Bending of a previously compressed ...

$T^* < \mu F^*$, $\mu = \frac{l^2}{h^2} e_s$, where F is the cross section, h the beam height, e_s the relative contraction. The asterisk denotes the transformation into dimensionless quantities. The application of the transverse load may, however, lead to the formation of a region of plastic deformation so that different differential equations hold for the compressive stress for the respective region. Fig. 1 shows the distribution of plastic and elastic deformation. It can be seen that for all beam cross sections the condition $z_1^* > \bar{z}_1^*$ is fulfilled for the ordinate of the interface of the two regions. The plastic layer has its maximum width where the second derivative of the deflection $|w^{*\prime\prime}|$ has a maximum. The region of plastic deformation does not extend to the free end of the beam. It has its maximum width at the rigidly supported end of the beam. (2) The axial force T is so strong that bending sets in with plastic deformation only: $T^* > \mu F^*$. After the application of a transverse load a region of relaxation arises in which the beam behaves elastically during the bending. In this case the ordinate of the interface z_p proves to be constant for all cross sections and

Card 2/4

independent of the transverse load. In both cases the axial force T is considered constant. (3) Bending begins as in case (2), the axial force, however, increases with the transverse load. The deflection can be calculated on the assumption that $T - T_o = f(q)$. $Z_p^* < \bar{Z}_p^*$ holds for the distribution of the plastic and elastic regions for each cross section. The region of relaxation does not extend to the free end of the beam. If the axial compressive stress increases at a sufficiently greater rate than the transverse load then no region of relaxation is formed in the beam so that only plastic deformation takes place. There are 2 figures.

ASSOCIATION: Kafedra teoreticheskoy mekhaniki (Department of Theoretical Mechanics)

SUBMITTED: March 30, 1960

VEL'SKIY, N. V.

Treatment of certain skin diseases by intravenous injection of novocaine. Vest. vener., Moskva no.4:16-18 July-Aug 1951. (CIML 21:1)

1. Of the Women's Skin Division (Head -- Prof. P. V. Kozhevnikov, Corresponding Member of the Academy of Medical Sciences USSR), Republic Skin-Venereological Institute of the Ministry of Public Health RSFSR.

VEL'SKIY, V.M.; BOROVYY, Ye.M.

Use of B.V. Petrovskii's [illegible] in esophageal surgery. Khirurgiia no.1:68-72 '63. (MIRA 17:5)

1. Iz khirurgicheskogo otdeleniya (zav. Ye.M. Borovyy) Rovenskoy oblastnoy bol'nitsy (glavnyy vrach - zasluzhennyy vrach UkrSSR V.M. Vel'skiy).

BOROVYY, Ye.M.; VEL'SKIY, V.M.

Tension pneumothorax following puncture of an abscess of a solitary lung. Khirurgiia 39 no.8:114-115 Ag '63.
(MIRA 17:6)

1. Iz khirurgicheskogo otdeleniya (zav.- kandidat meditsinskikh nauk Ye.M. Borovyy) Rovenskoy oblastnoy bol'nitsy (glavnyy vrach - zasluzhennyy vrach UkrSSR V.M. Vel'skiy).

VEL'SKIY, V.M., zasluzhennyy vrach UkrSSR (Rovno, ul. Leninskaya, d.32, kv.9)

Surgical treatment of some diseases of thoracic organs according to five-year (1956-1960) data of the Rovno Provincial Hospital. Klin.khir. no.6:57-62 Je '62. (MIRA 16:5)
(ROVNO—CHEST—SURGERY)

BOROVYY, Ye.M. (Rovno, ul. Leninskaya, d.3, kv.21); VEL'SKIY, V.M.; KLESHKAN', G.A.

Some problems of training surgical personnel in Rovno Province. Klin.khir. no.9:63-65 S '62. (MIRA 16:5)

1. Khirurgicheskoye otdeleniye (zav. - Ye.M. Borovyy) Rovenskoy oblastnoy bol'nitsy.
(ROVNO PROVINCE--SURGERY--STUDY AND TEACHING)

VEL'SKIY, V.M. (Rovno, ul. Leninskaya, d.32, kv.9)

Rare anomaly of biliary ducts. Klin.khir. no.9:76-77 S '62. (MIRA 16:5)

1. Khirurgicheskoye otdeleniye Rovenskoy oblastnoy bol'nitsy.
(BILE DUCTS—ABNORMITIES AND DEFORMITIES)

VEL'SKIY, V.M. (Rovno, ul. 1 Maya, d.14, kv.3); BOROVYY, Ye.M.

Intubation anesthesia in province and district hospitals. Nov. khir. arkh. no.4:70-73 Jl-Ag '60. (MIRA 15:2)

1. Khirurgicheskoye otdeleniye Rovenskoy oblastnoy bol'nitsy (glavnyy vrach - zasluzhennyy vrach USSR V.M.Vel'skiy).
(INTRATRACHEAL ANESTHESIA)

BOROVYY, Ye.M. (Rovno,ul.Dimitrova, d.42); VEL'SKIY, V.M.

Obstruction of the left lung brochus by a polyp during right pneumonectomy. Grud. khir. 1 no.5:110-112 S-O '61. (MIRA 15:3)

1. Iz khirurgicheskogo otdeleniya Rovenskoy oblastnoy bol'nitsy (glavnyy vrach - zasluzhennyy vrach USSR V.M. Vel'skiy).
(BRONCHI) (LUNGS—SURGERY)

VEL'SMAN, R.R., inzh.; PETROV, Yu. A., inzh.

Simultaneous docking of two ships in a floating dock in winter. Sudostroenie 27 no.6:55-56 Je '61. (MIRA 14:6)
(Ships—Maintenance and repair)
(Docks—Cold weather operation)

VEL'SOVSKIY, V.N.; YEREMIN, I.A.; KAL'YANOV, N.N.[deceased]; MISHKE, A.V.; RODOV, E.S.; SEREBRYANSKAYA, B.I.; GERVIDS, I.A., kand. tekhn. nauk, red.; GURVICH, E.A., red. izd-va; KOMAROVSKAYA, L.A., tekhn. red.

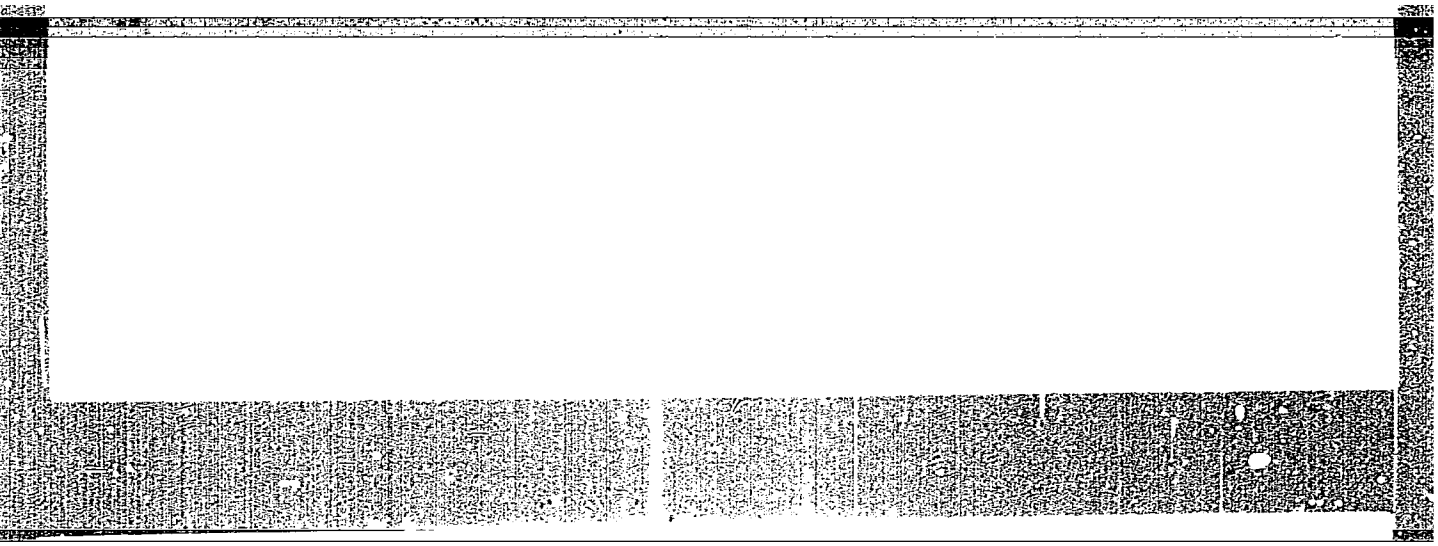
[Mineral wool insulating materials] Mineralovatnye utep-liteli. [By] V.N.Vel'sovskii i dr. Moskva, osstroiizdat, 1963. 196 p. (MIRA 16:5)
(Mineral wool)

VELSOVSKY, A.

Planetary rolling mill, of the Sendizimir system.

P. 1083. (HUTNICKE LISTY.) (Brno, Czechoslavakia) Vol. 12, No. 12, Dec. 1957

SO: Monthly Index of East European Accession (EEAI) LC. Vol. 7, No. 5, May 1958



APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859320015-7"

VEL'SOVSKIY, V.N., kand. tekhn. nauk; SPIRIN, Yu.L., inzh.; MISHKE, A.V., inzh.

Economical method of inserting binder in mineral wool.
Stroi. mat. 10 no.2:24-25 F '64. (MIRA 17:6)

VEL'SOVSKIY, V. N., Engr

"An Investigation of Certain Factors Which Affect the Life Time of Graphite-Ceramic Refractory Materials." Cand Tech Sci, All-Union Sci-Res Inst of Glass, Ministry of the Construction Materials Industry, USSR, 23 Nov 54. (VM, 12 Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (11)

SO: Sum. No. 521, 2 Jun 55

PHASE I BOOK EXPLOITATION CZECH/4260

Velsovský, Anatol, Engineer, and Eduard Červený, Engineer

Válcování (Rolling [of Metals]). Prague, Státní nakladatelstvi technické literatury, 1959. 616 p. 1,700 copies printed.

Reviewers: Bohumír Ondřak, Engineer, Jaroslav Červinka, Engineer, Maxmilián Konzik, Engineer, Bedřich Bukovský, Engineer, Bohumil Počta, Professor, Doctor, Engineer; Tech. Ed.: František Trla; Resp. Ed.: Ladislav Zelený.

PURPOSE: This book is intended for technicians and workers in rolling shops. It may also serve as a textbook in technical high schools.

COVERAGE: The book purports to contain all information essential to a technician in a rolling shop. The material presented is divided into five parts: I - an introduction to the theory of pressworking and rolling; II - the rolling equipment; III - an introduction to roll pass design; IV - the manufacturing process of the rolled stock; and V - the manufacture of rolled railroad tires and of seamless tubes. The theoretical and practical aspects of the rolling are discussed.

Card 1/15

The authors thank Engineers E. Liebzeit (Chapter 31) J. Červinka, and L. Hellebrandt. E. Červeny wrote Chapters 25 to 30. There are no references.

TABLE OF CONTENTS:

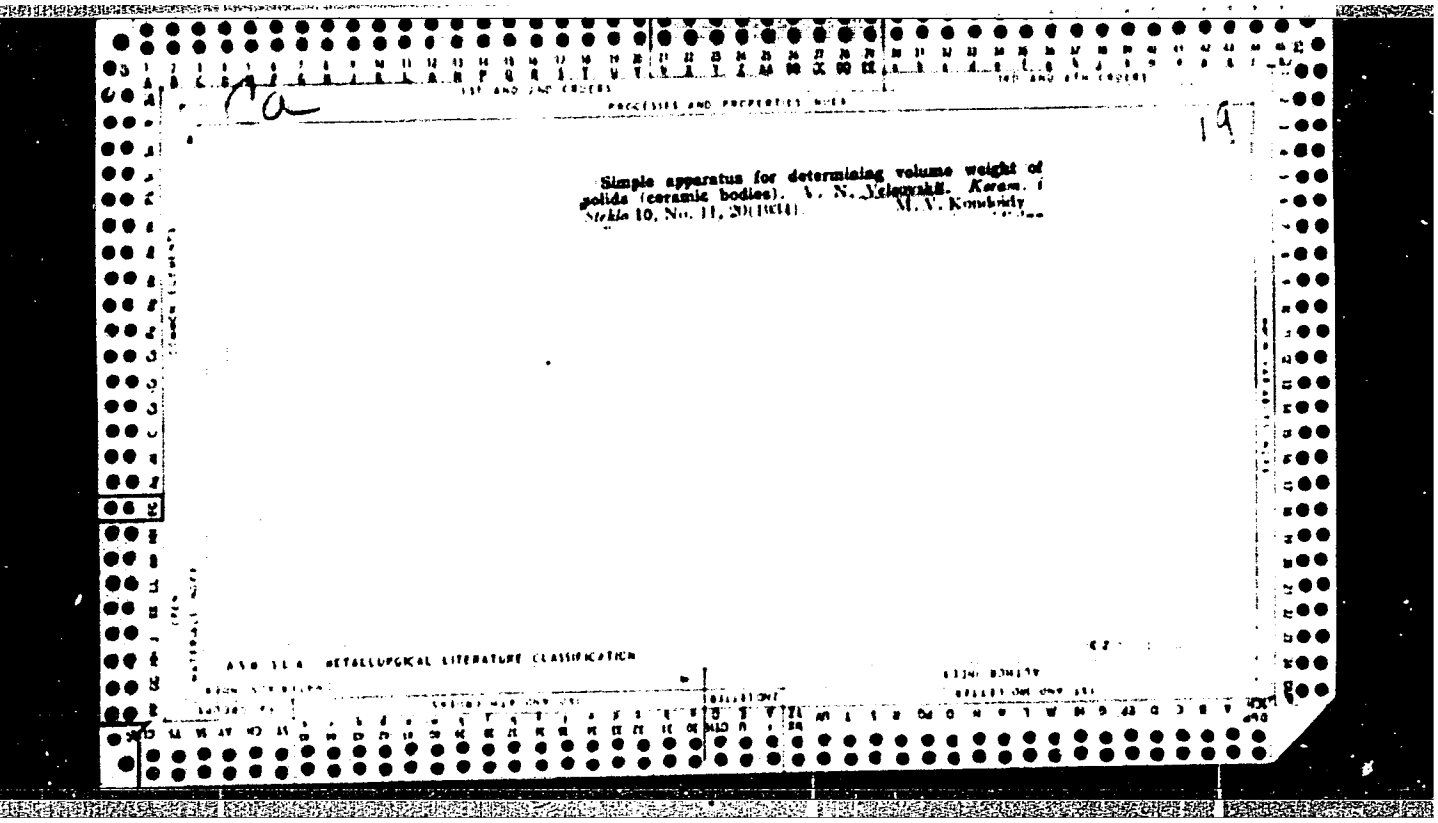
Table of Contents 5

Foreword 11

Introduction 13

PART 1. INTRODUCTION TO THE THEORY OF PRESSWORKING AND THE ROLLING [PROCESS] 17

Ch. 1. The Laws of Plastic Deformation and the Energy Theory of Pressworking 17
1. The first law of plastic deformation 17
2. The second law of plastic deformation 21
3. Unit deformation resistance and the third law of plastic deformation 21



Simple apparatus for determining volume weight of solids (ceramic bodies). V. N. Yelyanskii. *Keram. i Steklo* 10, No. 11, 20 (1961). M. V. Kombridy

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

BC

a-4

Survival of *Spirochaeta pallida* in preserved tissue. S. L. Velter and E. I. Glalbchman (*J. Med. Ukraine*, 1940, 10, 843—878).—*Sp. pallida* decrease in no. in rabbit tissue kept at 2—4°. After 24 hr. most become immobile; after 4 days they lose their virulence; on the 5th day they disappear. Wassermann reaction is positive in rabbits infected with the syphilitic tissue preserved for 1—4 days, negative if the time was longer. Preservation for 5 days is sufficient to prevent inoculation of syphilis through transplantation of tissue.

M. K.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

S/263/62/000/004/005/009
1004/1204

AUTHORS: Nikitin, B. I., Velt, I. D. and Rukovishnikova, V. K.

