

YEGOROV, I.K.

Determination of the H-2 genotype in CC57BR and CC57BL mice.
Biol. eksp. biol. i med. 56 no.12:84-87 D '62.

(MIRA 17:11)

1. Otdel immunologii i onkologii (zav. - deystvitel'nyy chlen
AMN SSSR L.A. Zil'ber) Instituta epidemiologii i mikrobiologii
imeni Gamalei (dir. - prof. P.A. Vershilova) AMN SSSR, Moskva.

PETROV, R.V.; MAN'KO, V.M.; YEGOROV, I.K.

Variations in the capacity of antibody production in mice
of highly inbred lines. Dokl. AN SSSR 153 no.3:728-730
N '63. (MIRA 17:1)

1. Predstavleno akademikom I.I. Shmal'gauzenom.

BRONDZ, B.D.; YEGOROV, I.K.

Antigenic structure of locus H-a of the mouse strains CC57Br and CC57W. Folia biol. (Praha) 10 no.2:90-93 '64

1. Department of Immunology and Oncology, Gamaleya Institute of Epidemiology and Microbiology, Moscow.

*

YEGOROV, I.K.

Age and line specificity of the reaction of mice to the introduction of urethane. Vop. onk. 10 no.7:75-78 '64. (MIRA 18:4)

1. Iz otdela immunologii i onkologii (zav. - deystvitel'nyy chlen AMN SSSR L.A.Zil'ber) Instituta epidemiologii i mikrobiologii imeni Gamalei (dir. - prof. P.A.Vershilova). Adres avtora: Moskva, D-182, Malaya Shchukinskaya, 13 Institut epidemiologii i mikrobiologii imeni Gamalei, otdel immunologii i onkologii.

BRONDZ, B.D.; YEGOROV, I.K.

Antigenic structure of the H-2 locus of CC57BR and CC57N mice.
Biul.eksp.biol.i med. 58 no.7:90-93 J1 '64.

(MIRA 18:2)

7. Otdel immunologii i onkologii (zav. - prof. L.A.Zil'ber)
Instituta epidemiologii i mikrobiologii imeni Gamalei (dir. -
prof. P.A.Vershilova), Moskva. Submitted July 8, 1963.

YEGOROV, I.K.

New isoantigen in mouse erythrocytes. Genetika no. 6:80-85
D '65 (MIRA 19:1)

1. Institut epidemiologii i mikrobiologii imeni Gamalei
AMN SSSR, Moskva.

YEDOROV, I.M.

Preparing air cleaners for summer use. No 6.

Tankist, No 12, 1948.

YEGOROV, Ivan Maksimovich, kandidat tekhnicheskikh nauk; GOLOSHCHAPOV,
I.M., inzhener-polkovnik, redaktor; SOKOLOVA, G.P., tekhnicheskiy
redaktor

[Air cleaners for machines on wheels and tracks] Vozdukhoochistiteli
kolesnykh i gusenichnykh mashin. Moskva, Voen.izd-vo Ministerstva
obor. SSSR, 1956. 72 p. (MLEA 10:1)
(Air filters)

YEGOROV, I.M., kand. tekhn. nauk, dots.; GOLOSHCHAPOV, I.M., red.;
MYASHNIKOVA, T.F., tekhn. red.

[Air fuel and oil filters in tractor engines] Ochistka vozdukha,
goriuchego (topliva) i masla v avtotraktornykh dvigateliakh. Mo-
skva, Voenizdat, 1962. 133 p. (MIRA 15:6)
(Tractors--Engines)

5(4)

PHASE I BOOK EXPLOITATION

SOV/1428

Baron, N.M., Ye. D. Volova, I.M. Yegorov, E.I. Kvyat, K.P. Mishchenko, A.M. Ponomareva, A.A. Ravdel', and G.I. Semenov

Prakticheskiye raboty po fizicheskoy khimii (Practical Work in Physical Chemistry)
Leningrad, Goskhimizdat, 1957. 263 p. 11,000 copies printed.

Eds. (Title page): K.P. Mishchenko, Professor, and A.A. Ravdel', Docent;
Ed. (Inside book): N.K. Lobina; Tech. Ed.: Ye. Ya. Erlikh.

PURPOSE: This textbook was approved by the Ministry of Higher Education as a manual for students of vuzes specializing in chemistry.

COVERAGE: The text covers the theoretical and practical aspects of experimental physical chemistry. It is the aim of the authors to aid the student in his laboratory work by preceding each experiment with a theoretical introduction, a description of the apparatus, and the order of the determination and computation of results. Much attention is given to the fundamentals of chemical thermodynamics, reaction kinetics, and equilibrium. The basic techniques of

Card 1/14

Practical Work in Physical Chemistry

SOV/1428

experimentation and the treatment of experimental data are presented so as to enable the student to work independently. The text was prepared jointly by the staff of the Department of Physical Chemistry, Leningradskiy tekhnologicheskii institut imeni Lensovet (Leningrad Technological Institute imeni Lensovet) with K. P. Mishchenko and A.A. Ravdel' as editors, and N. M. Baron and A.M. Ponomareva as coeditors. The book was reviewed by Professors V.A. Kiryev, B.P. Nikol'skiy, corresponding member of the AS USSR, and by the staff of Professor Nikol'skiy. There are no references.

TABLE OF CONTENTS:

Preface	7
INTRODUCTION	
Ch. I. Treatment of the Results of Measurements	9
1. Estimate of error in measurement	9
Estimate of the accuracy of instrument readings	10
Determination of the absolute and relative errors in the direct measurement of any given value	11
Selection of the necessary accuracy of measurement	11

Card 2/14

Practical Work in Physical Chemistry

SOV/1428

Calculation of the mean errors for a series of measurements	12
Calculation of relative errors for a value obtained from a formula including several direct measurements	14
2. Presentation of the results of physicochemical measurements in the form of tables and graphs	19
Construction of tables	19
Construction of graphs	21
Ch. II. Basic Assumptions of Chemical Thermodynamics	24
The first law of thermodynamics	24
Reversible and irreversible processes	26
Hess's law	27
The second law of thermodynamics	30
Chemical potentials. Conditions of equilibrium	30
The Gibbs-Helmholtz equation and the isobar equation	36
The Gibbs phase rule	37

Card 3/14

Practical Work in Physical Chemistry

80V/1428

THERMOCHEMICAL MEASUREMENTS

Ch. III. Calorimetry

Calorimeter

General principles of calorimetric measurements

Determination of the heat capacity of the calorimeter

Experimental technique

Determination of the heat variation

Procedure

Measuring the integral heat of solution of salt

Measuring the heat of hydration

Measuring the heat neutralization

Measuring the heat capacity of liquids

42
45
45
46
46
48
49
49
49
49
51

HOMOGENEOUS AND HETEROGENEOUS EQUILIBRIUM

Ch. IV. Equilibrium Constant of Water Gas

Procedure

57
58

Ch. V. Pressure of Saturated Vapor

Procedure

63
66

Card 4/14

Practical Work in Physical Chemistry

80V/1428

Ch. VI. Dissociation Pressure
Procedure

69
70

Ch. VII. Alloys

Equilibrium diagrams

76
76

Substances completely soluble in the liquid state and insoluble
in the crystalline state

77

Substances forming stable chemical compounds

81

Substances completely soluble in the liquid and crystalline states

82

Substances completely soluble in the liquid state and having
limited solubility in the crystalline state

83

Procedure

85

Thermocouples

85

Determination of the cooling curve

87

Plotting the diagrams

87

Study of low-melting systems

88

Card 5/14

Practical Work in Physical Chemistry

SOV/1428

Ch. VIII. Distillation	89
Liquids soluble in all proportions (complete solubility)	89
Ideal solutions	89
Non-ideal solutions	92
Procedure	94
Preparation of solutions and determination of composition	94
Determination of the boiling point and withdrawal of the distillate	95
Determination of vapor composition	96
Plotting the temperature-composition diagrams	97
Ch. IX. Limited Reciprocal Solubility of Liquids	97
Procedure	100
Ch. X. The Law of Distribution	101
Dissociation of the given substance in one of the phases	102
Association of the given substance in one of the phases	104
Procedure	106
Determination of the distribution coefficient	106
Study of the extraction process	107

