tane as well as small amounts of methyl-cyclohexane. In all fractions the presence of small amounts of paraffin-hydrocarbons is possible which may form from CO and H_2. As far as in the reaction of cyclo-pentene with CO and H_2, as shows above, no hydro-cracking of the cycloolefine or the cycloparaffin formed from it takes place, all hydrocarbons with a side-chain on the 5-member cycle, which can only have developed by isomerization of a 5-member hydrocarbon with a side-chain, formed thanks to the hydrocondensation of cyclopentene with CO. About 3 % of the CO that entered the reaction was converted to CO_2, ~53 % - to aliphatic hydrocarbons according to the Orlov-Fischer-Tropsch reaction. The yield of the above-mentioned cyclic hydrocarbons amounted to ~33 % of the initial CO and 44 % of the CO that went through the reaction, when it is calculated that every carbon atom of the side-chains as well as a carbon atom of the 6-member cycle were transferred from the CO-molecule. Thus, due to the hydrocondensation of cyclopentene with CO in the presence of H_2, a

 side-chain forms on the 5-member cycle. methyl-, ethyl- and propyl-

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

radicals. At the same time an expansion of the 5-member cycle takes place under formation of the corresponding hydrocarbons with a 6-member cycle and a side-chain from a methyl- or an ethyl-radical or without a side-chain. A large portion of the initial cyclopentene is reduced to cyclopentane.
There are 1 figure, 1 table and 7 references, 6 of which are Slavic.

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

PRESENTED: By B. A. Kazanskiy, Academician, April 24, 1957.

SUBMITTED: April 23, 1957.

AVAILABLE: Library of Congress.

Card 4/4

ORDYAN, M. E. Cand Chem Sci -- (diss) "Study in the field of the catalytic hydrocondensation of ~~oxides of hydrogen~~ carbon monoxide with n-pentenes and cyclopentane and their isomeric conversions." Mos, 1958. 11 pp (Acad Sci USSR. Inst of Organic Chemistry im N. D. Zelinskiy), 110 copies (KL, 11-58, 113)

Ordyan, M. B.

AUTHORS: Lygas, Ya. T., Ordyan, M. B.

TITLE: On the Catalytic Hydrocondensation of Carbonmonoxide with Olefines (O kataliticheskoy gidrokondensatsii okisi ugleroda s olefinami. Information 19: The Hydrocondensation of Carbon Monoxide with Pentene-2. The Mutual Transformation of Pentene-2 and Pentene-1 on the Conditions of This Reaction (Soobshcheniye 19). Gidrokondensatsiya okisi ugleroda s pentenom-2. Vzaimnoye prevrashcheniye pentena-2 i pentena-1 v usloviyakhetoy reaktsii)

PERIODICAL: Izvestiya AN SSSR Otdeleniye Khimicheskikh Nauk, 1956, [illegible] SSSR

ABSTRACT: The investigation results concerning the behaviour of pentene-1 under the conditions of the hydrolytic hydrocondensation of carbon monoxide with olefines were reported earlier. The present paper reports on he performed investigation of the behavior of pentene-2. The latter was synthesized of C_2H_5Br and $HCOOCH_3$ over the stages of pentanol-1, its acetate with a pyrolysis of it (boiling point 36,3°C, 760 mm torr). The catalyst, the apparatus and the order of experiments remained the

Card 1/2

On the Catalytic Hydrocondensation of Carbonmonoxide with Ole- fines. Information 1: The Hydrocondensation of Carbon Monoxide with Pentene-2 The Mutual Transformation of Pentene-2 and Pentene-1 on the Conditions of This Reaction

same as in the investigations already reported. It was shown that in the presence of H_2 and CO (at 190°) a hydropolymerization and hydrocondensation takes place on pentene-2 with CO (see tables 1-4) After hydrogenation the product of hydrocondensation represents a mixture of saturated hydrocarbons This indicates that the hydrocondensation (pentene-2 with CO) is preceded by an isomerization to pentene-1 There are 4 tables, 7 references, 6 of which are Slavic

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

SUBMITTED: October 11, 1957

AVAILABLE: Library of Congress

Card 2/2

1. Pentene-2-Synthesis 2. Pentene-1 & -2-Transformations 3. Carbon monoxide-Condensation reactions 4. Olefines-Condensation reactions

SOV/62-59-8-19/42

5(3), 5(4)

AUTHORS: Eydus, Ya. T., Ordyan, M. B.

