. 33, no. 2, 1961, 89-92)

TEXT: Single crystals of $\text{LiH}_3(\text{SeO}_3)_2$, grown from aqueous solutions, were irradiated by γ -rays of Co^{60} (dose of 10^6 r) at room temperature. The epr spectra were examined at various orientations of the samples in a magnetic field H. The spectra obtained where the main axis of the single crystal c \perp H are identical at deflection angles ψ and $(180^\circ - \psi)$, where ψ is the azimuthal angle between directions of H and the other axis. Spectra for the case where a \perp H agree for all values of ψ . Where $b \perp H$, strong anisotropy of the spectrum occurs. Keeping the samples for 2 months does not alter the form of the spectra. [Abstracter's note: Complete translation.]
Card 1/1

23929

S/035/51/000/006/011/044
A001/A101

3,1560

AUTHORS: Detre, A., Chang Yu-che

TITLE: Photoelectric observations of CY Aqr and BE Mon

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 6, 1961, 22, abstract 6A198 ("Acta astron. sinica", 1960, v. 8, no. 1, 50-59, Chinese, Engl. summary)

TEXT: Five full luminosity curves of CY Aqr were obtained during four nights in 1959-1960. From 29 maxima observed since 1934, the formula of variation of the period was derived: $\text{Max}_0 = \text{JD}2427658.4079 + 0.061038576E - (0.742 \times 10^{-12})E^2$. The BE Mon was observed during 19 nights. The period proved to be 2.7047 rather than 0.421 as was adopted in OKP3 (OKPZ). A.V. Solov'yev's visual observations satisfy perfectly the new period value. Observations in tabular and graphical forms are presented, as well as the diagram of period changes of BE Mon. There are 18 references.

R. Botsula

[Abstracter's note: Complete translation]

Card 1/1

DEPRE, L.

Mechanism of the effect of lesser known antibiotics on the tubercle bacillus. Orv. hetil. 93 no. 13:397-398 30 Mar 1952. (CLML 23:3)

1. Doctor.

DEBEL, I.

Conference on astronomy; also, remarks by Imre Szeged and others, p. 157.
(KOZLÓVÁNYOK, Budapest, Hungary), Vol. 4, No. 2, 1954.

SO: Monthly List of East European Accessions, (SEAL) IC, Vol. 4,
No. 5, May 1955, Uncl.

DETRE, L.

DETRE, L. -- Kozlemenyei - Vol. 5, no. 1, 1955.

Blazsko effects. p. 13.

SO: Monthly list of East European Accessions, (EEAL), LC, Vol. 4, No. 9, Sept. 1955
Uncl.

DETRE, Laszlo (Budapest)

Optical observation of the impact of the second Soviet moon rocket.
Magy tud 67 no.7:391-395 J1 '60. (EEAI 9:11)

1. Lev. tag, Magyar Tudományos Akademia.
(Rockets) (Moon)

L 18681-63

FCS(r)/EWT(1)/FCC(w)/BDS/ES(v) AFFTC/ESD-3 Pe-4 ENS/IJP
C/001/61/009/001-2/010/014

AUTHORS:

Balazs, Julia; Detre, Laszlo (Translated by Chang Yu-che
(1728/6877/0772) of the Purple Mountain Observatory)

66

TITLE:

Work on RR Lyrae-Variables at the Budapest Observatory

PERIODICAL:

T'ien-wen Hsueh-pao, v. 9, nos. 1,2, 1961, 77-82

TEXT:

The authors review observations of RR Lyrae-stars made at the Budapest Observatory since 1932. The studies cover light and color curves, period changes of field and cluster variables, and the Blazk o-effect. Interpretation of the O-C diagrams and a working hypothesis for the Blazk o-effect are discussed briefly. The need of cooperation between the observatories in Nanking and Budapest, especially in work on variable AC And, is stressed.

ASSOCIATION: The Budapest Observatory, Hungary

1/1

DETRE, Iaszlo, akademikus

Astronomy; the past one and a half decades in retrospect. Elet tud
16 no.49:1559 3 D '61.

1. Magyar Tudomanyos Akademia Csillagvizsgalo Intezetenek igazgatoja.

ACCESSION NR: AP4040001

H/0016/64/000/005/0135/0139

AUTHOR: Detre, Laszlo

TITLE: Origin and development of the stars

SOURCE: Fizikai szemle, no. 5, 1964, 135-139

TOPIC TAGS: halo star, Milky Way, disc star, emission line, compression, expansion, gravitational contraction, explosion, cometary nebula, planetary nebula, Hertzprung-Russell Diagram

ABSTRACT: The stars in the so-called "halo" of the Milky Way differ essentially from those in the disc not only in location and chemical composition but also in their motions, and can thus also be recognized when they happen to be in that part of their orbit around the center of the Milky Way System which crosses the disc. The now rare formation of interstellar gas stars in the halo has been taken as proving that the halo stars are older than the disc stars and data from the time when there was still enough gas in the halo. The paper describes the mathematically based theories on the formation of stars and particularly of light and heavy elements in them as propounded by E.M. and G.R. Burbidge, Fowler and

Card 1/3

ACCESSION NR: AP4040001

Hoyle (Revs. Mod. Phys. 29, 547, 1957), and the "especially popular" Hertzsprung--Russell Diagram (HRD) of the computed ways of development, wherein the absolute brightness is the ordinate, the spectrum the abscissa. The hypothesis of the cometary origin of the stars is the most probable among the many ingenious mechanisms suggested as promoting the compression of the cosmic nebulae and hence the formation of stars. Thus far contraction has not been noted in any heavenly body, but expansion in many. In the stars of T Tauri, which according to the arrangement in the HRD should still be in a state of gravitational contraction--at least according to the agglomeration theory--, the emission lines in the spectrum are shifted toward the violet, which means that the external layers are moving outward. Very many kinds of stars eject matter into interstellar space, notably the supernovae, novae and the planetary nebulae. But even such simple stars as the sun constantly emanate matter (the so-called "solar wind"). This emanation is incomparably stronger from Wolf-Rayet and P Cygni, and particularly the Alpha Herculis twin stars. In investigating the development of the stars, their radiations of matter must evidently also be taken into account. The HRD chronology of star clusters shows no correlation with their chemical composition, which depends exclusively on the distance from the plane of the Milky Way. In general, the nearer to this plane, the higher the metal content, so that there

Cont 2/3