Card 6/14

Practical Work in Physical Chemistry

80V/1428

DILUTED SOLUTIONS

Ch. XI. Cryometry

Depression of the solvent vapor pressure over the solution	110
Depression of the boiling point of a dilute solution	110
Depression of the freezing point of a dilute solution	111
Procedure	112
	116

ELECTROCHEMISTRY AND IONIC EQUILIBRIUM

Ch. XII. Conductance

Dependence of electrolyte conductance on concentration	123
Determination of the limited equivalent conductance	124
Effect of temperature on conductance	129
Measuring the conductance of electrolytic solutions	129
Procedure	129
Measuring the conductance of water	131
Determination of λ and f_{λ} of a strong electrolyte	134
Determination of the dissociation constant of a weak electrolyte (acetic acid)	134
	135

Card 7/14

Practical Work in Physical Chemistry

80V/1428

Determination of the solubility and solubility product of a sparingly soluble salt
 Conductometric titration
 Difficulties in measuring conductance

135
 136
 138

Ch. XIII. Transference Numbers
 Procedure

141
 144

Determination of the transference numbers $t_{SO_4^{2-}}$ and t_{H^+} in an H_2SO_4 solution

147

Determination of the transference numbers of t_{Na^+} and t_{OH^-} in an NaOH solution

149

Determination of the transference numbers t_{Ag^+} and $t_{NO_3^-}$ in an $AgNO_3$ solution

149

Card 8/ 14

Practical Work in Physical Chemistry

SOV/1928

Ch. XIV. Electromotive Forces	153
Voltaic cell	153
Origin of the electrode potential	154
Calculation of the e.m.f. and electrode potentials	156
Diffusion potential	159
Classification of electrodes	159
Classification of voltaic cells	163
Measurements of the e.m.f.	164
Procedure	168
Measurement of the e.m.f. of a Jacobi-Daniell cell at various concentrations of ZnSO_4 and CuSO_4	168
Measurement of the potentials of individual electrodes	168
Measurement of the e.m.f. of concentration cells	169
Measurement of a standard redox potential of a ferri- ferrous electrode ($\varphi_{\text{Fe}^{+++} \text{Fe}^{++}}$)	169
Ch. XV. Potentiometry	173
Hydrogen index (pH)	173
Buffer solutions	174

Card 9/14

Practical Work in Physical Chemistry

SOV/1428

Procedure	175
Determination of the hydrogen index	175
Measurements with a hydrogen electrode	175
Measurements with a quinhydrone electrode	177
Measurements with a glass electrode	177
Verification of the calomel electrode potential	183
Determination of the ionic product of water	183
Determination of the solubility product of silver chloride	185
Determination of the hydrolysis constant	185
Potentiometric titration	187
Neutralization (titration of acids or bases)	187
Sedimentation (titration) of halides	189
Oxidative titration	190
Ch. XVI. Colorimetric Determination of the Hydrogen Ion Concentration	193
Procedure	195
Buffer method	196
Bufferless methods	196
Card 10/14	

Practical Work in Physical Chemistry

80V/1428

KINETICS OF CHEMICAL REACTIONS

Ch. XVII. Rate Constant and Energy of Activation in Chemical Reactions	201
Determination of the rate constant of sucrose inversion	207
Procedure	209
Saponification of an ester	213
Procedure	214
Determination of the rate constant of acetone iodination	216
Procedure	218
Ch. XVIII. The Quantum Yield of Photochemical Reactions	220
Example of a calculation	224
Procedure	225

THE STRUCTURE OF MOLECULES

Ch. XIX. Molecular Refraction	229
Polarization	229
Refraction	231
Procedure	233

Card 11/14

Practical Work in Physical Chemistry

SOV/1428

Measurement of the molecular and specific refraction of solutions and pure substances	233
Ch. XX. Dipole Moments	238
Procedure	241
Measurement of dipole moments	241
Example of a calculation of the dipole moment of nitrobenzene	245
Appendix I.	248
Water thermostat	248
Electrode platinization	249
Appendix II.	250
Table 1. Heat capacity of materials used in calorimeters	250
2. Critical temperatures of reciprocal solubility of binary liquid systems	250
3. Systems for the determination of distribution coefficients	251
4. Freezing constants (cryoscopic constants) of solvents	251
5. Specific conductance of aqueous KCl solutions at 25°	251
Card 12/14	

Practical Work in Physical Chemistry

SOV/1428

6. Critical ionic conductance at 25° and the temperature coefficient of conductance $\sigma = \frac{1}{225} \left(\frac{d\sigma}{dt} \right)$ 252
7. Saturated vapor pressure of water 252
8. Standard electrode potentials φ° in aqueous solutions at 25° 253
9. Value of the factor $2.3 \frac{RT}{F} = 0.000198T$ 253
10. Activity coefficients of electrolytes in aqueous solutions 254
11. Ionic product of water $K_W = a_{H^+} \cdot a_{OH^-}$ at various temperatures 254
12. Colored indicators 254
13. Buffer solutions 255
14. Density of water d_4^t at various temperatures 255
15. Atomic refraction R_D 255
- Logarithms 256

Card 13/14

Practical Work in Physical Chemistry

SOV/1428

Antilogarithms

259

Subject index

AVAILABLE: Library of Congress

TM/mas
5-21-59

Card 14/14

MASHOVETS, V.P.; YEGOROV, I.M.

Discharge of hydroxyl ions on a graphite anode at high temperature.
Trudy LTI no.46:21-35 '58. (MIRA 14:4)

(Electrodes, Carbon) (Hydroxyl ion)
(Electrochemistry)

VOLOVA, Ye.D.; YEGOROV, I.M.

Complex formation in aqueous solutions of electrolytes. Trudy
LTI no.61:60-64 '60. (MIRA 15:5)
(Complex compounds) (Electrolyte solutions)

MASHOVETS, V.P.; YEGOROV, I.M.

Anodic oxidation of graphite in a sodium metaphosphate melt.
Trudy LTI no.61:77-87 '60. (MIRA 15:5)
(Sodium metaphosphate) (Electrodes, Carbon) (Electrochemistry)

MASHOVETS, V.P.; YEGOROV, I.M.

Anodic processes on graphite in a potassium dichromate melt.
Trudy LTI no.61:88-94 '60. (MIRA 15:5)
(Electrodes, Carbon) (Potassium dichromate) (Electrochemistry)

YEGOROV, I.M.; MASHOVETS, V.P.

Mechanism of the anodic process on graphite in nitric acid
solution. Trudy LTI no.61:95-103 '60. (MIRA 15:5)
(Electrodes, Carbon) (Nitric acid) (Electrochemistry)

MISHCHENKO, K.P.; PONOMAREVA, A.M.; RAVDEL', A.A.; BARON, N.M.;
YEGOROV, I.M.; KVIAT, E.I.; VOLOVA, Ye.D.; MARKOVICH, V.G.;
SEMENOV, G.I.; MARGOLIS, V.N., SMORODINA, T.P.; YAVORSKIY,
I.V. Prinimal uchastiye FRANK-KAMENETSKIY, V.A.; TOMARCHENKO,
S.L., red.; LEVIN, S.S., tekhn. red.

[Practical work in physical chemistry] Prakticheskie raboty po
fizicheskoi khimii. Izd.2., perer. Leningrad, Gos. nauchno-
tekhn. izd-vo khim. lit-ry, 1961. 374 p. (MIRA 15:2)
(Chemistry, Physical and theoretical--Laboratory manuals)

YEGOROV, I.M.; ZHERNOV, V.S.; LAZAREV, A.F.; PEROV, N.L.;
TIMOFEYEV, A.A.; MATVEYEV, V.V., doktor tekhn. nauk,
red.; KHAZANOV, B.I., kand. tekhn. nauk, red.;
MELESHKO, V.K., red.