TITLE: On the Catalytic Hydrocondensation of Carbon Monoxide With Olefins. Communication 22. On the Problem of the Hydrocondensation of Carbon Monoxide With Cyclopentene

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 8, pp 1458-1464 (USSR)

ABSTRACT: The present paper deals with the problem of the formation of hexacyclic ring hydrocarbons. First of all the question is asked whether rings can be obtained by means of an isomerization reaction of enlarged pentacyclic rings on hydrocondensation catalysts under analogous conditions. Tests were carried out with 1-methyl-cyclopentene-1 in a N_2 and H_2 flow over a contact, and with methylcyclopentane in a H current in a mixture of CO and H_2. Furthermore, the possibility of hydrogenolysis and hydrocracking of the said hydrocarbons was investigated. Tests were carried out with cyclopentane and hydrogen and by way of comparison with n-pentane and hydrogen. Catalyst, apparatus, and experimental procedure have already been described in references 1-3. All tests were carried out

Card 1/3

On the Catalytic Hydrocondensation of Carbon Monoxide With Olefins. Communication 22. On the Problem of the Hydrocondensation of Carbon Monoxide With Cyclopentene

at 190° and atmospheric pressure. The substances obtained from the reaction of 1-methylcyclopentene in a hydrogen current were identified and investigated by means of Raman spectra. The spectra were taken at the Commission of Spectroscopy of the Academy of Sciences, USSR by V. T. Alekseyev and Kh. Ye. Sterin. Analyses of the gases obtained from the reaction of cyclopentane in a hydrogen current were carried out by M.I. Yavorskaya by means of the chromatographic method. It could be seen from the results that the reaction with enlarged pentacyclic rings does not take place in the above mentioned cases under the condition of a hydrocondensation of CO with olefins. Hydrogenolysis and hydrocracking of 1-methylcyclopentene-1, methylcyclopentene, cyclopentene, and n-pentene gave some ideas regarding the formation mechanism of some hydrocondensation products of cyclopentene with CO. The hydrocondensation of CO with cyclopentene resulted in hexa cyclic rings due to an enlargement of the pentacyclic ring with side chains. These side chains formed during the reaction by means of the carbon atom of the CO molecule. There are

SOV/62-59-8-19/42

On the Catalytic Hydrocondensation of Carbon Monoxide With Olefins. Communication 22. On the Problem of the Hydrocondensation of Carbon Monoxide With Cyclopentene

5 tables and 12 Soviet references.

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

SUBMITTED: November 19, 1957

Card 3/3

87227

S/171/60/013/001/002/005
E142/E465

15.8220 2109,2209

AUTHORS: Vartanyan, S.A., Musakhanyan, G.A., Shagbatyan, Sh.L. and Ordyan, M.B.

TITLE: The Synthesis of New Plasticizers Based on 1,3-Dichloro-2-butene

PERIODICAL: Izvestiya Akademii nauk Armyanskoy SSR, Khimicheskiye nauki, 1960, Vol.13, No.1, pp.31-35

TEXT: The dichloro-crotyl ester was prepared by direct synthesis from 1,3-dichloro-2-butene by heating the starting material with the sodium salt of phthalic acid in the presence of a catalyst (pyridine). A mixture of stereoisomers of di-γ-chloro-crotyl phthalates is formed (yield = 70%). The crystalline form (m.p. = 43°C) is separated, in its pure form, by crystallizing the same from benzene, the liquid isomer (b.p. = 186 to 188°C at 2 mm, n_D^{20} = 1.5355) is obtained from the mother liquor by vacuum distillation. Earlier investigations have shown that 1,3-dichloro-2-butene and compounds containing the chlorocrotyl residue, exist in two steroisomeric forms. Experimental results indicate that the crystalline as well as the liquid isomers can be used as plasticizers instead of the widely utilized dibutyl

Card 1/2

AKOPYAN, A.Ye.; OHDYAN, M.B.; KHUDOYAN, K.L.; KHACHIKDZHYAN, S.P.