TITLE: Induction (electromagnetic) rate-of-flow meters of the РИ (RI) type

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk. 32. Izmeritel'naya tekhnika, no. 4, 1962, 27-28, abstract 32.4.194. In collection "Teploenerg. i khimikotekhnol. pribory i regulyatory". M.-L., Mashgiz, 1961, 134-140

TEXT: General purpose rate-of-flow meters are described, which were developed at NIITeplopribor intended for use with sensor calibers of 10, 20, 25, 50 and 80 mm, covering the upper measuring limits between 0.32 to 50 m^3/hour. The accuracy class of the devices is 2.5. These devices are intended for the measurement of rate-of-flow of liquids with a conductivity not below 10^{-4} $ohm^{-1}cm^{-1}$. The permissible static pressure is 25 kg/cm^2. The value of the useful signal is of the order 2 mV at a flow velocity of 1.5 m/sec. The flowmeter consists of a sensor, measuring amplifier, secondary meter and a remote control panel for zero checking and calibration control. The maximum permissible distance between the sensor and the amplifier is 10 m, and the maximum distance between the amplifier and the secondary meter is 100 m. In order to diminish noise it is desirable to carry the communication cables in iron tubes, at a distance of, at least, 10 to 15 m from the power line. The electric a scheme of the flow meter is included. To decrease the dependence of the readings upon the variations of the line voltage, a saturation reactor was inserted into a feedback network in order

Card 1/2

to control the gain by varying the amount of feedback. The excitation winding of the reactor is supplied by a rectified current proportional to the line voltage. Quadrature noise introduced by the sensor's magnet is roughly compensated within the sensor by variation of the measurement geometry, and fine compensation is attained in the amplifier by introducing a fraction of the heater voltage into the cathode circuit of the first stage. A calibrated input signal serves for periodical checking and adjustment of the amplifier. A complete flowmeter is graduated on a special rate-of-flow measuring stand. It is pointed out that an exchange of the secondary meters after graduation is undesirable since it affects the overall accuracy.

[Abstracter's note: Complete translation.]

S/194/61/000/011/014/070
D256/D302

AUTHORS: Nikitin, V.I., Vel't, I.D. and Rukavishnikova, V.K.

TITLE: Induction (electromagnetic) flowmeters of the "RI" type

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 11, 1961, 29-30, abstract 11 A242 (V sb. Teploenerg. i khimikotekhnol. pribory i regulyatory. M.-L., Mashgiz, 1961, 134-140)

TEXT: Flowmeters for electrically conducting liquids developed by NIIT (Thermal Instrumentation Institute) are described. The principle of induction flowmeters is presented and a description is given of a unit consisting of a converter, amplifier, measuring instrument and remote control panel. A table includes basic information on induction flowmeters of the following types: РИ-10 (RI-10), 20, 25, 50 and 80 (range in m^3/hour, and types of converters). Preliminary results of testing are in agreement with the

Card 1/2

Induction (electromagnetic)...

technical specifications of the instruments. [Abstracter's note: Complete translation]

Card 2/2

PHASE I BOOK EXPLOITATION SOV/5519

Kremlevskiy, P.P., Candidate of Technical Sciences, ed.

Teploenergeticheskiye i khimikotekhnologicheskiye pribory i regulyatory (Instruments and Regulators in Heat-Power and Chemical Engineering) Moscow, Mashgiz, 1961. 207 p. Errata slip inserted. 8,500 copies printed.

Ed. of Publishing House: G.A. Dudunova; Tech. Ed.: L.V. Shchetinina; Managing Ed. for Literature on the Design and Operation of Machines, Leningrad Department, Mashgiz: F.I. Fetisov, Engineer.

PURPOSE: This book is intended for engineers and technicians who construct, design, and operate industrial instruments and regulators.

COVERAGE: The book deals with new investigations in the field of automatic checking and regulation of heat-power and chemical industrial processes. The following problems are discussed: improvement of two-position control operation; effect of mass action and damping on proportional control; new proportional plus integral and programming electronic regulation systems; complete automation of open-hearth furnaces; automation of boilers with variable load capacity; measurement of pulsating flow; measurement of dust flow; ultrasonic and magnetic-induction flowmeters; pneumatic compensating differential manometers; aggressive-fluid flowmeters; new magnetic and optical-acoustical gas analyzers; concentration meters; and chlorine and coagulant regulators. The book is the fifth in a series containing reports on the investigations carried out by the Section on Heat-Engineering Control Instrumentation and Automation of the Leningradskoye otdeleniye Nauchno-tekhnicheskogo obshchestva priborostroitel'noy promyshlennosti (Leningrad Branch of the Scientific and Technical Society of the Instrument-Building Industry.) All the articles presented in this book were discussed either at sessions of the above section or at the conference on measurements of mechanical quantities called by the section, the VNIIM (Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D.I. Mendeleyeva -- All-Union Scientific Research Institute of Metrology imeni D.I. Mendeleyev), and the Leningradskiy dom nchnykh im. A.M. Gor'kogo (Leningrad Home for Scientists imeni A.M. Gor'kiy). No personalities are mentioned. There are 65 references: 41 Soviet, 20 English, and 4 German. References accompany most chapters.

TABLE OF CONTENTS:

Foreword 3

PART I. AUTOMATIC CONTROL OF INDUSTRIAL PROCESSES

Ch. I. Kampe-Nemm, A.A. Two-Position Automatic Control and Methods of Improving Its Properties 5
1. Methods of improving properties of two-position control without changing the block diagram of the system 5
2. Discontinuous two-position control 8
3. Introduction of additional pulses to the rule of regulating according to the 1st and 2d derivatives 10
4. Increasing the number of inflow stages (three-position control) 13
5. Application of exponential feedbacks (two-position static and two-position proportional plus integral control) 14

Ch. II. Kats, A.M., and N.F. Gonek. Investigation of Proportional Control, Taking Into Account the Mass of the Sensitive Element and Damping in the System Units 23
1. Equations for a control system with variable speed of the servomotor and inertia of the sensitive element 24

Card 2/6

Instruments and Regulators (Cont.) SOV/5319

2. Limit of system stability 28
3. Formation of transients 32
4. Equations for a control system with pure time delay 36

Ch. III. Strashun, A.Z. Automatic Regulators 42
1. Basic types of regulators 42
2. RU4-01 and RU4-06 regulators 44
3. RU4-15 regulator 49
4. RU4-18A regulator 51
5. RU3-01 and RU3-02 programming devices 54

Ch. IV. Dembovskiy, V.V., and S.V. Yurovetskiy. Complex Automation of Open-Hearth Furnaces 58
1. Programming elements of the circuit 59
2. Automatic correction of the programming of the thermal operating conditions 61
3. Automatic regulation of flame angle 63
4. Regulation of fuel oil consumption 64
5. Correction of fuel oil consumption by the frequency of throwing over the valves 66

Ch. V. Shifrin, M.Sh. Building Up Control Circuits for Shipboard Boiler Systems 68
1. Regulation of boiler water-supply system 72
2. Regulation of combustion process in the boilers 73
3. Regulation of air and steam pressure 76

PART II. FLOW RATE MEASUREMENT

Ch. VI. Kremlevskiy, P.P. Criterion of Pulsating-Flow Damping 78

Ch. VII. Shatil', A.A. Application of Narrowing Devices for Measuring Dust Flow in a Pneumatic Traffic System 90

Ch. VIII. Khimunin, A.S. Ultrasonic Flowmeters 101
1. Phase method 102
2. Pulse-time method 110

Ch. IX. Zaozerskiy, S.M., V.A. Rukhadze, and K.A. Sevel'yev. Pneumatic Compensating Differential Manometers 115
1. Errors in compensating differential manometers 116
2. Means for increasing operating reliability of membrane differential manometers 124
3. Differential manometers with pneumatic power compensation 126

Ch. X. Nikitin, B.I., L.D. Velit, and V.K. Rukavishnikova. Rotary Induction Electromagnetic Flowmeters 134

Ch. XI. Bushinskiy, N.I. Tachometric Vane-Type Flowmeters for Sulphuric Acid 141
1. Measuring average flows 142
2. Measuring high flows 148
3. Measuring low flows 150

Ch. XII. Mikhaylov, B.P. Measuring the Flow of Aggressive Liquids 161
1. Inductive flowmeter for registration of quick-changing liquid flows 161
2. Tachometric vane-type liquid flowmeters 164
3. Measurement of extremely low flows 166

PART III. MEASUREMENT OF THE CONCENTRATION OF INDIVIDUAL COMPONENTS IN GASES AND LIQUIDS

S/081/61/000/024/035/086
B117/B147

AUTHORS: Nikitin, B. I., Vel't, I. D., Rukavishnikova, V. K.

TITLE: Electromagnetic induction flowmeters of the РИ(RI) type

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1961, 300, abstract 24I160 (Sb. "Teploenerg. i khimiko-tekhnol. pribory i regulyatory". M.-L., Mashgiz, 1961, 134 - 140)

TEXT: A description is given of design and operating principle of electromagnetic flowmeters developed by NIITeplopribor. The instruments can be used to measure the consumption of any media with an electrical conductivity of at least 10^{-4} ohm^{-1} cm^{-1}. The liquid may be aggressive and contain slime and abrasive impurities. The error in measurement of the whole set of instruments amounts to $\pm 2.5\%$ of the scale range. The flowmeters are designed for a static operating pressure of 24 kgf/cm^2. The distance between transformer and amplifier is not greater than 10 m, and that between amplifier and measuring instrument is up to 100 m. The scale is linear. The instruments were developed in five standard sizes. They measure a

Card 1/2

Electromagnetic induction ...

maximum consumption of 0.32 to 50 m^3/hr, and the tubes have internal diameters of 10, 20, 25, 50, and 80 mm. The instruments are fed with 127/220v through a separating transformer. At present, they are being tested in industry. [Abstracter's note: Complete translation.]

Card 2/2

VEL'T, I.D., inzh.; LAMOCHKINA, T.I., inzh.; NIKITIN, B.I., inzh.; PETRUSHAYTIS, V.I., inzh.; SERGEYEV, V.V., inzh.

Induction fluid-flow pickups with a unified output signal. Priborostroenie no. 10:20-22 O '65 (MIRA 19:1)

VELTCHEV, G.

Bulgaria 3

BOREV, D; POPKIROV, S; VELTCHEV, G.

Bulgaria

Sofia, Pediatriia, No 4, 1962, pp 56-59

"Maria's Syndrome in a Newborn. Case report."

VEL'TISHCHEV, A. M.

Gidravlicheskie prisposoblentia dlia metallcrezhushchikh stankov. Moskva, Mashgiz, 1948. 118 p. diagrs.

Hydraulic devices for metal-cutting machines.

DLC: TJ1230.V4

SO: Manufacturing and Mechancial Engineering in the Soviet Union, Library of Congress, 1953.

VELTISHCHEV, A. M.

Gidravlicheskie Prisposobleniia Dlia Metallorezhushchikh (Hydraulic Control Equipment for Metal Cutting Lathes), 118 p., Moscow, 1948.

VEL'TISHCHEV, A.Ye., kand.tekhn.nauk

"Utilization of infrared rays by the armed forces" by V.E.Kichka. Reviewed by A.E.Vel'tishchev. Svetotekhnika 5 no.5:28 My '59. (MIRA 12:7)

(Infrared rays) (Kichka, V.E.)

ALEKSEYEV, V.I., kandidat tekhnicheskikh nauk; VEL'TISHCHEV, A.Ye., kandidat tekhnicheskikh nauk.

"Principles of using infrared rays." I.A. Margolin, N. P. Rumiantsev. Reviewed by V.I. Alekseev, A.E. Vel'tishchev. Svetotekhnika 2 no.1:32 Ja '56. (MLRA 9:3)
(Infrared rays) (Margolin, I.A.) (Rumiantsev, N.P.)

ALEKSEYEV, V.I., kandidat tekhnicheskikh nauk; VEL'TISHCHEV, A.Ye., kandidat tekhnicheskikh nauk.

"Principles of using infrared rays." I.A. Margolin, N. P. Rumiantsev. Reviewed by V.I. Alekseev, A.E. Vel'tishchev. Svetotekhnika 2 no.1:32 Ja '56. (MLRA 9:3)
(Infrared rays) (Margolin, I.A.) (Rumiantsev, N.P.)

VEL'TISHCHEV, A.Ye. (Moskva)

Determination of the optimum shape of the spectral sensitivity curve of a radiant flow receiver. Izv. AN SSSR. Otd. tekh. nauk. Energ. i avtom. no.6:185-190 N-D '59. (MIRA 13:8)
(Photography) (Optics)

W.A. Veltishchev

24(8) PHASE I BOOK EXPLOITATION SOV/1826

Akademiya nauk SSSR. Energeticheskiy institut

Teploperedacha i teplovoye modelirovaniye (Heat Transfer and Modeling of Heat Processes) Moscow, Izd-vo AN SSSR, 1959. 419 p. Errata slip inserted. 3,500 copies printed.

Resp. Ed.: M. A. Mikheyev, Academician; Ed. of Publishing House: D. A. Ivanovskiy; Tech. Ed.: G. M. Shavchenko.

PURPOSE: The book is intended for scientists concerned with heat transfer, heat emission, and hydraulics of liquid metals, etc.

COVERAGE: This collection is dedicated to the memory of Academician M. V. Kirpichev who in the twenties initiated a systematic investigation of heat transfer processes and the efficiency of heat apparatus. Later he led the development of research work in this field. Two special collections devoted to works of Kirpichev's school have been published, one in 1938, Materialy soveshchaniya po modelirovaniyu (Materials of the Conference on Modeling) and in 1951, Teoriya podobiya i modelirovaniya (Theory of Similitude and Modeling). The present collection prepared in 1956 represents further development of the work of this school. This theory is fundamental for the analysis of many heat problems in the field of electrical and radio engineering. Of great importance are the first systematic investigations of heat transfer and the hydraulics of liquid metals which as a new kind of heat carrier may be used in the various branches of modern engineering. As a result of special investigations of some cases of convective heat transfer, a dependence of the process on the kind of liquid, temperature, pressure, direction of the heat flow, and other factors, was discovered and established. On the basis of a wide generalization of experimental data, new dependable recommendations for heat analysis of engineering equipment were developed. Of no less interest is the work on heat transmission in boiling liquids and the condensation of vapors. All investigations are based on the theory of similitude, the nature of which, according to M. V. Kirpichev, is that of "experimentation." Work on the theory of a regular regime applied to a system of bodies with an internal source of heat is of interest for the future.

Card 2/20

Al'tshuler, T. A., Kalitinchev, and M. S. Kondrat'yev. 158
Convective Heat Transfer in Thin Pressure
Heat transfer in a turbulent flow of a monophase liquid in a conduit may be calculated using a formula recently proposed by M. A. Mikheyev (Izv. AN SSSR, Mr 10, 1952), which however is not applicable to other than atmospheric pressures. This article describes the adaptation of Mikheyev's formula to drop liquids at much higher than atmospheric pressure. There are 8 references: 7 Soviet and 1 Czech.

Card 11/20

VEL'TISHCHEV, N.F.

Results of determining the height and types of tropopause in Khabarovsk. Trudy TSIP no.118:13-18 '62. (MIRA 16:4)
(Khabarovsk--Atmosphere)

VEL'TISHCHEV, N.F.

Comparison of tropopause charts compiled according to two different criteria. Trudy TSIP no.118:19-21 '62. (MIRA 16:4)

(Atmosphere)

VEL'TISHCHEV, N.F.

Processing televised cloud images obtained from meteorological satellites. Meteor.i gidrol. no.11:39-42 N '62. (MIRA 15:12)

1. TSentral'nyy institut prognozov.
(Clouds) (Artificial satellites in meteorology)

VEL'TISHCHEV, N.F.

Dependence of the maximum wind layer on the characteristics of the pressure field. Trudy TSIP no.121:3-13 '63. (MIRA 16:8)
(Siberia—Winds) (Soviet Far East—Winds)

L 00693-66 EWT(1)/FCC GW

ACCESSION NR: AT5017522 UR/3118/65/000/008/0045/0054

AUTHOR: Vel'tishchev, N. F.

