

ODINTSOV, V.A.; SOLOV'YEV, V.S.; FEDOTOV, I.D.

Experimental determination of the exponent of the polytropic curve for the detonation products of certain liquid explosives.
Izv. vys. ucheb. zav.; fiz. no.5:86-88 '62. (MIRA 15:12)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche imeni
Baumana.

(Explosives)

ACC NR: AM6024643

V. N. Vasilinin (Chapter VIII, parts 17 and 18 of Chapter III, and parts 43, 44, and 48 of Chapter IX); Candidate of Military Sciences N. A. Lopatkin (parts 36 and 37 of Chapter VII, and parts 45, 46 and 47 of Chapter IX); Doctor of Medical Sciences A. M. Genin (parts 34, 35 and 38 of Chapter VII). The book has 47 tables and 117 illustrations.

TABLE OF CONTENTS (Abridged):

Introduction - 3

- Ch. I - Structure of the universe - 5
- Ch. II - Physical characteristics of the upper atmosphere and near space - 56
- Ch. III - Flight dynamics of spacecraft - 83
- Ch. IV - Flight orbits and trajectories of spacecraft - 119
- Ch. V - Spacecraft navigation - 149
- Ch. VI - Flight control and orientation - 178
- Ch. VII - Manned space flight - 208
- Ch. VIII - Spacecraft propulsion systems - 226
- Ch. IX - Spacecraft - 243
- Ch. X - Spacecraft applications - 280

Appendices - 310

SUB CODE: 22/ SUM DATE: 20Jan66/

Card 2/2

ACC NR: AM6024643

Monograph

UR/

Kondrat'yev, N. Ya. (Major General of the Air Force); Odintsov, V. A. (Colonel), eds.

Handbook on astronautics (Spravochnik po kosmonavtike) Moscow, Voenizdat M-va obor. SSSR, 1966. 328 p. illus., tables. Errata slip inserted. 15,000 copies printed.

TOPIC TAGS: orbit trajectory, interplanetary trajectory, astronaut training, spacecraft, space navigation

PURPOSE AND COVERAGE: This handbook was compiled for scientists working in rocketry and space technology and for the reader interested in space exploration. Basic theories on space travel and space navigation are presented as well as theories on interplanetary travel. There are detailed discussions of space trajectories and vehicles. Included are illustrations of several interplanetary trajectories. Types of engines used in spacecraft and rockets, their characteristics, and types of fuels used are illustrated in tabular form. Most Soviet spacecraft are generally described and classified according to their applications, and basic data are given. Data is presented on distant planets and their characteristics. Descriptions are given of manned space travel, preparation and training for such travel, the problems of weightlessness and life support in space, and the reliability of and necessity for space suits. The handbook was prepared by the following candidates of technical sciences: N. Ya. Kondrat'yev, (Chapter I); V. M. Denin (Chapter II); L. M. Vorob'yev (Chapter V, and parts 15 and 16 of Chapter III); G. G. Bebenin (Chapter VI, and parts 13 and 14 of Chapter III); V. A. Odintsov (Chapter IV and X);

Card 1/2

ODINTSOV, V.A.

Low detonation velocity in a tetranitromethane-diesel fuel
mixture. Zhur. prikl. khim. 34 no.5:1092-1096 My '61.
(MIRA 16:8)
(Diesel fuels)

ODINTSOV, Vasilii Aleksseyevich, kandidat sel'skokhozyaystvennykh nayk;
KAPTSINEL', M.A., redaktor; SERGHEEV, V.I., redaktor; ZUBRILINA,
Z.P., tekhnicheskii redaktor

[Pomeology on leading farms in the central provinces of the
U.S.S.R.] Sadovodstvo v peredovykh khoziaistvakh; v tsentral'nykh
oblastiakh SSSR. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1956.
60 p. (MLRA 10:4)

(Fruit culture)

1. ODINTSOV, V. A.
2. USSR (600)
4. Fruit Culture
7. Introducing Michurin and valuable local varieties. Sad i og. No. 11 1952

Monthly List of Russian Accession, Library of Congress, March, 1953, Unclassified.

ODINTSOV, S.N.

The 6M12K copying vertical milling machine. Bul.tekh.-ekon.inform.
no.4:18-20 '60. (MIRA 13:11)

(Milling machines)

ODINESOV, S.A.; USACHEVA, V.A.

Mistakes in the organization of the pay system in Krupskaja
Clothing Factory No.1 in Kaluga. Shvein.prom. no.3:10-12
My-Je '59. (MIRA 12:9)
(Kaluga--Clothing industry) (Wages)

ERIN'SH, I.P. [Erins, P.]; ODINTSOV, P.N.

Cleavage of the elements of cellulose structure in the cell
walls of wood. Vysokom. soed. 6 no.11:2104-2105 N '64
(MIRA 18:2)

KALNIN'SH, A.I. [Kalnins, A.] akademik; ODINTSOV, P.N., akademik

Chemistry of wood pulp. Vest. AN SSER 32 no.2:57-61 F '62.
(MIRA 15:2)

1. AN Latvyskoy SSR (for Kalnin'sh, Odintsov).
(Woodpulp)

GOLOVA, O.P.; EPSHTEYN, Ya.V.; SERGEYEVA, V.N.; KALNIN'SH, A.I. [Kalnins, A.];
ODINTSOV, P.N.; MAKSIMENKO, N.S.; PANASYUK, V.G.

Outlook for a new method of complete processing of plant materials.
Gidroliz.i lesokhim.prom. 15 no.3:12-15 '62. (MIRA 15:5)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR (for Golova, Epshteyn).
2. Institut lesokhozyaystvennykh problem i khimii drevesiny AN Latvyskoy SSR (for Sergeyeva, Kalnin'sh, Odintsov).
3. Krasnodarskiy gidroliznyy zavod (for Maksimenko).
4. Dnepropetrovskiy sel'skokhozyaystvennyy institut (for Panasyuk).
(Wood--Chemistry) (Hydrolysis) (Plant cells and tissues)

BEYNART, I.I.; ODINTSOV, P.N.

Grinding of spruce wood and its lignocellulose in ball mills.
Gidroliz. i lesokhim.prom. 15 no.2:9-11 '62.

(MIRA 18:3)

1. Institut lesokhozyaystvennykh problem i khimii drevesiny
AN Latvyskoy SSR,

GOLOVA, O.P.; EPSHTEYN, Ya.V.; SERGEYEVA, V.N.; KALNIN'SH, A.I. [Kalnins, A.];
ODINTSOV, P.N.; MAKSIMENKO, N.S.; PANASYUK, V.G.; Prinima)i
uchastiye: MERLIS, N.M.; DURININA, L.I.; BISENIYETSE, S.K. [Biseniece, S.];
GUNDARS, A.Yu.; FEDORCHENKO, R.I.; MINAKOVA, V.I.

New method for the complete chemical processing of plant tissues.
Gidroliz. i lesokhim. prom. 14 no.7:4-8 '61. (MIRNA 14:11)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR (for Golova, Epahteyn, Merlis, Durinina).
2. Institut lesokhozyaystvennykh problem i khimii drevesiny AN Latvyskoy SSR (for Sergeyeva, Kalnin'sh, Odintsov, Bisenietse, Gundars).
3. Krasnodarskiy gidroliznyy zavod (for Maksimenko, Fedorchenko, Minakova).
4. Dnepropetrovskiy sel'skokhozyaystvennyy institut (for Panasyuk).

(Plant cells and tissues)
(Botanical chemistry)

ODINTSOV, P.N.; KALNIN'SH, A.I. [Kalnins, A.]; KAL'NINA, V.K.; CHEPIGO, S.V.;
SHNAYDER, Ye.Ye.; SHPUNTOVA, M.Ye.

Hydrolysis of plant materials by concentrated sulfuric acid.
Gidroliz. i lesokhim.prom. 14 no.3:1-4 '61. (MIRA 14:4)

1. Institut lesokhozyaystvennykh problem i khimii drevesiny Akademii nauk Latvyskoy SSR (for Odintsov, Kalnin'sh, Kal'nina). 2. Nauchno-issledovatel'skiy institut gidroliznoy i sul'fitno spirtovoy promyshlennosti (for Chepigo, Shnayder and Shpuntova).
(Hydrolysis) (Wood-Chemistry)

ODINTSOV, P.[Odincova, P.](Riga); ERIN'SH, P.[Erins, P.] (Riga)

Internal surface and capillary structure of lignin determined by
vapor-phase benzene sorption. Vestis Latv ak no.2:103-110 '61.
(EEAI 10:9)

1. Akademiya nauk Latvyskoy SSR, Institut lesokhozyeystvennykh
problem i khimii drevesiny.

(Surface chemistry) (Lignin) (Benzene)
(Capillarity) (Sorption)

ODINTSOV, P.N.; BEYNART, I.I.; MURASHCHENKO, N.F.

Hydrolysis of cellulose by small quantities of concentrated
sulfuric acid. *Gidroliz i lesokhim.prom.* 13 no.6:6-7. '60.

(MIRA 13:9)

1. Institut lesokhomyaystvennykh problem i khimii drevesiny
AN Latvyskoy SSR.
(Cellulose) (Hydrolysis)

ODINTSOV, P. [Odincovs, P.]

Research on wood chemistry and its components as a theoretical
basis of chemical technology of wood. In Russian. Vestis Latv ak
no.' :193-202 '60. (EEAI 10:7)
(Wood)

ODINTSOV, P.N.

Effect of the structure of cell walls of wood on hydrolysis. *Gidroliz. i lesokhim.prom.* 12 no.2:3-5 '59. (MIRA 12:3)

1. Institut lesokhozyaystvennykh problem AN Latvyskoy SSR.
(Wood--Chemistry)

ODINTSOV, P. (Riga); ERIN'SH, P. [Erins,P.](Riga)

Capillary structure of wood and chloocellulose determined by vapor-phase benzene sorption. Vestis Latv ak no.11:115-122 '59. (EEAI 9:11)

1. Akademiya nauk Latviyskoy SSR, Institut lesokhoziaystvennykh problem i khimii drevesiny.

(Wood) (Holocellulose) (Benzene)
(Spruce)

ODINTSOV, P.

GENERAL

PERIODICALS: VESTIA, No. 3, 1958

ODINTSOV, P. Effect of concentrated sulfuric acid on birch cellulose.
In Russian. p. 67

Monthly list of East European Accessions (EEAI) LC, Vol. 8, No. 2,
February 1959, Unclass.

ODINTSOV, P.

GENERAL

PERIODICALS: VESTIS No. 2, 1958

ODINTSOV, P. Hydrolysis of wood by means of a small quantity of hydrogen chloride.
In Russian. p. 71.

Monthly list of East European Accessions (EEAI) LC, Vol. 8, No. 2,
February 1959, Unclass.

ODINTSOV, P.

GENERAL

PERIODICALS: VESTIS No. 2, 1958

ODINTSOV, P. Sorption of water vapor by spruce wood. In Russian. n. 65

Monthly list of East European Accessions (EEAA) IC, Vol. 8, No. 2,
February 1959, Unclass.

ODINTSOV, P.

GENERAL

PERIODICALS: VESTIS. No. 1, 1958

ODINTSOV, P. Sorption of water by cellolignin. In Russian. p. 61

Monthly list of East European Accessions (EEEA) IC, Vol. 8, No. 2,
February 1959, Unclass.

Science for Production (Cont.)