[Apparatus for recording and studying ionizing radia-
tions; reference book] Apparatura dlia registratsii i
issledovaniia ioniziruiushchikh izluchenii; spravochnik.
Moskva, Atomizdat, 1965. 429 p. (MIRA 18:7)

L 26391-66 EWA(h)/EWT(m)

ACC NR: AM5025517

Monograph

UR/ 37
B+1

Yegorov, I. M.; Zhernov, V. S.; Lazarev, A. F.; Perov, N. L.; Timofeyev, A. A., comps.

Apparatus for recording and investigating ionizing radiation; a handbook (Apparatura dlya registratsii i issledovaniya ioniziruyushchikh izlucheni; spravochnik) Moscow, Atomizdat, 1965. 429 p. illus., biblio. 4500 copies printed.

TOPIC TAGS: radiation dosimetry, ionizing radiation, nuclear physics apparatus, scintillator photomultiplier, gas discharge counter, ionization chamber, radiation dosimeter, radiometer, spectrometer

PURPOSE AND COVERAGE: This handbook is intended for research physicists in the field of dosimetrics and engineers and scientists dealing with radioactive sources of radiation. It may also be useful to persons concerned with the development, operation, and maintenance of dosimetric, spectrometric, and radiometric equipment. The book deals with Soviet experimental nuclear physics instruments, equipment, photomultipliers, scintillators, Geiger-Mueller counters, ionization chambers, etc. Characteristics of instruments for individual dosimetric control, measurements of doses and dose power, determination of the contamination of working areas and water by radioactive substances, aerosol devices, single and multichannel pulse analyzers, and others are described.

TABLE OF CONTENTS [abridged]:

Foreword -- 3

Card 1/3

UDC: 539.107.5

L 26391-66

ACC NR: AM5025517

Introduction — 5

Ch. I. Assemblies and units for the detection of ionizing radiation -- 7

1. Introduction — 7
2. Ionization chambers — 8
3. Gas-discharge counters -- 12
4. Scintillators — 37
5. Photomultipliers — 53
6. Detection units for ionizing radiation — 75

Ch. II. Units and devices of electronic equipment for nuclear physics -- 94

1. Introduction — 94
2. Structural elements of electronic-physics equipment -- 96
3. Amplifier units and equipment — 105
4. Amplitude selection equipment and units and auxiliary units — 118
5. Time selection equipment and units and auxiliary units -- 146
6. Electric signal conversion equipment and units -- 170
7. Scaling equipment and units -- 178
8. Time measuring units -- 202
9. Intensity measurement equipment and units -- 204
10. Output equipment and units, control units -- 225
11. Power supply units -- 237
12. Monitoring units -- 266

Card 2/3

L 26391-66

ACC NR: AM5025517

13. Auxiliary devices — 272
14. Pulse analyzers — 276

Ch. III. Dosimeters — 321

Ch. IV. Radiometers — 339

Ch. V. Spectrometer equipment — 407

Bibliography — 421

SUB CODE: 09, 20/ SUBM DATE: 29Apr65/ ORIG REF: 068/ OTH REF: 002

Card 3/3 CC

KIKHTENKO, V.A.; KHLEBNIKOV, Yu.P.; YEGOROV, I.M., kand. tekhn. nauk, retsenzent; DVOROVENKO, G.P., kand. tekhn. nauk, red.; YEGORKINA, L.I., red. izd-va; EL'KIND, V.D., tekhn. red.

[Cyclone air cleaners for tractors] Traktornye tsiklonnye vozdukhochistiteli; konstruktsia, raschet, obsluzhivanie i ispytanie. Moskva, Mashgiz, 1963. 150 p.

(MIRA 16:7)

(Tractors--Equipment and supplies) (Air filters)

YEGOROV, I. N.

Infusoria

Significance of infusoria in the digestion of cattle. Veterinariia 29 No. 5, 1950.

Monthly List of Russian Accessions. Library of Congress, August 1952, Unclassified

YEGOROV, I.N., dotsent.; KIRILLOV, V.A., veterinarnyy vrach.

Some details of treating hypovitaminosis in calves. Veterinariia 34
no.3:36-39 Mr '57. (MIRA 10:4)

1. Ul'yanovskiy sel'skokhozyaystvennyy institut. (for Yegorov)
2. Sovkhoz "Sakko i Vantsetti" Ul'yanovskoy oblasti, Cherdaklin-
skogo rayona.

(Deficiency diseases in domestic animals)
(Calves--Diseases)

YEGOROV, I.N., dots.

Clinical symptoms and course of typhlitis in horses. Veterinariia
35 no.10:57-59 O '58. (MIRA 11:10)

1.Ul'yanskiy sel'skokhozyaystvennyy institut.
(Cecum--Diseases) (Horses--Diseases and pests)

YEGOROV, I. N.

42398: YEGOROV, I. TITOV, A, Otsenka sposobov sposobov pererabotki sbornogo masla.
moloch prom-st' 1948, No. 11, s 40-42.

SO: Letopis' Zhurnal'nykh Statey, Vol. 47, 1948.

YEGOROV, I.N., inzhener

Examples of the use of welding at MPS railroad machinery building
plants. Svar. proizv. no.10:22-23 0'55. (MLRA 8:12)
(Machinery industry) (Welding)

Ye Gorov, I.N.

SUBJECT: USSR/Welding.

135-4-11/15

AUTHOR: Yegorov I.N. Engineer.

TITLE: Welded Rail-Cutting Saw Blades (Svarnye polotna rel'soreznykh pil).

PERIODICAL: Svarochnoye Proizvodstvo", 1957, # 4, pp 26-27 (USSR)

ABSTRACT: At the Chechoslovakian Industrial Exhibition in Moscow, in 1956, welded saw blades of the "Robel" type (тип "Робеля") were shown, reducing to half the high-speed steel consumption. It was not possible to get any information on the production technology and on the materials used for these saw blades.

At the Zaporozhye Mechanical Plant of the Ministry of Transportation saw blades still are made of high-speed steel "P9"-blades, 430x30x2mm. When the teeth are worn, the saw is being scrapped.

The author, in co-operation with other technicians of the plant, has developed experimental saw blades of steel "P9" and "C1.2". Steel "P9" has the following chemical composition:

0.89 % C; 0.25% Mn; 0.25% Si; 0.015% S; 0.025% P; 0.21% Ni;
4.08% Cr; 9.38% W; 2.28% V, and 0.05% Mo.

Card 1/2

135-4-11/15

TITLE: Welded Rail-Cutting Saw Blades (Svarnye polotna rel'soreznykh pil).

Welding was done with d.c. of reverse polarity, with electrodes of 3-4 mm in diameter, at 80-120A. The electrodes used were: "OMM-5", "UM-7" "OMA-2", "YOMM-13/45", "YOMM-13/55A", "O30-2" and "U3-2A", all made by the Plant for Experimental Welding of the Ministry of Ferrous Metallurgy.

Tests (on the rail-cutting machine "P4") show that medium cutting time for the rail "P43" of 5570 mm² cross section does not exceed 9 minutes and fully corresponds to the rate of cutting with conventional blades made entirely of steel "P9". Initial costs are 40 % lower than for blades made entirely of steel "P9". After practical tests it can be concluded that welding can be done with electrodes "342". For the non-cutting blade portion it is planned to use steel with somewhat higher carbon content than in steel "CT2".

The article contains detailed production technology.

ASSOCIATION: Zaporozhye Mechanical Plant.

PRESENTED BY:

SUBMITTED:

AVAILABLE: At the Library of Congress.

Card 2/2

YEGOROV, I.N., inzh.

Building up wheel flanges by welding in a protective
atmosphere. Vest.TSMII MPS 18 no.6:63-64 S '59.
(MIRA 13:2)

1. Proyektno-konstruktorskoye byuro Glavnogo upravleniya
lokomotivo-remontnymi i vagonoremontnymi zavodami Ministerstva
putey soobshcheniya.
(Car wheels) (Welding)

YEGOROV, I.N., inzh.

