S/081/62/000/016/032/043
B168/B186

AUTHORS: Ordelt, Oldřich, Holomek, Josef

TITLE: A method of molding under pressure

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 16, 1962, 542, abstract 16P213 (Czechosl. patent 94306, March 15, 1960)

TEXT: The method is distinguished by the fact that, in order to improve the homogenization of the melted polymer and to raise the output of the molding machine, the finished melted polymer is fed directly from the polymerizing unit or from a separate melter into the cylinder of the machine. [Abstracter's note: Complete translation.]

Card 1/1

ORDELT, Zdenek

[redacted]

ORDELT, Z.

" Polyesters. (To be contd.)," p. 182.
(Chemicky Prumysl, Vol.3, No.5, May 1953, Praha.)

SO: Monthly List of East European Accessions, Vol.2, No.9 Library of Congress, September 1953, Uncl.

ORDFLT, Z.

Problems regarding controversial views within the scope of research tasks

p. 380
Vol. 5, no. 8, Aug. 1955
ZA SOCIALISTICKOU VEDU A TECHNIKU
Praha

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, no. 2
February 1956

CH[illegible], [illegible]; K[illegible], J.

CH[illegible], [illegible]; K[illegible], J. [illegible] institutes. . . 78.

Vol. 5, no. 10, Oct. 19[illegible].
ZA SOCIALISTICKOU VEDU A TECHNIKU
TECHNOLOGY
Praha, Czechoslovakia

So: East European Accession, Vol. [illegible], no. [illegible], [illegible] 19[illegible]

Z/009/61/000/012/005/005
E112/E953

AUTHORS: Ordelt, Zdeněk and Cigánek, František

TITLE: Contribution to the polycondensation mechanism of 1,2-cyclohexanediol with phthalic anhydride

PERIODICAL: Chemický průmysl, no.12, 1961, 669-671

TEXT: The reaction of cyclohexanediol with maleic anhydride was described in a previous paper (Ref.1: Ordelt Z., Chem.prům.10, 35, 663, 1960), where it was shown that, during condensation, the diol was catalytically dehydrated. In addition, the reaction mechanism was obscured by possible reactions with the double bond of the maleic or fumaric acids. It was felt by the authors that the use of phthalic anhydride would produce less ambiguous results. It is now shown that the polycondensation with phthalic anhydride proceeds, because of steric hindrances, at only half the rate of that of maleic anhydride. During the reaction, dehydration of the 1,2-cyclohexanediol takes place, the rate of which at temperatures above 200°C, considerably exceeds the dehydration of the maleic resin. Best reaction conditions are 200°C and a 15 to 20% molar excess of the diol. A portion of the

Card 1/3

dehydration products remains in the resin, their concentration increasing with rise of temperature. Increase of temperature also causes increase in the molecular weight of the resin. It was established that the resin contained some polymeric material without carbonyl function which was considered to be a polymer of 1,3-cyclohexadiene. The resin produced from phthalic anhydride and 1,2-cyclohexanediol at 200°C is a brittle, transparent, slightly yellowish substance. Condensations at higher temperatures produce a brownish material. In principle, no basic differences were detected between maleic and phthalic anhydride, with the exception of rate of reaction and additions on to the double bonds of maleic anhydride. Experimental details follow the

Contribution to the poly ... Z/009/61/000/012/005/00
E112/E953

previous paper. There are 3 figures, 2 tables and 4 references: 2 Soviet-bloc and 2 non-Soviet-bloc. The English-language references read as follows: Ref.3: US pat. 2 515 758 (18.7.19..); Ref.4: Pohle D.W., Meulenbacher C. V. a Cook H., Oil a. Soap, ..., 115 (1945).

ASSOCIATION: Výzkumný ústav syntetických pryskyřic a laků, Pardubice
(Research Institute for Synthetic Resins and Paints, Pardubice)

SUBMITTED: February 15, 1961

Card 3/3

ORDEL'T, Z. [Ordelt, Z.]

Structure of unsaturated polyesters and the mechanism of reactions taking place during their preparation. Vyskokom.soed. 4 no.7:1110-1117 Jl '62. (MIRA 15:7)

1. Nauchno-issledovatel'skiy institut sinteticheskikh smol i lakov, Pardubitse, Chekhoslovakiya.
(Esters)
(Unsaturated compounds)

S/191/62/000/007/004/011
B124/B144

15.8110

AUTHORS: Ordel't, Zdenek, Gudechek, Zdenek (Pardubice, CzSSR)

TITLE: Unsaturated polyesters based on cyclohexanediol-1,2

PERIODICAL: Plasticheskiye massy, no. 7, 1962, 20-23

TEXT: The most important factor in the polycondensation of cyclohexanediol-1,2 (CHD-1,2) with maleic anhydride (MA) is the temperature, since this increases the rate of polyesterification as well as the dehydration rate of the diol. The optimum temperature lies between 190 and 210°C. At that temperature, the polyesterification proceeds rather quickly and the total loss in OH groups is about 10% of the initial OH groups. The reaction time required is 6-8 hr. The reaction products were distilled with water vapor; besides traces of cyclohexadiene-1,3 (CH-1,3), the distillate contained cyclohexanone and cyclopentyl formaldehyde. The total loss in OH groups in the initial CHD-1,2 is 25-30% the loss in weight only amounting to 2-4%. The resulting CH-1,3 reacts immediately with the maleic or fumaric acid component to give a 3,6-endoethylene-1,2,3,6-tetrahydrophthalic acid compound which is the most important

Card 1/3

brittle owing to the high content of cyclic compounds and owing to destruction caused by temperature changes. When the ethylene glycol is partly replaced by BD-1,2 in the usual polyester for glass-reinforced plastics, many mechanical properties, particularly hardness and heat resistance, are much reduced. This can be avoided by using an aliphatic dicarboxylic acid instead of part of PA. There are 2 figures and 3 tables. The English-language reference is: V. F. Jenkins et al., J. Oil a. Colour Chem. Assoc. 44, 42 (1951).

ORDEL'T, Z.; DLASK, V.; KRATKIY, B.

Cross-linked polyesters based on maleic anhydride and epoxides. Vysokom. soed. 5 no.12:1879 D '63.
(MIRA 17:1)

GRDELT, Z[illegible]enek; [illegible], Frantisek

Side rea[illegible] [illegible]densation of cyclohexanedic[illegible]-1,[illegible] with maleic anhydride. Chem prum 14 no. 3: [illegible] Mr '64.

1. Research Institute of Synthetic Resins and Lacquers, Pardubice [illegible].
2. [illegible]rxovy zavody National Enterprise, Research Institute of Coke Chemistry, Ostrava [illegible] iganek).

L 10344-67 EWT(m)/EWP(e) WH
ACC NR: AP6031508 (N) SOURCE CODE: UR/0226/66/000/008/0101/0105

AUTHOR: Samsonov, G. V.; Vitryanyuk, V. K.; Ordenko, V. B. 40

ORG: Kiev Polytechnical Institute (Kievskiy politekhnicheskiy institut)

TITLE: Preparation of highly porous materials from refractory compounds

SOURCE: Poroshkovaya metallurgiya, no. 8, 1966, 101-105

TOPIC TAGS: porous material, refractory metal, refractory metal compound, refractory metal carbide, refractory metal boride, refractory metal silicide, oxide reduction, POROSITY, POROUS METAL

ABSTRACT: The authors investigated the possibility of obtaining high-porosity products from carbides, silicides and borides of refractory metals by reduction of oxides with simultaneous sintering of the obtained active particles of compounds, during which the volatile products of reduction, such as CO, B_2O_2 and SiO, escape. Conditions were established for the preparation of high-porosity articles (up to 70—72% porosity) from chromium carbide by reduction of chromium oxide with carbon black and simultaneous sintering. Orig. art. has: 2 figures and 2 tables. [TD]

SUB CODE: 11, 13/ SUBM DATE: 06Apr66/ ORIG REF: 011/ OTH REF: 001

Card 1/1 blb

14-57-6-12417

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 6, p 99 (USSR)

AUTHOR: Ordeval, A. P., Kubota, Dzh., Smit, Kh. M.

TITLE: Principal Soil Types and Their Relation to Climate (Glavnyye tipy pochv i ikh svyaz' s klimatom)

PERIODICAL: V sb: Merzlotnyye yavleniya v gruntakh, Moscow, Izd-vo in. lit., 1955, pp 9-20

ABSTRACT: Climatic change from north to south produces change in the soils. Low temperature and slight precipitation cause the formation of tundra soils. Climatic influence is basically of a physical nature. Both physical and chemical factors contribute to the formation of podzol soils. Chernozem is developed in the semiarid and semihumid temperate climates. In deserts, climatic influence exhibits itself mainly in the physical destruction of original materials. Latosols (formerly known as laterites, red laterites, or red clays,

Card 1/2

ORDIKHOVSKIY, A.V.

Treatment of amyotrophic lateral sclerosis by means of endolumbar injection of vitamin B_{12}. Vrach.delo no.10:1013-1015 O '59.
(MIRA 13:2)

(SCLEROSIS) (CYANOCOBALAMINE

BONDAR, ~~M. P.~~; ORDIKOV, M. L. and LOPATA, A. A.

ORDIKOV, M.L

"Haladka Tokarnykh Avtomatov i Poluavtomatov," (Mechanisms and Settings of Automatic and Semi-automatic Lathes), 27[illegible] p., Kiev and Moscow, 1951.

[illegible]N, A.A.