TITLE: Interpretation of the mesostructure in a field of clouds

SOURCE: Mirovoy meteorologicheskiy tsentr. Trudy, no. 8, 1965. Voprosy sputnikovoy meteorologii (Problems in satellite meteorology), 45-54

TOPIC TAGS: cloud, atmosphere, thermal gradient, wind, artificial satellite/ Tiros III artificial satellite, Tiros VI artificial satellite

ABSTRACT: The conditions under which waves are formed in the atmosphere are examined. These conditions are evaluated with due regard to scale, Coriolis effect, viscosity, and heat flow, but without consideration of the effect of the earth's surface. The ratio of wavelengths for waves parallel and transverse to air flow is determined in relation to wavelength along the flow and to the vertical wind profile. It is also determined in relation to vertical stratification and the wind profile. It was found that when the thermal gradient is 0.0099°/m or greater, wave movements may arise only when the wind profile is represented by a jet stream. At greater stability in stratification, the wind profile must be positive in order for wave movements to arise. At any value of atmospheric

Card 1/2

L 00[illegible]

ACCESSION NR: AT5017522

stratification, large changes in wind correspond to larger values of wavelength ratio (parallel to transverse). This means that bolts of cloudiness are oriented along the flow of air. These conclusions agree basically with results of statistical treatment of televised data from Tiros III and Tiros VI. Both theoretical and statistical techniques indicate that it is possible to give a simple kinematic interpretation to a band of clouds and to use the mesostructure of a cloud field to determine direction of air flow and, particularly, wind velocity. Orig. art. has: 3 figures, 1 table, and 11 formulas.

ASSOCIATION: Mirovoy meteorologicheskiy tsentr (World Meteorological Center)

SUBMITTED: 00 ENCL: 00 SUB CODE: ES

NO REF SOV: 002 OTHER: 007

Card 2/2

L 18860-66 EWT(1)/ECC GW SOURCE CODE: UR/0050/65/000/012/0011/0019

ACC NR: AP6011105

AUTHOR: Vel'tishchev, N. F.

ORG: World Meteorological Center (Mirovoy meteorologicheskiy tsentr)

TITLE: Structure of cloud cover in atmospheric vortices

SOURCE: Meteorologiya i gidrologiya, no. 12, 1965, 11-19

TOPIC TAGS: cloud cover, cyclone, meteorologic satellite, satellite photography, motion equation, heat equation, atmospheric movement

ABSTRACT: The great number of satellite photographs of cloud cover now accumulated reveal a spiral structure of cloud cover in both extra-tropical and tropical cyclones. The extensive literature on this subject is reviewed, with emphasis on the different hypotheses advanced to explain this phenomenon. The studies cited have the shortcoming that no allowance is made for the temperature stratification of the atmosphere, despite the fact that it exerts an important influence on formation of wave movements in the atmosphere. This paper attempts to clarify the conditions leading to the existence of wave movements in atmospheric vortices and the interrelationship between the configurations of cloud bands, temperature stratification of the atmosphere and intensity of vortical movement. The formulated problem is solved using the equations of motion, continuity, state and heat flux in cylindrical coordinates. Since the relative position of clouds in cyclones varies insignificantly with time, only a stationary case is

UDC: 551.576.1: 551.515

Card 1/2

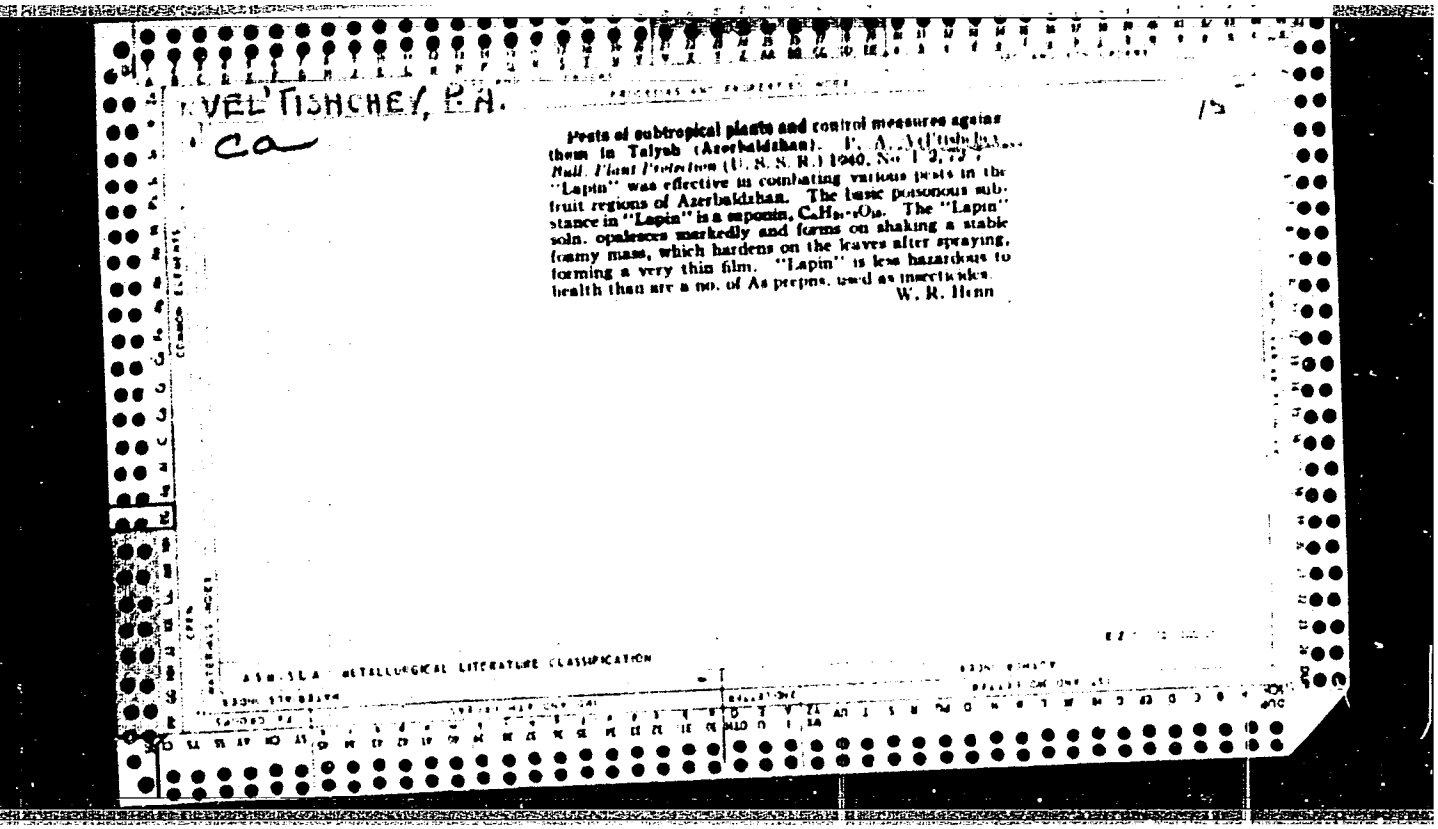
L 18860-66

ACC NR: AP6011105

considered. Four special cases are considered: weak cyclonic vortex, strong cyclonic vortex, weak anticyclonic vortex, strong anticyclonic vortex. Photographs from the Tiros satellites are used in testing the author's hypothesis accounting for the formation of the spiral formations. Orig. art. has: 5 figures and 11 formulas. [JPRS]

SUB CODE: 04, 14, 22 / SUBM DATE: 05May65 / OTH REF: 010

Card 2/2 4W



VEL'TISHCHEV, P.A.

Ca

Pests of subtropical plants and control measures against them in Talysh (Azerbaidzhan). P. A. Vel'tishchev. *Bull. Plant Protection* (U. S. S. R.) 1940, No. 1, 2, 72. "Lapin" was effective in combating various pests in the fruit regions of Azerbaidzhan. The toxic poisonous substance in "Lapin" is a saponin, $C_{42}H_{70}O_{18}$. The "Lapin" soln. opalesces markedly and forms on shaking a stable foamy mass, which hardens on the leaves after spraying, forming a very thin film. "Lapin" is less hazardous to health than are a no. of As preps. used as insecticides.
W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

BILAS, L.M.; VEL'TISHCHEV, Yu.Ye.; TABOLIN, V.A.

Disorders of adrenal cortex function in neonates and infants; a survey of the literature. Pediatriia 42 no.1:54-61 Ja'63. (MIRA 16:10)

1. Iz kafedry pediatrii (zav. - prof. G.N.Speranskiy) TSentral'nogo instituta usovershenstvovaniya vrachey (rektor M.D.Kovrigina).
(ADRENAL CORTEX--DISEASES)
(INFANTS (NEWBORN) --DISEASES)
(INFANTS--DISEASES)

VEL'TISHCHEV, V.M.; MAKEYENKO, V.I.

Laying underwater pipelines by the drag method with the help of a winch. Stroi. truboprov. 8 no.12:23-25 D '63. (MIRA 17:4)

1. Spetsial'noye konstruktorskoye byuro "Gazstroymashina" (for Vel'tishchev). 2. Otryad No.7 Upravleniya podvodno-tekhnicheskikh rabot, Iksha, Moskovskoy obl. (for Makeyenko).

AFANAS'YEVA, V.M.; SOKOLOVA-PONOMAREVA, O.D., prof.; ZVER'KOVA, F.A.; SPERANSKIY, G.N., prof.; VEL'TISHCHEV, Yu.Ye.; TABOLIN, V.A.; TEYTEL'MAN, M.A.

Book reviews. Pediatriia 42 no.1:88-93 Ja'63. (MIRA 16:10)
(PEDIATRICS)

MATVEYEV, M.P., dotsent; VEL'TISHCHEV, Yu.Ye.; MASHKEYEV, A.K.; MOROZOV, A.I.

Study of glomerular filtration in children by means of sodium thiosulfate and endogenous creatinine. Pediatriia no.8:31-36 '62. (MIRA 15:10)

1. Iz kafedry pediatrii (zav. - deystvitel'nyy chlen AMN SSSR prof. G.N.Speranskiy) TSentral'nogo instituta usovershenstvovaniya vrachey (rektor M.D.Kovrigina).
(KIDNEYS) (CREATININE) (SODIUM THIOSULFATE)

TABOLIN, V. A.; ZAK, I. R.; FEL'DMAN, M. G.; VEL'TISHCHEV, Yu. Ye.

Biochemical changes in the blood serum of newborn infants in exchange transfusion. Akush. i gin. no.4:59-64 '62. (MIRA 15:7)

1. Iz kafedry pediatrii (zav. - prof. G. N. Speranskiy) TSentral'nogo instituta usovershenstvovaniya vrachey i kafedry akusherstva i ginekologii (zav. - prof. L. S. Persianinov) II Moskovskogo meditsinskogo instituta imeni N. I. Pirogova.

(BLOOD--TRANSFUSION) (INFANTS(NEWBORN))
(HEMOLYTIC ANEMIA)

MASHKEYEV, A.K.; MIRZOYEV, B.M.; VEL'TISHCHEV, Yu.Ye.; MATVEYEV, M.P.

Methodology of studying the filtering function of the kidneys. Biul. eksp. biol. i med. 55 no.4:121-124 Ap '63.

(MIRA 17:10)

1. Iz kafedry pediatrii (zav. - deystvitel'nyy chlen AMN SSSR G.N. Speranskiy) TSentral'nogo instituta usovershenstvovaniya vrachey i laboratorii akademika A.D. Speranskogo pri Institute vysshey nervnoy deyatel'nosti i neyrofiziologii (dir. - chlen-korrespondent AN SSSR prof. E.A. Asratyan) AN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR G.N. Speranskim.

1. VEL'TISHCHEVA, I. F.

2. USSR (600)

4. Sturgeons

7. Increasing the productivity of ponds in raising young sturgeon, Ryb. khoz., 28, No. 12, 1952.

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

NIKOL'SKIY, kand.tekhn.nauk; KALAKUTSKAYA, N.A., kand.tekhn.nauk; PCHELKIN, I.M., inzh.; KLASSEN, T.V., inzh.; VEL'TISHCHEVA, V.A., inzh.

Thermal and physical properties of molten metals. Teploenergetika 6 no.2:92-95 F '59. (MIRA 12:3)
(Metals--Thermal properties)

VEL'TISHCHEV, Yu.Ye.; ZLATKOVSKAYA, N.M.; FEL'DMAN, M.G.

Determination of the amount of potassium and sodium in blood serum by flame photometry. Lab.delo 7 no.7:6-9 Jl '61. (MIRA 14:6)

1. Kafedra pediatrii (zav. - deystvitel'nyy chlen AMN SSSR prof. G.N.Speranskiy) TSentral'nogo instituta usovershenstvovaniya vrachey, Moskva.

(PHOTOMETRY) (POTASSIUM IN THE BODY)
(SODIUM IN THE BODY) (SERUM)

VEL'TISHCHEV, Yu.Ye.

Use of neuroplegic preparations in the combined treatment of toxic states in infants. Pediatriia 38 no. 7:65-70 Jl '60. (MIRA 14:1)
(TRANQUILIZING AGENTS) (INFANTS--NUTRITION)

NUDEL'MAN, G.E.; YEGOROV, V.P.; KATS, I.G.; KYSIN, A.P.; MACHIKHIN, S.A.; VEL'TSHCHEV, V.N.

[Continuous line for the production of halvah] Potochnaia linila proizvodstva khalvy. Moskva, TSentr. in-t nauchno-tekhn. informatsii pishchevoi promyshl., 1964. 16 p. (MIRA 18:5)

VEL'TISHCHEV, Yu.Ye.; TABOLIN, V.A.

Cortisone therapy of toxic conditions in infants. Sov. med. 24 no. 7:62-67 Jl '60. (MIRA 13:8)

1. Iz kafedry pediatrii (zav. - prof. G.N. Speranskiy) TSentral'nogo instituta usovershenstrovaniya vrachey na baze Detskoy bol'nitsy im. Dzerzhinskogo (glavnyy vrach A.N. Kudryasheva), Moskva.
(CORTISONE) (INFANTS—DISEASES)

VEL'TISHCHEV, Yu. Ye.

Cand Med Sci - (diss) "Use of neuroplegic preparations in the complete therapy of toxic conditions in children in the early years." Moscow, 1961. 14 pp; (Academy of Medical Sciences USSR, Order of Labor Red Banner Inst of Pediatrics); 250 copies; price not given; (KL, 5-61 sup, 201)

VEL'TISHCHEVA, I.F.

Measures for increasing the output per a unit of pond area at the sturgeon hatcheries of Azerbaijan. Trudy VNIRO 47:115-134 '61. (MIRA 14:11)

(Azerbaijan--Sturgeons)
(Fish culture)

VEL'TISHCHEVA, I.F.

Use of chemicals in the control of phyllopods. Trudy [illegible] 55:135-150 '61. (MIRA 14:11)
(Branchiopoda)
(Agricultural chemicals)

VALUYSHCHEVA, L.F.

Possibility of estimating the number of young sturgeons in ponds by the use of radioisotopes. Trudy VNIRO 44:78-94 '61. (MIRA 14:11)

(Fish tagging)
(Radioactive tracers)
(Sturgeons)

VEL'TISHCHEVA, L.F.

Penetration of the carbon (C^{14}) of carbonates from water into the fish and its distribution in the fish body. Trudy VNIRO 44:33-36 '61. (MIRA 14:11)

(Carbon--Isotopes)
(Fishes--Physiology)
(Absorption (Physiology))

LAVRENCHIK, V.N.; SAMOYLOV, L.N.; CHULKOV, P.M.; GORBUNOV, V.F.; VEL'TISHCHEVA, N.S.

Air contamination by artificial radioactive substances over the Atlantic Ocean in 1961. Atom. energ. 14 no.6:569-572 Je '63. (MIRA 16:7)

(Atlantic Ocean—Radioactive fallout)

AUTHORS: Vel'tishcheva, V.A. (Engineer)
Kalakutskaya, N.A. (Cand.Tech.Sci.)
Nikol'skiy, N.A. (Cand.Tech.Sci.)

SOV/96-58-10-20/25

TITLE: The thermal conductivity of mercury (Teploprovodnost' rtuti)

PERIODICAL: Teploenergetika, 1958, No.10. pp. 80-82 (USSR)

ABSTRACT: Mercury is becoming increasingly important as a heat-transfer medium. The considerable work which has already been done on its thermal conductivity is reviewed, and errors on the part of the present authors and others are revealed. One assumption was that a layer of liquid paraffin floating on the top of mercury would prevent it from evaporating, but special tests showed that this is not so. Tests were, therefore, made in which the possibility of the evaporation of the mercury was excluded. Two methods were used, one a compensation method similar to that of Hall and Ewing, and the other a method of successive steady states developed in the Power Institute of the Academy of Science of the USSR. A diagram of the equipment used for the compensation method is given in Fig.1. The sample is a hermetically sealed cylinder of stainless steel filled with mercury. The test procedure and the measurements are stated, also the formula used to calculate the thermal conductivity. Results obtained by various methods are plotted in Fig.2., showing good agreement between the different methods. The tests cover the temperature

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859320015-7"

The thermal conductivity of mercury. SOV/96-58-10-20/25

range of 60 - 430°C. The results are 10 - 15% below those of Hall and coincide with those of Ewing over the range 150 - 540°C. An expression is given for the curve that fits the experimental results. Pressure has little effect on the thermal conductivity. A table of the most reliable values of the thermal physical properties of mercury is given. There are 2 figures, one table and 3 Soviet references.