Automatic welding of car parts. Svar. proizv. no.2:36-37 F '61.
(MIRA 14:1)

1. Proyektno-konstrukorsk-tehnologicheskoye byuro Glavnogo uprav-
leniya lokomotivoremontnymi i vagonoremontnymi zavodami Ministerstva
putey soobshcheniya.

(Railroads—Cars—Maintenance and repair)

(Electric welding)

YEGOROV, I.N., inzh.

Automatic welding under flux of container lids. Svar. proizv.
no.3:34-35 Mr '62. (MIRA 15:2)

1. Proyektno-konstruktorsko-tehnologicheskoye byuro Glavnogo
upravleniya lokomotivoremontnymi i vagonoremontnymi zavodami
Ministerstva putey soobshcheniya.
(Containers--Welding) (Fork-lift trucks)

YEGOROV, I.N., inzh. Prinsipalni uchastkiye: TELKOV, K.A., inzh.; L'VOV,
V.A., inzh.

Automatic welding of boiler connections during repairs. Svar.
proizv. no.5:35-36 My '62. (MIRA 15:12)

1. Proyektno-konstruktorsko-tekhnologicheskoye byuro Glavnogo
upravleniya po remontu podvizhnogo sostava i izgotovleniyu
zapasnykh chastey Ministerstva putey soobshcheniya.
(Locomotive boilers—Maintenance and repair)

S/135/63/000/003/007/011
A006/A101AUTHOR: Yegorov, I. N., Engineer

TITLE: Hardfacing of dies for cold press-forming

PERIODICAL: Svarochnoye proizvodstvo, no. 3, 1963, 28 - 30

TEXT: Results are given of industrial tests and laboratory investigations made with dies that were hardfaced with LH-5 (TsN-5) and 3H-60M (EN-60M) electrodes. The laboratory tests were carried out by engineers A. D. Salina and K. F. Kryuchkov. The electrodes were used to hardface the edges of press-forms, dies and press-shear blades. Hardfacing was performed in the lower position on a-c with 4 mm diameter electrodes. The method of preparing the edges and of applying the beads are illustrated. It was found that highest strength of dies is obtained using EN-60M electrodes, independent of the thickness and configuration of the press-formed parts. The built-up metal shows a complete absence of cracks. The built-up metal structure after low tempering is tempered martensite with hardness HRC 59, the base metal has a fine-dispersed perlite and ferrite structure with hardness HB 197. The composition of the base metal

✓

Card 1/2

Hardfacing of dies for cold press-forming

S/135/63/000/003/007/011
A006/A101

(0.45% C, 0.75% Mn and 0.25% Cr) has a considerable effect upon the operational durability of the hardfaced tool. The high hardness is also promoted by the presence in the built-up metal of 0.68% Mg, 1.5% Cr, 0.35% Mb, and 0.6% C. Electrodes TsN-5 yield satisfactory results in hardfacing dies that are not heat treated. Heat treatment reduces hardness down to HRC 40 - 42, which is insufficient for over 2 mm thick press-formed metals. There are 6 figures.

ASSOCIATION: Proyektno-konstruktorsko-tekhnologicheskoye byuro na zavode imeni Voytovicha (Planning-Designing Technical Office at the Plant imeni Voytovich)

Card 2/2

YEGOROV, I.N., dotsent; SIROSH, P.M.; NAUMOV, A.V.; RASKIN, M.M.; NIKIFOROV, N.I., kand.veterin.nauk; TRAKHANOV, D.F., kand.veterin.nauk; PETUKHOVSKIY, A.A.; ENDZIN, A.K.

Sanitation and veterinary hygiene. Veterinariia 41 no.3:73-82 Mr '64.
(MIRA 18:1)

1. Krasnoyarskiy sel'skokhozyaystvennyy institut (for Yegorov).
2. Glavnyy veterinarnyy vrach Chernovitskogo oblastnogo upravleniya proizvodstva i zagotovok sel'skokhozyaystvennykh produktov (for Sirosh).
3. Zaveduyushchiy khimicheskim otделom Chernovitskoy oblastnoy veterinarnoy laboratoriyey (for Raskin).
4. Direktor Chernovitskoy oblastnoy veterinarnoy laboratoriyey (for Naumov).
5. Vsesoyuznyy nauchno-issledovatel'skiy institut veterinarnoy sanitarii (for Nikiforov, Trakhanov).
6. Dezinfektsionnaya stantsiya Moskovskogo gorodskogo otdela zdravookhraneniya (for Petukhovskiy).
7. Vsesoyuznyy nauchno-issledovatel'skiy institut veterinarnoy sanitarii (for Endzin).

YEGOROV, I.N., Inst.

Hard facing of carbon steel dies with the EN-604 electrode.
Evar. proizv. no.6:13-14 Is '65. (MMA 18:8)

1. Proyektno-konstruktsionnoye byuro TSV Ministertva puloy
soobshcheniya.

YEGOROV, I.N.

Phenomena of hybridism connected with the formation of Ulkansk
subalkaline granitoids. Biul. MOIP Otd. geol. 40 no.6:139-140
N-D '65. (MIRA 19:1)

1. Submitted April 22, 1965.

YEGOROV, I.N., inzh.

Hard facing of dies for cold stamping. Svar. proizv. no. 3:28-30
Mr '63. (MIRA 16:3)

1. Proyektno-konstruktorsko-tehnologicheskoye byuro na zavode
im. Voytovicha.
(Hard facing) (Dies (Metalworking))

YEGOROV, I.N.

Granite pegmatites occurring in the Talitskiy serpentinite
massif of the Central Urals. Trudy IMGRE no.8:220-235 '62.
(MIRA 16:1)

(Ural Mountains—Pegmatites)
(Ural Mountains—Serpentinities)

YEGOROV, I.P.

chem

ZHURNAL ANALITICHESKOY KHIMII

Vol 11, Issue Nr 4, July-August, 1956

D

DETERMINATION OF THE BRANCHING DEGREE OF PARAFFIN

ppp

I. P. Yegorov and Al. A. Petrov

Institute of Organic Chemistry, Academy of Sciences of the USSR

pm

GARETSKIY, R.G.; YEGOROV, I.P.; NAUMOVA, S.N.; SHLEZINGER, A. Ye.

Lower Carboniferous and upper Devonian deposits in the Zhanasu region (the South-Emba gravity maximum). Dokl. AN SSSR 136 no.6:1418-1421 F '61. (MIRA 14:3)

1. Geologicheskii institut AN SSSR. Predstavleno akademikom A.L. Yanshinym.
(Emba Valley-- Geology, Stratigraphic)

SOKOLOVA, Yekaterina Ivanovna; IVANOVA, Yekaterina Nikolayevna; YEGOROV,
Ivan Petrovich; KOROBEKOV, I.A., nauchnyy-red.; DAYEV, G.A., vedushchiy
red.; FRUMKIN, P.S., tekhn.red.

[Permian and Triassic sediments in the Yuzhnaya Emba and their oil
potential] Permskie i triasovye otlozheniia Iuzhnoi Emby i ikh
neftenosnost'. Leningrad, Gos.nauchno-tekhn.izd-vo nef't.i gorno-
toplivnoi lit-ry. Leningr.otd-nie, 1961. 194 p. (Leningrad.
Vsesoiuznyi nef'tianoi nauchno-issledovatel'skii geologorazvedochnyi
institut. Trudy, no.164). (MIRA 14:8)
(Emba Valley--Petroleum, Geology)

YEGOROV, I. I.

FA 53T41

USSR/Mathematics

Sep 1947

"The Order of Groups of Movements in Spaces of Affine Compendency," I. P. Yegorov, 4 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVII, No 9

In 1903, Fubin stated that extended spaces n of measurements do not have full groups of movements of the order $\frac{n(n+1)}{2} - 1$. Author proves that corres-

ponding theorem of Fubin in extended spaces holds in affine spaces. Submitted by Academician A. N. Kolmogorov, 24 Mar 1947.