SOV/1570

Technology of Wood Processing and the Chemical Industry	59
Production of cellulose by the hydrotropic method	
Fractional grinding as a new technology for preparing paper pulp	62
A catalyst for the vapor-phase decarbonylation of furfural promoted by alkali salts	64
Separation of furan from contact gases of the vapor-phase decarbonylation of furfural	66
Building Materials	
Lime and sand blocks for walls using local dolomite lime	71
Vibration method of concrete mixing	73
Determining the quality of concrete and reinforced concrete without crushing	75
Industrial Economics	
Economy program and organization of intraplant cost accounting in metalworking establishments of the Latvian SSR	81

Card 4/5

Science for Production (Cont.)

SOV/1570

Radioactive transmitter for voltage regulation in an a-c circuit	19
Automatic thermoregulator type ATR-6	22
Automatization of the fermentation unit at the Riga Yeast Factory	25
Automatically programmed temperature regulator for a heat carrier type PRR-1	29
Specialized devices for measuring steel coatings	33
UP-1 universal device for measuring the thickness of a coating	36
PPM-2 portable device for measuring the thickness of a coating	38
 Machine Manufacturing	
D-C induction pump for the transfer of liquid sodium	43
Three-phase induction pump for the transfer of liquid metals	45
Magnetic pump for transfer of liquid metal in an induction furnace	48
Contactless systems for supplying railroad passenger cars with direct (rectified) current	50
Model testing the all-metal passenger car body of the ER-5 electric train	53

Card 3/5

Science for Production (Cont.)

SOV/1570

COVERAGE: This collection of articles, the third of a series, contains studies on the use of radioactive isotopes in production in machine and instrument manufacture, in the technology of wood processing, the chemical industry, and in building materials. A new chapter was added on industrialeconomics. Bibliographic references are given following each chapter. No personalities are mentioned. There are 23 references, 22 of which are Soviet and 1 Latvian.

TABLE OF CONTENTS:

Foreword	3
Automatization and Mechanization of Production Processes	
Unified relay-type equipment based on the use of radioactive radiation	7
Radioactive marking [for identification] of butt-welded joints of a steel wire	10
Radioactive blocking device type BRP-1	13
Automatic radioactive mixing and metering implement for preparing water and oil mixtures	16
Card 2/5	

ODINTSOV, P.N.

21(4); 25(2)

PHASE I BOOK EXPLOITATION

SOV/1570

Akademiya nauk Latvyskoy SSR, Riga

Nauka - proizvodstvu; kratkiye annotatsii rabot, vpolnennykh dlya promyshlennosti i stroitel'stva, Vyp. 3 (Science for Production; Short Annotation of Works Accomplished for Industry and Building, Nr 3) Riga, Izd-vo AN Latvyskoy SSR, 1958. 89 p. 1,000 copies printed.

Editorial Board: K.K. Plaude (Resp. Ed.) Academician, Latvian SSR Academy of Sciences; P.N. Odintsov, Corresponding Member, Latvian SSR Academy of Sciences; A.K. Malmeyster, Corresponding Member, Latvian SSR Academy of Construction and Architecture; S.B. Aynbinder, Candidate of Technical Sciences; M.P. Zakis, Candidate of Economic Science; V.Ya. Veldre, Candidate of Physical and Mathematical Sciences; Ed.: A.Vengranovich; Tech. Ed.: R. Inkis.

PURPOSE: This book popularizes the results of scientific studies of the institutes of the Academy of Sciences of the Latvian SSR and describes their effects on the industry and building construction.

Card 1/ 5

ODINTSOV, P.N.

GROMOV, V.S.; ODINTSOV, P.N.

Cooking woodpulp from wood of deciduous trees and straw with use
of hydrotropic solvents. Bum.prom. 32 no.6:11-14 Je '57.

(MIRA 10:8)

1. Institut lesokhozyaystvennykh problem Akademii nauk Latvyskoy SSR.
(Woodpulp industry) (Solvents)

LATVIA/Chemical Technology - Cellulose and Its Derivatives.
Paper.

H-33

Abs Jour : Ref Zhur - Khimiya , No 24, 1958, 83810

Author : Odintsov, P.N.
Inst : AN Latv. SSR.

Title : Contemporaty Concepts in Regard to the Structure of
Cellulose and the Cellular Wall in Plants.

Orig Pub : Tr. in-ta losokhos. problem. AN Latv. SSR, 1957, 12, 5-24.

Abstract : A review with 106 referencs.

Card 1/1

ODINTSOV, P. N.

COMMUNIST CHINA/Chemical Technology - Chemical Products and Their Application, Part 4. - Cellulose and Its Derivatives, Paper. H-33

Abs Jour : Ref Zhur- Khimiya, No 14, 1958, 48995

Author : V.S. Gromov, P.N. Odintsov

Inst : -

Title : Cellulose Pulping of Hardwood and Straw with Hydrotropic Solvents.

Orig Pub : Taznochzhi gun-e, 1957, No 11, 22-24

Abstract : Translation.
See RZhKhim, 1958, 3277.

Card 1/1

~~ODINTSOV, P.N.~~; KAL'NIN'SH, A.I.; BMYNART, I.I.; KAL'NINA, V.K.

Hydrolysis of cellulose-containing materials with small amounts of sulfuric acid. Gidroliz. i lesokhim. prom. 10 no.8:3-6 '57.

(MIRA 10:12)

1. Institut lesokhozyaystvennykh problem AN Latvyskoy SSR.
(Cellulose) (Hydrolysis) (Sulfuric acid)

ODINTSOV, P.N.; KAL'NINA, V.K.; SOBOLEVSKIY, Ch.A.

Using concentrated sulfuric acid for the hydrolysis of wood.
Gidroliz. i lesokhim.prom.10 no.1:4-7 '57. (MLRA 10:4)

1. Institut lesokhozyaystvennykh problem Akademii nauk Latvyskoy
SSR.

(Sulfuric acid) (Wood--Chemistry) (Hydrolysis)

ODINTSOV, P. ; SHCHUKOVA, Z.

Obtaining glycerin by means of fermentation of wood hydrolyzates. p. 111.

BIOLOGICHESKAYA NAUKA; SELSKOM I LESNOM KHUZIAISIVU. (Latvijas PSR
Zinatnu akademijs. Biologijas zinatnu nodala) Riga, Latvia, No. 3, 1957.

Monthly list of East European Accessions (SEAT), IC, Vol. 8, No. 8,
August 1959.
Uncle.

PLATE 1 BOOK REPRODUCTION 507/4226

High. Universitat

Shchegolev, S. V. Kuznetsovskiy Fakultet, 4 (Scientific Notes, Vol. 1, Chemistry Faculty, 4) M.G., 1957. 251 p. 550 copies printed.

Eds. (title page): A.F. Iyvinsh, Professor, Doctor of Chemistry I.K. Zepin, Member of the Academy of Sciences Latvian SSR, Doctor of Chemistry; G.Ya. Yanag, Professor, Doctor of Chemistry; Tech. Ed.: A. Petrasch.

Contents: This book is intended for inorganic chemists and scientists in the ceramic industries.

COVERS: The book contains 22 articles on organic chemical synthesis and analysis and the physicochemical properties and compositions of ceramic and refractory materials. No personalities are mentioned. Figures, tables, and references accompany the articles.

2. Yencov, E. A. Iyvinsh, and E. Gudrinovits. The Use of Sodium Tetraphenylboron in Quantitative Analysis 9
3. Grolshchanskaya, A. A. Volk, and E. Albinis. The Luminescence of Aluminum Oxide Hydrate 17
4. Balodis, Yu. B. Resistance of the Boundary Layer, Electrode Potential, and the Corrosion of Aluminum in Aluminum Sulfate Solutions 25
5. Yanag, G. Ya. Ligita as a Reagent for Qualitative Determination of Aromatic Nitro Compounds 35
6. Yanag, G. Ya., and A. E. Iyvinsh. The Interaction of 2-Dimethyl-2-phenyl-1,3-indanones with Primary Alcohols 41
7. Kozlov, I. A. On the Predicted Mechanism of the Alkylation of Naphthalene and Diphenyl with Alcohols Using a BF₃ Catalyst 49
8. Gotschalyan, L. Z. Kalinina, and S. Villers. Study of Semic Acid and its Derivatives 63
9. Grinshchay, V., and E. Kozlov. The Concentration of Pyrochroms of Various Kinds and Their Influence on Parameters 73
10. Kozlov, I. A., and E. Kozlov. The Problem of Preliminary Hydrolysis of Nitroacrylates with Water and Acid Before Cooling Cellulose in the Sulfate Process 89
11. Kuznetsov, S. V. Properties of Typical Clays of the Latvian SSR 99
12. Kuznetsov, S. V. Properties of Cymex Calcined at Low Temperatures 123
13. Kuznetsov, S. V. The Use of Ligandophosphorus for the Production of Binding Substances 155
14. Freydenfeld, E. D. The Production of Caustic Soda 161
15. Kuznetsov, S. V., and Yu. B. Balodis. Properties of Some Spores, Early Nuclei, Non-Lead and Non-Silicon Phases for Structural Ceramics 167
16. Freydenfeld, E. D., and O. Ya. Seleznev. The Possibility of Using Magnesium Oxide-Bearing Phases for the Production of Binding Substances 173
17. Kuznetsov, S. V. Retarders of the Setting Period of Cymex Calcined at Low Temperatures 179
18. Kuznetsov, S. V. The Interaction of a Fireclay Refractory With a Fluorine-Containing Glass Batch 195
19. Freydenfeld, E. D., and A. Albinis. Physicochemical Properties of Compositions of the System CaO-SiO₂-B₂O₃ 201
20. Kuznetsov, S. V., and Yu. B. Balodis. The Role of Magnesium Oxide in the Production of Silicate Bristle from Dolomitic Limes 211
21. Kuznetsov, S. V., P. G. Pankov, and O. S. Makshakov. The Influence of Some Technical Factors on the Properties of Enamel Coatings on Cast Iron 221
22. Kuznetsov, S. V., G. G. Bogdanov, L. A. Kuznetsov. The Physicochemical Properties of Early Nuclei of Silicate Glasses 225