ASSOCIATION: Power Institute, AS USSR (Energeticheskiy Institut, AN SSSR)

Card 2/2

VEL'TISHVHEV, A. M.

Author: Vel'tishyhev, A. M.

Title: Hydraulic devices for metal cutting machines. (Gidravlicheskie prisposobleniia dlia metallorezhuschikh stankov.) 118 p.

City: Moscow

Publisher: State Prihting House of Scientific and Technical Literature on Mach. Con.

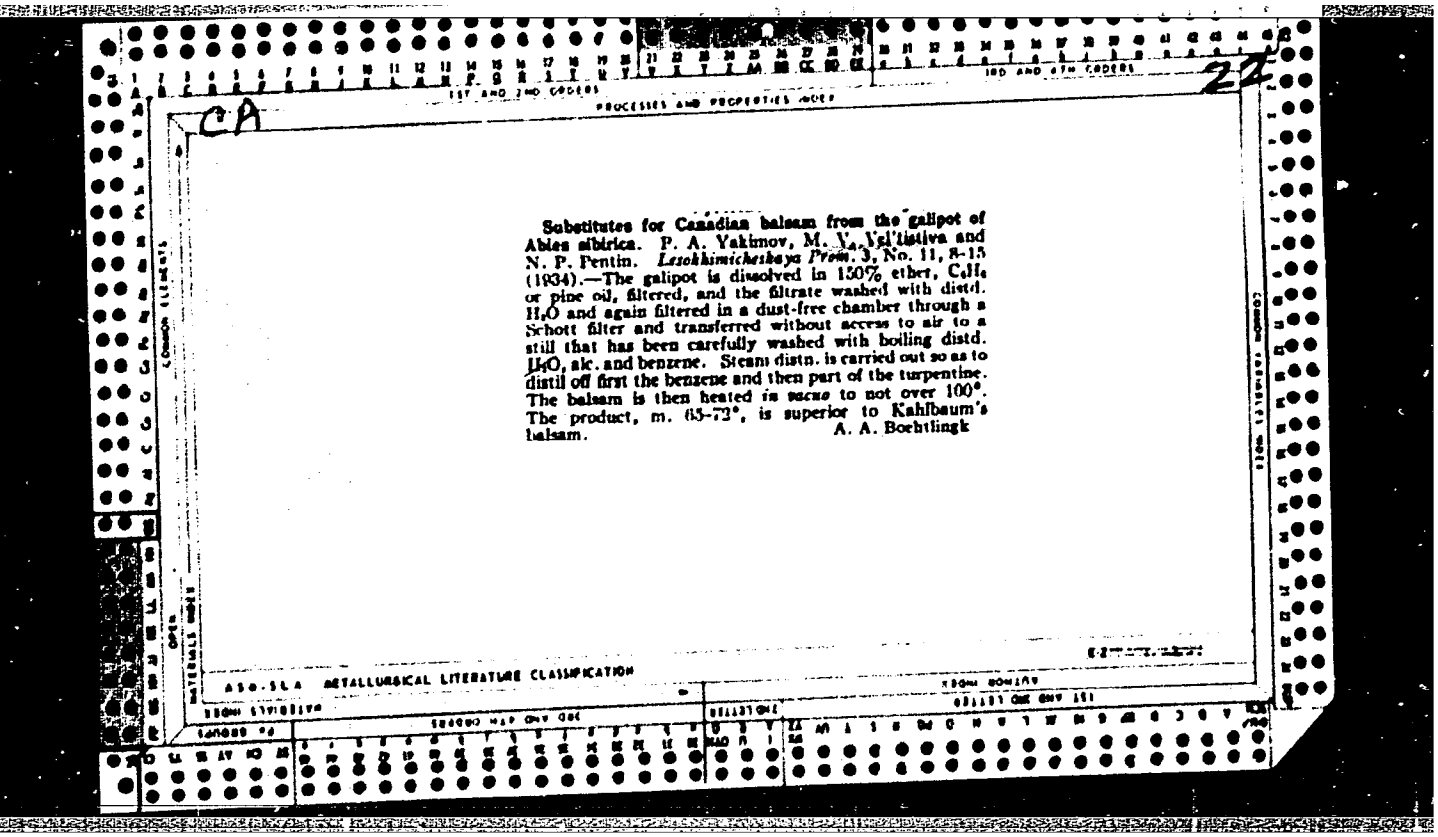
Date: 194[illegible]

Availabl: Library of Congress

Source: Monthly List of Russian Accessions, Vol. 3, No. 6, Page 389

Call No: TJ1230.V4

Subject: Metal cutting. 2. Hydraulic machinery.



Substitutes for Canadian balsam from the galipot of Abies sibirica. P. A. Yakimov, M. V. Yel'tsitova and N. P. Pentin. *Lesokhimicheskaya Prom.* 3, No. 11, 8-15 (1934).—The galipot is dissolved in 150% ether, C_6H_6 or pine oil, filtered, and the filtrate washed with distd. H_2O and again filtered in a dust-free chamber through a Schott filter and transferred without access to air to a still that has been carefully washed with boiling distd. H_2O, alc. and benzene. Steam distn. is carried out so as to distil off first the benzene and then part of the turpentine. The balsam is then heated *in vacuo* to not over 100°. The product, m. 63-72°, is superior to Kahlbaum's balsam.

A. A. Boehtlingk

Veltistov, P. K.

Релейно-кодовая централизация (Relay-code central control, by) P. K. Veltistov. Moskva, Transzheldorizdat, 1960.
215 p. illus., diagrs., tables.

Veitistov

MARUSHKO, Fedor Ivanovich, dotsent; VEITISTOV, Petr Konstantinovich, inzhener; GAMBURG, Ye.Yu., inzhener, redaktor; VERINA, G.P., tekhnicheskiy redaktor

[Centralized relay code systems] Releino-kodovaia tsentralizatsiia. Moskva, Gos.transp. zhel-dor. izd-vo, 1955. 215 p. (Railroads--Signaling) (MLRA 9:4)

VELTISTOV, Ye. (Bratsk)

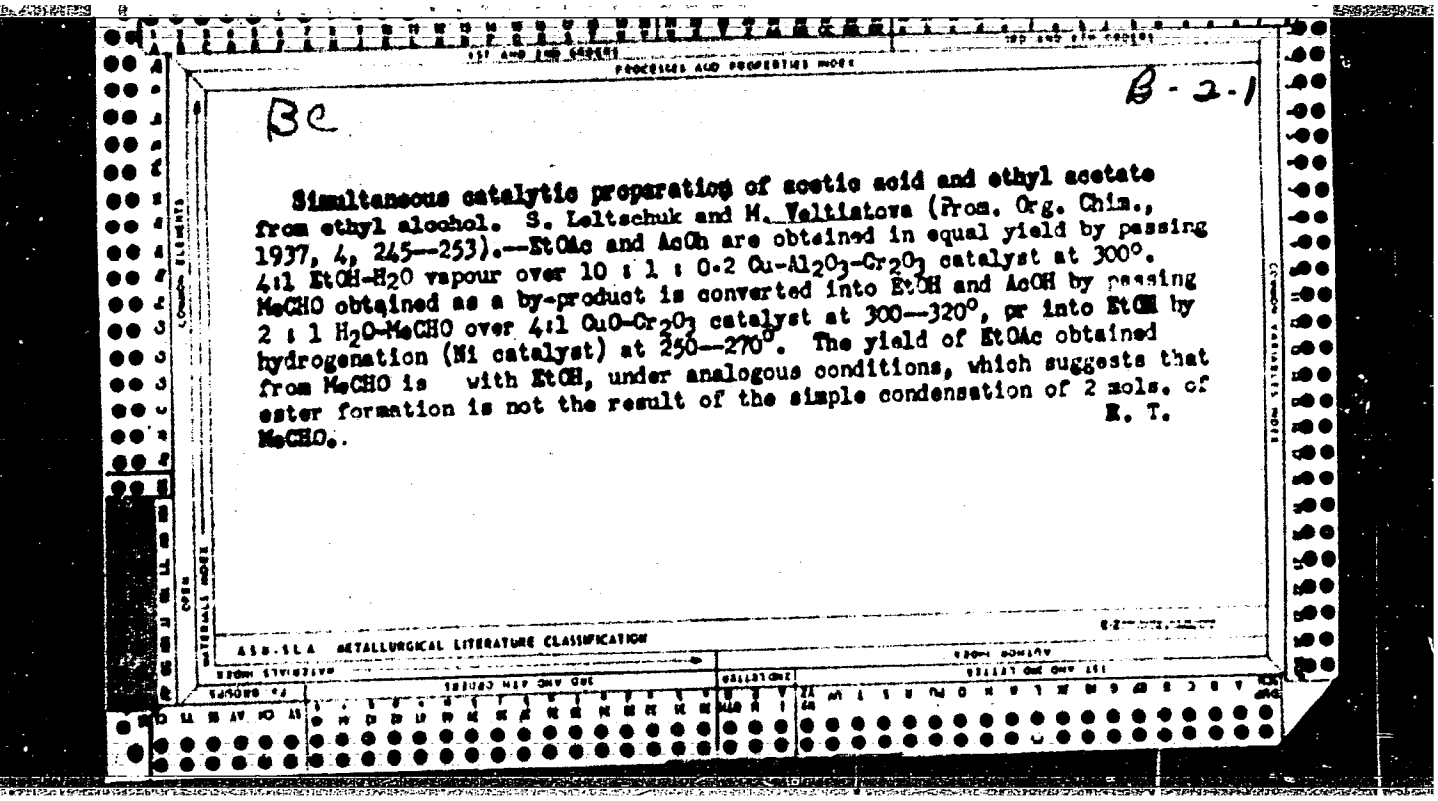
"Her concrete majesty." IUn.tekh.3 no.5:8-10 My '59.
(MIRA 12:7)

(Bratsk--Hydroelectric power stations)

VOLTISTOVA, M. V.

"Conversion of Hydrocarbons on the Aluminosilicate Catalysts. III. Normal Butylene " by G. M. Maslianskiy and M. V. Voltistova (p. 1132)

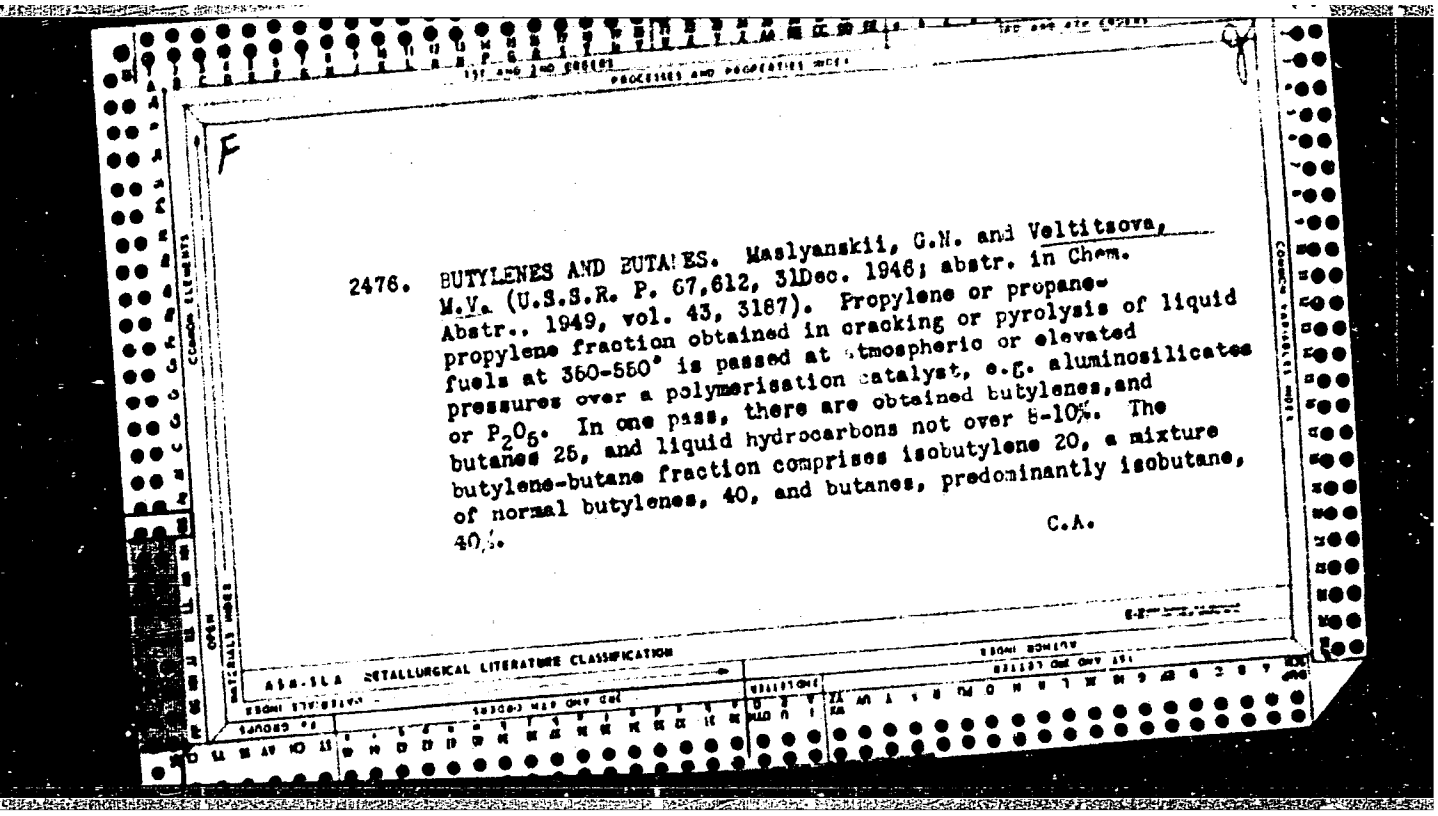
SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1946, Volume 16, No. 12