Obtaining of monosporic cultures of Penicillia by means of [illegible].

Mikrobiologiya. Vol. 21, p. 113. 1952.

ORDIN, A.G.

[The air fleet of the Land of Soviets] Vozdushnyi flot Strany Sovetov. Moskva , Pravda, 1948. 39 p. (MLRA 7:11)
(Aeronautics)

[redacted], A. S.

Velikii letchik nashego vremeni Valerii Pavlovich Chkalov; stenograficheskii otchet publichnoi lektsii, prochitannoi v Moskve. Moskva, Pravda, 19[illegible]. [illegible] p.

Title tr.: Valerii Pavlovich Chkalov, the great pilot of our time; a stenographic report of a public lecture delivered in Moscow.

TL5h0.Chs0

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

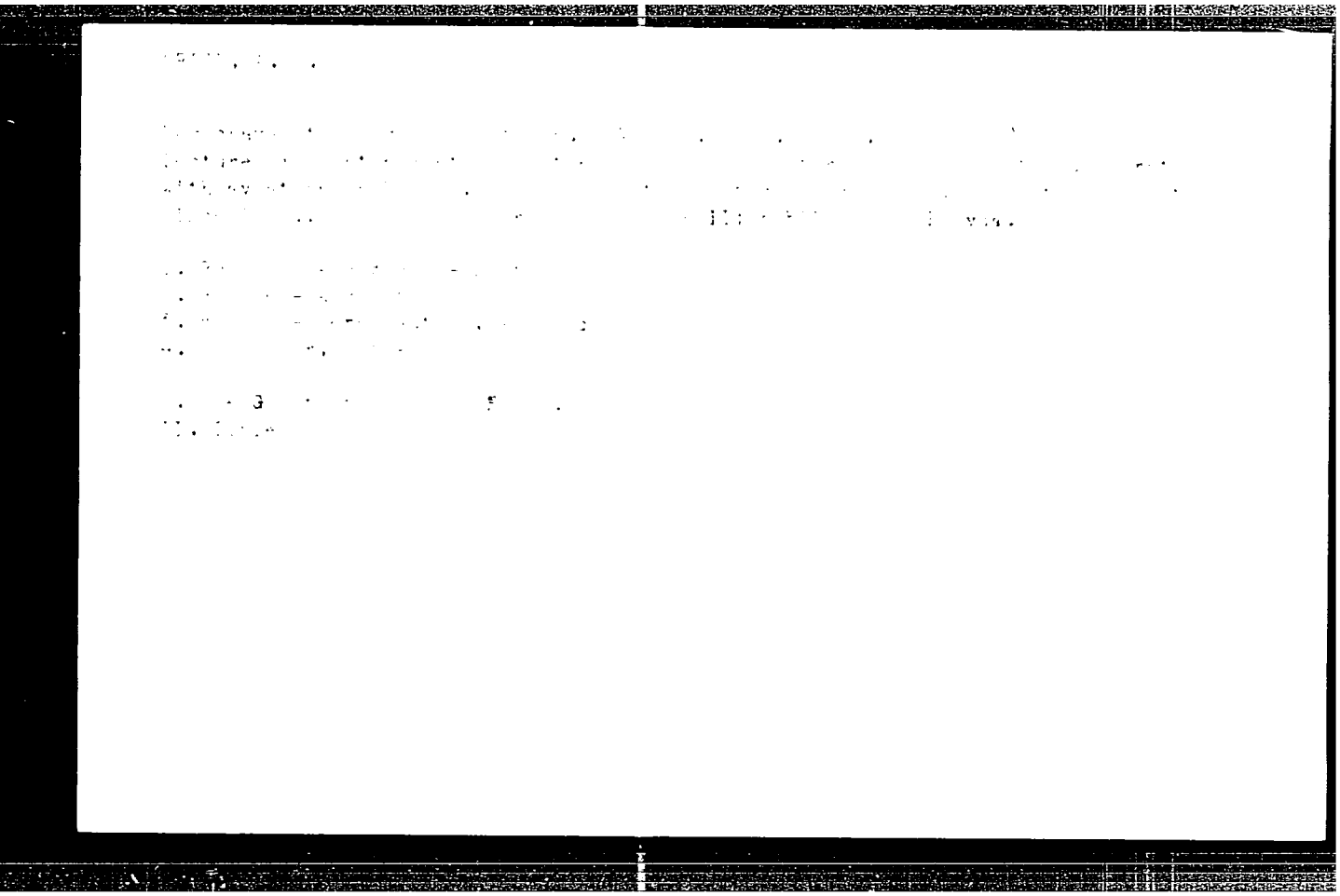
[redacted]

[redacted], A. [redacted].

Vozdushnyi flot [redacted]. 2., dop. izd. stenogrammy [redacted] lektsii, prochitannoi v Moskve. Moskva, 1 [redacted]. [redacted] p.
Title tr.: [redacted]

[redacted]

SO: Aeronautical sciences and aviation in the Soviet Union, Library of Congress, 1955.



ORDIK, A. (Colonel)

USSR
"Designer of the First Airplane in the World," Pravda, 1951.
Current Digest of the Soviet Press, Vol. 2, No. 1[illegible], 1[illegible], page [illegible]. (In [redacted] Library)

ORDIN, A. G.

Author: Ordin, A.G.

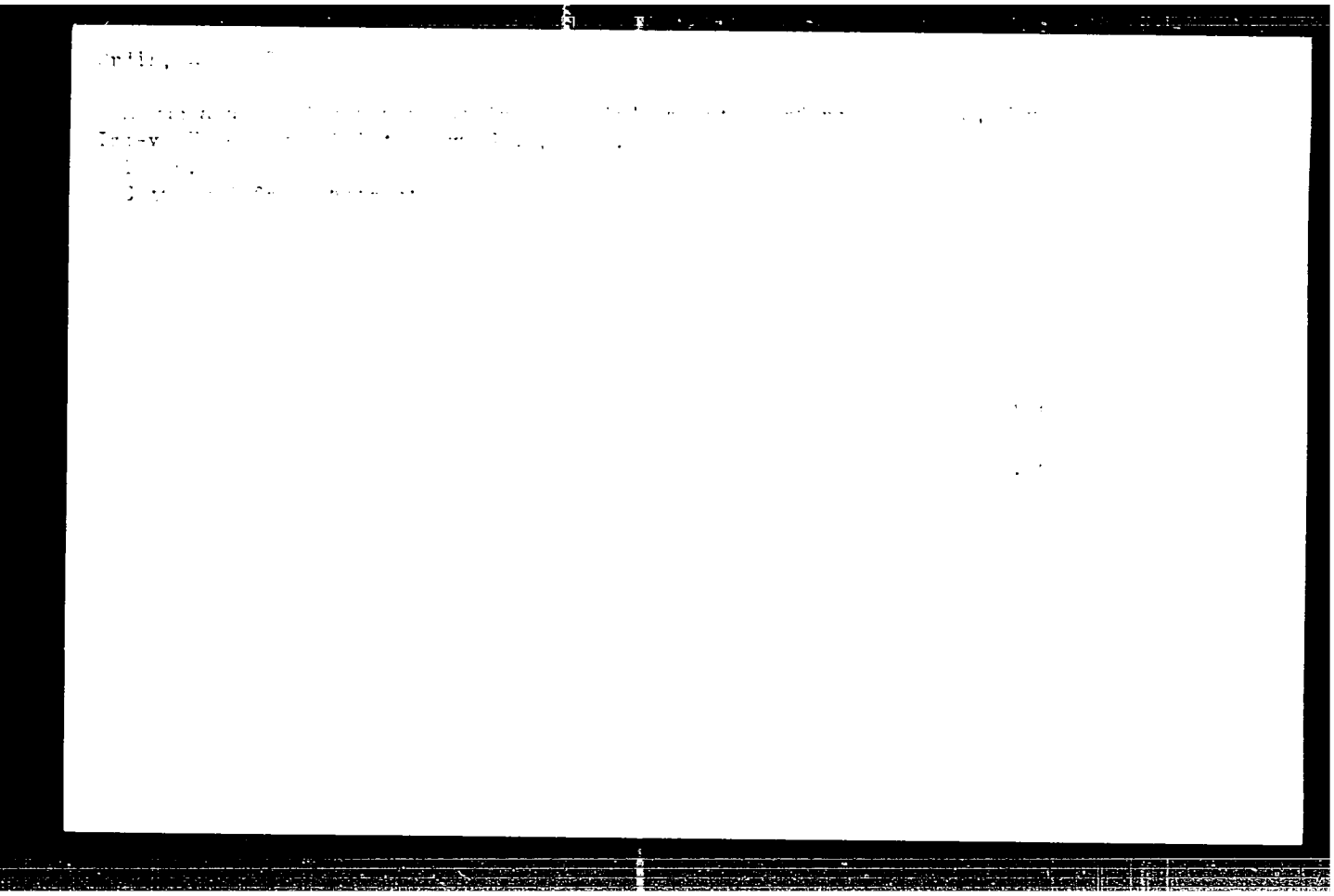
Title: Air Force of the USSR
63 pp., illust.