53T41

YEGOROV, I. P.

"Collineation of Spaces of Projected Bonds," Dokl. AN SSSR, 61, No.4, 1948

YEGOROV, I. P.

Yegorov, I. P. On the groups of motion of spaces with asymmetric affine connection. Doklady Akad. Nauk SSSR (N.S.) 64, 621-624 (1949). (Russian)

Let $x^1, x^2, \dots, x^n$ be the coordinates of a point in a space with affine connection in which the object A_{ij}^k is not symmetrical, i.e. $A_{ij}^k \neq A_{ji}^k$. Let α denote the dimension of the space.

in the space with the connection A_{ij}^k . The dimension of the

A necessary and sufficient condition that there exists a complete group of order n of motions of the space

positive integer n such that the dimension of the space

$P_1, P_2, \dots, P_n$

LEM STW

YE GOROV, TP

Egorov, I. P. On a strengthening of Fubini's theorem on the order of the group of motions of a Riemannian space. Doklady Akad. Nauk SSSR (N.S.) 66, 795-796 (1949). (Russian)

Fubini's theorem [Ann. Mat. Pura Appl. (3) 8, 39-81 (1903)] states that a Riemannian V_n for $n > 2$ cannot admit a complete group of motions of order $k(n+1)-1$. In this paper it is shown that the interval of forbidden orders is broader. For this purpose the following theorems are demonstrated. (I) The maximum order of the complete groups of motions of those V_n which are not Einstein manifolds is $k(n-1)+1$. (II) The order of the complete groups of motions of those V_n which are different from manifolds of constant curvature is not larger than $k(n-1)+2$.

The proof of (I) is made by a study of the rank of the coordinate matrices of the tensor

$$T_{\alpha\beta\gamma}^{\alpha\beta\gamma} = 4\delta_{\alpha\beta}^{\alpha\beta} R_{\gamma}^{\gamma}.$$

$\alpha, \beta, \dots = 1, 2, \dots, n$; $\alpha, \beta \neq \gamma, \delta$; $i, j = 1, \dots, n$, where R_{ij} is the Ricci tensor, which appears in the equations obtained by contraction of the integrability conditions of the equations of Killing [see L. P. Eisenhart, Continuous Groups of Transformations, Princeton University Press, 1933, pp. 213-214]. The proof of theorem II needs the study of the rank of the coordinate matrices of the tensor

$$T_{\alpha\beta\gamma\delta}^{\alpha\beta\gamma\delta} = 2(\delta_{\alpha\beta}^{\alpha\beta} R_{\gamma\delta}^{\gamma\delta} - \delta_{\alpha\gamma}^{\alpha\gamma} R_{\beta\delta}^{\beta\delta} + \delta_{\alpha\delta}^{\alpha\delta} R_{\beta\gamma}^{\beta\gamma}),$$

where $R_{\alpha\beta}^{\alpha\beta}$ is the Riemann curvature tensor. Since in case II $R_{\alpha\beta\gamma\delta}^{\alpha\beta\gamma\delta} = 0$, the V_n is projectively Euclidean.

D. J. Strick (Cambridge, Mass.).

Source: Mathematical Reviews,

Vol 11 No. 3

YEGOROV, I. P.

Yegorov, I. P. On groups of motion of spaces with general asymmetrical affine connection. Doklady Akad. Nauk SSSR, N. 21, 73, 265-267, 1980. (Russian)
Let L_n be an n -dimensional space with an asymmetrical affine connection whose object of translation is

$$\Lambda^a_{ij} = \Gamma^a_{ij} - \Gamma^a_{ji}$$

the set of infinitesimal transformations of the space L_n is relative to Γ^a_{ij} and Λ^a_{ij} is given by

$$\xi^a \partial_a = u^i_j \partial_i - u^j_i \partial_j + R^a_{ij} \partial_a$$

If the torsion tensor satisfies the following

$$\partial_i \Lambda^a_{jk} = \partial_j \Lambda^a_{ik} - \partial_k \Lambda^a_{ij}$$

(4) R^a_{ij} is the curvature tensor of the space L_n then Λ^a_{ij} determines also a covariant derivative ∇^a satisfying an sufficient condition that L_n be a space with an asymmetrical affine connection is in every coordinate system (5) $\Lambda^a_{ij} = 0$. I. P. Yegorov proved (same Doklady, N. 21, 62, 624, 1979, these Rev. 10, 739) that the maximum order of a complete group of motions in a space L_n with an asymmetrical connection is n^2 . A space L_n is called a space with a general asymmetrical connection if the torsion tensor Λ^a_{ij} has a general structure. For spaces of this type the author proves by an algebraic analysis of the relations (2), (3) the following theorem. The maximum order of a complete group of motions is $n^2 - 2n + 6$. He adds without proof that any asymmetrical connection Λ^a_{ij} of all spaces with the connection Λ^a_{ij} which have complete groups of motions of order $n^2 - 2n + 6$ is necessarily projectively Euclidean.

F. Vukobratović

Source: Mathematical Reviews,

Vol. 11, No. 8

YEGOROV, I. P.

USSR/Mathematics - Tensor Analysis

11 Oct 51

"Collineations of Spaces of Projective Connectivity,"
I. P. Yegorov, Penza State Pedagogic Inst imeni V. G.
Belinskiy

"Dok Ak'Nauk SSSR" Vol LXXX, No 5, pp 709-712

Discusses the collineations of spaces of projective connectivity assigned in X to Thomas' objects $pa_{bc}(x^1, x^2, \dots, x^n)$. Solves completely the problem concerning the establishment of the max order of groups of collineation of spaces of projective connectivity pa_{bc} with Weil's nonzero tensor. Establishes that the order of the complete groups of collineation equals $n^2 - 2n + 5$. Submitted 30 Aug 51 by Acad I. G. Petrovskiy.

221T74

USSR/Mathematics - Tensor Characteristic 11 May 52

"Tensor Characteristic of the Maximally Movable A_n of Nonzero Curvature," I. P. Yegorov, Penza State Institute V. G. Belinskiy

"Dok Ak Nauk SSSR" Vol 84, No 2, pp 209-212

Solves the problem of detg in X_n spaces the affine connection A_n of nonzero curvature, which spaces possess max mobility, i.e., admit complete groups of motions of max order equal to n^2 . Writes down in tensor form the

231T66

necessary and sufficient conditions that a given A_n of nonzero curvature be maximally movable in the indicated sense. Submitted by Acad A. N. Kolmogorov 13 Mar 52.

231T66

YEGOROV, I. P.

USSR/Mathematics - Tensor Analysis

21 May 52

"Maximally Mobile Spaces L_n of Semisymmetrical Connection," I. P. Yegorov, Penza Pedagogic Inst imeni V. G. Belinskiy

"Dok Ak Nauk SSSR" Vol LXXXIV, No 3, pp 433-435

The greatest order of the groups of motions of spaces L_n of affine semisym connection is equal to n^2 , space L_n with such order of a group of motion being called maximally mobile. In the current article the author solves the problem of detg in X_n all maximally mobile spaces L_n and gives the necessary and sufficient conditions that a given space L_n be maximally mobile. Submitted by Acad A. N. Kolmogorov 13 Mar 52.