B-2-1

BC

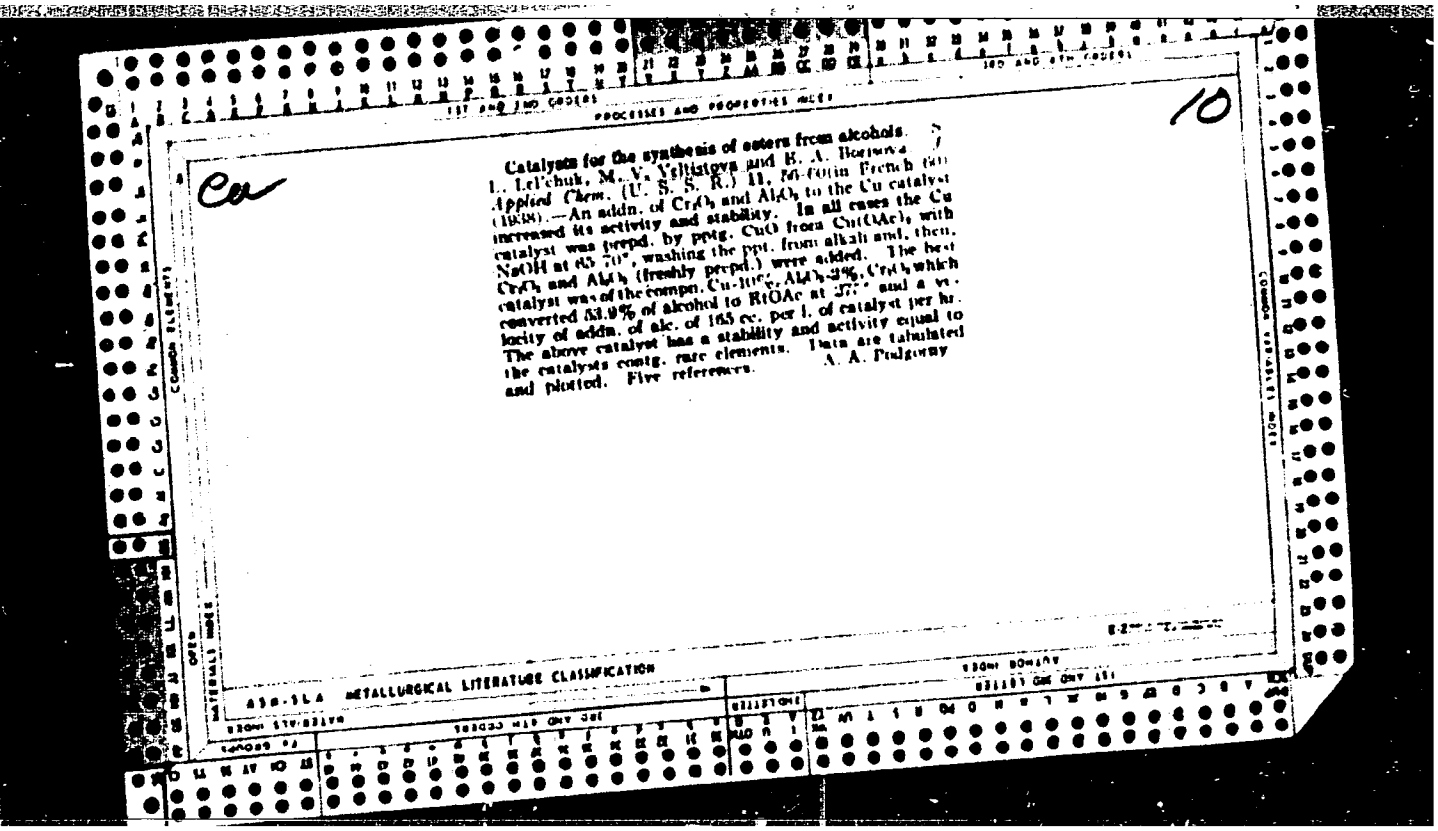
Simultaneous catalytic preparation of acetic acid and ethyl acetate from ethyl alcohol. S. Leltschuk and M. Veltiatova (Trans. Org. Chim., 1937, 4, 245—253).—EtOAc and AcOH are obtained in equal yield by passing 4:1 EtOH-H_2O vapour over 10 : 1 : 0·2 Cu-Al_2O_3-Cr_2O_3 catalyst at 300°. MeCHO obtained as a by-product is converted into EtOH and AcOH by passing 2 : 1 H_2O-MeCHO over 4:1 CuO-Cr_2O_3 catalyst at 300—320°, or into EtOH by hydrogenation (Ni catalyst) at 250—270°. The yield of EtOAc obtained from MeCHO is with EtOH, under analogous conditions, which suggests that ester formation is not the result of the simple condensation of 2 mols. of MeCHO.. R. T.



F

2476. BUTYLENES AND BUTANES. Maslyanskii, G.N. and Veltitsova, M.V. (U.S.S.R. P. 67,612, 31Dec. 1946; abstr. in Chem. Abstr., 1949, vol. 43, 3187). Propylene or propane-propylene fraction obtained in cracking or pyrolysis of liquid fuels at 360-550° is passed at atmospheric or elevated pressures over a polymerisation catalyst, e.g. aluminosilicates or P_2O_5. In one pass, there are obtained butylenes, and butanes 25, and liquid hydrocarbons not over 8-10%. The butylene-butane fraction comprises isobutylene 20, a mixture of normal butylenes, 40, and butanes, predominantly isobutane, 40%.

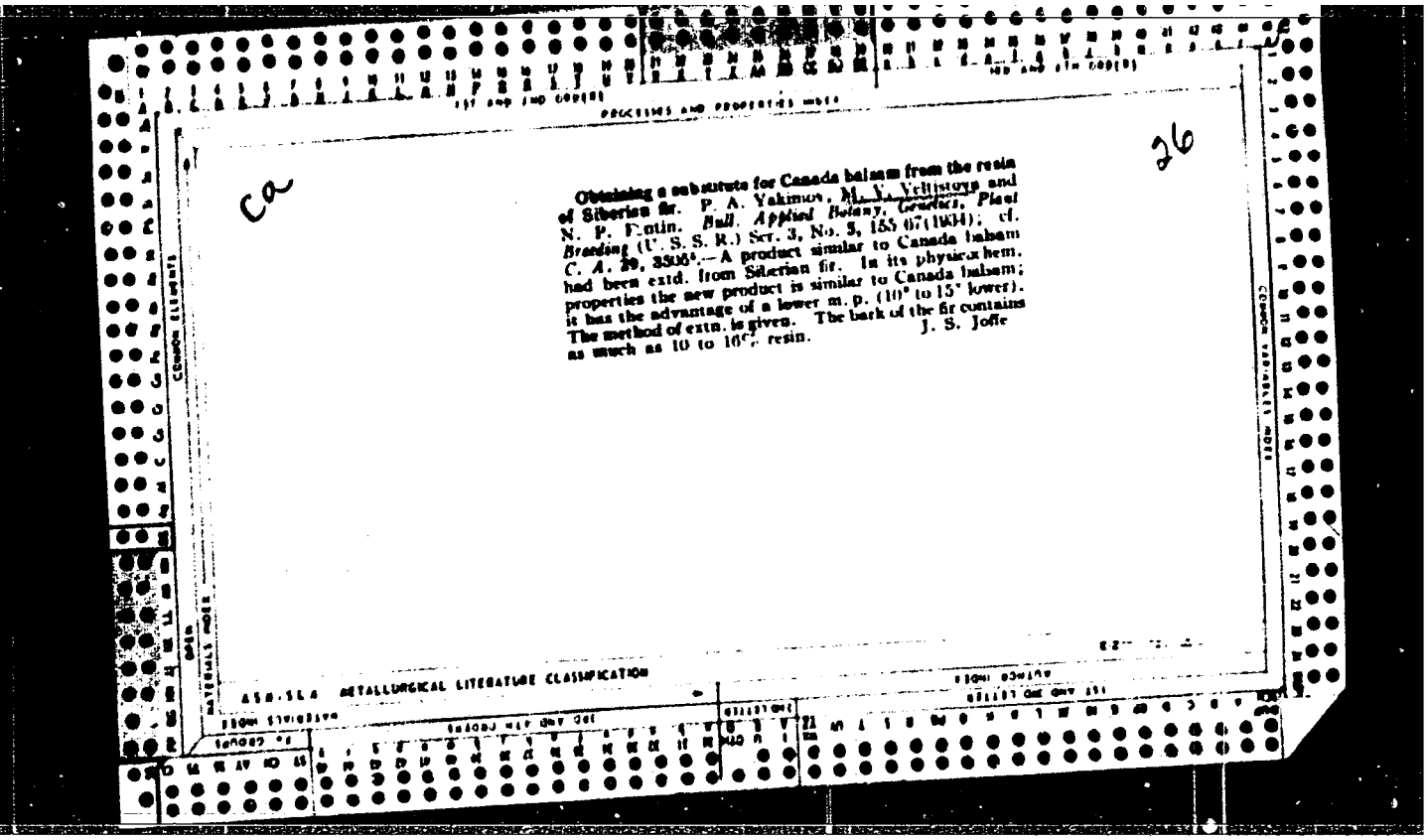
C.A.



Cu

10

Catalysts for the synthesis of esters from alcohols. [illegible] L. Lel'chuk, M. V. Ysiltsova and B. A. Borisova (to *Applied Chem.* (U. S. S. R.)). 11, 50-60 (in French) (1938).—An addn. of Cr_2O_3 and Al_2O_3 to the Cu catalyst increased its activity and stability. In all cases the Cu catalyst was prepd. by pptg. CuO from $Cu(OAc)_2$ with NaOH at 85-70°, washing the ppt. from alkali and, then, Cr_2O_3 and Al_2O_3 (freshly prepd.) were added. The best catalyst was of the compn. Cu-[illegible], Al_2O_3-2%, Cr_2O_3 which converted 53.9% of alcohol to RtOAc at 37[illegible] and a velocity of addn. of alc. of 165 cc. per l. of catalyst per hr. The above catalyst has a stability and activity equal to the catalysts contg. rare elements. Data are tabulated and plotted. Five references. A. A. Fridgeway

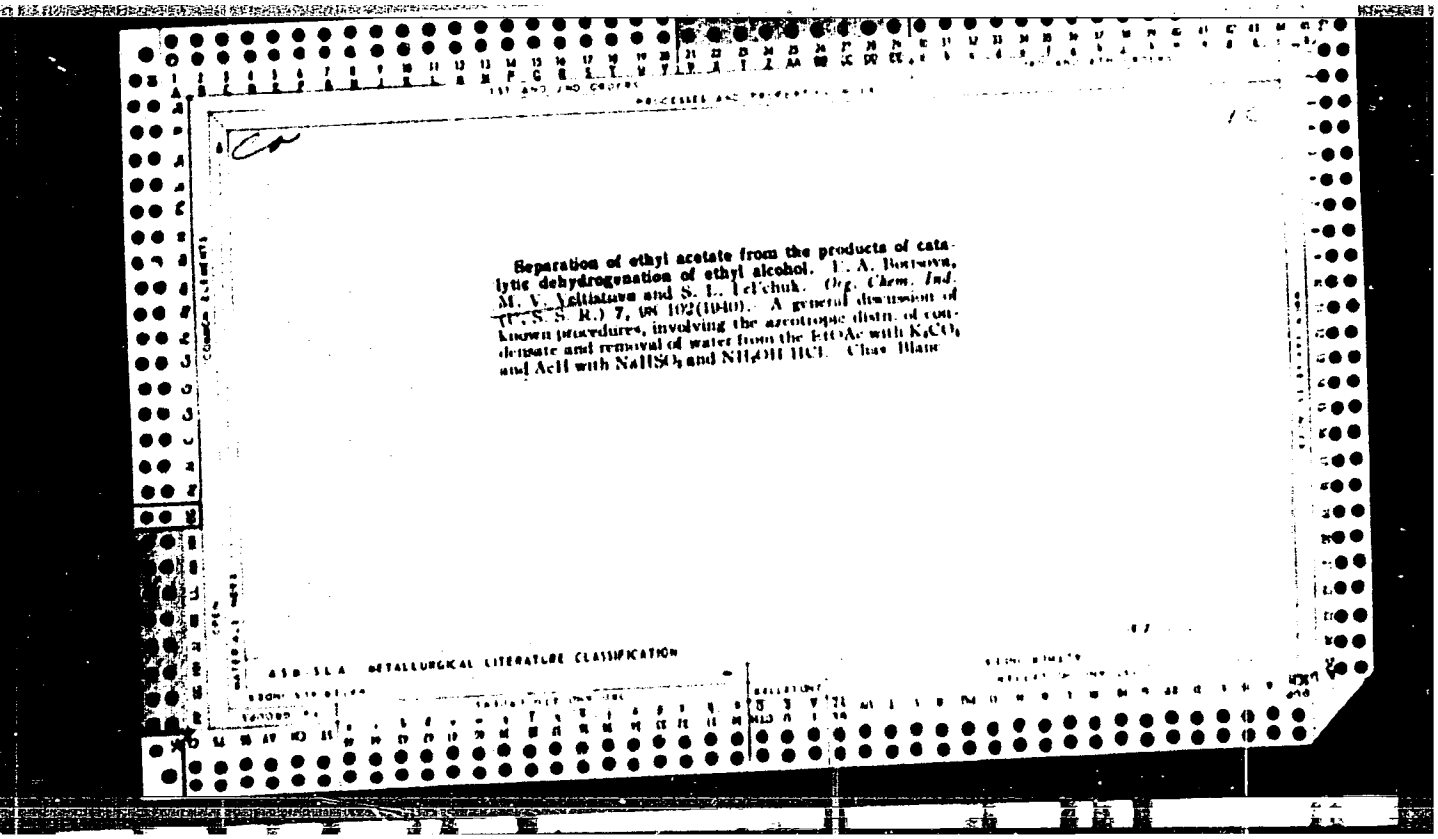


Ca

26

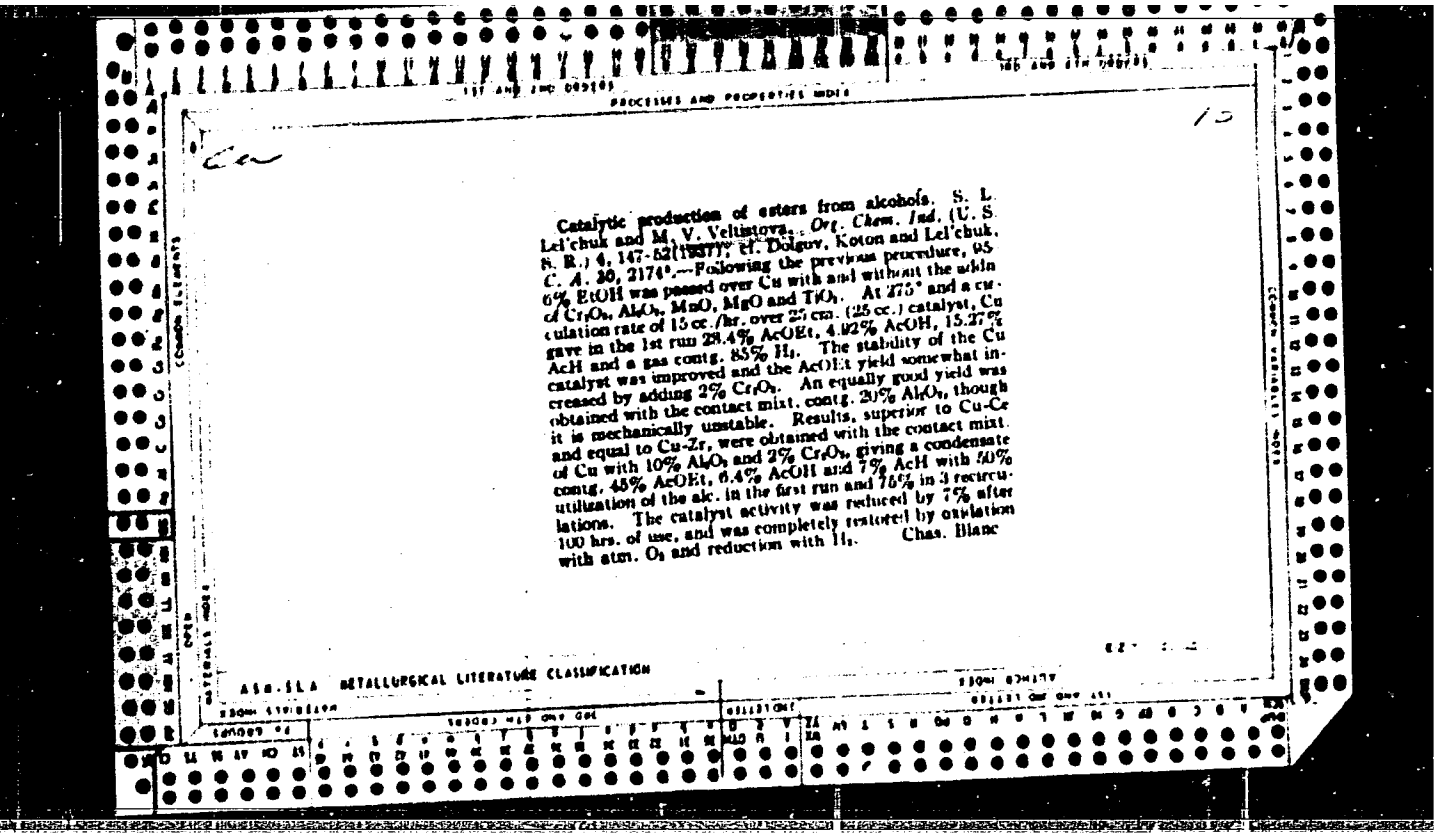
Obtaining a substitute for Canada balsam from the resin of Siberian fir. P. A. Yakimov, M. V. Velitsova and N. P. Fontin. *Bull. Applied Botany, Genetics, Plant Breeding* (U. S. S. R.) Ser. 3, No. 3, 155-67(1934); cf. *C. A.* **29**, 3506⁸.—A product similar to Canada balsam had been extd. from Siberian fir. In its physical chem. properties the new product is similar to Canada balsam; it has the advantage of a lower m. p. (10° to 15° lower). The method of extn. is given. The bark of the fir contains as much as 10 to 16% resin. J. S. Joffe