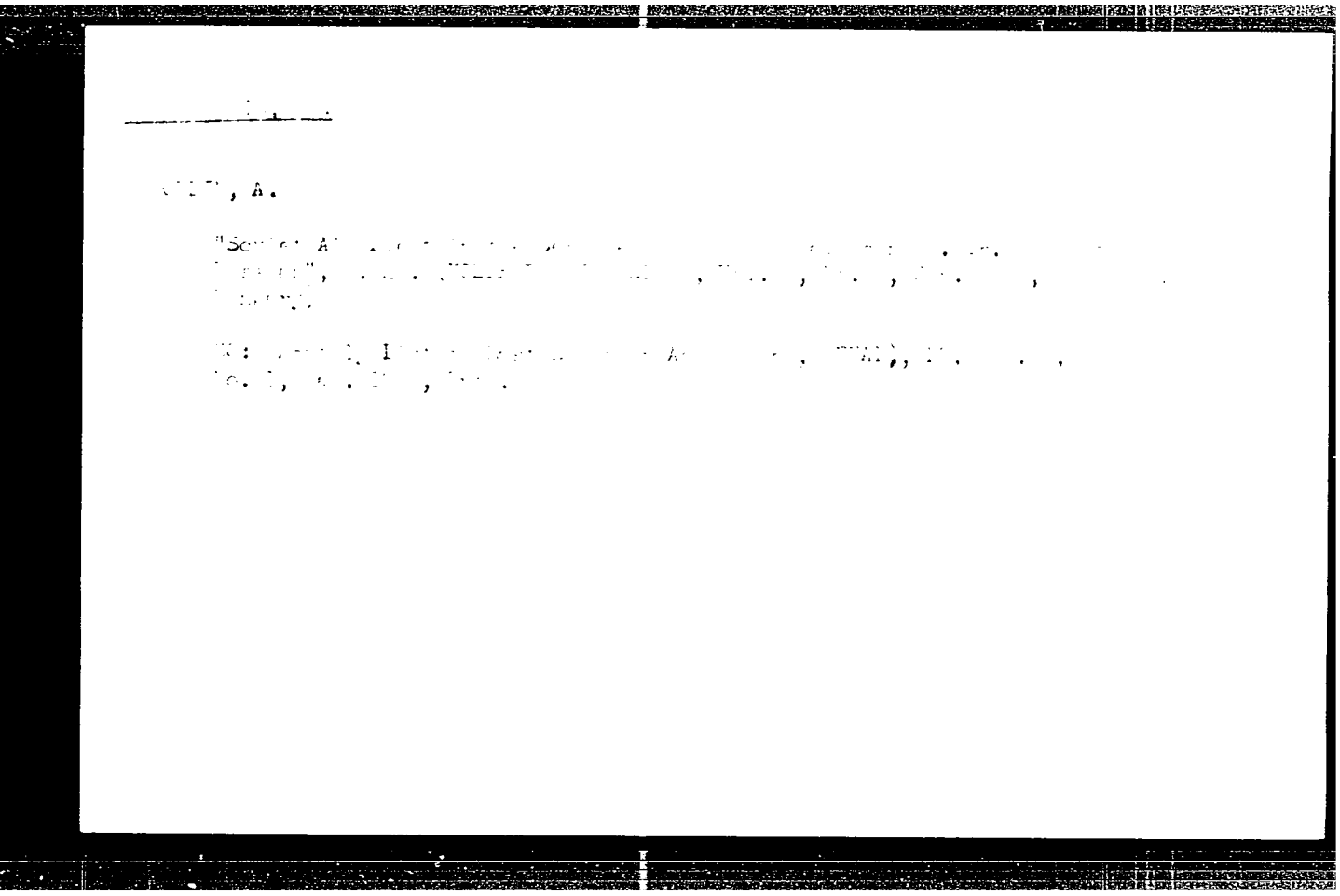
Date: 1950

Subject: Aeronautics - Russia

Available: Library of Congress, Call No: TL526.R90717

Source: Lib. of Cong. Subj. Cat., 1951





OHDIN, A.G., general-mayor aviatsii

What was learned from one emergency situation. Vest.Vozd.Fl. 41 no.2:38-40 F '59. (MIRA 12:4)
(Flight training)

USSR/Biology (Agriculture) - Plant Mar/Apr 52
Diseases

"Antagonism of Soil Fungi of the Penicillium Family Toward Phytopathogenic Bacteria," A. P. Ordin, Moscow Sta, All-Union Inst of Plant Protection

"Mikrobiol" Vol XXI, No 2, pp 192-199

26.3% of all species of the Penicillium family and 3.5% of species of the Aspergillus family counteract Bact. aroidae Tows., Bact. carotovorum (Jones) Burgv., and Bact. vesicatorium Doidg. All isolated active strains suppress both Bact. aroiseae and Bact. cartovorum (which must

210T14

USSR/Biology (Agriculture) - Plant Mar/Apr 52
Diseases (Contd)

be regarded as closely related strains of the same species), but only 47.7% of them counteract Bact. vesicatorium. The antibiotics evolved by Penicillae exert a strong suppressing action on these 3 bacterial species, all of them gram neg, indicating that the Gram reaction is not an absolute criterion of the resistance of bacteria to penicillae antibiotics.

210T14

ORDIN, A. P.

CRDIN, A. F.

Penicillin

Production of single-spore penicillin cultures with a dry needle. Mikrobiologiia 21 no. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952, Uncl.

ORDIN, A. P., Cand Biol Sci -- (diss) "Mycoflora of the rhizosphere of plants and soils of [redacted] stony steppe." Mos, 1957. 20 pp (Inst of Microbiology, Acad Sci USSR), 120 copies (KL, 1-58, 117)

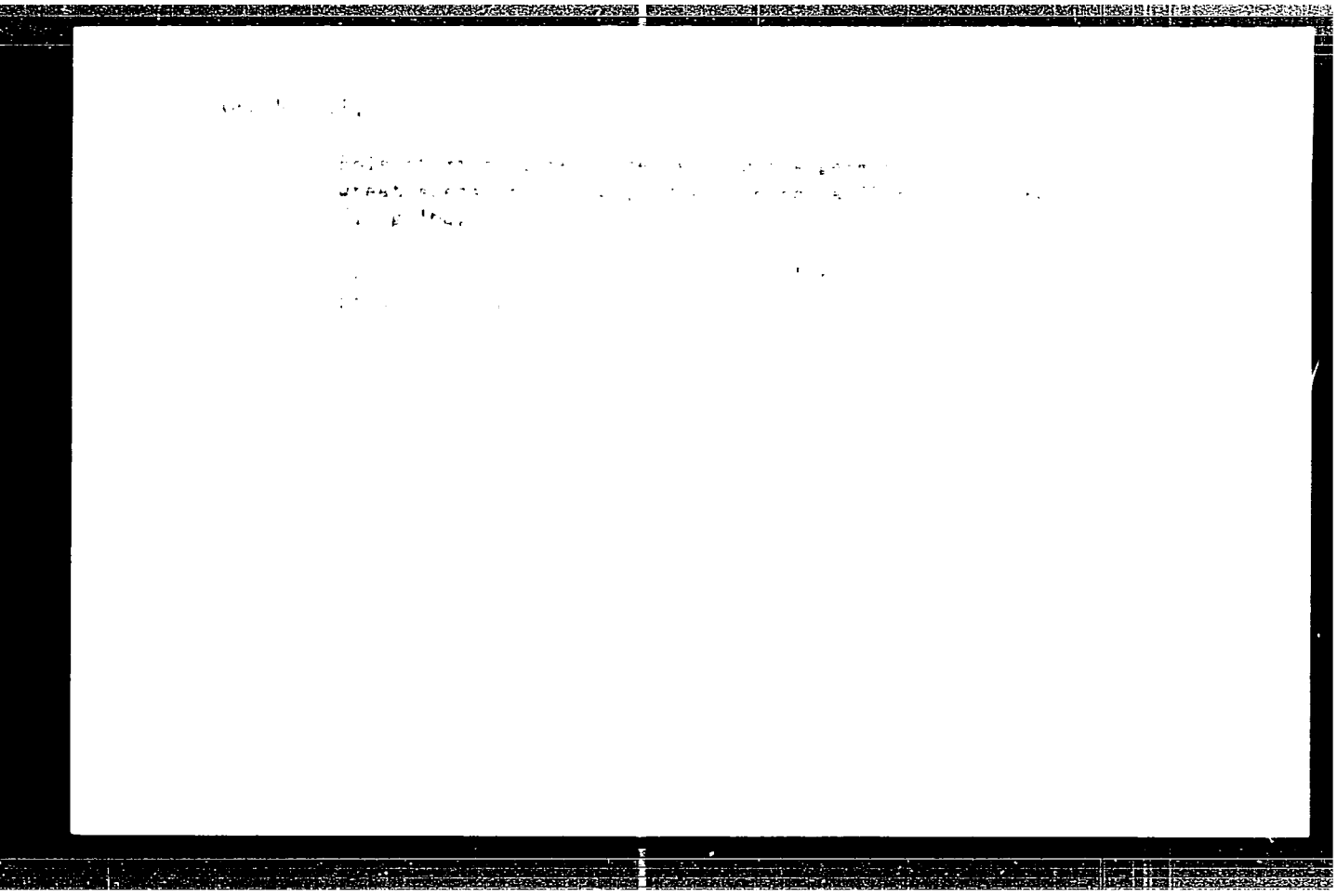
ORDIN, A.P.

Effect of vegetation on the composition of soil microflora. Izv. AN SSSR. Ser.biol. no.4:495-502 Jl-Ag '57. (MLRA 10:8)

1. Institut mikrobiologii Akademii nauk SSSR
(KAMENNAYA STEPPE--SOIL MICRO-ORGANISMS)

ORDIN, A.P.