225TH7

1. YEGOROV, I. P.

2. USSR (600)

4. Spaces, Generalized

7. Motion in spaces of affine compactness. Dokl. AN SSSR 87 no. 5 1952.

Solves the problem of establishing maximum order of groups of movements in spaces of affine connection (without torsion) which are different from equiaffine, and demonstrates that the isolated class of maximally mobile spaces is in a definite sense an immediate sequent of the class of maximally mobile spaces A_n of affine connection of zero curvature. Thanks Prof P. K. Rashevskiy. Presented by Acad I. G. Petrovskiy 18 Oct 52.
254T84

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

Egorov, I. P. On motions in spaces with an affine connection. Doklady Akad. Nauk SSSR (N.S.) 89, 781-784 (1953). (Russian)

(1953). (Russian)
 Dans le travail l'auteur montre la caractéristique géométrique 1) de l'espace A_n à connexion affine sans torsion et qui a la courbure différente de zéro et 2) de l'espace L_n à connexion (demi)symétrique avec le tenseur de torsion pour lequel on a $R^{\alpha}_{\beta\gamma} = \delta^{\alpha}_{\beta}\Omega_{\gamma} - \delta^{\alpha}_{\gamma}\Omega_{\beta}$, où on a le groupe des mouvements d'ordre maximum. On y emploie soit des groupes complets et transitifs d'ordre n^2 , soit des groupes complets, intransitifs d'ordre $n^2 - 1$. On connaît les conditions nécessaires et suffisantes pour que l'espace A_n possède le groupe des mouvements d'ordre maximum [mêmes Doklady (N.S.) 84, 433-435 (1952); ces Rev. 14, 318]: 1) l'espace A_n est projectif-euclidien et équi-affine; 2) $R_{ij} = (1 - \epsilon)\lambda_i\lambda_j$ ($\epsilon = \pm 1$), $\lambda_{i,j} = \alpha\lambda_i\lambda_j$, où le tenseur $\lambda_{i,j}$ est symétrique, λ_i est le gradient de la fonction λ et α est la fonction de λ dans le cas du groupe complet et intransitif, ou une constante dans le cas du groupe complet et transitif.

En partant des résultats ceux-ci l'auteur prouve les théorèmes suivants. 1) La condition nécessaire et suffisante pour que l'espace à n dimensions, à connexion affine sans

avec le groupe d'ordre maximum est: 1) Ils existent dans A_{n-1} $(n-1)$ champs indépendents des vecteurs contravariants absolument parallèles. 2) Dans l'espace A_n , avec le groupe d'ordre maximum, chaque hypersurface $\lambda(x_1, \dots, x_n) = C$, où C est le paramètre, est totalement géodésique. 3) Les coefficients $\Gamma^{\alpha}_{\beta\gamma}$ de la connexion affine de l'espace A_n avec le groupe des mouvements d'ordre maximum, transitif et complet peuvent avoir la forme

$$\frac{1}{2}\Gamma_{11} = \Gamma_{21} = \dots = \Gamma_{n1} = -\frac{x^1}{(x^1)^2 + 4e}, \quad \text{ou} \quad -\frac{x^1 + 1}{(x^1)^2 + b}$$

(les autres $\Gamma_{\alpha\gamma}$ sont égaux au zéro) où $b \neq -1$ est la constante arbitraire. 4) Les coefficients $\Gamma_{\alpha\gamma}$ de la connexion affine de l'espace A_n avec le groupe d'ordre maximum, intransitif, complet, peuvent toujours avoir la forme:

$$\frac{1}{2}\Gamma^1_{11} = \Gamma^2_{21} = \dots = \Gamma^n_{n1} = \alpha(x^1),$$

(les autres $\Gamma_{\alpha\gamma}$ sont égaux au zéro), où $\alpha(x^i)$ est une fonction de x^i . Dans le cas où l'espace est L_n , la connexion associée est

$$L^a(\beta_1) = -\delta\beta^a\psi_1 - \delta\gamma^a\psi_\beta,$$

(over)

Л. Г. М. В. Л. Р.

où

$$\begin{aligned}\partial_{\alpha}\psi &= -\partial_{\alpha}\psi\eta_{\alpha}\psi + C_1\partial_{\alpha}\Omega\partial_{\alpha}\Omega, \\ \partial_{\alpha}\Omega &= -\partial_{\alpha}\psi\eta_{\alpha}\Omega - \partial_{\alpha}\psi\partial_{\alpha}\Omega + C_2\partial_{\alpha}\Omega\partial_{\alpha}\Omega,\end{aligned}$$

et C_1, C_2 sont les constantes ou les fonctions de Ω ($\Omega_1 = \partial\Omega$).
On a les théorèmes: 5) Les vecteurs ψ_i, Ω_i de l'espace L_n avec le groupe d'ordre maximum, qui donnent la connexion euclidienne, peuvent avoir la forme

$$\psi_1 = \psi_2 = \dots = \psi_n = 0, \quad \Omega_1 = 1, \quad \Omega_2 = \dots = \Omega_n = 0,$$

ou

$$\psi_1 = \psi_2 = \dots = \psi_n = 0, \quad \Omega_1 = \frac{k}{x^1}, \quad \Omega_2 = \dots = \Omega_n = 0.$$

6) L'ordre maximum du groupe intransitif, complet, dans l'espace à connexion affine avec torsion, est $n^2 - 1$. Les vecteurs associés peuvent avoir la forme

$$\begin{aligned}\psi_1 &= \alpha(x^1), \quad \psi_2 = \dots = \psi_n = 0, \\ \Omega_1 &= \beta(x^1), \quad \Omega_2 = \dots = \Omega_n = 0,\end{aligned}$$

où α, β sont les fonctions de x^1 arbitraires.

Le travail contient aussi les équations des groupes étudiés.
F. Vyčichlo (Prague).

YEGOROV, I. P.

USSR/ Mathematics - Spaces

Card 1/1 Pub. 22 - 2/46

Authors : Yegorov, I. P.

Title : Maximally movable Riemannian V_4 spaces of non-constant curvature

Periodical : Dok. AN SSSR 103/1, 9-12, Jul 1, 1955

Abstract : An analysis is given to the maximally movable Riemannian spaces $V_4 (ds^2 > 0)$ of non-constant curvature which unavoidably are the Einsteinian spaces and posses eight member groups of movement G_8 . Twelve reference: 1 It., 3 Rum. and 8 USSR (1904-1953).

Institution :

Presented by: Academician P. S. Aleksandrov, March 23, 1955

YEGOROV, I. P.

Call Nr: AF 1108825

Transactions of the Third All-union Mathematical Congress (Cont.) Moscow, Jun-Jul '56, Trudy '56, V. 1, Sect. Rpts., Izdatel'stvo AN SSSR, Moscow, 1956, 237 pp. Mention is made of Petrovskiy, I. G. and Andronov, A. A.

There are 4 references, all of them English.

Dzhavadov, M. A. (Baku). Spaces Over Alternions and Their Application for the Geometric Interpretation of Spinor Representations of Non-Euclidean Space Motion. 149-151

Drinfel'd, G. I. (Khar'kov). Theory of Integral Invariants and Integral Geometry. 151

Yegorov, I. P. (Penza). Equiaffine Spaces of Third Lacunarity. 151-152

There are 2 references, both of them USSR.

Zalgaller, V. A. (Leningrad). On the Fundamentals of the Theory of Two-dimensional Manifolds of a Bounded Curvature. 152

There is 1 USSR reference.
Card 49/80

YEGOROV, I.P.

de la condition nécessaire
pour l'existence d'un champ des vecteurs ξ^i

est
le système d'équations différentielles
linéaires du premier ordre à la dérivée
première

qui peut être écrit sous la forme
du système d'équations différentielles
linéaires du premier ordre à la dérivée
première

$$\lambda_i \xi^i = 0, \quad \rho_i \xi^i = 0, \quad T_i \xi^i = 0$$

qui montrent que le vecteur η_i est le gradient de la fonc-
tion $\varphi(x^1, \dots, x^n)$ et qu'il existe exactement $(n-2)$ champs
des vecteurs ξ^i absolument parallèles.

Les résultats du travail

1. Il n'existe aucun espace euclidien A_n avec le groupe
complet g_r des mouvements dont l'ordre r satisfait aux
inégalités $n^2 - 2n + 5 < r < n^2 - n - 2$.

6 0000 1000
quasi-quantité. Le groupe complet r.
est un groupe complet. Les éléments
sont les éléments du groupe complet.
Le groupe complet est un groupe complet.

1 1 1

1966

1967

YEGOROV, I. P.