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

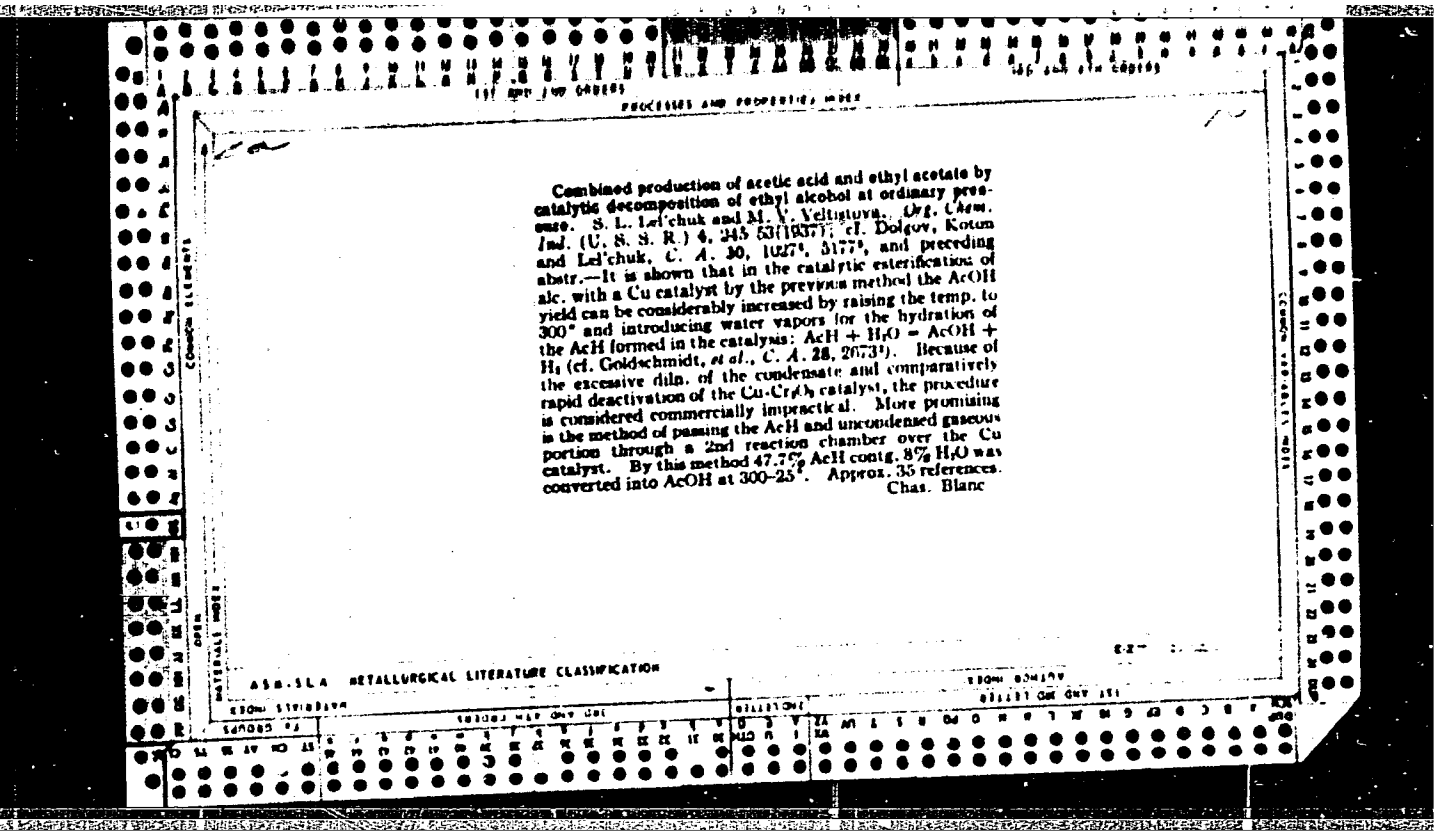


Separation of ethyl acetate from the products of catalytic dehydrogenation of ethyl alcohol. I. A. Bortsova, M. V. Yelitatova and S. L. Tel'chuk. *Org. Chem. Ind.* (U. S. S. R.) 7, 98 102(1940). A general discussion of known procedures, involving the azeotrope distn. of condensate and removal of water from the EtOAc with K_2CO_3 and AcH with $NaHSO_3$ and NH_4OH HCl. Chas. Blatz

A 5 B 5 L A METALLURGICAL LITERATURE CLASSIFICATION



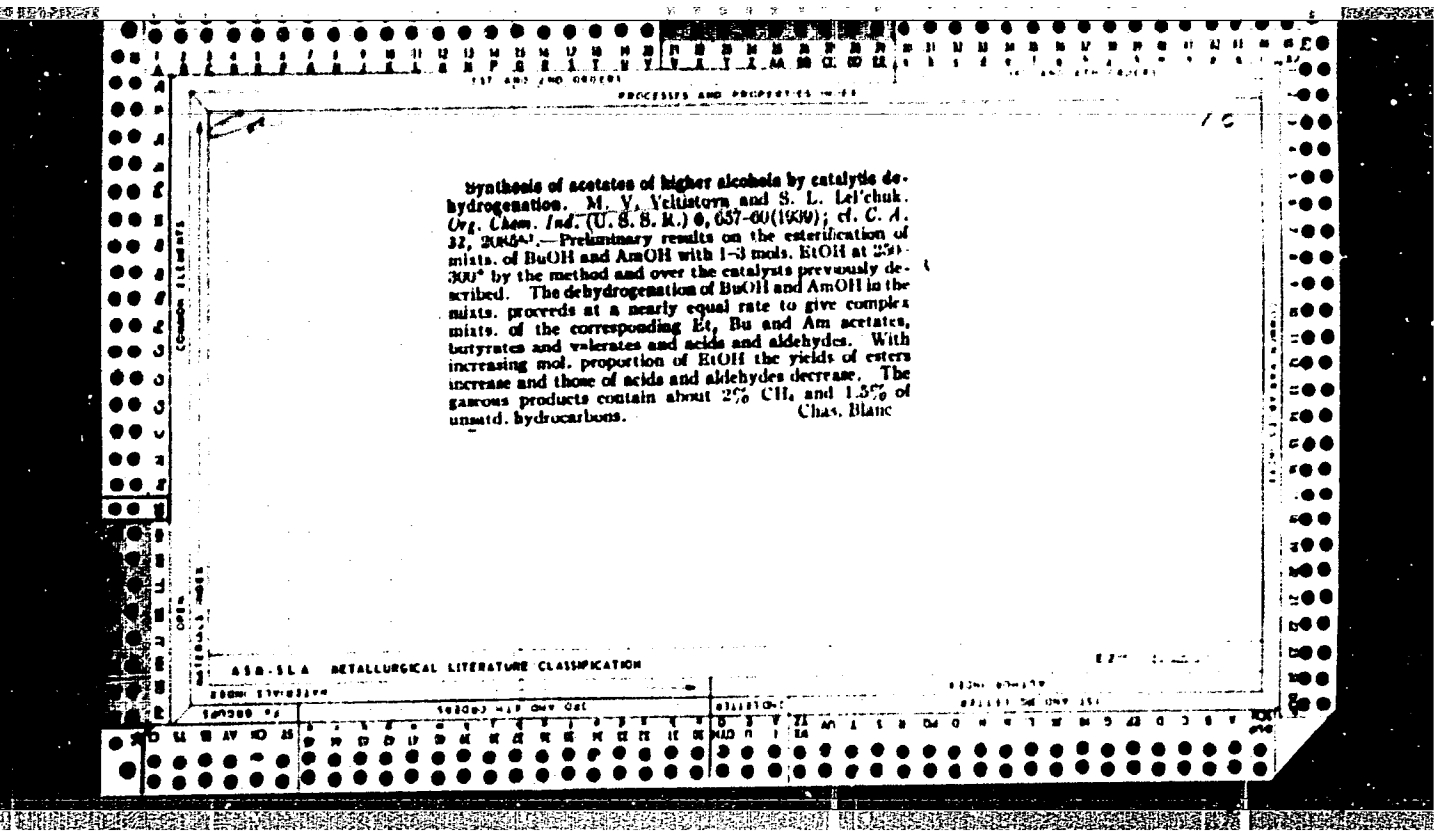
Catalytic production of esters from alcohols. S. L. Lel'chuk and M. V. Veltistova. *Org. Chem. Ind.* (U. S. S. R.) 4, 147-52[1937]; cf. Dolgov, Koton and Lel'chuk, *C. A.* 30, 2174⁸.—Following the previous procedure, 95% EtOH was passed over Cu with and without the addn of Cr_2O_3, Al_2O_3, MnO, MgO and TiO_2. At 275° and a circulation rate of 15 cc./hr. over 25 cm. (25 cc.) catalyst, Cu gave in the 1st run 28.4% AcOEt, 4.92% AcOH, 15.27% AcH and a gas contg. 85% H_2. The stability of the Cu catalyst was improved and the AcOEt yield somewhat increased by adding 2% Cr_2O_3. An equally good yield was obtained with the contact mixt. contg. 20% Al_2O_3, though it is mechanically unstable. Results, superior to Cu-Ce and equal to Cu-Zr, were obtained with the contact mixt. of Cu with 10% Al_2O_3 and 2% Cr_2O_3, giving a condensate contg. 45% AcOEt, 6.4% AcOH and 7% AcH with 50% utilization of the alc. in the first run and 76% in 3 recirculations. The catalyst activity was reduced by 7% after 100 hrs. of use, and was completely restored by oxidation with atm. O_2 and reduction with H_2. Chas. Blanc



Combined production of acetic acid and ethyl acetate by catalytic decomposition of ethyl alcohol at ordinary pressure. S. L. Lel'chuk and M. V. Veltsiova. *Org. Chem. Ind.* (U. S. S. R.) 4, 245-53(1937); cf. Dolgov, Kotun and Lel'chuk, *C. A.* 30, 1027[8], 5177[9], and preceding abstr.—It is shown that in the catalytic esterification of alc. with a Cu catalyst by the previous method the AcOH yield can be considerably increased by raising the temp. to 300° and introducing water vapors for the hydration of the AcH formed in the catalysis: $AcH + H_2O = AcOH + H_2$ (cf. Goldschmidt, *et al.*, *C. A.* 28, 2673[3]). Because of the excessive dilu. of the condensate and comparatively rapid deactivation of the Cu-Cr_2O_3 catalyst, the procedure is considered commercially impractical. More promising is the method of passing the AcH and uncondensed gaseous portion through a 2nd reaction chamber over the Cu catalyst. By this method 47.2% AcH contg. 8% H_2O was converted into AcOH at 300-25°. Approx. 35 references.

Chas. Blanc

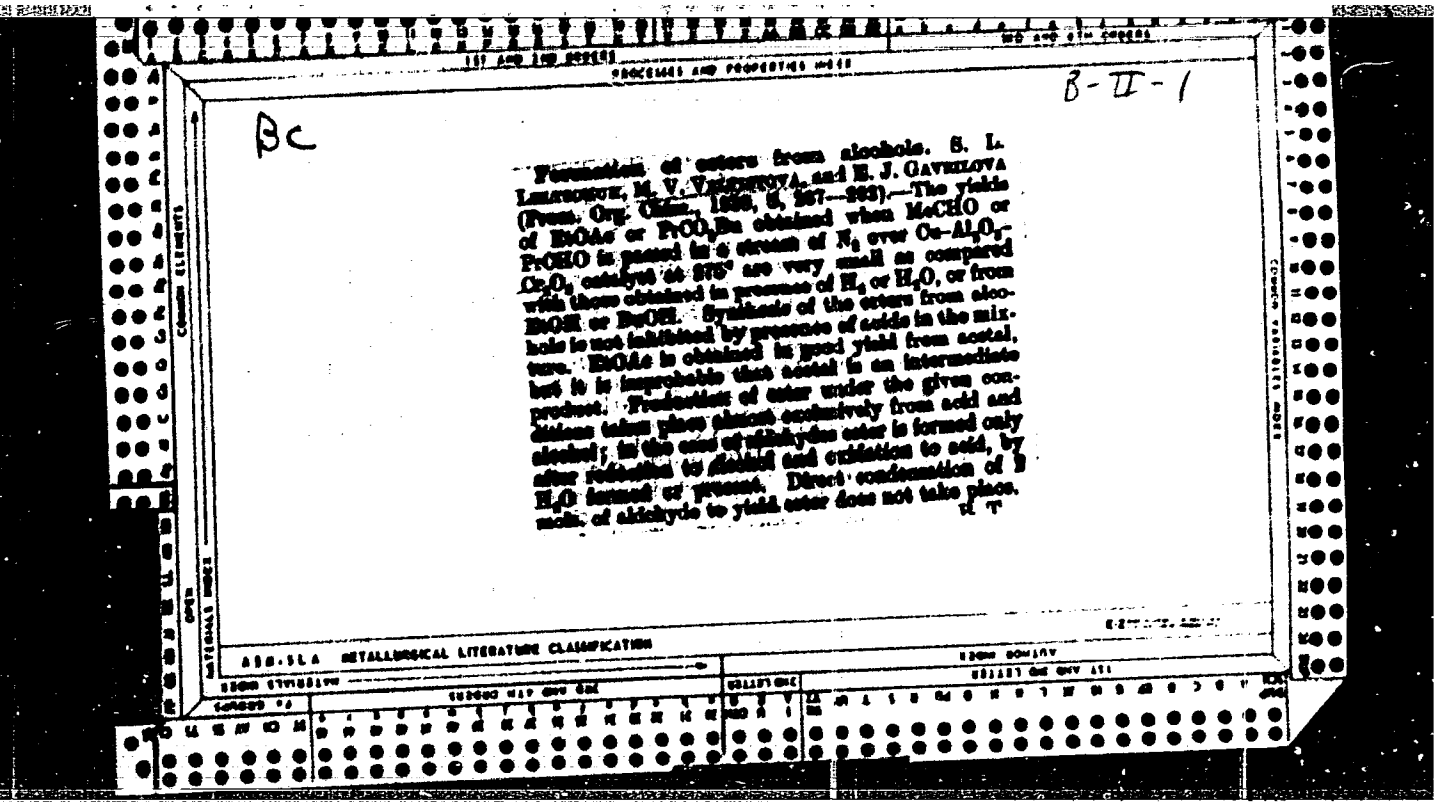
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Synthesis of acetates of higher alcohols by catalytic dehydrogenation. M. Y. Veltistova and S. L. Lel'chuk. *Org. Chem. Ind.* (U. S. S. R.) 6, 657-60(1939); cf. *C. A.* 32, 2085⁴.—Preliminary results on the esterification of mixts. of BuOH and AmOH with 1-3 mols. EtOH at 250-300° by the method and over the catalysts previously described. The dehydrogenation of BuOH and AmOH in the mixts. proceeds at a nearly equal rate to give complex mixts. of the corresponding Et, Bu and Am acetates, butyrates and valerates and acids and aldehydes. With increasing mol. proportion of EtOH the yields of esters increase and those of acids and aldehydes decrease. The gaseous products contain about 2% CH_4 and 1.5% of unsatd. hydrocarbons.