AVAILABLE: Library of Congress

Card 4/4

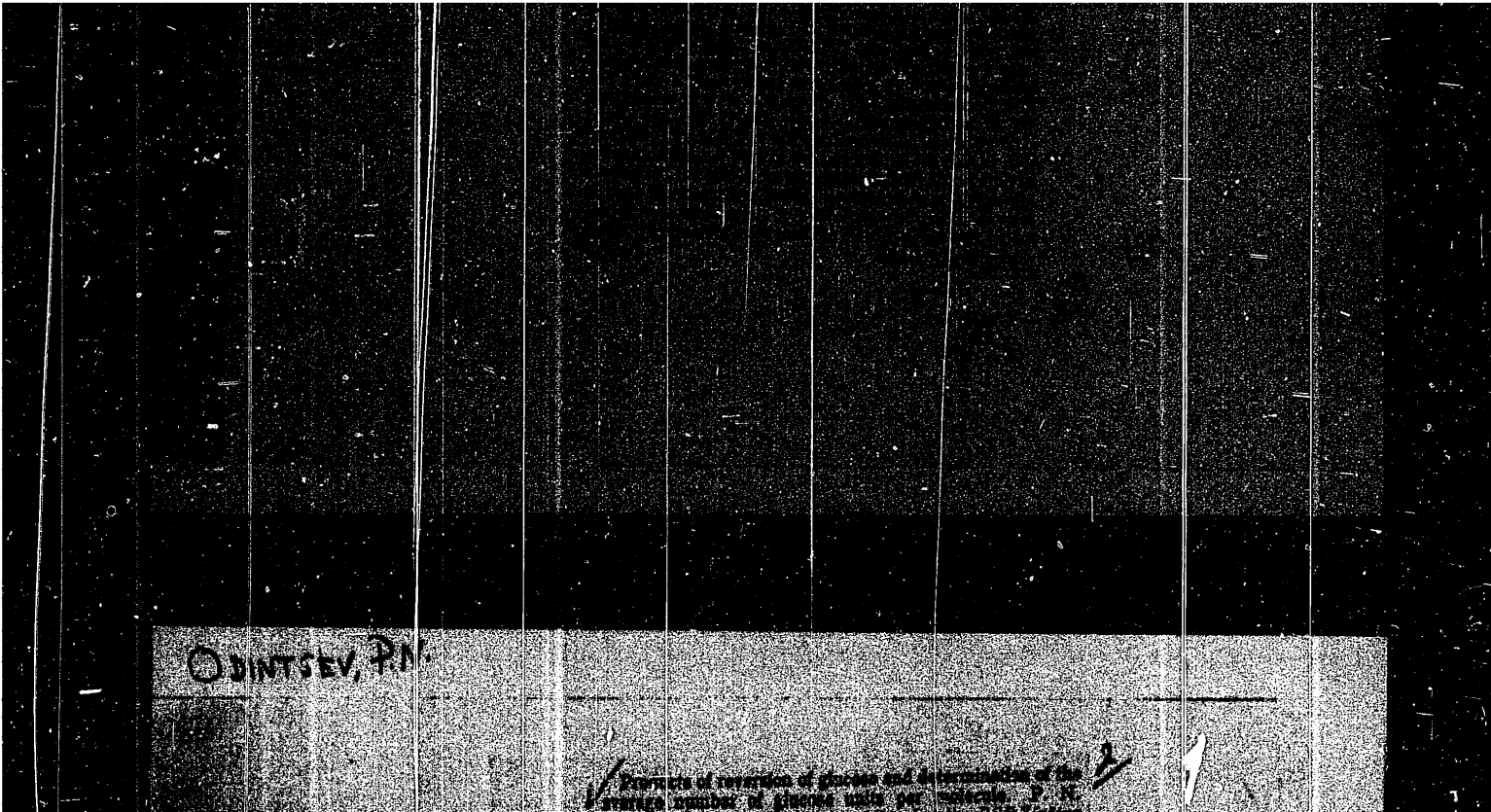
JAN/60

OLIVTSAY P.M.

Name : ODINTSOV, P. N.
Dissertation : Structure of the cell wall of the
tracheids of spruce wood and its effect
on processes of swelling, hydrolysis and
adsorption
Degree : Doc Chem Sci
Defended At : Latvian State U, Chemical Faculty
Publication Date, Place : 1956, Riga
Source : Knizhnaya Letopis' No 6, 1957

Products of reversion of glucose and determination of the average number of glucose units per molecule. F. V. Collins and A. I. Probst, *J. Polym. Sci. Polym. Chem. Ed.*, **1965**, No. 3, 719-724 in Russian. English summary, 107. Glucose was treated with 45-70% of 75% H₂SO₄ at 20° for 50 hrs. The products were fractionated by ads. in several columns of EtOH. Their mol. wts. were 450-3300, and the content of glucose residues in the mole. was 2-15, av. 5. Reversion with 75% H₂SO₄ was more complete than with 49.5% HCl. A. D. Kovalev.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001237800037-6



APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001237800037-6

ODINTSOV, P.V.

5

The amount of glucose conc- stration on the reverse side of the
 membrane was 0.014 M. P.V. Odintsov and A. I. Pirogov
 (Whole No. 01) 49. (In) (1958) - Doklady Akad. Nauk SSSR, No. 103, No. 1, p. 103.
 In 1958, Haldane and his colleagues followed neither of the two
 order theories. The time taken for the glucose to reach the
 of the reverse side of the membrane was 0.014 M. P.V. Odintsov
 + 1.0750 C = 0.014 M. P.V. Odintsov and A. I. Pirogov
 glucose in each case. The reverse side of the membrane was
 quill was reversed. The product of the reverse side of the
 membrane. The reverse side of the membrane was 0.014 M. P.V. Odintsov
 (CI, but the reverse side of the membrane was 0.014 M. P.V. Odintsov
 higher in the 1st case. At equilibrium, the concentration of glucose
 was 0.014 M. P.V. Odintsov and A. I. Pirogov (1958) - Doklady Akad. Nauk SSSR, No. 103, No. 1, p. 103.

Handwritten initials/signature

ODINTSOV, P. N.

Chemical Abstr.
Vol. 48 No. 4
Feb. 25, 1954
Cellulose and Paper

Swelling of the cell wall of spruce-wood fibers in sulfuric acid and in acid solutions of glucose. P. N. Odintsov and S. V. Mikhlin. *Letsnyi PNR Zinitsyn Akad. Vestn* 1953, No. 9 (Whole No. 25), 33-49 (in Russian) (Letynsk summary, 60). — A microscopic study was made of the swelling of spruce fibers (I) in H_2SO_4 (II) contg. various concs. of glucose (III). For 0, 40, 60, 65, 60, 65, and 70% II the % swelling was 110.3, 118.3, 129.0, 133.1, 178.3, 284.1, and 302.3, and the time to max. swelling was 2-4, 2-4, 2-5, 4-7, and 8-11 sec., and 10-12 and 10-12 min., resp. For 70% II the % swelling was 283, 307, 319, 274, 253, 203, and 126 for 5, 10, 15, 20, 25, 60, and 120 min., resp. For 0, 40, 60, 65, 60, 65, and 70% II the outside diam. of the bordered pits were 18.0, 16.5, 18.8, 19.3, 19.8, 19.8, and 19.3 μ , and the inside diam. were 4.60, 4.60, 4.00, 3.75, 3.75, 0.50, and 0.30 μ , resp. Cross sections of I, 80-90 μ thick, were extd. 24 hrs. with HCl , dried at room temp., and their swelling properties studied. For 0, 40, 50, 55, 60, 65, 70, and 75% II the % swelling (IV) (defined as the area of the treated cell wall as a % of the area of the dry cell wall) was 111.7, 138.4, 151.1, 218.4, 225.6, 1258.0, 1608.0, and 1520.3, and the ratio of cell-wall area to total area was 75.8, 79.8, 84.5, 80.5, 93.2, 88.7, 87.5, and 80.5%, resp. A no. of drawings are given of the course of swelling of cross-sections of I in 40, 60, 65, and 70% II. Deathering is most marked in 65% II. In 75% II, IV was 1140, 1484, 1348, 1029, 958, 829, 677, 623, 500, and 407 for 2, 3, 6, 7, 10, 15, 20, 30, 60, and 1440 min., resp. Curves and data are given for IV of I in 75% II contg. 5.7-37.5% III by wt. for times varying from 3 to 1440 min. In general, for a mol. ratio of III to II of 2.3-2.9, IV is constant at 310%; for a ratio of 2.9-2.8, IV rises rapidly from 210 to 640%; for a ratio above 2.8, IV increases at a const. rate to approx. 600 at a ratio of 11.3. If III is replaced by H_2O , IV is approx. 200 for a mol. ratio of H_2O to II of 4.7-4.2, rises rapidly to 1517 for a ratio of 4.2-3.2, changes sharply at a ratio of 3, and falls to approx. 1400 as the ratio decreases. *John Lake Keys*

ODINTSOV, P. N.

Chemical Abst.
Vol. 48 No. 4
Feb. 25, 1954
Cellulose and Paper

③

The diffusion of sulfuric acid and sugars into wood. P. N. Odintsova, N. A. Medvedeva, and A. G. Ignatjuka. *Latvijas PSR Zinatnu Akad. Vēstis* 1950, No. 5 (Whole no. 34), 11-22; cf. preceding abstr.—The diffusion velocity (I) of H_2SO_4 and glucose from aq. solns. into wood in a counter-current diffusion battery was studied. A soln. contg. 909.4 g. $H_2SO_4/l.$ and 348 g. glucose/l. was passed through a battery of 25 diffusers (80 cc. capacity) contg. 20 g. spruce chips (II) ($3 \times 3 \times 10$ mm.) at 51.5% H_2O . After 14, 36, and 52 hrs. the solns. from the diffusion battery contained 254.0, 229.5, and 144.4 g. $H_2SO_4/l.$, and 190.8, 182.0, and 148.8 g. glucose/l. II (67.2% H_2O) (73.3 g.) were placed in a 25-mm. tube and covered with 112 cc. of test soln.; samples were removed and analyzed in 2 and 5 min. The concns. in g./l. of H_2SO_4 in the test solns. at 0, 2, and 5 min. were 93.18, 69.26, and 64.25; of lactose, 100.72, 99.13, and 98.22. The I of H_2SO_4 and glucose in aq. soln. was studied in a battery of 17 diffusers, 120-cc. capacity, each diffuser contg. 55 g. II (67.2% moisture); the bottom of the 1st diffuser (fed from a buret) was connected to the top of the 2nd, etc., and the last diffuser was connected to a calibrated funnel. The test soln. was drawn through the battery by a suction pump attached to the funnel. The concn. of H_2SO_4 in g./l., of glucose in g./l., and the I (kg./sq. m./hr.) for H_2SO_4 and glucose were 105.2, 113.6, 0.0072, and 0.0064 and 204, 216, 0.019, and 0.011 for a feed rate of 1 cc./min.; 264, 216, 0.026, and 0.019 for 2 cc./min.; 354, 331.5, 0.050, and 0.014 for 3 cc./min.; and 354, 331.5, 0.088, and 0.014 for 4 cc./min.

John Lake Keays

ODINTSOV, P.N.

Chemical Abst.
Vol. 48 No. 4
Feb. 25, 1954
Cellulose and Paper

(3)
The diffusion of sulfuric acid and sugar through wood. P. N. Odintsov, N. A. Medvedeva, and A. G. Tsantjuki. *Latsijas PSR Zinatnes Akad. Vests* 1953, No. 4 (Whole No. 32), 75-86 (in Russian). The possible use of the difference in diffusion velocity (I) of acid and sugars into moist spruce wood for the recovery of acid in wood hydrolysis was studied. Spruce (*Picea excelsa*) boards (II) (15 × 13 × 0.7-0.8 cm.) were used as dialyzing membranes in a sealed dialyzer of 2.5-l. capacity divided into 2 compartments of equal vol. I, which = AC/TS , where A is the vol. of soln. in I compartment of the dialyzer in l., C the concn. of solute passing through the wood membrane in kg./l., T the time in hrs., and S the membrane surface in sq. m., was detd. under various conditions. I for dil. H_2SO_4 (100.7 g./l.) through transverse sections (III) of II was 40 times that through radial and 80 times that through tangential sections. For coned. H_2SO_4 (816.7 g./l.) comparable values were 80 and 66. I for coned. H_2SO_4 was 2-2.5 times that for dil. H_2SO_4 through III. I for dil. and coned. H_2SO_4 through III was 3-4 times that for lactose in H_2O (103.2 g./l.). III (40 × 40 × 10 mm.) (24) of spruce, placed 2-3 mm. apart in a vessel, were vacuum-impregnated with H_2O or H_2SO_4 solns. and covered with 500 cc. of test soln., and I was measured by the loss of solute in the soln. I (kg./sq. m./hr.) into III satd. with H_2O of H_2SO_4 (114.0 g./l.), glucose (102.1 g./l.) and lactose (102.1 g./l.) was 0.09, 0.030, and 0.034, resp. All concn. values for glucose are after inversion, and all expts. were carried out at 15°. The I of H_2SO_4 into III impregnated with H_2SO_4 was studied; the concn. in g./l. of the impregnating soln., that of the diffusing soln., and I (in kg./sq. m./hr.) after 1 hr. were 380.4, 520.0, and 0.27; 520.0, 681.7, and 0.34; 681.7, 916.0, and 0.44; 916.0, 1150.0, and 0.48; and 1027.0, 1257.0, and 0.40, resp. For the diffusion of H_2SO_4 at 1207 g./l. into III impregnated with H_2SO_4 at 1027 g./l. the difference between the original and the final acid concn. of the diffusing soln. continued to increase even after 16 hrs' immersion; for all other solns. this difference increased for 3-4 hrs. and then leveled off or decreased. J. L. Keays