Device for surface grain sterilization. Mikrobiologiia 31 no.1:158-159 Ja-F '62. (MIRA 15:3)
(STERILIZATION--EQUIPMENT AND SUPPLIES)



ACCESSION NR: AP4000450 S/0032/63/029/011/1341/1343

AUTHORS: Cherkez, M. B.; Ordin, V. P.

TITLE: Study of corrosion processes in passivating metals by application of anodic polarization

SOURCE: Zavodskaya laboratoriya, v. 29, no. 11, 1963, 1341-1343

TOPIC TAGS: passivating metal, metal corrosion, passivating metal corrosion, corrosion study, potentiostatic method, corrosion study potentiostatic method, anodic polarization, anodic polarization current, EI602 steel corrosion, EI602 steel passivation, passivation potential, EI602 steel passivation potential, transpassivation potential, EI602 steel transpassivation potential, EI602 steel, anode current polarization, metal passivation, critical passivation current density, passivation current density

ABSTRACT: A potentiostatic apparatus was used to study corrosion processes, to determine the limits of a stable passive state, and to establish the relative variation in the metal corrosion rate during its transition from an active state into a stable passive and transpassivation state. The experimental results are

Card 1/4

ACCESSION NR: AP4000450

presented graphically in Figures 1 and 2 on the Enclosures. They represent the polarization curves (voltage current density) which reflect the variation in the corrosion process intensity during a gradual metal passivation induced by anodic currents. The density of the anodic polarization current corresponded to the metal affinity toward passivation. It is shown that polarization curves may be used for the determination of corrosion velocity, limits of a stable passive state, relative variation of metal corrosion velocity in active and passive states, and the absolute value of the corrosion rate in the passivation state. Orig. art. has: 4 figures.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 02

SUB CODE: MM NO REF SOV: 001 OTHER: 000

Card 2/4

ACCESSION NR: AP4000450

ENCLOSURE: 01

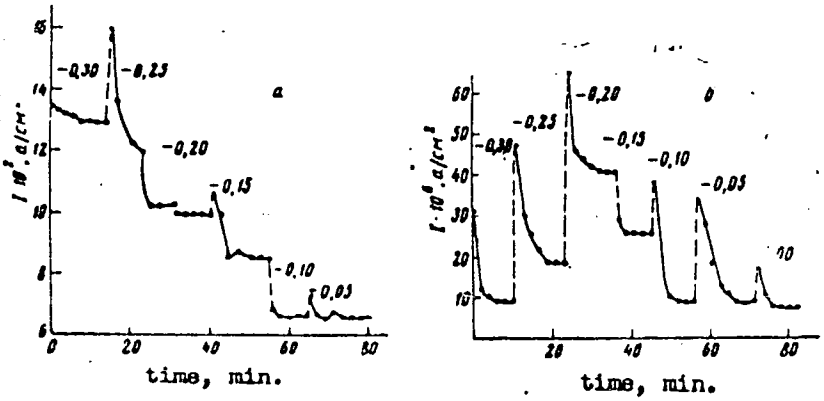


Fig. 1. Variation of anodic polarization current with time at constant electrode potential: steel 10KP (a) and alloy EI602 (b)

Card 3/4

ACCESSION NR: AP4000450

ENCLOSURE: 02

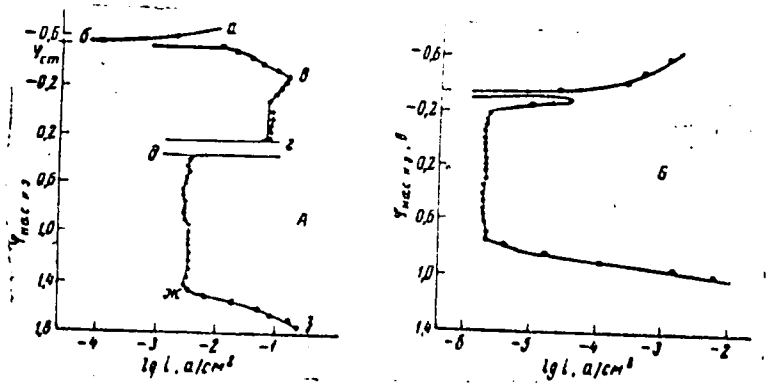


Fig. 2. Polarization curves; steel 10KP electrode (A) and KI 602 electrode (B)

Card 4/4

L 01996-67 EWT(1) SCTB DD

ACC NR: AM6023679 Monograph UR

Ordina, G. P.

Technology learns from nature; bionics. Recommended review of literature (Tekhnika uchitsya u prirody; bionika. Rekomendatel'nyy obzor literatury) Comp. by G. P. Ordina, Moscow, Izd-vo "Kniga", 65. 0021 p. (At head of title: Gosudarstvennaya biblioteka SSSR imeni V. I. Lenina) Series note: Novoye v nauke i tekhnike, vyp. 12

TOPIC TAGS: bionics, cybernetics, biocybernetics

PURPOSE AND COVERAGE: This pamphlet presents a list of articles and books on bionics and related sciences. Bionics is explained as the study of processes in living nature to obtain knowledge applicable to technology and its automation. Nature's processes are valued because of their dependability, compactness, and efficiency. Prokhorov, A., "Bionics - The Science Born Before Our Eyes," Kommunist, 1965, No. 4, pp. 46--55. Steyngauz, A., "The Engineer and Nature. Bionics. What Is It?" Novyy Mir, 1963, No. 9, pp. 194--210. Saparina, Ye., V., "What the Jellyfish Are Concealing." Conclusion by A. I. Berg. Moscow, "Molodaya gvardiya," 1966. 144 pp. illus. Astashenkov, P. T., "What Is Bionics." Moscow, Voyenizdat, 1963. 87 pp. illus. (Nauch.-popul. b-ka). Krayzmer, L. P., "Bionics." Moscow-Leningrad, Gosenergoizdat, 1962, 72 pp. illus. Parin, V. V., "Living and Technical Systems," Priroda, 1964, No. 5, pp. 20--25. Linkovskiy, G. B. and Smuglyy, S. I., "Bionics, Its Methods and Results," Priroda, 1964, No. 3, pp. 52--58. Al'tov, G. S., "Paleontology and Bionics," Priroda, 1964,

Card 1/2

UDC: 016:6

L 01996-67

ACC NR: AM6023679

No. 11, pp. 111--112. Manteyfel', B. P. et al, "The Orientation and Navigation of Animals. The Most Important Trends in Bionic Research," Priroda, 1965, No. 2, pp. 26--32. Mironov, I., "Not a Temple, but a Workshop," Znaniye -- sila, 1964, No. 7, pp. 14--16. Parin, V. V., "Bionics," Zdorov'ye, 1964, No. 1, pp. 9--10. Napalkov, A. V. and Chichvarina, N. A., "The Brain and Cybernetics. (Cybernetic keys to secrets of the brain)," "Znaniye," 1963. 48 pp. illus. Prokhorov, A. I. "Bionics." Foreword by V. V. Parin. Moscow, "Znaniye," 1963. 56 pp. Teplov, L. "Essays on Cybernetics." Moscow, "Mosk. rabochiy," 1963, 415 pp. illus. Saparina, Ye. "Cybernetics Within Us." Moscow, "Molodaya gvardiya," 1962. 303 pp. illus.

SUB CODE: 06/ SUBM DATE: 19Jul65/ ORIG REF: 015

Card 2/2

CRDINA, N. A.

CSRC-L No. [illegible]

Ordina, N.A. (M[illegible] Botanic[illegible] U.S.S.R. [illegible] of Sciences). Peculiarities of growth of the basic meristem in young internodes of wh[illegible]

Akademiya Nauk S[illegible] R[illegible] [illegible] 1951

GRODINA, N. A.

Botany - Embryology

Method of st[illegible]ing meri[illegible] [illegible]. Dokl. AN [illegible], [illegible], [illegible], [illegible].

9. Monthly List of Russian Accessions, Library of Congress, October 195[illegible]. Uncl.

ORDINA, N. A.

"The Intercalary Meristem and Its Role in the Ontogenesis of Wheat." Cand Biol Sci, Inst of Botany imeni V. L. Komorov, Acad Sci USSR (Apr-Jun 54). (Vest Ak Nauk, Nov 54)

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

SO: Sum. No.521, 2 Jun 55

USSR/Plant Diseases - Diseases of Cultivated Plants. 0-3

Abs Jour : Ref Zhur - Biol., No 7, 1958, 30234

Author : Ordina, N.A.

Inst : Central Scientific Research Institute of Bast Fiber.

Title : The Structural and Microchemical Changes in Flax Stems and Fibers in the Presence of Fungous Infections.

Orig Pub : Nauchno-issled. tr. Tsentr. n-i in-t prom-sti lub. volokon, 1957, 10, 58-73.

Abstract : Description is given of the changes in flax stems and beaten fiber produced as a result of infection with Fusarium lini Boll. and Polyspora lini Peth.

Card 1/1

1. ORDINA, O. M.

2. USSR (600)

4. Lungs - Diseases

7. Clinical and anatomical study on modifications in the diaphragm in pulmonary and cardiac insufficiency. Arkhiv pat. 14, No. 6, 1952.

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

ZIVERT, K.N., prof.; ORDINA, O.M., dots.