Chas. Blanc

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

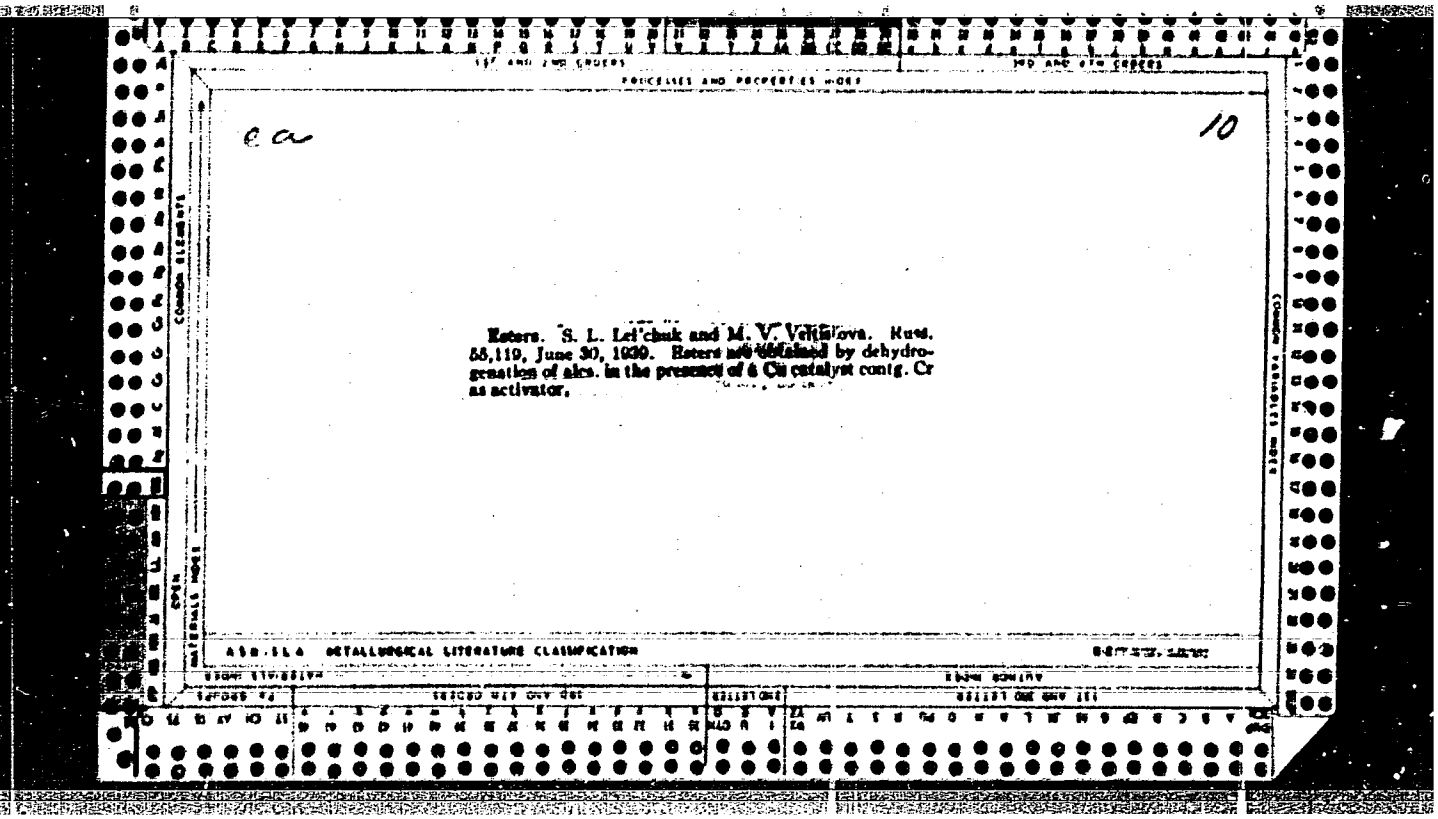


B-II-1

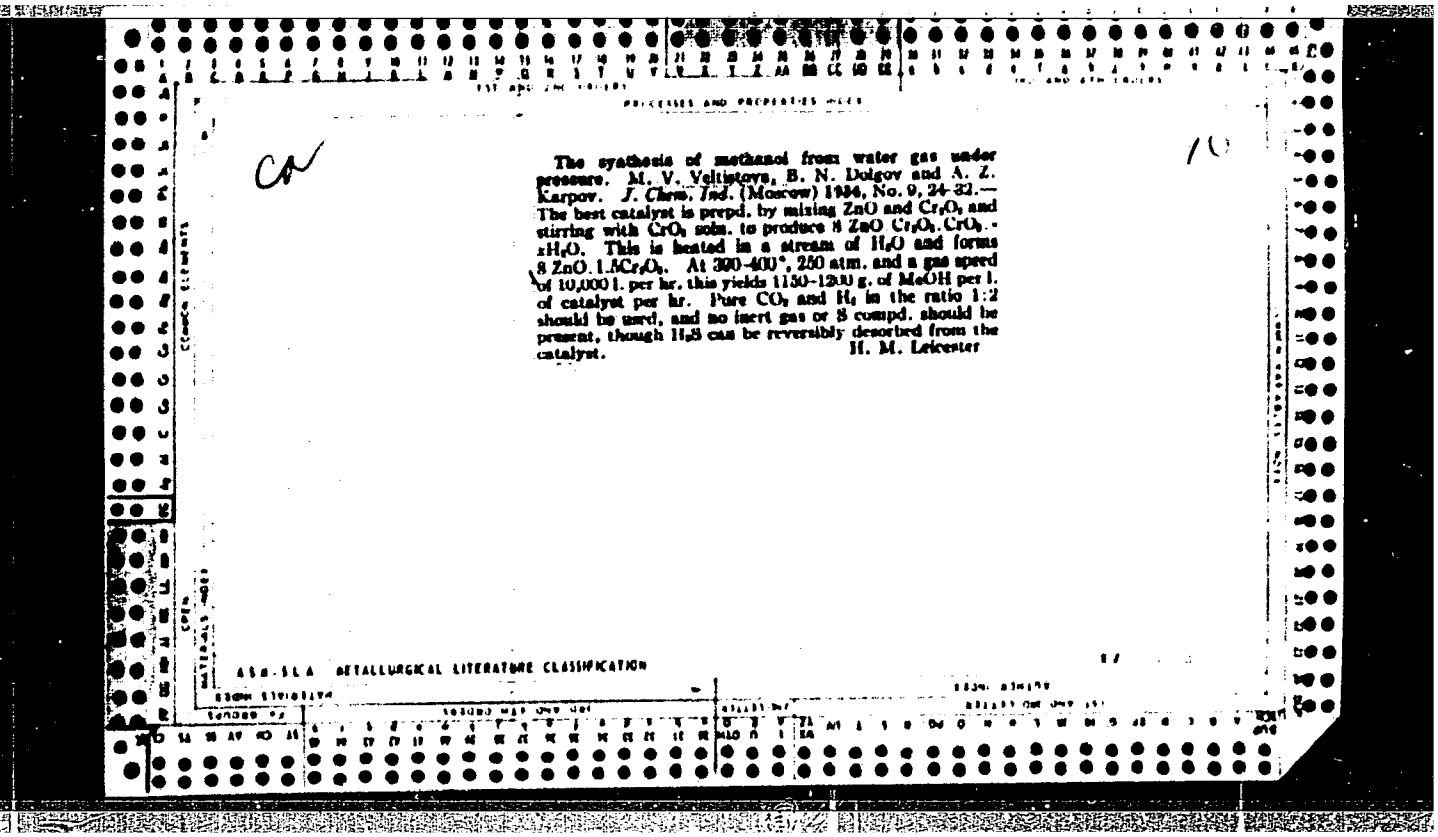
Bc

Formation of esters from alcohols. S. L. LEBEDINSKII, M. V. VARGINOVA, and E. J. GAVRILOVA (Trans. Org. Chem., 1958, 8, 267—283).—The yields of EtOAc or PrO_2Bu obtained when MeCHO or PrCHO is passed in a stream of N_2 over Cu-Al_2O_3–Cr_2O_3 catalyst at 275° are very small as compared with those obtained in presence of H_2 or H_2O, or from EtOH or BuOH. Synthesis of the esters from alcohols is not inhibited by presence of oxide in the mixture. EtOAc is obtained in good yield from acetal, but it is improbable that acetal is an intermediate product. Production of ester under the given conditions takes place exclusively from acid and alcohol; in the case of aldehydes ester is formed only after reduction to alcohol and oxidation to acid, by H_2O formed or present. Direct condensation of 2 mols. of aldehyde to yield ester does not take place.

A58-SLA METALLURGICAL LITERATURE CLASSIFICATION



Esters. S. L. Lel'chuk and M. V. Vetkina. Russ. 55,119, June 30, 1939. Esters are obtained by dehydrogenation of alcs. in the presence of 6 Cu catalyst contg. Cr as activator.



The synthesis of methanol from water gas under pressure. M. V. Veltistova, B. N. Dolgov and A. Z. Karpov. *J. Chem. Ind.* (Moscow) 1934, No. 9, 24-33.—The best catalyst is prepd. by mixing ZnO and Cr_2O_3 and stirring with CrO_3 soln. to produce 8 ZnO Cr_2O_3.CrO_3.xH_2O. This is heated in a stream of H_2O and forms 8 ZnO.1.5Cr_2O_3. At 390-400°, 250 atm. and a gas speed of 10,000 l. per hr. this yields 1150-1200 g. of MeOH per l. of catalyst per hr. Pure CO and H_2 in the ratio 1:2 should be used, and no inert gas or S compd. should be present, though H_2S can be reversibly desorbed from the catalyst.

H. M. Leicester

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

SPERANSKIY, G.N.; VEL'TISHCHEV, Yu.Ye.; TABOLIN, V.A.; GOLODETS, M.V., kand. med. nauk; TETS, D.I., prof.; RUBIS, I.Z.

Book reviews. Pediatriia 42 no.6:85-88 Je'63 (MIRA 17:1)

VEL'TISHCHEV, Yu.Ye.; MASHKEYEV, A.K.; MIRZOYEV, B.M.; BYKOVA, N.S.

Method of determining inulin and sugar in the blood by means of the antrhone reagent. Lab.delo 9 no.3:30-34 Mr '63. (MIRA 16:4)

1. Kafedra pediatrii (zav. - deystvitel'nyy chlen AMN SSSR prof. G.N.Speranskiy) TSentral'nogo instituta usovershenstvovaniya vrachey i laboratoriya akademika A.G.Speranskogo pri Institute vysshey nervnoy deyatel'nosti i neyrofiziologii AMN SSSR.

(INSULIN) (BLOOD SUGAR) (ANTHRONE)

VEL'TISHCHEV, Yu.Ye.

Prevention of disorders of water and electrolyte metabolism in toxic states in infants. Pediatriia 39 no.3:81-88 Mr '61. (MIRA 14:4)

1. Iz kafedry pediatrii (zav. - prof. G.N. Speranskiy) TSentral'nogo instituta usovershenstvovaniya vrachey (dir. M.D. Kovrigina).
(ELECTROLYTE METABOLISM) (INFANTS—NUTRITION)

VEL'TISHCHEV, Yu.Ye.; LEBEDEV, B.V.; TOBOLIN, V.A.

"Prenatal human infections" by H. Flamm [in German]. Reviewed by IU. E. Vel'tishchev, B.V. Lebedev, V.A. Tobolin. Pediatriia 37 no.12:61-62 D '59. (MIRA 13:5)

(FETUS--DISEASES)
(FLMANN, H.)

VEL'TISHCHEV, Yu.Ye.; LIPETS, V.Ya.

Association of cor biloculare with agenesis of the spleen and partial situs inversus visceralis. Sov.med. 23 no.8:107-108 Ag '59.
(MIRA 12:12)

1. Iz detskoy bol'nitsy (glavnyy vrach Ye.A. Kutakova) i gorodskoy bol'nitsy (glavnyy vrach I.D. Finkel'berg) Yegor'yevska.
(HEART DEVECTS, CONGENITAL compl.)
(SPLEEN abnorm.)
(SITUS INVERSUS abnorm.)

VEL'TISHCHEV, Yu.Ye.

Use of neuroplegic substances in pediatrics. Pediatriia 36 no.11: 78 N '58. (MIRA 12:8)

1. Iz kafedry pediatrii (zav. - prof. G.N. Speranskiy) Tsentral'nogo instituta usovershenstvovaniya vrachey.
(PEDIATRICS) (AUTONOMIC DRUGS)

TER-GRIGOR'YEVA, Ye.N., GRITSMAN, N.N., TABOLIN, V.A., VEL'TISHCHEV, Yu.Ye.

Material on clinical anatomical characteristics of cerebral and pulmonary forms of generalized cytomegaly. Vop.okh.mat. i det. 3 no.6:17-24 N-D '58 (MIRA 11:12)

1. Iz patologoanatomicheskogo otdeleniya (zav. Ye.N. Ter-Grigorova) detskoy bol'nitsy No.9 imeni F.E. Dzerzhinskogo (glavnyy vrach A.N. Kudryashova) i kafedry pediatrii (zav. - prof. G.N. Speranskiy) TSentral'nogo instituta usovershenstvovaniya vrachey.
(SALIVARY GLANDS--DISEASES)

VEL'TISHCHEVA, I.F.

Methods of increasing the productivity of sturgeons in the fish hatcheries of the Kura River. Trudy VNIRO 56:39-59 '64. (MIRA 18:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii.

VEL'TISHCHEVA, V.A.

24(8) PHASE I BOOK EXPLOITATION SOV/3501

Akademiya nauk SSSR. Energeticheskiy institut

Voprosy teploobmena (Heat-Exchange Problems) Moscow, 1959. 237 p. Errata slip inserted. 2,800 copies printed.

Resp. Ed.: M.A. Mikheyev, Academician; Ed. of Publishing House: G.B. Gorshkov; Tech. Ed.: I.F. Kuz'min.

PURPOSE: This collection of articles is intended for scientific workers, engineers, and postgraduate students specializing in thermodynamics.

COVERAGE: The collection reviews problems of heat transfer and explores possibilities of intensifying heat exchange. The heat exchange theory is outlined, and Russian scientists who contributed to its development are mentioned. Thermophysical properties of some molten metals and alloys are analyzed, and methods used to determine them presented. Equipment used for measuring thermal conductivity, heat capacity, and kinetic viscosity of these metals are discussed. Results of experimental study of the intensified heat exchange for a water flow in an annular channel are analyzed and the instruments used along with the pilot plant for studying convection heat exchange in contacting nonmiscible fluids are described. Instruments and equipment used for determining the linear expansion of metals, the consumption of a liquid, and the absorption capacity of a surface are also described and illustrated. A number of equations for solving various thermodynamic problems are presented. Each article is accompanied by references, the majority of which are Soviet.

TABLE OF CONTENTS:

Editorial Foreword 3

Mikheyev, M.A. Development of the Science of Heat Exchange During the Last Forty Years 5

Nikol'skiy, N.A., N.A. Kalakutskaya, I.M. Pchelkin, T.V. Klassen, and V.A. Vel'tishcheva. Thermophysical Properties of Some Molten Metals and Alloys 11

Pchelkin, I.M. Heat Capacity of Molten Metals 46

Siderov, E.A. Radiation and Convection Heat Exchange in an Absorbing Medium 49

Fedynskiy, O.S. Intensification of Heat Exchange for the Flow of Water in an Annular Channel 53

Deryugin, V.M., and O.S. Fedynskiy. Convection Heat Exchange in a Direct Contact of Nonmiscible Fluids 67

Kirillov, P.L., V.I. Subbotin, M.Ya. Suvorov, and M.F. Troyanov. Study of Heat Transfer to Sodium-Potassium Alloy in a Pipe 80

Kondrat'yev, N.S. Average Heat Transfer for a Turbulent Flow of Eutectic Bismuth - Lead Alloy in Short Pipes 96

Ivanovskiy, M.N. Accelerated Method for Determining the Coefficient of Average Heat Transfer in a Pipe 100

Adrianov, V.N. Application of Electroanalogy to the Solution of Problems of Radiant Heat Exchange 113

Lel'chuk, V.L. and B.V. Dyadyakin. Heat Transmission From a Wall to a Turbulent Air Flow in a Pipe and the Hydraulic Resistance at High-Temperature Pressure Heads 123

Minashin, V.Ye., V.I. Subbotin, P.A. Ushakov, and A.A. Sheleikhov. Utilization of a Microthermocouple in Studying Heat Transfer 193

Korotkov, Yu.A. Unit for Metallization Carried out by Sublimation of Metals in a Vacuum 202

Korotkov, Yu.A. Instrument for Measuring the Consumption of a Liquid 206

Buleyev, N.I. Distribution of Velocity and Temperature for a Turbulent Liquid Flow in a Circular Pipe 208

Khrustalev, B.A. Instrument for Determining the Absorption Capacity of a Surface 231

OV/96-59-2-16/18

AUTHORS: Nikol'skiy, N.A., Candidate of Technical Sciences
Kalakutskaya, N.A., Candidate of Technical Sciences
Pchelkin, I.M., Engineer,
Klassen, T.V., Engineer, and
Vel'tishcheva, V.A., Engineer

TITLE: The Thermal Physical Properties of Molten Metals (Teplofizicheskiye svoystva rasplavlennykh metallov)

PERIODICAL: Teploenergetika, 1959, Nr 2, pp 92-95 (USSR)

ABSTRACT: At the Power Institute Academy of Sciences USSR studies have been made of the thermal-physical properties of a number of metals and alloys in the molten condition. The extensive experimental data obtained has been critically analysed and presented in the form of tables. This article gives the thermal physical properties of mercury, lead, bismuth, tin, lithium, sodium and potassium and alloys of sodium and potassium and lead and bismuth, see tables 1 to 9. The values of specific gravity, specific heat, coefficient of thermal conductivity and coefficient of kinematic viscosity are considered to be the most reliable ones available. Test methods used to

The Thermal Physical Properties of Molten Metals

determine some of the properties are briefly described and a diagram of the apparatus for measuring the specific gravity of molten metal by a volumetric method is given in Fig 1 and the apparatus for the displacement method in Fig 2. The equipment used for determining the thermal conductivity of molten metal is shown in Fig 3 and a further method in Fig 4. The equipment for determination of the specific heat of molten metal is shown in Fig 5. There are 5 figures and 12 references of which 7 are Soviet, 3 German, 1 English and 1 French.