The hydrolysis of wood with concentrated sulfuric acid and recovery of calcium phosphate. P. N. Odincov,

V. K. Kalinin, and M. E. Putains. *Latvijas PSR Zinatnu Akad. Vestis* 1950, No. 2 (Whole No. 31) 117-22 (in Russian, Latvian summary, 122).--A 2-stage hydrolysis of 20-mesh spruce sawdust (I) with H₂SO₄ was studied. The time, temp., and acid concn. in the 1st stage were varied; the reducing sugars (II) (as % of the bone-dry I) for 0.1% H₂SO₄ (acid-to-wood ratio 7:1) aft. 30 min. were 0.96, 3.08, and 8.30% for 110, 125, and 140°; corresponding values for 0.3% H₂SO₄ were 2.82, 7.43, and 18.94%; for 0.5% H₂SO₄ were --, 8.75, and 16.82%; and for 1% H₂SO₄ were 11.68, 13.69, and 18.10%. The % II for 1% H₂SO₄, 60 min., and 140° was 20.58. In a 4-stage hydrolysis, acid was used in the 1st 3 stages and H₂O in the 4th; for 0.5% H₂SO₄ and 10 min. at 140° the % II was 15.45, 1.22, 1.22, and 0.97, and 17.18, 3.14, 1.93, and -- at 15 min.; for 1% H₂SO₄ and 140° the % II was 19.31, 1.61, 1.78, and 1.0. The optimum drying conditions were 2 hrs. at 105°, giving a product (III) contg. 1.76% H₂O from the 4th step. In the 2nd stage, III was mixed with 75% H₂SO₄ (acid-to-wood ratio 3:1) at 50°, an aq. suspension of apatite added, the mixt. kneaded for 90 min., and the ppt. sepd. and washed. The hydrolyzate (contg. 19-22% H₂PO₄ and approx. 10% II) was diltd. For sugar inversion the hydrolyzate was boiled for 5 hours on a water bath. The best results were obtained by 10-12% H₂PO₄ in admixt. with 3% H₂SO₄. CaCO₃ was added to obtain readily filterable CaHPO₄. The filtered soln. was clarified, evaptd., and the sugars crystd. In I the % pentosans, hexosans, and cellulose was 9.06, 19.51, and 41.80, resp.; the % pentosans and hexosans in the hydrolyzate in the 1st stage was 7.17 and 14.14, resp., and the % hexosans in the hydrolyzate from the 2nd stage was 46.27% (all values based on bone-dry I). The over-all carbohydrate recovery was 96%. John Lake Keays

C.A. V-45
Jan 10, 1954
Cellulose and
Paper

3

mt

13-54

C. A. V-48
Jan 10, 1954
cellulose & paper

The hydrolysis of spruce wood with 75% sulfuric acid. P. N. Odincova and J. Beinarts. *Lettres PSR Zinstit Akad. Vests 1950, No. 2, Whole No. 31*) 107-18 (in Russian). — Spruce-wood meal (passing 70 mesh) was extd. 5-6 hrs. with 1:1 EtOH-C₆H₆, dried to 1% H₂O, and 2 g. treated with 20 cc. 75% H₂SO₄ for various times, the acid dild. to 50% with H₂O, the mixt. kept 1/2 hr. at 20°, the residue (I) sepd., washed with 50% H₂SO₄ and hot H₂O, and dried, and the filtrate dild. to 150 cc. (any insol. polysaccharides (II) were sepd., washed free of acid and sugars, and dried), and the reducing sugar content (III) after inversion detd. by the Bertrand method. At 20° and 15, 30, 45, and 60 min., the % I was 33.27, 32.87, 32.75, and 32.87, the % III 38.91, 62.00, 64.90, and 68.34, and the % II 21.61, 10.71, —, and

10, 20, and 30 min., the % I was 33.27, 32.87, 32.75, and 32.87, the % III 38.91, 62.00, 64.90, and 68.34, and the % II 21.61, 10.71, —, and —. At 40°, and 1, 5, 10, and 15 min., the % I was 33.48, 32.50, 31.37, and 32.20, the % III 39.12, 64.66, 64.92, and 66.60, and the % II 12.14, —, —, and —. At 60° and 1, 5, and 10 min., the % I was 31.48, 30.91, and 30.50, and the % III 63.80, 66.61, and 66.80. Spruce chips (approx. 3 g.), 2.2 x 2.5 x 13.1 mm., were dried at 105° to 1% H₂O, immersed in approx. 20 cc. 75% H₂SO₄, and evacuated 30-90 min. at 10-15 mm., the hydrolysis continued for various times, and the procedure outlined above followed. At 20° and 2, 3, 4, 8, and 24 hrs., the % I was 62.90, 66.67, 55.92, 50.01, and 46.92%, the % III 25.56, 28.41, 32.41, 37.42, 42.01, and the % II 9.24, 8.40, 7.10, 6.10, and 5.20. At 30° and the same times, the % I was 43.60, 34.61, 34.67, 33.44, and 35.18, and the % III 53.60, 60.26, 60.94, 62.61, and 56.07; at 40°, the % I was 39.27, 35.89, 36.17, 38.47, and 46.47, and the % III 67.46, 60.74, 59.82, 58.27, and 26.91; at 50°, the % I was 40.60, 43.42, 42.05, 47.21, and 52.34, and the % III 46.72, 46.62, 45.09, 29.24, and 18.32. When smaller chips (2 x 2 x 3.5 mm.) were hydrolyzed at 30° for 2, 3, 4, 8, and 24 hrs., the % I was 45.00, 38.94, 36.32, 32.31, and 26.15, and the % III 52.32, 61.14, 64.32, 64.32, and 59.53. In a study of the dimensional changes in wood during hydrolysis, 1.5 cm. spruce cubes were dried at 105°, measured to 0.1 mm., immersed in 75% H₂SO₄ (acid-to-wood ratio approx. 1:1) and evacuated at 10 mm., removed, washed free of acid, and measured in the moist and in the bone-dry state. The vol. of the cubes did not change appreciably upon prolonged immersion in 75% H₂SO₄ or upon replacing the H₂SO₄ with H₂O; cubes immersed at 18° for 4, 8, and 24 hrs., the nchl removed, and the cubes dried, however, had vols. of 70, 75, and 84% of the original vol., and when immersed at 30° for 8 and 24 hrs., had vols. of 45 and 50% of the original vol. John L. Keays

ODINTSOV, P. N.

The hydrolysis of wood with concentrated sulfuric acid and recovery of dicalcium phosphate. P. N. Odincova,

ODINTSEV, P. N.

The swelling of fibers from pine wood, sulfite pulp, and holo-cellulose in solutions of acids and sodium hydroxide. P. N. Odintseva and L. Reizina. *Trudy Inst. Lesokhoz. Problem. Akad. Nauk Latv. S.S.R.* No. 2; 83-98 (1960) (in Russian).—The swelling of wood (I), sulfite fibers (II), and holo-cellulose (III) (all prepd. from pine) in H₂O and aq. solns. of H₂SO₄, H₃PO₄, and NaOH was studied. I (33 years old) contained 48.9% cellulose, 26.3% lignin, 12.1% pentosans, and 6.6% EtOH-C₁₂H₂₂O₅ extractives. III was prepd. according to Schmidt and Grauman (C.A. 16, 273). The cross-sectional fiber wall area of summerwood increased 27% and of springwood 20% in H₂O. The linear swelling for spring- and summerwood of sap- and heartwood was 12, 25, 10, and 15 in 48% H₂SO₄; 14, 25, 12, and 19 in 49.5%; 16, 40, 12, and 30 in 55.0%; 18, 75, 16, and 34 in 56.5%; 25, 94, 16, and 70 in 60.0%; 28, 146, 12, and 130 in 62.5%; 30, 200, 15, and 150 in 65%; 30, 200, 14, and

150 in 67.0%; —, 237, —, and 175 in 70.0%; —, 232, —, and 140 in 75%; and —, 200, —, and — in 80%. Linear swelling of II and III was 10.3 and 21.5 in 48.0% H₂SO₄; 13.0 and 23.2 in 49.5%; 24.0 and 25.0 in 52.5%; 22.0 and 24.0 in 55.0%; and 20.0 and 28.0 in 56.5%; in 60.0% H₂SO₄, beads were formed along the fibers, and II and III dissolved in H₂SO₄ solns. at 62.5% concn. and higher. Unrestricted I fibers were affected differently than restricted fibers (located within transverse cross-section of I) in concd. H₃PO₄ in 60, 70, 80, and 85% H₃PO₄; the former increased 60, 100, 280, and 470% in cross-sectional area, and the latter 30, 90, 100, and 110%. The percentage increase in the cross-sectional area of fibers of pine sapwood and heartwood was 40 and 47 in 60% H₃PO₄, 90 and 70 in 70% H₃PO₄, 280 and 240 in 80%, and 470 and 450 in 85%. The percentage linear swelling of II, III, and I fibers was 12.4, 12, and 20 in 60% H₃PO₄; 16.7, 13, and 35 in 70%; sol., sol., and 54 in 80%; and sol., sol., and 100 in 85%. The percentage increase in fiber wall cross-sectional area of sapwood (summer- and springwood) and heartwood summerwood fibers was 64, 70, and 70 in 5% NaOH; 108, 123, and 90 in 10%; 110, 152, and 115 in 15%; and 188, 200, and 140 in 20%; the percentage increase of II and III fibers was 24 and 75 in 5% NaOH, 35 and 100 in 10%, 75 and 90 in 15%, and 100 and 200 in 20%. The appearance and behavior of the various fiber types in H₂SO₄, H₃PO₄, and NaOH solns. of various concns., and the reasons for the changes, are discussed in detail. John Lake Keys

ODINTSOV, P. N.

27768. ODINTSOV, P. N. i KARLSON, A. E. - polucheniye oglevodnikh kormov iz drevesiny v kombinatsii s proizvodstvom superfosfata. Trudy in-ta lesokhoz. problem (akad. nauk Latv. SSR). vyp. 1, 1949, S. 187-204. Bibliogr: 15 nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol 37, 1949.

ODINTSOV, P.N.

27666

ODINTSOV, P.N. I SERGEEVA, V.N. K voprosu o lignine shivnykh
chastey racteniya. trudy in - ta lesokhoz. problem (Akad.
nauk latv. SSR), Vyp. 1, 1949, s. 181-86. ---rezyume na
latv yaz. ---Bibliogr: 6 nazv.