SUBJECT USSR/MATHEMATICS/Geometry
 AUTHOR EGOROV I.P.
 TITLE Riemannian spaces of second lacunarity.
 PERIODICAL Doklady Akad.Nauk 111, 276-279 (1956)
 reviewed 5/1957

CARD 1/2

PG - 787

As it is well-known, the distribution of the orders of transitive and intransitive groups in Riemannian spaces V_n has gaps. There do not exist Riemannian spaces which have a motion group O_r with $\frac{n(n-1)}{2} + 1 < r < \frac{n(n+1)}{2}$ (first gap).

In the present paper the author shows that the second gap for transitive motion groups lies at

$$\frac{(n-1)(n-2)}{2} + 3 < r < \frac{n(n-1)}{2} + 1$$

and for intransitive ones at

$$\frac{(n-1)(n-2)}{2} + 2 < r < \frac{n(n-1)}{2}.$$

The author considers especially the spaces of second lacunarity, i.e. Riemannian spaces which have an intransitive motion group O_r ($r = \frac{n(n-1)}{2}$).

Doklady Akad.Nauk 111, 276-279 (1956)

CARD 2/2

PG - 787

or a transitive group O_r ($r = \frac{n(n-1)}{2} + 1$). It is shown that then they are subprojective spaces of Kagan (Trudy Sem.vekt.anal. (1933)no.1,2) and reversely. A further theorem asserts that the maximal order of the motion groups of the non-conformal Euclidean spaces V_n equals $\frac{(n-1)(n-2)}{2} + 3$. It is assumed that the considered Riemannian spaces V_n are not Einsteinian. The restriction $ds^2 > 0$ is not made.

INSTITUTION: Agricultural Institute, Pansa.

Name: YEGOROV, Ivan Petrovich

Dissertation: Motion in the Affine Connectivity Spaces

Degree: Doc Phys-Math Sci

Affiliation: Penza State Ped Inst imeni Belinskiy

Defense Date, Place: 17 May 56, Council of Moscow Order of Lenin and
Order of Labor Red Banner State U imeni Lomonosov

Certification Date: 17 Nov 56

Source: BIVO 6/57

YEGOROV, I.P.

Einsteinian spaces of maximum mobility and inconstant curvature.
Dokl. AN SSSR 145 no.5:975-978 '62. (MIRA 15:8)

1. Penzenskiy pedagogicheskiy institut im. V.G.Belinskogo.
Predstavleno akademikom A.N.Kolmogorovym.
(Spaces, Generalized)

PULKIN, S.P., prof., glav. red.; BREDIKHIN, B.M., dots., red.
YEGOROV, I.P., prof., red.; MURZAYEV, Ya.A., dots., red.;
SHTRAUS, A.V., prof., red.; SHCHERBAKOV, A.I., tekhn.red.

[Transactions of the Conference of Mathematics of Pedagogical
Institutes in regions of the Volga Valley] Trudy vtoroy na-
uchnoy konferentsii matematicheskikh kafedr pedagogicheskikh
institutov Povolzh'ya. Kuibyshev, Kuibyshevskii gos. pedagog.
in-t im. V.V.Kuibysheva. No.1. [Theoretical reports. Reports
on the methodology of teaching mathematical sciences in
pedagogical institutes] Teoreticheskie doklady. Doklady po
metodike prepodavaniia matematicheskikh distsiplin v pedagogi-
cheskom institute. 1962. 234 p. (MIRA 16:4)

1. Nauchnaya konferentsiya matematicheskikh kafedr pedagogiche-
skikh institutov Povolzh'ya, 2d, Ul'yanovsk, 1961.
(Mathematics—Study and teaching)

YEGOROV, I.P.

Riemannian spaces of the first three lacunarities in the geometrical sense. Dokl. AN SSSR 150 no.4:730-732 Je '63.
(MIRA 16:6)

1. Penzenskiy gosudarstvennyy pedagogicheskiy institut imeni V.G. Belinskogo. Predstavleno akademikom I.G. Petrovskim.
(Spaces, Generalized)

YEGOROV, I.P. (Penza)

Homothetic movements in irreducible symmetric Riemann spaces
of the first class. Volzh. mat. sbor. no.1:61-65 '63.
(MIRA 19:1)

YEGOROV I.K.
GLUSHKOV, Georgiy Sergeyevich; YEGOROV, Ivan Rodionovich; YERMOLOV, Vadim
Vladimirovich; YEGOROVA, N.O., red. izd-va; TOKER, A.M., tekhn.
red.

[Formulas for calculating structural frames] Formuly dlia rascheta
ram. Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekt., 1958. 166 p.
(Structural frames) (MIRA 11:5)

GLUSHKOV, Georgiy Sergeyevich, doktor tekhn. nauk, prof.; YEGOROV, Ivan Rodionovich; YERMOLOV, Vadim Vladimirovich; DOROGOV, N.P., inzh., ~~retsensent~~; YAKOVLEVA, V.I., red.; CHERNOVA, Z.I., tekhn. red.; UVAROVA, A.F., tekhn. red.

[Formulas for designing continuous beams and frames] Formuly dlia rascheta nerazreznykh balok i ram; spravochnoe posobie. Pod red. G.S.Glushkova. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1960. 342 p. (MIRA 14:6)
(Girders) (Structural frames)

GLUSHKOV, G.S.; YEGOROV, I.R.; YERMOLOV, V.V.; GARANKINA, S.P., red.;
DEMINKINA, N.F., tekhn. red.

[Formulas for the design of continuous beams and frames] Formuly dlia rascheta nerazreznykh balok i ram; spravochnoe posobie. Izd.2., dop. i perer. Moskva, Mashgiz, 1963. 463 p.
(MIRA 17:4)

YEGOROV, I.S.

Changes in the physicochemical properties of petroleum in the
Paleozoic cross section of the Tatar A.S.S.R. Izv. vys. ucheb.
zav.; neft' i gaz 6 no.2:7-10 '63. (MIRA 16:5)

1. Kazanskiy gosudarstvennyy universitet.
(Tatar A.S.S.R.--Petroleum geology)

Yegorov, Ivan Stepanovich

II/5
722.101
.7-1

25 (i.e. Dvadtsat Pyat') Let Ruko-vodstva Kolkhozom
(25 Years of Aid to Kolkhozes)

Moskva, Sel'Khozgiz, 1956

132 P. Port., Tables.

YEGOROV, Ivan Stepanovich

[Twenty-five years of collective farm management] Dvadsat' plat'
let rukovodstva kolkhozom. 2 izd., perer. i dop. Moskva, Gos.
izd-vo sel'skokhoziaistvennoi lit-ry, 1957. 183 p. (MIRA 12:2)
(Collective farms)

BOYARSKIY, Lazar' Tadrisevich; KORSHIKOV, Nikolay Petrovich; LIBERMAN,
B.S., inzh., retsenzent; YEGOROV, I.S., inzh., retsenzent;
SHUNAYEV, B.K., kand.tekhn.nauk, retsenzent; IOSEUTOV, V.V.,
kand.tekhn.nauk, retsenzent; SHARIN, Yu.S., kand.tekhn.nauk,
red.; DUGINA, N.A., tekhn.red.; EL'KIND, V.D., tekhn.red.

[Technology of the manufacture of machine tools] Tekhnologiya
stankostroeniia. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.
lit-ry, 1959. 371 p. (MIRA 13:2)
(Machine-tool industry)

YEGOROV, Ivan Stepanovich, Geroy Sotsialisticheskogo Truda;
RAKITINA, Ye.D., red.; DEYEVA, V.M., tekhn.red.

[Corn in livestock raising] Kukuruz a i zhivotnovodstvo.
Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 126 p.

(MIRA 13:11)

(Corn as feed)

L 3513-66 ENT(m)/EWA(d)/EXP(t)/EXP(v)/EXP(z)/EXP(b) INP(c) JD/JG

AM5019283

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43
33
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Daniyelyan, Arutyum Mkrtichevich (Doctor of Technical Sciences; Professor); ^{44.55} Bobrik, Petr Ivanovich; Gurevich, YAnkel' Leybovich; ^{44.55} YEgorov, Ivan Sergeyevich

¹⁸ Machining heat-resistant steel, alloys and ²⁷ refractory metals (Obrabotka rezaniyem zharoprochnykh staley, splavov i tugoplavkikh metallov) Moscow, Izd-vo "Mashinostroyeniye", 1965. 306 p. illus., biblio. Errata slip inserted. 5700 copies printed.