Rare complication of cardiospasm [with summary in English]. Khirurgiia 34 no.1:109-114 Ja '58. (MIRA 11:3)

1. Iz kafedry gospital'noy khirurgii (zav.-deystvitel'nyy chlen AMN SSSR A.G.Savinykh) i kafedry patologicheskoy anatomii (zav.-prof. I.V.Torontsev)

(CARDIOSPASM, surgery,
postop. esophageal ulcer perf. into pulm. vein (Rus)
(PEPTIC ULCER, perforation,
esophageal into pulm. vein after cardiospasm surg. (Rus)
(VEINS, PULMONARY, perf.
by esophageal ulcer after cardiospasm surg. (Rus)

ORDINA, O.M., dots.

Some morphological data substantiating the renal origin of so-called hypernophromas. Urologiia 24 no.1:21-26 Ja-F '59. (MIRA 12:1)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. I.V. Toroptsev) Tomskogo meditsinskogo instituta.
(KIDNEYS, neoplasms
hypernephroma, histogenesis (Rus))

ORDINA, O.M., kand.med.nauk

Clinical morphological characteristics of sympatho gonioma. Pediatriia 37 no.11:50-56 N '59. (MIRA 13:3)

1. Iz kafedry patologicheskoy anatomii (zaveduyushchiy - prof. I.V. Toroptsev) Tomskogo meditsinskogo instituta.
(NEUROBLASTOMA pathology)

ORDINA, O.M., dotsent; MOSKVIN, V.I., dotsent

Cancer of the intestines in children. Pediatriia 38 no.12:68-70 '60. (MIRA 14:2)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. I.V. Toroptsev) i kafedry detskoy khirurgii (zav. - prof. I.S. Vengerovskiy) Tomskogo meditsinskogo instituta.
(CECUM--CANCER)

VITKOVSKAYA, G.L.; ORDINA, O.M. (Tomsk)

Pheochromocytoma with a malignant form of hypertension. Probl. endok.i gorm. 7 no.3:112-114 '61. (MIRA 14:9)

1. Iz kafedry propedevticheskoy terapii (zav. - prof. B.M. Shershevskiy) i kafedry patologicheskoy anatomii (zav. - prof. I.V. Toroptsev) Tomskogo meditsinskogo instituta.
(ADRENAL GLANDS—TUMORS) (HYPERTENSION)

L 46145-66 EWT(m)/EWP(j)/T IJP(c) WW/RM

ACC NR: AP6026738 (A) SOURCE CODE: UR/0183/66/000/003/0042/0043

AUTHOR: Serkov, A. T.; Budnitskiy, G. A.; Chivilikhina, M. P.; Veretennikova, T. P.; Shishkina, N. P.; Kondrashova, I. A.; Muravleva, L. V.; Ordina, V. I.

34
B

ORG: VNIIV

TITLE: Improving the quality of viscose cord

SOURCE: Khimicheskiye volokna, no. 3, 1966, 42-43

TOPIC TAGS: cellulose, synthetic material, cellulose plastic, synthetic fiber

ABSTRACT: The details of a modified procedure for manufacturing high tensile strength viscose cords are described. In essence, the procedure consists of accelerated processes of coagulation, filtration, and cord forming. It also requires the use of high purity reagents: sulfuric acid (GOST 2184-59), and ethylene oxide- and aliphatic amine derivatives as modifiers. The modified procedure does not require any new machines, only a minor adjustment of the cord spinning procedure. It is claimed that the modified procedure is capable of yielding viscose cords with tensile strength by 50-60% greater than that manufactured elsewhere in the world. Orig. art. has: 2 figures.

SUB CODE: 11/ SUBM DATE: 28Feb66/ ORIG REF: 004

Card 1/1 UDC: 677.463

SOV [illegible]

Translation from Referativnyy zhurnal Metallurgiya, 1957, Nr [illegible] p [illegible] (USSR)

AUTHOR: Ordina, Z G

TITLE: Diffusion Siliconizing of Iron and Steel (Diffuzionnoye silitsirovaniye zheleza i stali)

PERIODICAL: Tr Leningr tekhnol in-ta pishch prom-sti, 1955, Vo[illegible] pp 290-307

ABSTRACT: Pack and gas siliconizing (S) of specimens of Fe of the VIT grade and specimens of steels of the types 10, 40, U7 and U12 was conducted under laboratory conditions at temperatures of 950, 1000, 1050, 1100, 1150, and 1200°C, the exposure times amounting to 3, 6, 9, 12, 18, and 24 hours. A mixture composed of 80% FeSi, 15% fire clay (with particle sizes ranging from 0.5 to 1.0 mm) and 5% NH_4Cl was chosen for the pack S process. Best results during gas S were achieved with FeSi particles of 1.0-2.5 and 2.5-5.0 mm in size, with a consumption of Cl of 2 liters/hr. The microstructure and microhardness of the layer were studied. It was established that the Si content in the diffusion layer may be determined from the microhardness of the latter. The depth of

Card 1/2

Diffusion Siliconizing of Iron and Steel

the siliconized layer in carbon steel diminishes rapidly at first, as the C concentration in the steel is increased, its rate of decrease becoming gradually smaller. When exposed to a corrosive gaseous medium in the course of a 4-hour test at temperatures up to 800°, the siliconized layer on specimens of VT [illegible] and grade 10 steel exhibited good corrosion resistance. The same siliconized steel was found to be chemically stable in 10% solutions of H_2SO_4 and HNO_3 at low temperatures as well as at the boiling temperature.

O V

Card 2/2

AUTHOR: Ordina, Z. S. SOV [illegible]

TITLE: The Determination of the Silicon Content as a Function of the Layer Thickness by the Method of Micro-Hardness (Opredeleniye soderzhaniya kremniya po glubine sloya metodom mikrotverdosti)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 8, pp. 1015 - 1016 (USSR)

ABSTRACT: Since the method of micro-hardness is the quickest and simplest method for determining hardness it can profitably be applied to clarifying questions concerning [illegible] the hardness of surface layers caused by changes of composition or cold hardening. In the work reported here changes in the micro-hardness of iron-silicon alloys with a silicon content of 1,06 - 18,5% were investigated. The PMT-3 apparatus constructed by M.M.Khrushchov and Ye.S. Berkovich was used. The experimental results show that the hardness continually increases with an increase of the silicon content of the strong α-solution. It was also observed that the results obtained varied with the size of the load

Card 1/2

The Determination of the Silicon Content as a [illegible]
Function of the Layer Thickness by the Method of Micro-Hardness

In order to confirm this relationship between the [illegible] in hardness and the silicon content of these layers appropriate chemical analyses were carried out. Silicon analyses were carried out on V I T-iron and carbon steels under various conditions. It was found that the [illegible] content of layers can be determined in a practical manner by comparing the micro-hardness of these layers to that measured for an iron-silicon alloy whose chemical composition is known. There are 3 figures, 1 table, and 7 references, which are Soviet.

ASSOCIATION: Tekhnologicheskiy institut pishchevoy promyshlennosti (Technological Institute of the Food Industry)

Card 2/2

69388

S/129/60/000/06/012/022
E073/E535

18.1150

AUTHOR: Ordina, Z. G., Candidate of Technical Sciences

TITLE: Diffusion of Silicon in Chromium Steel

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, 1960, Nr 6, pp 46-47 (USSR)

ABSTRACT: It is known that the combined influence of chromium and silicon on the corrosion resistance of steel is stronger than that of each element separately (Refs 1 and 2). Therefore, the author considered it of interest to investigate the anti-corrosive effect of a surface layer enriched simultaneously with these two elements. Experiments have shown that Si enriched 12.4% Cr steel has a high resistance to gas corrosion up to 1000°C and Si enriched low carbon steel has a good resistance to gas corrosion only up to 800°C, the corrosion resistance being smaller by a factor of 4 than that of chromium steel. Little has been published on this subject (1 German and 1 French patent are quoted). For the purpose of elucidating the influence of chromium on the diffusion of silicon into steel, the authors investigated a number

Card 1/3

69388

S/129/60/000/06/012/022
E073/E535

Diffusion of Silicon in Chromium Steel

of steels, namely, steel 20 (.13 to 0.17% C), 20Kh (1% Cr), Kh6 (6.3% Cr) and Kh13 (12.4% Cr). The silicon enrichment was produced from solid powdery mixtures at temperatures of 1050 to 1200°C for durations of 3,6,9 and 12 hours and also by means of gas cyaniding by the passage of chlorine through ferrosilicon with firebrick at 950°C for durations of 1,2,4 and 6 hours. The influence of the chromium content on the depth of the silicon enriched layer is shown by the plot, Fig 2. It was found that in the case of saturation of chromium steel with silicon a bright silicized layer forms on the surface which does not etch and consists of a uniform solid solution of a columnar structure containing simultaneously chromium and silicon. The chromium in the steel reduces the depth of the layer but brings about the formation of a dense and uniform layer. Such a surface layer ensures a higher resistance to corrosion than a layer containing only silicon.

Card 2/3

69388

S/129/60/000/06/012/022
E073/E535

Diffusion of Silicon in Chromium Steel

There are 2 figures and 2 Soviet references.

ASSOCIATION: Leningradskiy tekhnologicheskiy institut pishchevoy promyshlennosti (Leningrad Technical Institute for the Food Industry)

Card 3/3

ORDINTSOV, V. S.

"On Blood-sucking Midges of the Klyaz'ma River Basin."

Tenth Conference on Parasitological Problems and Diseases with Natural Reservoirs, 22-29 October 1959, Vol. II, Publishing House of Academy of Sciences, USSR, Moscow-Leningrad, 1959.

(Moscow)

ORDLOVSKIY, M.B.