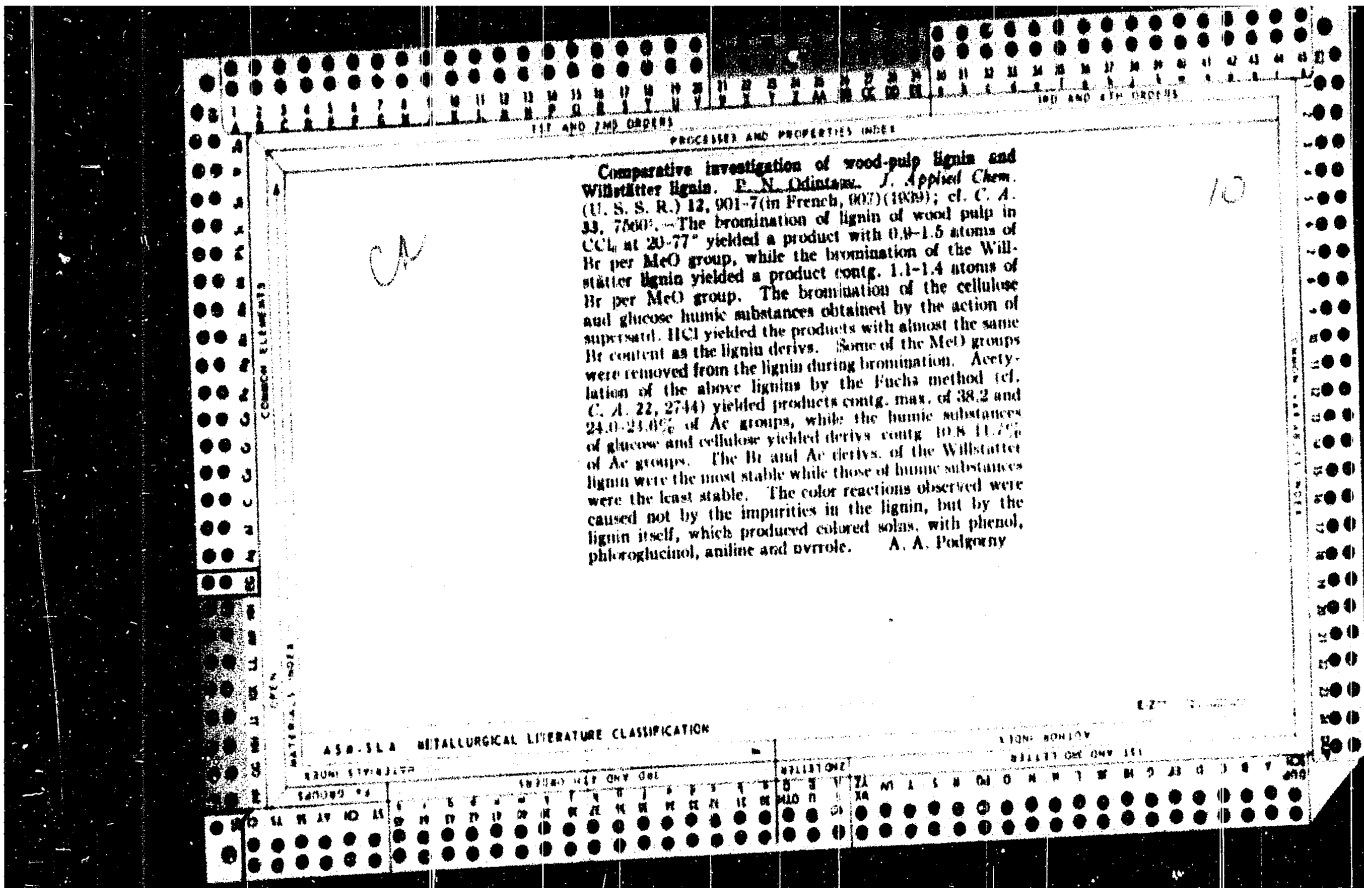
SO: Knizhnaya Letopis, Vol. 1, 1955

ODINTSOV, P. N.

27625

Novoe V Khimii Lignina. Trudy In-Ta Lesckhoz. Problem (Akad. Nauk Letv. SSR.), Vyp. 1, 1949, s. 162-80. Bib-liogr: 26 Nazv.

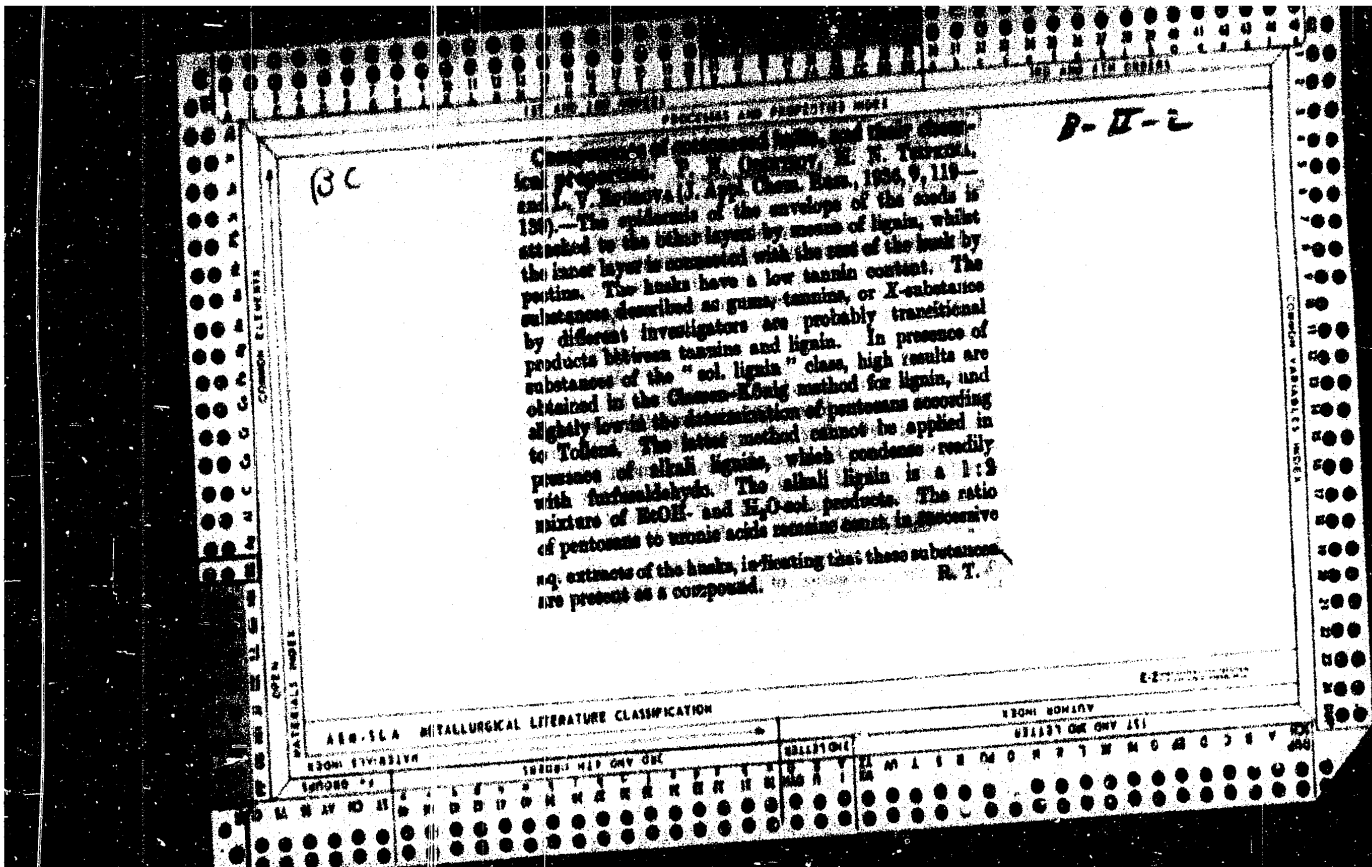
SO: Letopis' Zhurnal'nykh Statey, Vol. 37, 1949



The effect of the methods of preparation of lignin on its chemical nature. P. N. Odintsov. *Lesokhim. Prom.* 1939, No. 4, 10-17; *Káim' Report-Zhur.* 1939, No. 7, 123-4. Lignins, obtained from the same sample of a fir tree, but which were prep'd. by various methods, were investigated. The various lignins used were Willstätter's lignin (I), lignin prep'd. according to the method of Hilpert from wood material ext'd. with alc., ether, water at 50°, 100° and 130°, and treated with supersat'd. HCl at -15° (II), lignin obtained from the hydrolysis of wood in a stream of a 7% soln. of H₂O₂ at 180° (III), the fraction of basic lignin obtained by boiling the wood material at 130° (IV), and at 160° (V) and methanol lignin (VI). The other substances investigated were humins from fructose (VII) and from xylose (VIII) obtained from a treatment of sugars with supersat'd. HCl under ordinary temp., the initial in wood (IX) and the wood material which has been subjected to the action of wood fungi for 1 month under sterile conditions (X). From a treatment of I, II, III, V, VI, VII, VIII and IX with solns. of I in CHCl₃ and then with I in a.1 the I combined with the substances in the following amts., resp.: 3.2%, 2.7%, 3.4%, 1.9%, 2.5%, 3.5%, 4.4% and 1.7%. The lignins, humins and wood materials were mercerated with a (AcO)₂Hg soln. in abs. alc. at the 5° temps. of the solns. for 1.5, 3.0 and 4.5 hrs. The mercerated samples were treated with solns. of I under the same conditions as the initial substances. By such a treatment Hg was removed completely and I was added. The longer the sample was mercerated the more I is added. After a 4.5-hr. mercuration the substances added I in the

following amts.: I 13.5%, II 13.1%, III 14.8%, IV 10.2%, V 10.0%, VII 20.7%, VIII 11.3%, IX 6.1% and X 9.2%. VI added 13.25% of Hg; to this Hg content corresponds a 9.2% content of I. O. considers that the increase of the I content in X as compared with IX was caused by an increase of the amt. of lignin in the wood material at the expense of the decompn. of the carbohydrates by the wood fungi. The content of Ac groups in the mercerated lignins I and III was equal to 4.3% and 4.8%. The calcd. amt. for the product of substitution of II by the HgOAc group was 4.0% and 4.3%. On the basis of this fact O. concludes that Hg is fixed by lignin in a manner similar to the aromatic compds. The mercerated humins VII contained 10.8% of Ac groups (on the assumption that I combines at the double bond the calcd. value was 11.1%). The acetylated I, III, V, VII and VIII contained 18.3%, 17.0%, 21.7%, 11.1% and 9.7% of Ac groups, resp. The Cu nos. of I, III, V, VII and VIII were 7.4, 23.0, 14.6, 58.3 and 53.9, resp. The lignins and humins produced x-ray photographs of amorphous substances. The distances between the centers of the diffracting particles, det'd. from Ehrenfest's formula, were for lignins I 4.8, II 4.8, III 4.7, V 4.8 and VI 4.8 Å.; for humins, VII 5.2, VIII 5.1 Å., and for the humins obtained from glucose 5.2 Å. O. concludes that there is a sharp difference between the humins from sugars and the lignins.

W. R. Henn



ca

Comparative investigation of wood lignin and Willstätter lignin. P. N. Odintsov. *Leshkhoz. Prom.* 5, No. 10, 10-21 (1950); *Chem. Zvest.* 1950, 1, 800. Materials investigated included (1) pine wood, from which the readily extractable matter was first removed by extr. with alk. at 120° and which was then extr. with water at 60, 100 and 120°; (2) Willstätter lignin, prepd. according to Kalb and Lieser (cf. C. A. 22, 2925); (3) tech. lignin, prepd. according to Bergius; (4) humins from glucose, obtained by treating 10 g. glucose with 40 cc. 41% HCl for 48 hrs. at normal temp. which gave a yield of 14.5% humins having a C₉ no. of 4.0 and giving no reducing matter with 2% HCl; and (5) humins from lint, obtained in 40% yield. Results of mercurizing and iodizing are reported. The mercurizing, the absolutely dry product was boiled with a satd. soln. of Hg acetate in abs. alc. The wood took up as much Hg by 144 hrs. treatment in the cold as by boiling 1 hr. (The values were 0.6 and 10.2% Hg.) During 1.5 hrs. boiling Willstätter lignin absorbed 32.4% Hg; wood absorbed 13.4%. With a lignin content of 33.9% the wood should absorb 15.1% Hg. It is the lignin in the wood exclusively which reacts with Hg and with I. The fixation of the Hg depends upon the method of prepd. of the lignin. Thus, tech. lignin fixed only 22.6% Hg in 1.5 hrs. The humins from lint fixed 17.1% Hg, humins from glucose fixed 17.8% in only 45 min. Humins, therefore, fixed only half as much Hg as Willstätter lignin.