VEL'TISHCHEVA, V.A.

18.4100

S/058/60/000/009/001/004
A005/A001

Translation from: Referativnyy zhurnal, Fizika, 1960, No. 9, p. 150, # 23025

AUTHORS: Nikol'skiy, N.A., Kalakutskaya, N.A., Pchelkin, I.M., Klassen, T.V., Vel'tishcheva, V.A.

TITLE: The Thermophysical Properties of Certain Metals and Alloys in Molten State

PERIODICAL: V sb.: Vopr. teploobmena, Moscow, AN SSSR, 1959, pp. 11-14

TEXT: The designs of experimental units and investigation methods are described in detail, as well as the results from measurements of the coefficients of heat conductivity, heat capacity, kinematic viscosity, and the specific gravity of molten metals and alloys. The results obtained by the Energeticheskiy Institut AN SSSR (Power Engineering Institute of the Academy of Sciences USSR) are compared with the results obtained by other authors. Tables of the thermophysical properties of Hg, molten Sn, Pb, Bi, of the alloy Pb(44.5%)-Bi, Li, Na, K, and the alloy Na(75%)-K for a wide temperature range are presented. There are 41 references.

T.V. Zakharova

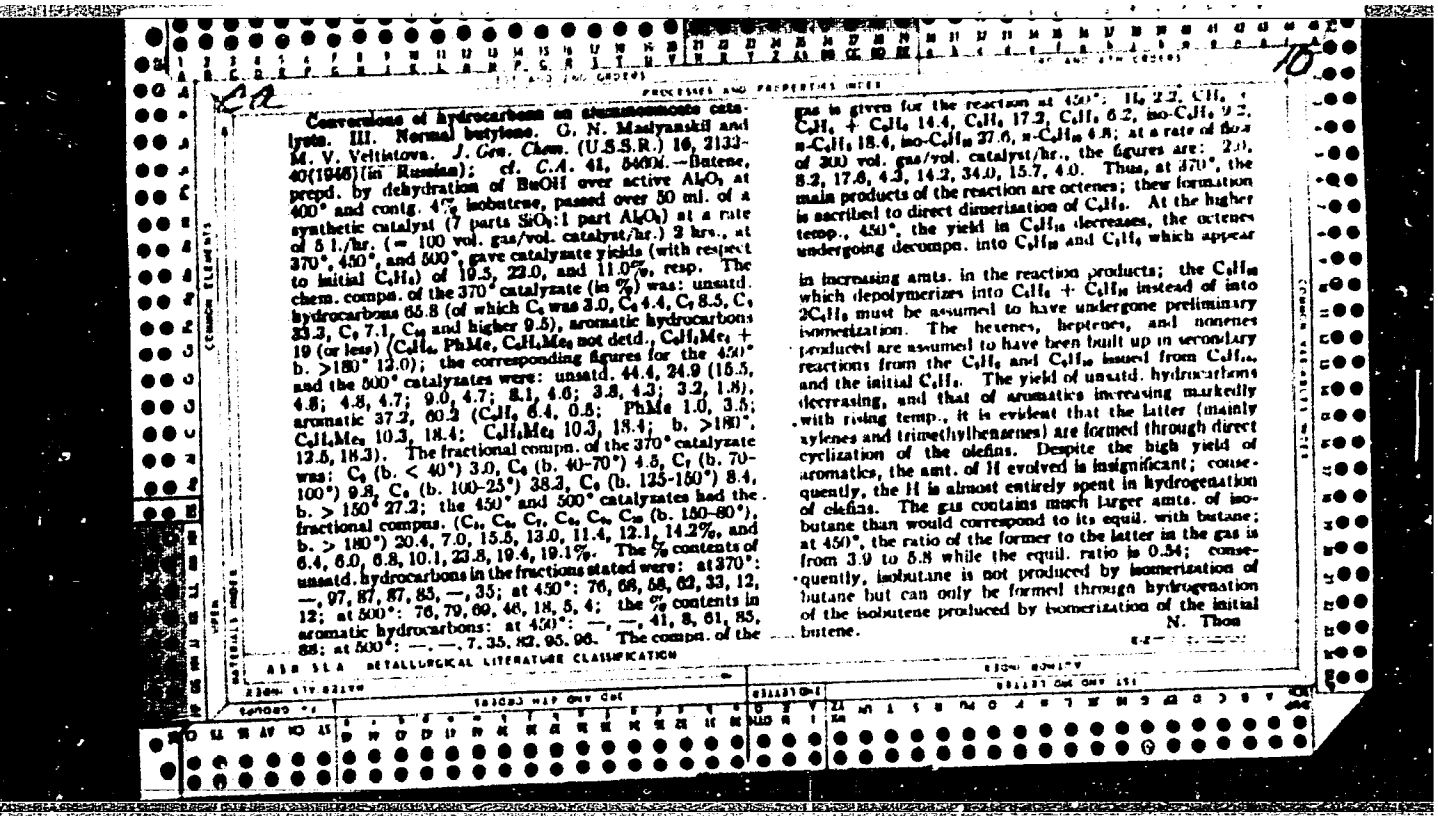
Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

VELTISTOV, P.K.; ZHIL'TSOV, P.N., inzh., retsenzent; MARENKOVA, G.I., inzh., red.; VOROTNIKOVA, L.F., tekhn. red.

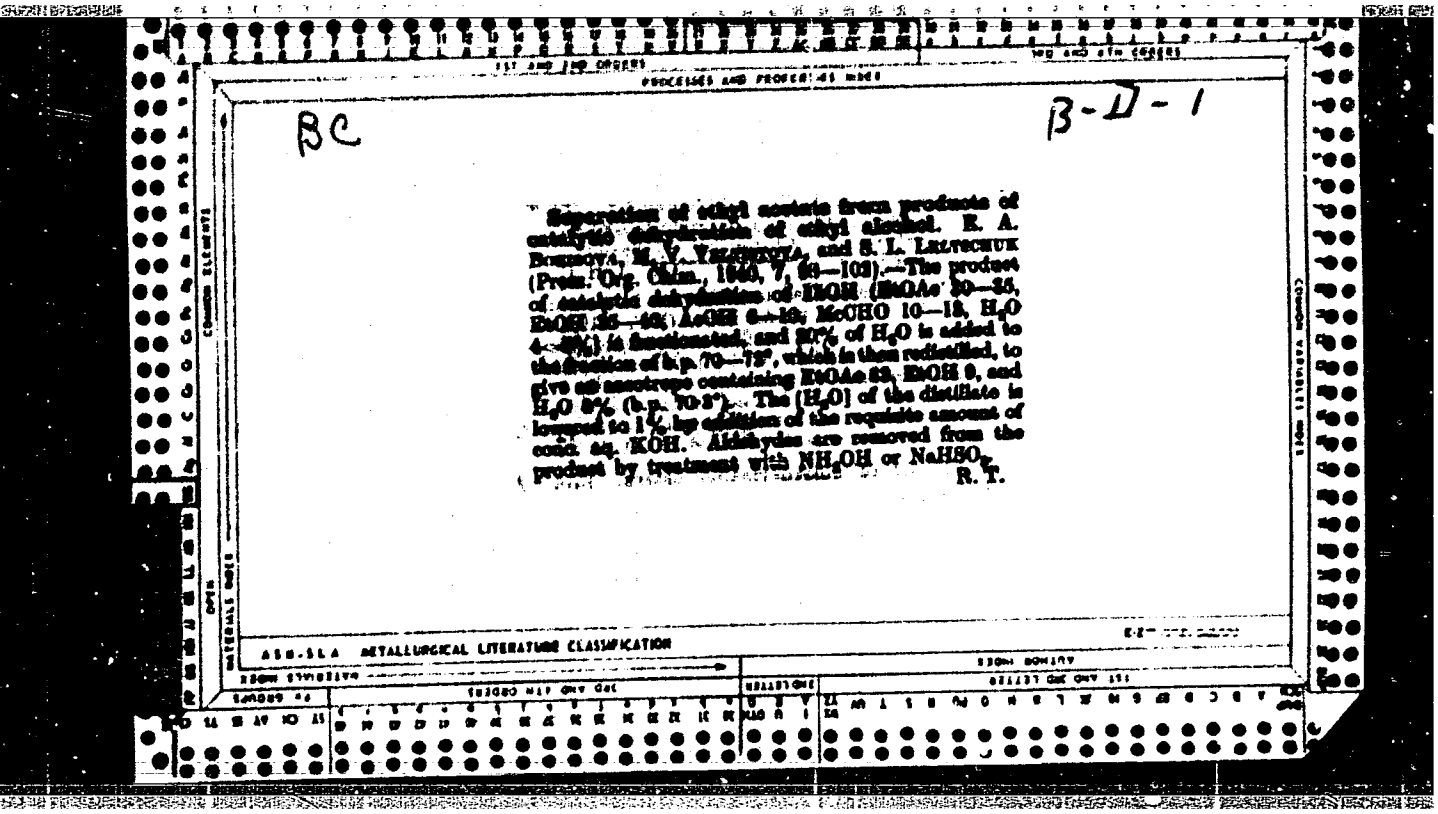
[Standard networks of relay interlocking systems of small stations] Tipovye skhemy rel'einoi tsentralizatsii malykh stantsii. Moskva, Transzheldorizdat, 1963. 123 p. (MIRA 16:10)

(Railroads--Signaling--Interlocking systems)



Conversions of hydrocarbons on chromium oxide catalysts. III. Normal butylene. G. N. Maslyanskii and M. V. Veltistova. *J. Gen. Chem.* (U.S.S.R.) 16, 2133-40(1946)(in Russian); *cf. C.A.* 41, 5460i.—Butene, prepd. by dehydration of BuOH over active Al_2O_3 at 400° and contg. 4% isobutene, passed over 50 ml. of a synthetic catalyst (7 parts SiO_2:1 part Al_2O_3) at a rate of 5 l./hr. (= 100 vol. gas/vol. catalyst/hr.) 2 hrs., at 370°, 450°, and 500°, gave catalyzate yields (with respect to initial C_4H_8) of 19.5, 23.0, and 11.0%, resp. The chem. compn. of the 370° catalyzate (in %) was: unsatd. hydrocarbons 65.8 (of which C_5 was 3.0, C_6 4.4, C_7 8.5, C_8 33.3, C_9 7.1, C_{10} and higher 9.5), aromatic hydrocarbons 19 (or less) (C_6H_6, PhMe, $C_6H_4Me_2$ not detd., $C_6H_3Me_3$ + b. >180° 12.0); the corresponding figures for the 450° and the 500° catalyzates were: unsatd. 44.4, 24.9 (15.5, 4.8; 4.8, 4.7; 9.0, 4.7; 8.1, 4.6; 3.8, 4.3; 3.2, 1.8), aromatic 37.2, 60.2 (C_6H_6 6.4, 0.5; PhMe 1.0, 3.5; $C_6H_4Me_2$ 10.3, 18.4; $C_6H_3Me_3$ 10.3, 18.4; b. >180°, 12.5, 18.3). The fractional compn. of the 370° catalyzate was: C_5 (b. < 40°) 3.0, C_6 (b. 40-70°) 4.8, C_7 (b. 70-100°) 9.8, C_8 (b. 100-25°) 38.2, C_9 (b. 125-150°) 8.4, b. > 150° 27.2; the 450° and 500° catalyzates had the fractional compns. (C_5, C_6, C_7, C_8, C_9, C_{10} (b. 150-80°), b. > 180°) 20.4, 7.0, 15.5, 13.0, 11.4, 12.1, 14.2%, and 6.4, 6.0, 6.8, 10.1, 23.8, 19.4, 19.1%. The % contents of unsatd. hydrocarbons in the fractions stated were: at 370°: —, 97, 87, 87, 85, —, 35; at 450°: 76, 68, 58, 62, 33, 12, 12; at 500°: 76, 79, 69, 46, 18, 5, 4; the % contents in aromatic hydrocarbons: at 450°: —, —, 41, 8, 61, 85, 88; at 500°: —, —, 7, 35, 82, 95, 96. The compn. of the gas is given for the reaction at 450°: H_2 2.2, CH_4 + C_2H_6 + C_3H_8 14.4, C_4H_8 17.2, C_4H_{10} 6.2, iso-C_5H_{12} 9.2, n-C_5H_{12} 18.4, iso-C_6H_{14} 27.6, n-C_6H_{14} 4.8; at a rate of flow of 200 vol. gas/vol. catalyst/hr., the figures are: 2.0, 8.2, 17.6, 4.3, 14.2, 34.0, 15.7, 4.0. Thus, at 370°, the main products of the reaction are octenes; their formation is ascribed to direct dimerization of C_4H_8. At the higher temp., 450°, the yield in C_4H_{10} decreases, the octenes undergoing decompn. into C_4H_{10} and C_4H_6 which appear in increasing amts. in the reaction products; the C_4H_{10} which depolymerizes into C_4H_8 + C_4H_{10} instead of into $2C_4H_8$ must be assumed to have undergone preliminary isomerization. The hexenes, heptenes, and nonenes produced are assumed to have been built up in secondary reactions from the C_4H_8 and C_4H_{10} issued from C_8H_{16} and the initial C_4H_8. The yield of unsatd. hydrocarbons decreasing, and that of aromatics increasing markedly with rising temp., it is evident that the latter (mainly xylenes and trimethylbenzenes) are formed through direct cyclization of the olefins. Despite the high yield of aromatics, the amt. of H evolved is insignificant; consequently, the H is almost entirely spent in hydrogenation of olefins. The gas contains much larger amts. of isobutane than would correspond to its equil. with butane; at 450°, the ratio of the former to the latter in the gas is from 3.9 to 5.8 while the equil. ratio is 0.54; consequently, isobutane is not produced by isomerization of butane but can only be formed through hydrogenation of the isobutene produced by isomerization of the initial butene.

N. Thon



BC

B-D-1

Separation of ethyl acetate from products of catalytic dehydrogenation of ethyl alcohol. R. A. Bresnova, M. V. Vasilieva, and S. L. Leltschuk (Prom. Org. Chim., 1940, 7, 99—103).—The product of catalytic dehydrogenation of EtOH (EtOAc 30—35, EtOH 35—45, AcOH 6—10, MeCHO 10—18, H_2O 4—8%) is fractionated, and 20% of H_2O is added to the fraction of b.p. 70—75°, which is then redistilled, to give an azeotrope containing EtOAc 82, EtOH 9, and H_2O 9% (b.p. 70·2°). The [H_2O] of the distillate is lowered to 1% by addition of the requisite amount of conc. aq. KOH. Aldehydes are removed from the product by treatment with NH_2OH or $NaHSO_3$.

R. T.

VEL'TMAN, F.

Vocational education of workers. Prom.koop. 13 no.11:40 N '59. (MIRA 13:3)

1. Glavnyy inzhener artели "Promstromat," g.Gatchina, Leningradskoy oblasti.
(Gatchina--Vocational education)

GONCHAROVA, L.N.; VEL'TMAN, L.A.; PANFILOV, Yu.A.

Synchronized electro-, phono- and ballistocardiographic registration with the aid of an industrial electromagnetic oscillotraph MPO-2. Terap.arkh. 33 no.4:87-88 '61. (MIRA 14:5)

1. Iz kafedry propedevtiki vnutrennikh bolezney (zav. - prof. S.V.Shestakov) Kuybyshevskogo meditsinskogo instituta.
(ELECTROCARDIOGRAPHY) (HEART—SOUNDS)