New Famennian polyzoan species from the Chatkal-Naryn zone of the Tien Shan. Paleont. zhur. no.2:64-71 '61. (MIRA 14:6)

1. Kirgizskoye geologicheskoye upravleniye.
(Tien Shan--Polyzoa, Fossil)

BRYZGALOV, V. A., ORDNSKIY, V. V., CHERNETCHENKO, V. S.

Agriculture - Experimentation

What scientists are working on in 1952. Sad i og. No. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, _____1953. Unclassified.

ORDODY, Janos, okleveles gepeszmernok

Designing or copying? Szabvany kozl 16 no. 8:143-146 Ag '64.

1. Hungarian Bureau of Standards, Budapest.

ORDODY, J.

ORDODY, J.
Evolvent geometric expression of the length of transmission belts.
p. 439

Vol. 7, No. 11, Nov. 1955 Budapest, Hungary GEP

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5
No. 3, March, 1956

ORDODY, Janos

Is the kilogr[illegible] Szabvany kozl 15 no.10:22-2[illegible]
0 '63.

ORDODY, Janos, okleveles gepeszmernok

Role of the Renard numbers in the standardization of printing plate drawings. Szabvany kozl 16 no.11:195-196 N '64.

1. Hungarian Bureau of Standards, Budapest.

ORLOG, I.

ORLOG, I. Qualitative characteristics of industrial sands in the district of Balaton. p.348

Vol. 11, No. 6, June 1956.
BANYASZATI LAPOK
TECHNOLOGY
Budapest, Hungary

So: East European Accession, Vol. 6, No. 2, Feb. 1957

ORDOG, Istvan

Regulation of transistor amplifiers; transistor technology.
Radiotechnika 12 no.8:238-239 '62.

ORDOG, Istvan

Esperanto radiobroadcasting. Radiotechnika 14 no.10:376 ('64.

[illegible]

[illegible], [illegible], Dr, [illegible], Bela, Dr; City Council of [illegible], Hospital, [illegible] (chief physician: [illegible], Laszlo, Dr) and Oto-Laryngology (chief [illegible] FUTI, [illegible], Dr) ([illegible] Varosi Tanacs Korhaz, [illegible]).

"[illegible] Complications [illegible] Sound."

[illegible], [illegible], Vol [illegible], No [illegible], [illegible] Oct 66, pages 1947-[illegible].

[illegible]: [Authors' [illegible] summary] In the course of passing a sound [illegible] for [illegible] of obtaining duodenal secretion, a knot formed [illegible] which presented problems in the withdrawal of [illegible] Hungarian [illegible].

ORDOGH, F.; SZENDE, K.

Temperature bacteriophages isolated from Rhizobium meliloti.
Acta microb. hung. 8 no.1:65-71 '61.

1. Institute of Genetics, Hungarian Academy of Sciences, Budapest.
(BACTERIOPHAGE) (RHIZOBIUM immunol.)

ORDOGH A.

HUNGARY/Human and Animal Physiology (Normal and Pathological). T-14
Skin.

Abs Jour : Ref Zhur - Biol., No 11, 1958, 51426

Author : Czako, Jozsef; Ordogh, Katalin
Inst : -
Title : The Influence of Environmental Temperature upon the Skin and Hair Temperature of Large Horned Cattle (multicolored Hungarian Breed).

Orig Pub : Allattenyesztes, 1956, 5, No 4, 311-316.

Abstract : No abstract.

Card 1/1

[illegible], M.

Kinetics of [illegible] deposition of ammonia on a quartz surface. p. 313.

MAG[illegible] KÉMIAI [illegible]. 7, no. 3/4, 19[illegible]

Budapest, Hungary

So. [illegible] Vol. 5, No. 7, July 19[illegible]

ORDOGH, M.

"Noncaralytic" oxidation of ammonia. P. 325 MAGYAR [illegible]
AKADEMIA Budapest, Hungary Vol. 7, no. 3/4, 1955

SOURCE: EAL IC Vol. 5, no. 7, July 19[illegible]

HUNGARY/Physical Chemistry. Kinetics. Combustion. Explosions. Topochemistry. Catalysis. F-9

Abs Jour: Ref Zhur-Khim., No 13, 1958, 42630.

Author : Szabo Zoltan, Ordogh Maria
Inst :
Title : Kinetics of Dissociation of Ammonia at the Surface of Quartz.

Orig Pub: Magyar tud. akad. Kem. tud. oszt. kozl., 1956, 7, No 3-4, 313-324.

Abstract: A study of the kinetics of decomposition of NH_3 at the surface of quartz, at 740 and 640° and initital NH_3-pressure p$_0$ 50-200 mm Hg. It was ascertained that the resulting N_2 does not affect decomposition of NH_3, while H_2, which is strongly adsorbed at the quartz surface decelerates this reaction. The fol-

Card : 1/2

HUNGARY / Physical Chemistry. Kinetics. Combustion. B-9
Explosions. Topochemistry. Catalysis.

Abs Jour: Ref Zhur-Khimiya, No 7, 1959, 22586.

Author : Szabo, Z. G., Ordogh, M.
Inst : Not given.
Title : On the Kinetics of the Decomposition of Ammonia on Quartz Surface.

Orig Pub: Acta phys. et chem. Szeged, 1957, 3, No 1-4, 69-77.

Abstract: The decomposition of NH_3 in a quartz vessel was studied in a static system at 640 and 740° and under initial pressures of NH_3 of 50 to 200 mm of mercury column. N_2 has no noticeable effect on the rate v of the reaction, but H_2 decreases it very much. v may be expressed by the equation $v = kp_{NH_3} \cdot p_o / (b_{NH_3} p_{NH_3} + b_{H_2} p_{H_2})$, where p_o

Card 1/2

ORDOGH M.

7 21

V The noncatalytic oxidation of ammonia. M. Ordogh and Z. G. Szabó (Univ. Szeged, Hung.). *Acta Univ. Szegediensis, Acta Phys. et Chem.* [N.S.], 3, 78–88(1957)(in English).—The homogeneous noncatalytic oxidation of NH_3 was investigated in a quartz reaction vessel, and the course of the expt. was followed by analysis. In mixts. contg. excess NH_3, the rate of reaction was slower than in those contg. only a small amt. of NH_3 and excess O; the reaction was approx. 2nd order. The decompn. of NH_3 mol. on the wall was assumed to be the first step of the oxidation process because the activation energy of any other elementary reaction between NH_3 and O mols. was considered so great that in the presence of the wall such a homogeneous elementary process could not take place. S. Sourirajan

5

BS 1/1

ORDOGH, M.; SCHNEER, A.; ALMASSY, GY.

Analysis of uranium, thorium, and zirconium. p. 285.

Budapest. Kozponti Fizikai Kutato Intezet. A MAGYAR TUDOMANYOS AKEDEMIA KOZPONTI FIZIKAI KUTATO INTEZETENEK KOZLEMENYEI, Budapest, Hungary, Vol. 6, No. 4, Jul/Aug. 1958

Monthly list of East European Accessions (EEAI) LC, Vol. 8, No. 7, July 1959
UNCL

ORDOGH, M.

Analysis of uranium, thorium, and zirconium. Gyula Almássy, Mária Ordogh, and Anna Schneer. *Magyar Tudományos Akad. Központi Fiz. Kutató Intézetének Közleményei*, 6, 292-304(1958)(in Hungarian).—Almost 100% of uranium can be extracted into a tributyl phosphate-benzene solution, from a weak nitric acid solution half saturated with NH_4NO_3. It can be reëxtracted with a 0.2 *M* $(NH_4)_2CO_3$ solution. A colorimetric method was used to determine the uranium content, morin was used as a complexing agent. Thorium was quantitatively eluted in paper chromatography or from a cellulose column by 8*N* nitric acid-ether eluant of equal volume. The content of thorium was determined colorimetrically with toron. Zirconium was precipitated quantitatively with mandelic acid in stoichiometric proportion. B. Bew

7 4E2c
1-MJC-JD

HUNGARY/Analytical Chemistry. Analysis of Inorganic Chemistry. E

Abs Jour: Ref Zhur-Khim., No 24, 1958, 81322.

Author : Ordogh, M.; Fodor, M
Inst :
Title : Determination of Uranium.

Orig Pub: Energia es atom. techn., 1958, 11, No 1-2, 27-33.

Abstract: Review of the determination methods (precipitation, complex formation, extraction, distillation, electrolysis, and ion exchange) and of determination (gravimetrical, titrimetrical photometrical, and fluorometrical) of uranium. The bibliography includes 18 names. -- I. Krishtofori.

Card : 1/1

[redacted],

SCIENCE

PERIODICALS: ~~ACTA CHIMICA. Vol. 6, No. 3/5 July-Aug. 1955~~
MAGYAR KEMIAI FOLYOIRAT, Vol. 6L, no. 7/8, July/Aug. 1958

Ordoch, [redacted]. Data on the chromatography of thorium . p 240

[redacted] thly list of East European Accessions (EEAI) LC, Vol. [redacted], No. [redacted], February 1959, Unclass.