23

continued boiling of the humins with abs. Hg acetate the latter was reduced to metallic Hg; no reduction was observed in the case of wood and lignin. In order to show that the Hg was chemically combined the preps. were iodized. Nonmercurized wood pulp and lignin, when iodized by boiling with a soln. of 0.5 g. I₂ in 100 cc. CHCl₃ for 30-40 min., took up only slight amts. of I. The mercurized lignins reacted with approx. 1 atom of I per atom of Hg. Humins from glucose reacted with 5 times more I (12.8%) than the lignins. Iodization of the mercurized glucose humins (17.8% Hg) gave a product contg. 13.8% I. The results indicate that in the case of mercurization twice as many double bonds take part in the reaction as in the iodization of the original product. In the iodization of mercurized products, aside from the displacement of the Hg a still further addn. of I at the double bonds takes place. Thus the iodized product of mercurized lint humins (17.1% Hg) contained 10.4% I. In the iodization of mercurized wood pulp and lignin a small excess of Hg, calcd. from the I, was as a rule observed; in the case of the humins there was a large deficiency of Hg. The expts. indicate that the lignin is already formed in the wood and is not produced as a result of the action of chem. reagents on the sugar.

M. G. Moore

ASB 51.6 METEOROLOGICAL LITERATURE CLASSIFICATION

627

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AO AP AQ AR AS AT AU AV AW AX AY AZ BA BB BC BD BE BF BG BH BI BJ BK BL BM BN BO BP BQ BR BS BT BU BV BW BX BY BZ CA CB CC CD CE CF CG CH CI CJ CK CL CM CN CO CP CQ CR CS CT CU CV CW CX CY CZ DA DB DC DD DE DF DG DH DI DJ DK DL DM DN DO DP DQ DR DS DT DU DV DW DX DY DZ EA EB EC ED EE EF EG EH EI EJ EK EL EM EN EO EP EQ ER ES ET EU EV EW EX EY EZ FA FB FC FD FE FF FG FH FI FJ FK FL FM FN FO FP FQ FR FS FT FU FV FW FX FY FZ GA GB GC GD GE GF GG GH GI GJ GK GL GM GN GO GP GQ GR GS GT GV GW GX GY GZ HA HB HC HD HE HF HG HH HI HJ HK HL HM HN HO HP HQ HR HS HT HU HV HW HX HY HZ IA IB IC ID IE IF IG IH II IJ IK IL IM IN IO IP IQ IR IS IT IU IV IW IX IY IZ JA JB JC JD JE JF JG JH JI JJ JK JL JM JN JO JP JQ JR JS JT JU JV JW JX JY JZ KA KB KC KD KE KF KG KH KI KJ KL KM KN KO KP KQ KR KS KT KU KV KW KX KY KZ LA LB LC LD LE LF LG LH LI LJ LK LM LN LO LP LQ LR LS LT LU LV LW LX LY LZ MA MB MC MD ME MF MG MH MI MJ MK ML MN MO MP MQ MR MS MT MU MV MW MX MY MZ NA NB NC ND NE NF NG NH NI NJ NK NL NO NP NQ NR NS NT NU NV NW NX NY NZ OA OB OC OD OE OF OG OH OI OJ OK OL OM ON OO OP OQ OR OS OT OU OV OW OX OY OZ PA PB PC PD PE PF PG PH PI PJ PK PL PM PN PO PP PQ PR PS PT PU PV PW PX PY PZ QA QB QC QD QE QF QG QH QI QJ QK QL QM QN QO QP QQ QR QS QT QU QV QW QX QY QZ RA RB RC RD RE RF RG RH RI RJ RK RL RM RN RO RP RQ RR RS RT RU RV RW RX RY RZ SA SB SC SD SE SF SG SH SI SJ SK SL SM SN SO SP SQ SR SS ST SU SV SW SX SY SZ TA TB TC TD TE TF TG TH TI TJ TK TL TM TN TO TP TQ TR TS TT TU TV TW TX TY TZ UA UB UC UD UE UF UG UH UI UJ UK UL UM UN UO UP UQ UR US UT UY UZ VA VB VC VD VE VF VG VH VI VJ VK VL VM VN VO VP VQ VR VS VT VY VZ WA WB WC WD WE WF WG WH WI WJ WK WL WM WN WO WP WQ WR WS WT WY WZ XA XB XC XD XE XF XG XH XI XJ XK XL XM XN XO XP XQ XR XS XT XU XV XW XX XY XZ YA YB YC YD YE YF YG YH YI YJ YK YL YM YN YO YP YQ YR YS YT YU YV YW YX YY YZ ZA ZB ZC ZD ZE ZF ZG ZH ZI ZJ ZK ZL ZM ZN ZO ZP ZQ ZR ZS ZT ZU ZV ZW ZX ZY ZZ

1ST AND 2ND ORDERS
 PROCESSING AND PROPERTIES INDEX
 1ST AND 4TH ORDERS

CA

The components of the cotton husk and their chemical properties. P. N. Odintsov, M. N. Tsuipkina and I. V. Ergorova. *Tr. Vsesoyuzn. Nauch. Issled. Inst. Khim. Przem.* (U. S. S. R.) 9, 119-38 (in French 139) (1966). - The method of successive definitive extractions can be successfully employed in the study of plant materials making possible a sepn. into homogeneous fractions. It also permits observation of the physical and chem. changes occurring in the solid material during extr. The cotton husks, previously extrd. with Et₂O and EtOH, were extrd. repeatedly at 50° with H₂O for the removal of sugars, tannins and other readily sol. substances, then successively with H₂O at 100° and in an autoclave at 120°, in all 61 sep. extrns. with H₂O. The husks exhausted with H₂O were then boiled successively with aq. and alc. NaOH. Lignin joins the epidermis to the other layers of the cells, pectins and sol. lignin the interior layer to the remainder. There was very little actual tannin in the husks, which are therefore unavailable for use in tanning. The resin or substance X of the literature is probably intermediate in compn. between tannin and lignin. The Clauson-Koenig method for lignin detn. gives too high results in the presence of sol. lignin. Tollens' method for pentosans gives too low results in the presence of tannins or sol. lignin because these condense with furfural (H). The error in the analysis of cotton husks is, however, only 1%. In the presence of a sufficient quantity of alk. lignin pentosans cannot be detd. by Tollens' method because of the rapid condensation with I. Native lignin does not condense with I under the conditions of the Tollens

method. The alk. lignin of cotton husks can be divided into 2 fractions, one sol. in alc., a 2nd insol. in alc. but sol. in H₂O. The ratio between the quantities of these fractions is about 1:2. In the successive aq. extrs. the ratio of pentosans to uronic acids is const., indicating a chem. linkage between these fragments. Lewis W. Hutz

ASR-51A METALLURGICAL LITERATURE CLASSIFICATION
 42

CA 23

1ST AND 2ND CRATES

PROCESSED AND REFILED INDEX

Solubility of spruce lignin in concentrated hydrochloric acid at low temperatures. P. N. Golinov. *Lesokhm. Prom.* 5, No. 3, 5-8 (1930).—About 20% of the total amt. of lignin is dissolved during the treatment of spruce pulp with concd. HCl (d. 1.19) at about -15°, the soly. decreasing on standing owing to slow pptn. and hydrolysis. Green hydrolyzate heated to room temp. changes to brown with the appearance of turbidity, and the color reaction with PhNH₂ and phloroglucinol disappear.

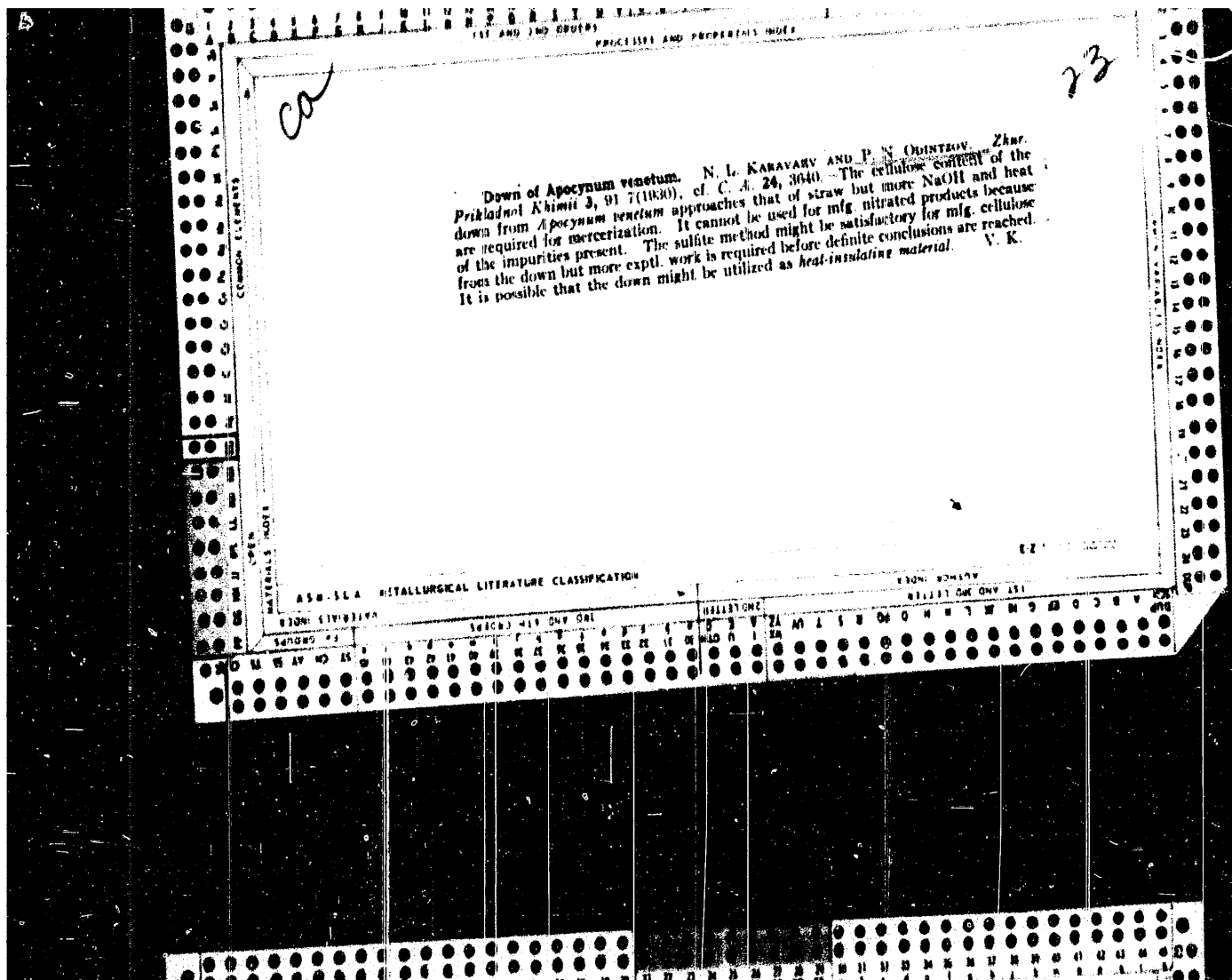
A. A. Podgorny

GENERAL INDEX

330-334 METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND CRATES

1ST AND 2ND CRATES



Down of *Apocynum venetum*. N. I. KARAVAY AND P. N. ODINTSOV. *Zhur. Prikladnoi Khimii* 3, 91 7(1930), cf. C. A. 24, 3040. The cellulose content of the down from *Apocynum venetum* approaches that of straw but more NaOH and heat are required for mercerization. It cannot be used for mfg. nitrated products because of the impurities present. The sulfate method might be satisfactory for mfg. cellulose from the down but more exptl. work is required before definite conclusions are reached. It is possible that the down might be utilized as heat-insulating material. V. K.