TOPIC TAGS: machining, heat resistant steel machining, refractory metal machining, heat resistant alloy machining, titanium alloy machining, beryllium machining, rare metal machining ²⁷

²⁷ PURPOSE AND COVERAGE: This book is intended for engineering personnel of machine-building plants, scientific research institutes, and engineering design bureaus. It may also be useful to students of schools of higher technical education specializing in technology. The book reviews specific technological features and aspects of various procedures of machining heat-resistant and refractory metals

Card 1/4

L 3513-66

AM5019283

3

and alloys. In particular, it deals with metal turning, milling, boring, threading, and broaching. Suggestions are made on the selection of materials used for contact surfaces of tools, tool shapes, and efficient machining conditions. It also presents an analysis of thermal phenomena observed in the process of machining.

TABLE OF CONTENTS:

Foreword -- 3

Part I. Present Heat Resistant Materials and Classification Based on Their Machinability (Ya. L. Gurevich) -- 5

Part II. Certain Physical Problems of Machining Heat-Resistant Steels and Alloys (P. I. Bobrik) -- 23

Ch. 1. Analyzing the Thermal Field and Calculating the Machining Temperature -- 23

Card 2/4

L 3513-66

AM5019283

3

Ch. 2. Analysis of the Quality of the Surface Layer Produced by
Machining Heat-Resistant Materials -- 56

Part III. Thermal Phenomena Observed in Machining Heat-Resistant
Hard-to-Machine Metals and Alloys (A. M. Daniyelyan) -- 84

Part IV. Machinability of Heat-Resistant Steels and Alloys as well as
Titanium Alloys, Machined by Applying Various Procedures (Ya. L.
Gurevich) -- 99

Ch. 1. Cutting -- 99

Ch. 2. Turning -- 114

Ch. 3. Milling -- 150

Ch. 4. Boring -- 179

Ch. 5. Reaming -- 18838

Card 3/4

L 3513-66

AM5019283

Ch. 6. Broaching -- 192

Ch. 7. Threading -- 195

Part V. Machining of Refractory and Rare Metals (I. S. Yegorov)
212

Ch. 1. Main Physical, Mechanical and Chemical Properties of Rare and Refractory Metals -- 212

Ch. 2. Machining Refractory Metals -- 216

Ch. 3. Machining Beryllium -- 266

SUB CODE: MM

SUBMITTED: 17Mar65 NO REF SOV: 105

OTHER: 35

Card

4/4

YEGOROV, I.S.

Tectonics of the lower Kama oil-bearing region in Tatarstan. Geol.
nefti i gaza 6 no.3:32-34 Mr '62. (MIRA 15:4)
(Tatar A.S.S.R.—Geology, Structural)

YEGOROV, I.S.

Paleographic conditions of the accumulation of terrigenous
Devonian sediments in the lower Kama region. Geol. nefti i
gaza. 8 no.12:42-47 D '62. (MIRA 18:2)

1. Geologicheskii institut, g. Kazan'.

SHEVTSOV, S.I.; YEGOROV, I.S.

Existence of Proterozoic deposits in the Tatar Dome area.
Dokl. AN SSSR 149 no.1:170-172 Mr '63. (MIRA 16:2)

1. Kazanskaya geologicheskaya ekspeditsiya Gosudarstvennogo
geologorazvedochnogo tresta neftyanoy i gazovoy promyshlennosti
Tatarskoy ASSR i Kazanskiy filial AN SSSR. Predstavleno
akademikom N.M.Strakhovym.
(Tatar A.S.S.R.—Geology, Stratigraphic)

YEGOROV, I.S.

Some problems of the geology and oil potentials in Devonian
terrigenous sediments in the lower Kama Valley. Trudy VNIIGI
no.36:155-156 '63. (MIRA 17:9)

YEGOROV, I.S.

Disjunctive character of a series of tectonic dislocation in the
lower Kama Valley. Geol. nefti i gaza 7 no.8:45-50 Ag '63.
(MIRA 16:10)

1. Geologicheskii institut Kazakhstanskogo filiala AN SSSR.

YEGOROV, I.S.

History of the formation of the tectonic pattern in the Lower Kama
oil-bearing region. Sov. geol. 7 no.9:47-61 S '64. (MIRA 17:10)

1. Kazanskiy nauchno-issledovatel'skiy institut Gosudarstvennogo
geologicheskogo komiteta SSSR.

YEGOROV, I.S.

Time and conditions for oil accumulation in the sediments of the terrigenous formation of the Devonian of the Lower Kama oil-bearing region. Geol. i geofiz. no.5:16-19 '64. (MIRA 17:9)

1. Geologicheskii institut Kazanskogo filiala AN SSSR.

YEGOROV, I. T.

22631 Priblizhennaya Formula Dlya Vychisleniya Ostoychivosti Sudov Na Bol'shikh
Uglakh Krena. [S Primech. V.V. Semenova Tyanshanskogo]. Sbornik
Rabot Studentov--Chlenov Nauch. Kruzhkov (Leningr. Korablestroit. IN-T)
Vyp. 1, 1949, S. 28-34

SO: Letopis' 30, 1949

YEDOROV, I. T.

3376. Egorov, I. T., Compressible Fluid Impact (in Russian), Pril. Mat. Mekh. 20, 1, 67-72, Jan./Feb. 1956.

A sudden pressure increase, propagated at sound speed in both media, arises on the wetted body surface during impact of a solid body on a plane fluid surface.

The case explained is when the speed of sound propagation in the body incident on the fluid surface can be considered infinitely large relative to the speed of sound propagation in the fluid, i.e., the incident body is absolutely rigid. In this case the fluid accepts the whole relative velocity of the motion occurring at the start of the impact. The hydrodynamic pressures thus arising propagate at the speed of sound from the contact surface into the fluid as compression and rarefaction waves and gradually damp. After the impact pressure dissipates, the rest of the fluid surface still distant from the body and become zero; hydrodynamic pressures corresponding to the body motion after the impact remain.

Neglecting viscous forces and also taking into account that the fluid motion starts from rest, the motion of an ideal compressible fluid during impact is described by a potential.

Considered is the case of impact on the surface of a compressible fluid by a plane plate of infinite span or by a body for which the submerged part of the surface can be approximated by a plane.

Considered is the first phase of the impact phenomenon on the fluid surface which precedes the appearance of a cavity since the hydrodynamic pressures are greatest in just this period. Observations of body incidence on a fluid surface show that the free surface of the fluid is almost completely at rest in this period if the small elevation near the boundary of the impact surface is not taken into account.

From author's summary by M. D. Friedman, USA

YEGOROV, I. T.

24-8-5/34

AUTHOR: Yegorov, I.T. (Leningrad)

TITLE: The oblique impact of a lamina on a fluid. (Kosoy udar o zhidkost')

PERIODICAL: "Izvestiya Akademii Nauk SSSR. Otdeleniye Tekhnicheskikh Nauk." (Bulletin of the Academy of Sciences USSR. Technical Sciences Section.) No.8, pp. 41-47 (U.S.S.R.), 1957

ABSTRACT: The impact on the surface of a fluid by a plane, infinite lamina is discussed. It is assumed that at the moment of contact with the fluid, the lamina has a component of relative velocity parallel to the undisturbed surface of the fluid. The process of interaction is divided into two phases. In the first phase is investigated the entry of the lamina into the water. In the second phase is determined the resulting motion of the lamina with constant or, in the case of large, horizontal velocities, with variable wetting of the length of the lamina. Only the initial stages of the process of impact are investigated before the appearance of cavities behind the lamina. As experiment shows, it is in the first stage of impact that the hydro-dynamic forces reach their maximum values. The author further investigates the entry of the lamina into the water with constant angle of attack β which occurs in the case

Card 1/2