ORDOGH, Maria; SCHNEER, Anna

Paper chromatographic analysis in connection with the producing of tellurium (VI) compounds. Koz fiz kozl MTA 8 no.1:39-40 '60. (EEAI 10:1)

1. Magkemiai Laboratorium II, A Magyar Tudomanyos Akademia Kozponti Fizikai Kutato Intezete.
(Tellurium) (Chromatography) (Chlorination)
(Butyl alcohol) (Hydrochloric acid) (Tin chlorides)

S/081/62/000/005/034/0[illegible]
B156/B102

AUTHORS: Ördögh, Mária, [illegible], Veronika

TITLE: Neutron-activation analysis used for determining tantalum in high-purity silicon

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 5, 1962, 1[illegible], abstract 5B[illegible] (Magyar tud. akad. Kozp. fiz. kutató int. közl., v. [illegible], nos. 5-6, 1960, 307-311, IV, X)

TEXT: The fundamentals of activation analysis, and of its use for determining Ta by non-destructive methods, using γ-spectrometry, are set forth. [Abstracter's note: Complete translation.]

Card 1/1

ORDOGH, Maria

Ultramicrochemical analysis. Magy kem lap 15 no.7:325-329 Jl '60.

1. Kozponti Fizikai Kutato Intezet.

SZABO, Elek; ELEK, Antal; O[illegible]H, Maria; UPOR, Endre

Determination of the trace elements of rocks by the method of neutron activation. Kozl fiz kozl MTA 12 no.5:355-364 '64.

1. Central Research Institute of Physics, Hungarian Academy of Sciences, Budapest.

ORLOGH, Maria, [illegible]

Activation analysis. Magy kem lap [illegible] no.[illegible]

1. Central Research Institute of Physics of the Hungarian Academy of Sciences, Budapest.

8/137/61/000/003/069/069
A006/A101

AUTHOR: Ordokov, I.

TITLE: Residual stresses of the II and III order in electrolytic coatings

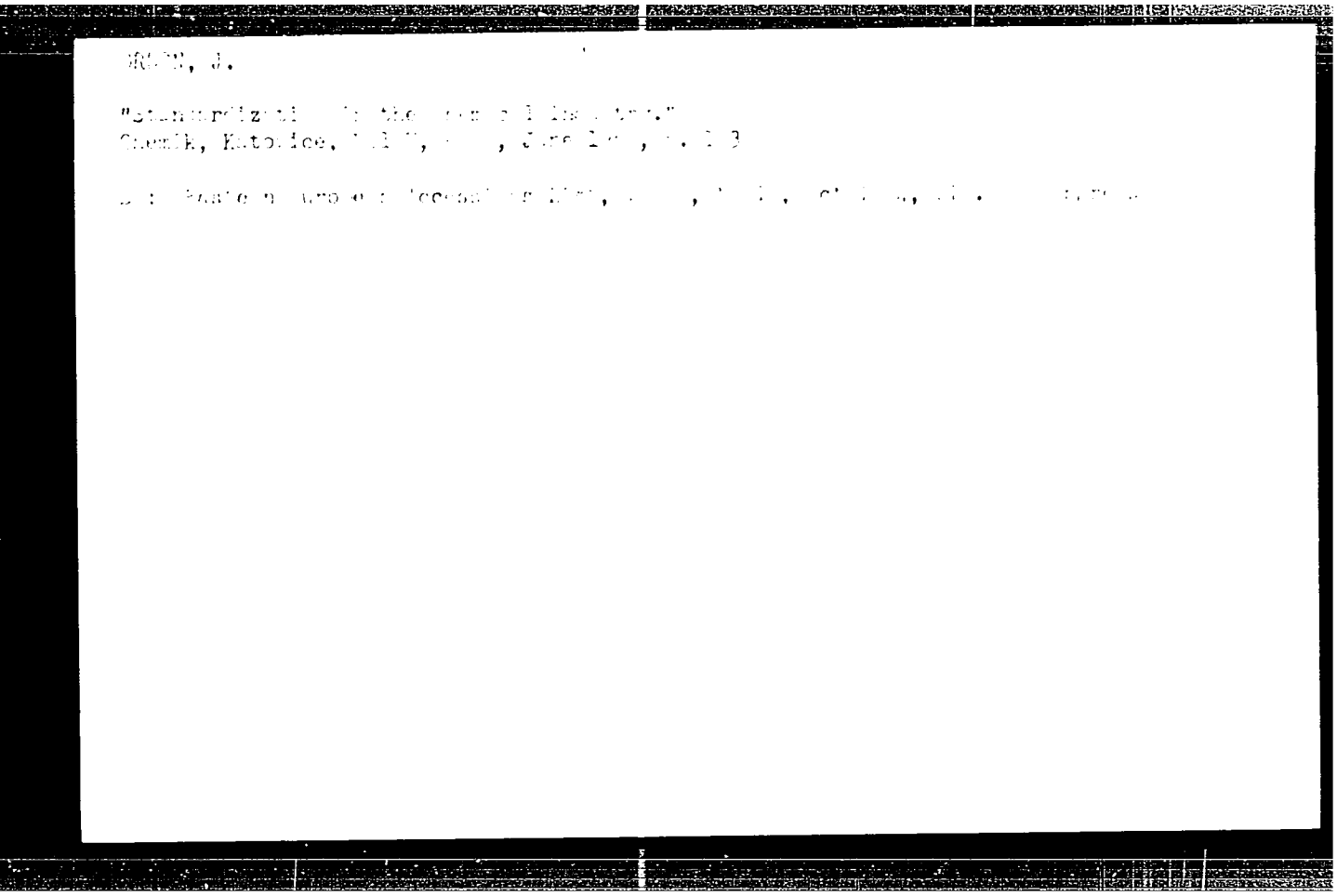
PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 3, 1961, 61, abstract 3I471 ("Tr. Prsheval'skogo ped. in-ta", no. 5, 1957 (1958), 93-102)

TEXT: The X-ray method was employed to investigate the crystallite and elementary distortions in electrolytic Cu-coatings on steel plates. It was established that the external layer of the coating acquired the atomic-crystalline structure of nondeformed metal with increasing thickness, due to higher current intensity or deposition time.

Ye. L.

[Abstractor's note: Complete translation.]

Card 1/1



ORDON, JERZY.

Normalizacja w przemyśle chemicznym. (Wyd. 1.) Warszawa, Państwowe Wydawn. Techniczne, 195[illegible]. 159 p.
(Standardization in the chemical industry. 1st ed. diagrs., index, tables)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 6, June 19[illegible], Uncl.

ORDON, J.

TECHNOLOGY

Periodicals: NORMALIZACJA. Vol. 2[illegible], no. [illegible], Sept. 1958

ORDON, J. The European Congress of Chemical Engineering. p.427

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

(A)L 00517-66

ACCESSION NR: AP5020881 PO/0082/65/000/07-/0003/0012

AUTHOR: Ordon, Stanislaw (Commander, Doctor)

TITLE: Defense aspects in the development of the maritime economy of the Polish People's Republic

SOURCE: Przegląd morski, no. 7-8, 1965, 3-12

TOPIC TAGS: shipbuilding engineering, marine engineering, merchant marine status, defense installation, naval installation

ABSTRACT: After defining the concept maritime economy, the author reviews the condition of port facilities for the Polish naval forces existing prior to World War II. The legal status determining the use of Danzig by the Polish navy and the reasons compelling the Polish government to build a new naval port at Gdynia in the year after World War I, when only the port of Danzig was available, are discussed. The shortcomings and the insufficient port facilities for naval forces in pre-World War II Poland are pointed out. Present-day conditions are also reviewed: three large ports are available, in Gdansk, Gdynia and Szczecin. Data are given concerning the size of the merchant and the fishing fleets, and the military importance of the two fleets is indicated. The shipbuilding industry in

Card 1/2

L 00517-66

ACCESSION NR: AP5020681

pre-World War II Poland is described and contrasted with the present-day situation of rapid expansion. It is pointed out that in 1964 Polish shipyards built 47 ships of total capacity of 234,268 BRT and carrying capacity of 296,430 DWT, attaining 12th place in the world production of ships. The production of equipment, such as Diesel engines, is also described. The defense aspect of the shipbuilding industry is also pointed out. Next, the naval and merchant marine educational establishments are reviewed. It is noted that in 1964 about 32% of officers in the Polish naval forces had higher military or civilian education. A table is given showing the numbers of students attending the different departments of the State Maritime Schools in the years from 1960 to 1965. Maritime schools of secondary and college level are enumerated and the number of graduates are given for 1963-1964. Scientific-research institutes based in the coastal area of Poland and dealing with maritime problems are enumerated. Orig. art. has: 1 table.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: MS, GO

NO REF SOV: 000 OTHER: 025

Card 2/2

СЕМЕНОВ, М.П.