ODINTSOV, P.A., glavnyy inzhener.

Mechanized timber deliveries to steep seam longwalls. Ugol' 31
no.2:35-36 F '56. (MLRA 9:5)

1. Shakhta No.19-20 tresta Gorlovskugol'.
(Mine timbering)(Coal mines and mining--Equipment and supplies)

ODINTSOV, P. H.

ODINTSOV, P. H., glavnyy inzhener

Some work results with rock being left in the mine. Ugol' 30
no. 7:41-43 J1'55. (MIRA 8:10)

1. Shakhta no. 19/20 tresta Gorlovskugol'
(Donets Basin--Coal mines and mining)

ODINTSOV, O.P., tekhnik-dorozhnik

Organize road maintenance units in all road operational
units. Avt. dor. 27 no.7:32 J1 '64. (MERA 17:12)

BAYBURSKIY, L.A.; MANOVYAN, A.K.; ODINTSOV, O.K.

Diagram of the atmospheric distillation of oil and the operation
of topping towers. Neftoper. i neftekhim. no.8:12-15 '63.

(MIRA 17:8)

1. Groznenskiy neftyanoy nauchno-issledovatel'skiy institut.

YEL'YASHEVICH, M.G.; ZOZULYA, I.I.; ODINTSOV, N.V.; NAUMOV, N.G.

Introduction of an efficient flotation system at the coal-cleaning section of the Shcherbinovka Coking Plant. Koks i khim. no.9:6-10 '60. (MIRA 13:9)

1. Donetskii politekhnicheskii institut (for Yel'yashevich, Zozulya).
2. Shcherbinovskiy koksokhimicheskiy zavod (for Odintsov, Naumov).
(Shcherbinovka--Coal preparation) (Flotation)

SOV/68-59-7-19/33

Operation of a Scrubber with Perforated Plates for the Recovery of Benzene Hydrocarbons from Coke Oven Gas

plates for the absorption of benzole is generally recommended.

There is 1 figure and 1 table.

ASSOCIATION: Shcherbinovskiy koksokhimicheskiy zavod (Shcherbinovskiy Coking Works)

Card 2/2

SOV/68-59-7-19/33

AUTHORS: Odintsov, H.V. and Mironov, A.I.

TITLE: Operation of a Scrubber with Perforated Plates for the Recovery of Benzene Hydrocarbons from Coke Oven Gas

PERIODICAL: Koks i Khimiya, 1959, Nr 7, pp 50 - 51 (USSR)

ABSTRACT: At the Shcherbinovskiy Coking Works benzole scrubbers of a conventional design which were operating unsatisfactorily (benzole losses 3.57 g/m^3) were replaced by a column with perforated plates. The height of the column was 9 879 mm, diameter 800 mm, number of plates 20 and the area of perforation amounts to 19.69% of the plate area (2 837 holes of 7 mm dia). Experimental and operational exploitation of the column gave satisfactory results: pressure drop at gas velocity of 1.7 m/sec (in the free cross-section) up to 400 mm H₂O, oil consumption 2.1 - 2.3 litres/m³, benzole losses 1 - 2 g/m³. The use of a column with perforated

Card 1/2

ODINTSOV, Mark Valentinovich; BOYDEK, Seman Abramovich; LYUSTBERG,
V.F., inzh., ved. red.; SOROKINA, T.M., tekhn. red.

[Sonic-frequency phase meter. Reverberation absorption meter]
Fazometr zvukovykh chastot. Reverberatsionnyi izmeritel' po-
gloshchenia. [By] S.A. Bokdek. Moskva, Filial Vses. in-ta
nauchn. i tekhn. informatsii, 1958. 18 p. (Peredovoi nauchno-
tekhnicheskii i proizvodstvennyi opyt. Tema 38. No.P-58-145/4)

(MIRA 16:2)

(Frequency measurements) (Electronic instruments)

ODINTSOV, N. V.

School Excursions

Trips and excursions of school children and their pedagogical importance. *Sev. pedagog.*
17, No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress
June 1953. UNCL.

KEBHEL', E.K., inzh.; ODINTSOV, M.N., inzh.

Calculating stability while taking into account the twisting
torsion of asymmetrical aluminum I-beams during eccentric com-
pression on a surface of maximum hardness. Trudy Zap.-Sib. Fil.
ASIA no.7:98-122 '62. (MIRA 18:2)

ODINTSOV, M.N. (Novosibirsk)

Calculations for a cylindrical shell taking into account the
elastic pliability of the supporting diaphragms. Stroi.mekh.1
rashch.soor. 4 no.5:1-7 '62. (MIRA 15.11)
(Elastic plates and shells)

YANSHIN, A.L., akademik, otv. red.; ZHARKOV, M.A., kand. geol.-
min. nauk, red.; ZANARAYEV, S.M., kand. geol.-miner.
nauk, red.; ODINTSOV, M.M., red.; PINNEKAR, Ye.V., kand.
geol.-miner. nauk, red.; NOBSAKOVSKIY, A.A., red.

[Tectonics of the southern part of the Siberian Platform
and prospects for finding potassium in it] Tektonika iuga
Sibirskoi platformy i perspektivy ee kalienosnosti Moskva,
Nauka, 1965. 177 p. (MIRA 18:11)

1. Akademiya nauk SSSR. Sibirskaya otdeleniye. Institut
zemnoy kory. 2. Chlen korrespondent AN SSSR (for Odintsov).

VOROPINOV, V.S.; KENZINA, V.L.; ODINTSOV, M.M., otv. red.; KARASEV,
I.P., red.; KUZNETSOV, M.F., red.; MANDEL'BAUM, M.M., red.;
NEZAHYTOVSKAYA, I.A., red.; NOSEK, A.V., red.; FOMIN, N.I.,
red.

[Geological studies of the U.S.S.R.] Geologicheskaya izu-
chennost' SSSR. Moskva, Nauka. Vol.24. No.1. 1965. 177 p.
(MIRA 18:9)

ODINTSOV, N.M.

Geological prerequisites and prospects for finding diamonds in the southwestern part of the Siberian Platform. Sov. geol. 8 no.5:71-82 My '65. (MIRA 18:7)

1. Institut zemnoy kory Sibirskogo otdeleniya AN SSSR.

ODINTSOV, M.M.

General problems of the geology of Jurassic sediments in the southern and central parts of the Siberian Platform. Trudy Inst. zem. kory SO AN SSSR no.15:5-12 '63 (MIRA 17:3)

1. Institut zemnoy kory Sibirskogo otdeleniya AN SSSR.

ODINTSOV, M.M.

Main epochs of the formation of minerals in the Siberian Platform.
Geol. i geofiz. no.11:3-13 '62. (MIRA 16:3)

1. Vostochno-Sibirskiy geologicheskii institut Sibirskogo otdeleniya
AN SSSR, Irkutsk.
(Siberian Platform--Mines and mineral resources)

ODINTSOV, M.M.

Some problems of the tectonic development of platforms.
Geol. i geofiz. no.6:15-24 '62. (MIRA 15:7)

1. Vostochno-Sibirskiy geologicheskii institut Sibirskogo
otdeleniya AN SSSR, Irkutsk.
(Geology, Structural)

ODINTSOV, M.M.; TVERDOKHLEBOV, V.A.; VLADIMIROV, B.M.; IL'YUKHINA, A.V.;
KOLESNIKOVA, T.P.; KONEV, A.A.; GALUSHKO, Ya.A., red.izd-va;
RYLINA, Yu.V., tekhn.red.

[Structure, volcanism, and diamond potential of the Irkutsk
amphitheater] Struktura, vulkanizm i alamazonosnost' Irkutskogo
anfiteatra. Moskva, Izd-vo Akad.nauk SSSR, 1962. 176 p. .
(Akademia nauk SSSR. Sibirskoe otdelenie. Vostochno-Sibirskii
geologicheskii institut. Trudy, no.4). (MIRA 16:2)
(Irkutsk Province--Geology, Structural)
(Irkutsk Province--Diamonds)

ODINTSOV, M.M.

A recently discovered Jurassic basin in the southwestern part of the
Siberian Platform. Dokl. AN SSSR 138 no.5:1170-1171 Je '61.
(MIRA 14:6)

1. Vostochno-Sibirskiy geologicheskiy institut Sibirskogo
otdeleniya AN SSSR. Predstavleno akademikom A.L.Yanshinym.
(Mura Valley—Geology, Stratigraphic)

KAZARINOV, V.P.; MIKUTSKIY, S.P.; ODINTSOV, M.M.

Second Interdepartmental Conference on Compiling Lithologic-
Paleogeographical Maps of Siberia. Geol.i geofiz. no.5:109-111
'61. (MIRA 14:6)

(Siberia--Geology--Maps)

ODINTSOV, M. M.; ODINTSOVA, M. M.; BASHKIROV, L. V.

Geology of Jurassic sediments in the northwestern part of the
Irkutsk amphitheater, Trudy VSGI SO AN SSSR no. 3:60-71 '61.
(MIRA 15:10)

(Irkutsk Province--Geology, Stratigraphic)

ODINTSOV, M.M.

Early Mesozoic tectonic-magmatic cycle in the East Asiatic Platform.
Geol. i geofiz. no.1:26-33 1961. (MIRA 14:5)

1. Vostochno-Sibirskiy geologicheskii institut, Irkutsk.
(Asia, Central--Geology, Structural)

ODINTSOV, M.K.

Conference on the geology and mineral resources of the Siberian
Platform. Geol. i geofiz. no.11:117 '60. (MIRA 14:2)
(Siberian Platform--Geology, Economic)

ODINTSOV, M.M.

Conference on the Geology and Mineral Resources of the Siberian
Platform. Sov. geol. 3 no. 11:160 N '60. (MIRA 13:12)

1. Vostochno-Sibirskiy geologicheskii institut Sibirskogo
otdeleniya AN SSSR.
(Siberian Platform--Geology, Economic)

LEBED', G.G.; ODINTSOV, M.M.; TRUFANOVA, A.P.

Ordovician, Silurian, and Devonian stratigraphy of the Irkutsk
amphitheater. Report No.2. Geol. i geofiz. no.3:55-58 '60.

(MIRA 13:9)

1. Vostochno-Sibirakiy geologicheskii institut Sibirskogo otdeleniya
AN SSSR.

(Irkutsk Province--Geology, Stratigraphic)

LEBED', G.F.; ODINTSOV, M.M.; TRUFANOVA, A.P.

Ordovician, Silurian, and Devonian stratigraphy of the Irkutsk
amphitheater. Report No.1. Geol i geofiz. no.2:28-41 '60.

(MIRA 13:9)

1. Vostochno-Sibirskiy geologicheskii institut Sibirskogo otdeleniya
AN USSR.

(Irkutsk Province--Geology, Stratigraphic)

ODINTSOV, M.M.

Geology of the southwestern margin of the Siberian Platform.
Trudy Irk. un. 14:99-117 '58. (MIRA 16:7)

(Siberian Platform--Geology)

ODINTSOV, M.M., professor.

Geology of the Angara region. Priroda 46 no.1:87-90 Ja '57.
(MLRA 10:2)

1. Institut geologii Vostochno-Sibirskogo filial Akademii nauk SSSR, Irkutsk.
(Angara Valley--Geology, Stratigraphic)

ODINTSOV, M.M.; FLORENSOV, N.A.; KHRENOV, P.M.

Distribution of mineral resources in the geological structure of Eastern
Siberia. *Trudy Vest. Sib. fil. AN SSSR* no.14:3-36 '58. (MIRA 12:3)
(Siberia, Eastern--Geology, Structural)
(Siberia, Eastern--Mines and mineral resources)

ODINTSOV, N.A.; PIONTSOV, N.A.; KHRUKOV, P.M.

Some geological features in the distribution of mineral resources
in the southern part of Eastern Siberia. Izv.vost.fil. AN SSSR
no.2:29-42 '57. (MLRA 10:9)

1. Vostochno-Sibirskiy filial Akademii nauk SSSR.
(Siberia, Eastern--Geology) (Mines and mineral resources)

ODINTSOV, M.M.

Basic geological features of the diamond province of Siberia. Izv.
vost. fil. AN SSSR no.1:27-34 '57. (MIRA 11:4)

1. Vostochno-Sibirskiy filial AN SSSR.
(Siberia—Diamonds)

ODINTSOV, M. M.

"The Significance of the Investigations of Academician V. A. Obruchev in the Geology of Siberia," Tr. Irkut. un-ta, 9, No 1-2, 5-7, 1953

The article is devoted to the works of V. A. Obruchev in the field of study of the geology of Siberia.

RZhGeol, No 1, 1955

CA

Copper and lead ores of Lower Paleozoic age of the Irkutsk Basin. M. M. Orlintsov. *Zapiski Vostochn. Mineral. Obshchestva* (MPE: sov. russk. izdatel) 77, 307-13 (1948).

The ore deposits appear in carbonate rocks of the Middle Cambrian, sandstones of the Upper Cambrian, and limestones and sandstones of the Ordovician. Galena and chalcopyrite, with cerussite, limonite, and malachite as secondary minerals, are the chief ore minerals; sphalerite is subordinate. Ag and Mo are confirmed as accessory elements by spectral analysis. The Cu-colored sandstones were already exploited in the 18th century, and secondary cerussite was observed. Carbonates are abundant in the ore enrichments of the marls, sometimes forming geodes with malachite and calcite. The hydrothermal character of the mineralization is not certain; the sandstones with Cu ores are rich in org. material. The galena ores and carbonate rocks of the Middle Cambrian indicate a hydrothermal syngenetic formation, in a rather strongly reducing medium. There are no indications of tectonic factors which might have affected the ore-forming solns. The Cu-sandstones are typical for a sedimentary origin; they agree in their regional extension with the outlines of the Irkutsk "amphitheater". The phys. and chem. conditions of the sedimentation, however, are still unknown. The hypothesis of Yagovkin that H₂S entirely impregnated the sediments is highly improbable, and in contradiction to many observed facts, especially the red (Fe₂O₃) pigments abundant in the sediments. O. applies the expl. results of Arkhangelskii (1932) who demonstrated that carbonates in an oxidizing medium ppt. Cu

ores from solns., and a subsequent reaction with H₂S from org. material (under the action of S bacteria) is responsible for the changes of the Cu ppts. to sulfides. The paragenesis of chalcopyrite, galena, and gypsum in some deposits is in a complete agreement with this theory. The amt. of the Cu ores in the sediments is very subordi-

nate (only 0.0017 of their entire thickness); the ore deposition showed neither any discontinuity of the chem. equilibrium conditions for the whole basin nor any marked change in its material supply. The introduced Cu, Pb, Zn may be derived from primary sources of the Sayansk or Balkal geosynclinals and their eruptives.

W. Ritei

ODINOV, M. M.

PA 29/49T83

USSR/Minerals

Lead Ore Deposits
Copper

1948

"Geological Research in Copper and Lead Ores of the Lower Paleozoic Era in the Irkutsk Amphitheater (Eastern Siberia)," M. M. Odinov, 7 pp

"Zapiski v-s Mineral Obshch" No 4

Discusses extent and types of mineralization, and genesis of mineral ores. Author describes the area where he conducted his studies. He obtained new data which he suggests will permit a better understanding of the geology and genesis of these ores.

29/49T83

ODINTSOV, M.M. (Co-author)

See: ZOLOTAREV, A. G.

Odintsov, M. M. and Zolotarev, A. G. - "A geomorphological sketch of the eastern part of the Tunguska Basin," *Materialy po geologii i poleznym iskopayemym Vost. Sibiri*, Issue 22, 1948 [On cover: 1949], p. 45-55, with pictures

SO: U-3566, 15 March 53, (*Letopis 'Zhurnal 'nykh Statey*, No. 14, 1949).

ODINTSOV, M. M. (Co-author)

Sec: TRUFANOVA, A. P.

Odintsov, M. M. and Trufanova, A. P. - "Ancient volcanic craters in the Tunguska Basin," *Materialy po geologii i poleznym iskopyemym Vost. Sibiri*, Issue 22, 1948 [On cover: 1949], p. 39-44

SO: U-3566, 15 March 53, (*Letopis 'Zhurnal 'nykh Statey*, No. 11, 1949).

ODINTSOV, M.M.

Odintsov, M.M. "The Troshkovsk deposits of kaolin in Southern Siberia," in symposium: Syr'yevyye resursy tonkokeram, promsti SSSR i puti ikh ispol'zovaniya, Moscow-Leningrad, 1948, p. 224-31

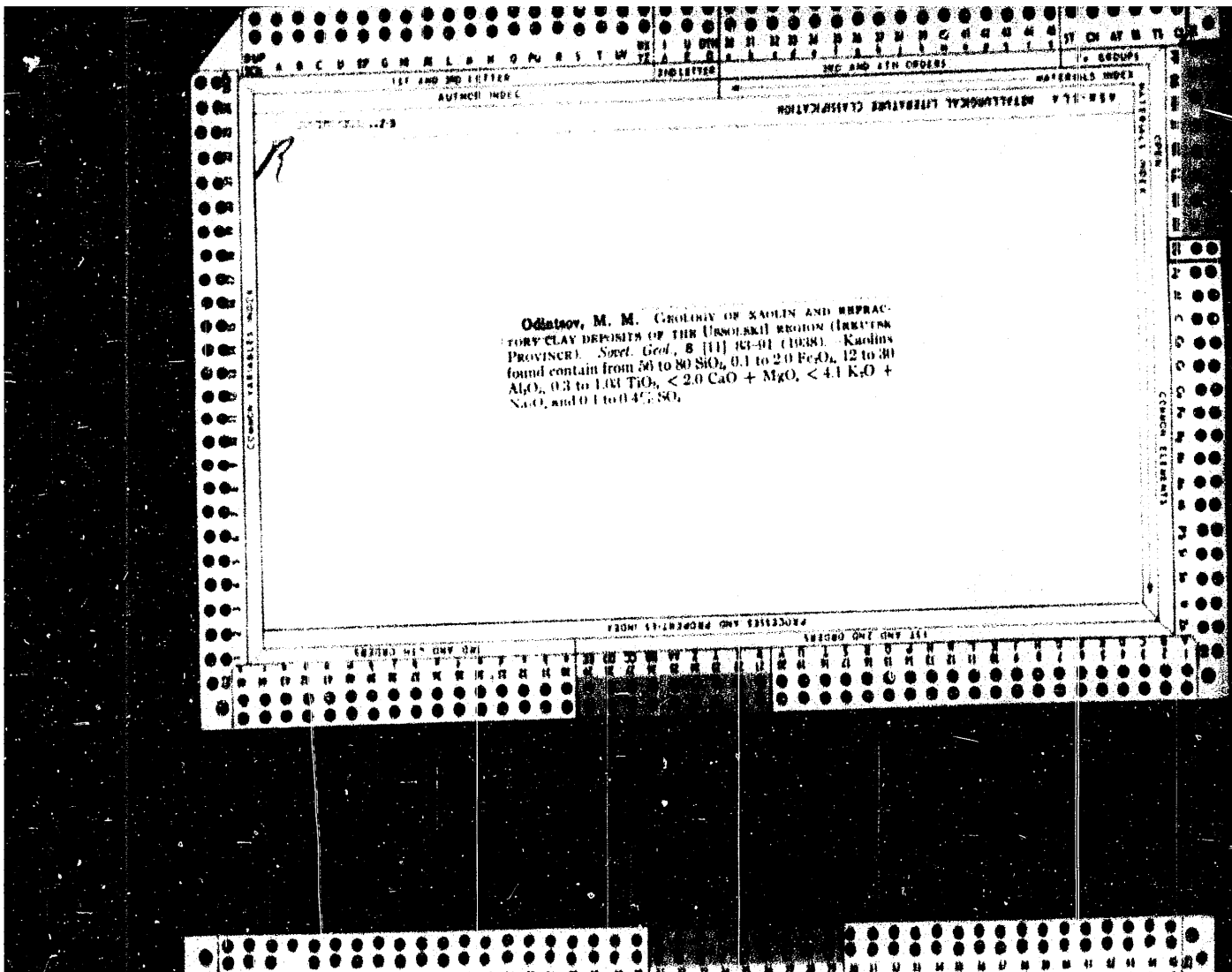
SO: U-2888, Letopis Zhurnal'nykh Statey, No. 1, 1949

PROCESSES AND PROPERTIES INDEX

A method for testing the deposits of kaolin and refractory clays. M. M. Odintsov. *Russkaya Nedra*, 1939, No. 4-5, 30-1; *Khim. Rájion. Zhur.* 1939, No. 8, 34. -- In sampling kaolin from the Irkutsk region (Siberia) samples of a definite vol. should be taken from each of the lithologic horizons and sorted into the various grades. W. W. Hance

METALLURGICAL LITERATURE CLASSIFICATION

GROUP	CLASSIFICATION	INDEX	ALPHA	BETA	GAMMA	DELTA	EPSILON	ZETA	ETA	THETA	IOTA	KAPPA	LAMBDA	MU	NU	Xi	OMICRON	PICHA	RHO	SIGMA	TAU	Upsilon	PHI	CHI	PSY	OMEGA



ODINTSOV, M.G.; RAFF, Ye.L.; TRUTNEVA, Ye.P.

Luminescence bands in a d.c. arc between iron electrodes in argon. Izv. vys. ucheb. zav; fiz. no.1:14-15 '63. (MIRA 16:5)

1. Kazanskiy gosudarstvennyy meditsinskiy institut i Kazanskiy filial AN SSSR.

(Electric arc)

(Spectrum analysis)

ODINTSOV, M.G.

Check of the completeness of extraction of certain inorganic salts by means of a spectroscopic method. Zhur.anal.khim. 15 no.4:500-501 J1-Ag '60. (MIRA 13:9)

1. Institute of Chemistry, Academy of Sciences, U.S.S.R., Kazan Branch.

(Extraction (Chemistry))

(Salts--Spectra)

Odintsov, M.G.

USSR/ Physics - Photography

FD 1046

Card 1/1 : Pub. 153 - 17/23

Authors : Borin, A. V.; Makovskiy, A. F.; Odintsov, M. G.; Ivleva, S. A.; Avvakumov, V. I.

Title : Photographic material with constant value of the coefficient of contrast in the visible part of the spectrum.

Periodical : Zhur. tekhn. fiz., 24, 1499-1502, Aug 1954

Abstract : Notes that photographic materials with constant coefficient of contrast independent of wave length are needed in solving a number of problems of spectral analysis and astrophysics. Investigates the possibility of obtaining such materials. Concludes that the absolute magnitude of contrast varies but the character of the dependence of the contrast coefficient, γ , on wave length remains unchanged. Eight references, 4 USSR (e.g. A. V. Borin, D. Ya. Martynov, T. I. Smolko, 1952; A. V. Barin, Z. I. Gratsianskaya, 1948).

Institution : --

Submitted : 1 November 1953