SEMENOV, M.P., sotrudnik; ORDOVSKAYA, A.Ye., sotrudnik; LYKOSHIN, A.G., sotrudnik; MOLOKOV, L.A., sotrudnik; KHRAMOGINA, T.S., sotrudnik; GOLUBENKOVA, L.A., redaktor izdatel'stva; GUSEVA, G.S., tekhnicheskiy redaktor

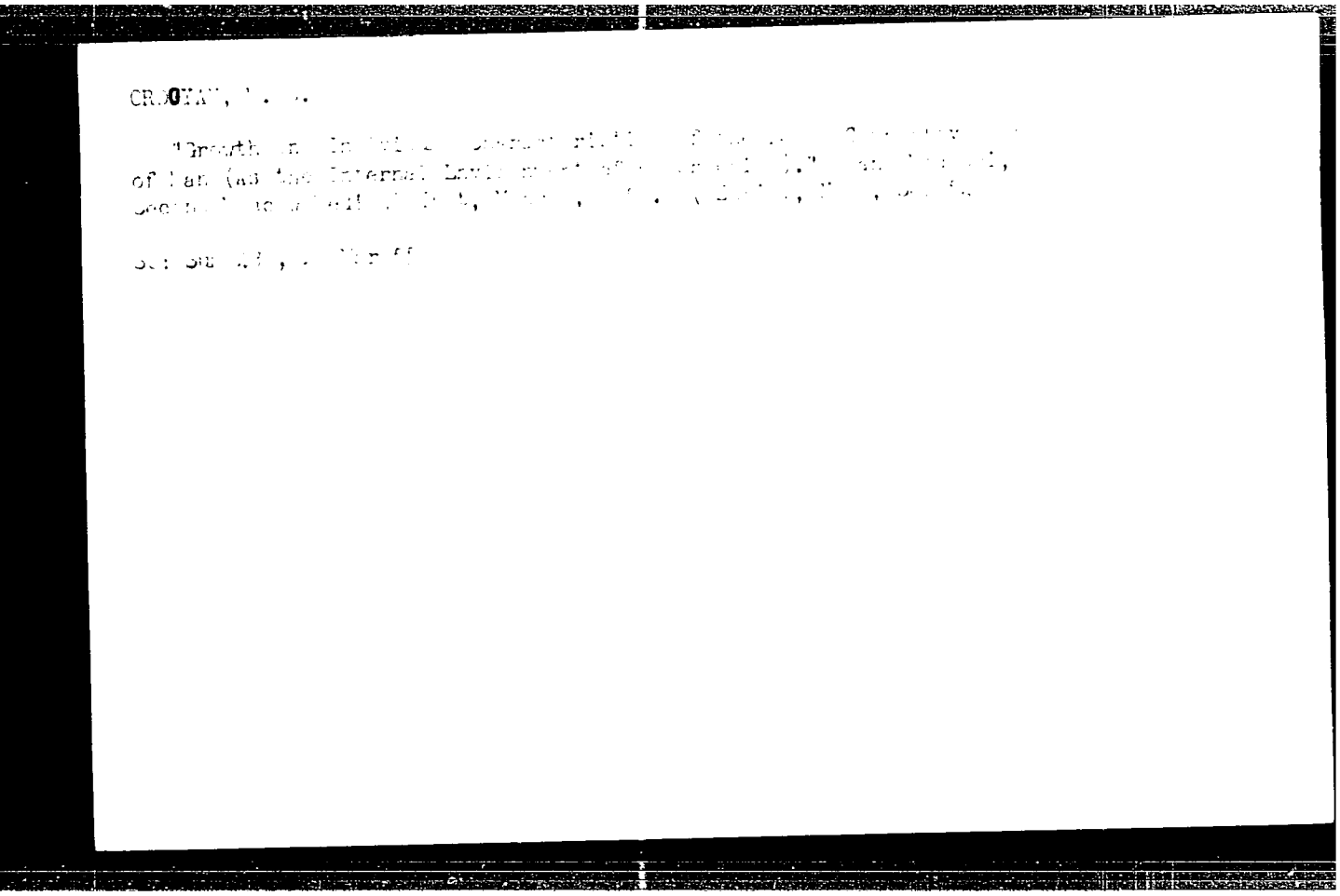
[Papers from the hydrogeological engineering laboratory] Trudy laboratorii inzhenernoi gidrogeologii. Moskva, Gos.izd-vo lit-ry po stroit. i arkhit., 1957. 230 p. (MLRA 10:7)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut vodosnabzheniya, kanalizatsii, gidrotekhnicheskikh sooruzheniy i inzhenernoy gidrogeologii. 2. Vsesoyuznyy nauchno-issledovatel'skiy institut Vodgeo (for Semenov, Ordovskaya). 3. Moskovskoye otdeleniye Gidroenergoproyekta (for Lykoshin, Molokov, Khramogina) (Hydraulic engineering) (Engineering geology)

ORDOVSKAYA, Z.A.; FRENKEL', B.I., starshiy nauchnyy sotrudnik (Khar'kov)

Repeated serological examination of pregnant women is not expedient. Vest.derm.i ven. no.1:59-60 '62. (MIRA 15:1)

1. Ministerstvo zdravookhraneniya UkrSSR, Kiyev (for Ordovskaya).
2. UNIKVI (for Frenkel')
(SYPHILIS--DIAGNOSIS--WASSERMANN REACTION)
(PREGNANCY)



MARKARYAN, L.P.; ORDOYAN, M.S.

Effect of general X-ray radiation on the sexual system of white mice and rabbits (female). Vop. radiobiol. [AN Arm. SSR] 1:127-135 '60. (MIRA 15:3)

1. Iz kafedry akusherstva i ginekologii (zav. - zasluzhennyy deyatel' nauki prof. A.M. Agaronov) i kafedry patologicheskoy anatomii (zav. - dotsent V.T. Gabriyelyan) Yerevanskogo meditsinskogo instituta (dir. - dotsent S.N. Galstyan).
(X RAYS—PHYSIOLOGICAL EFFECT)
(GENERATIVE ORGANS)

PIPINOV, A.V.; ORDUYAN, G.S.

Design of optical transducers for automatic orientation of scientific apparatus by the sun. Trudy Vych. tsentra no.2:82-93 '64. (MIRA 18:8)

62-11-23/25

AUTHORS: Kagan, Ya. T., Orlyan, M. B.

TITLE: On Catalytic Hydrocondensation of Carbon Monoxide with Olefines. (O kataliticheskoy gidrokondensatsii okisi ugleroda s olefinami). 18. Report. Hydrocondensation of the Carbon Monoxide with Penten-1 and Isomerization of the Latter into Penten-2 Under Conditions of This Reaction (Soobshcheniye 18. Gidrokondensatsiya okisi ugleroda s pentenom-1 i izomerizatsiya poslednego v pent-2 v usloviyakh etoy reaktsii)

PERIODICAL: Izvestiya AN SSSR, Otdel. Khim. Nauk, 1957, Nr 11, pp. 1366-1370 (USSR)

ABSTRACT: It is shown that under presence of H_2 and Co the penten-1 enters into hydropolymerization- and hydrocondensation-reaction with CO with 28-30% at 190°, that it is isomerized into penten-2 with 28-30%, hydrogenized into pentane with 25-27% and suffers a hydrocracking with 3%. The hydrocondensate after the hydrogenation is a mixture of limit hydrocarbons of normal structure, with an unimportant admixture of slightly ramified ones. There are 1 figure, 4 tables, and 8 references, 7 of which are Slavic.

ASSOCIATION: Institute for Organic Chemistry imeni N. D. Zelinskiy of the AN USSR (Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR)

Card 1/2

On **Catalytic** Hydrocondensation of Carbon Monoxide With Olefines. 62-11-23/29
18.Report. Hydrocondensation of the Carbon Monoxide With Penten-1 and Isomerization of the Latter Into Pentene-2 Under Conditions of the Reaction.

SUBMITTED: July 1, 1957

AVAILABLE: Library of Congress

Card 2/2

AUTHORS: Eydus, Ya. T., and Ordyan.. M. n. 20-1-27/44

TITLE: On the Methylation of Cyclopentenes by Methylene Radicals that Form When Carbon Monoxide is Reduced by Contact with Hydrogen (O metilirovanii tsiklopentena metilenovymi radikalami, obrazuyush-chimisya kontaktnym vosstanovleniyem okisi ugleroda vodorodom).

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 1, pp. 101-104(USSR).

ABSTRACT: It was earlier proved that in the reaction of the catalytic hydro-condensation of carbon monoxide with olefines a methylation of cyclo-hexene by methylene radicals takes place which form due to a hydra-tion of CO by contact with hydrogen. From this develop monomethyl- and 1,2-dimethyl substitutes of cyclohexene. It was earlier experi-mentally proved that in the catalytic synthesis of hydrocarbons from CO and H_2 by methylation of benzene in toluol an intermediate forma-tion of methyene radicals takes place. In the present paper the re-sults of the study are described which were obtained from the in-vestigation of the behavior of another cyclo-olefine, of cyclopentene-toward the hydrocondensation reaction with carbon monoxide. The appa-ratus and the test arrangement remained the same as in earlier works. The production method and the properties of the initial cyclopentene

Card 1/4

On the Methylation of Cyclopentenes by Methylene Radicals 20-1-27/44
that Form When Carbon Monoxide is Reduced by Contact with Hydrogen.

are described. Before the actual problem (see above) the behavior of the mentioned substance alone and in a mixture with hydrogen was studied. In the latter case the hydro-genation to cyclopentane (about ~50% calculated on cyclo-tefine) took place as the only reaction. Neither hydro-cracking nor hydrogenolysis of the 5-member cycle occurred. On the passage of cyclopentene through a gas mixture with Co and H_2 the liquid catalysate or the whole consisted of cyclopentene and cyclopentane-mixture. The fraction 43,6 - 44,2° contained small amounts of aliphatic hydrocarbons which had formed from CO and H_2. On hydration of the liquid catalysate over platinized charcoal with addition of H_2PtCl_6 reaction products which boiled higher than cyclopentane were contained in a quantity of 4 - 4,5%. The hydrogenisate was subjected to fractionzated distillation. Figure 1 shows the fractionation curve. It has 3 wide plateaus which correspond to fractions II, IV and V. The results of an optical analysis showed that fraction II consists of almost pure methyl-cyclopentane with traces of cyclohexane. Fraction III contained 60% of the former and 40% of the latter substance, fraction IV - 10% of the latter and 35% of the former. Fraction V contained considerable amounts of ethyl-cyclohexane, ethylcyclopentane and propylcyclopen-

Card 2/4