Synthesis of n-butyl alcohol from 1,3-dichloro-2-butene. Zhur. prikl. Khim. 33 no.9:2146-2148 S '60. (MIRA 13:10)
(Butyl alcohol) (Butene)

L 12865-63 EPF(c)/EWT(m)/BDS Pr-4 RM/WW
ACCESSION NR: AP3002635 S/0171/63/016/003/0241/0245 60

AUTHOR: Akopyan, A. Ye.; Ordyan, M. B.; Ekmekdzhyan, S. P.; Belyayeva, G. M.

TITLE: Production of hexyl alcohols

SOURCE: AN ArmSSR. Izv. Khimicheskiye nauki, v. 16, no. 3, 1963, 241-245

TOPIC TAGS: chlorohexadienol hydrogenation, Raney nickel, normal alcohol, secondary hexyl alcohol, normal hexanol

ABSTRACT: The hydrogenation of chlorohexadienol in the presence of Raney nickel to form normal and secondary hexyl alcohols was investigated with respect to effects of pressure (2-10 atm.), temperature (25-50C), and hydrogenation medium (hexanol, methanol). Optimum conditions for obtaining normal hexanol in almost 94% yield were: use of 1% by weight of product of Raney nickel at 25C and 10 atm. in hexanol with 1 : 1 ratio of solvent to chlorohexadienol.

ASSOCIATION: Laboratoriya polimerizatsionnykh protsessov Armniikhimproyekta (Laboratory of Polymerization Processes, Armniikhimproyekt)

SUBMITTED: 09Mar63 DATE ACQ: 12Jul63 ENCL: 00
SUB CODE: OO NO REF SOV: 007 OTHER: 013

Card 1/1

ORDYAN, M.B.; EYDUS, Ya.T.; KAAL, T.A.

Synthesis of carboxylic acid derivatives under conditions of acid catalysis from carbon-monoxide, olefins, and acylating compounds. Part 20: Carbomethoxylation of saturated hydrocarbons, donors of hydride ions, with the aid of formic acid and methanol.

1. Institut organicheskoy khimii imeni N.D. Zelinskogo AN SSSR.
Submitted July 8, 1964.

ACCESSION NR: AP4020517 S/0171/64/017/001/0103/0106

AUTHOR: Akopyan, A. Ye; Ordyan, M. B.; Ekmekdzhyan, S. P.; Belyaeva, G. M.

TITLE: Nitration of polyvinyl alcohol

SOURCE: AN ArmSSR. Izv. Khimicheskiye nauki, v. 17, no.1, 1964, 103-106

TOPIC TAGS: nitration, polyvinyl alcohol, polymerization degree, sulfuric acid, polyvinyl nitrate, nitric acid

ABSTRACT: The nitration of polyvinyl alcohol was studied for the purpose of developing optimum yield and safety conditions. Two specimens of polyvinyl alcohol were used with molecular weights of 925 and 1275 respectively. The presence of sulfuric acid (1-10%) in the nitrating compositions suppresses oxidation and permits an increased yield. The optimum conditions of nitration which were determined are: a) ratio of polyvinyl alcohol and nitrating compositions is 1:25; b) duration of nitration is 60 minutes; c) processing temperature is from -5 to 10C; and d) ratio of reaction mixture and water for precipitation of polyvinyl nitrate is 1:0.5. Orig. art. has: 3 tables

Card 1/2

ACCESSION NR: AP4020517

ASSOCIATION: Laboratoriya polimerizatsionny*kh protsessov Armniikhimproyekta (Laboratory of Polymerization Processes, Armniikhimproyekta)

SUBMITTED: 09Mar63 DATE ACQ: 31Mar64 ENCL: 00

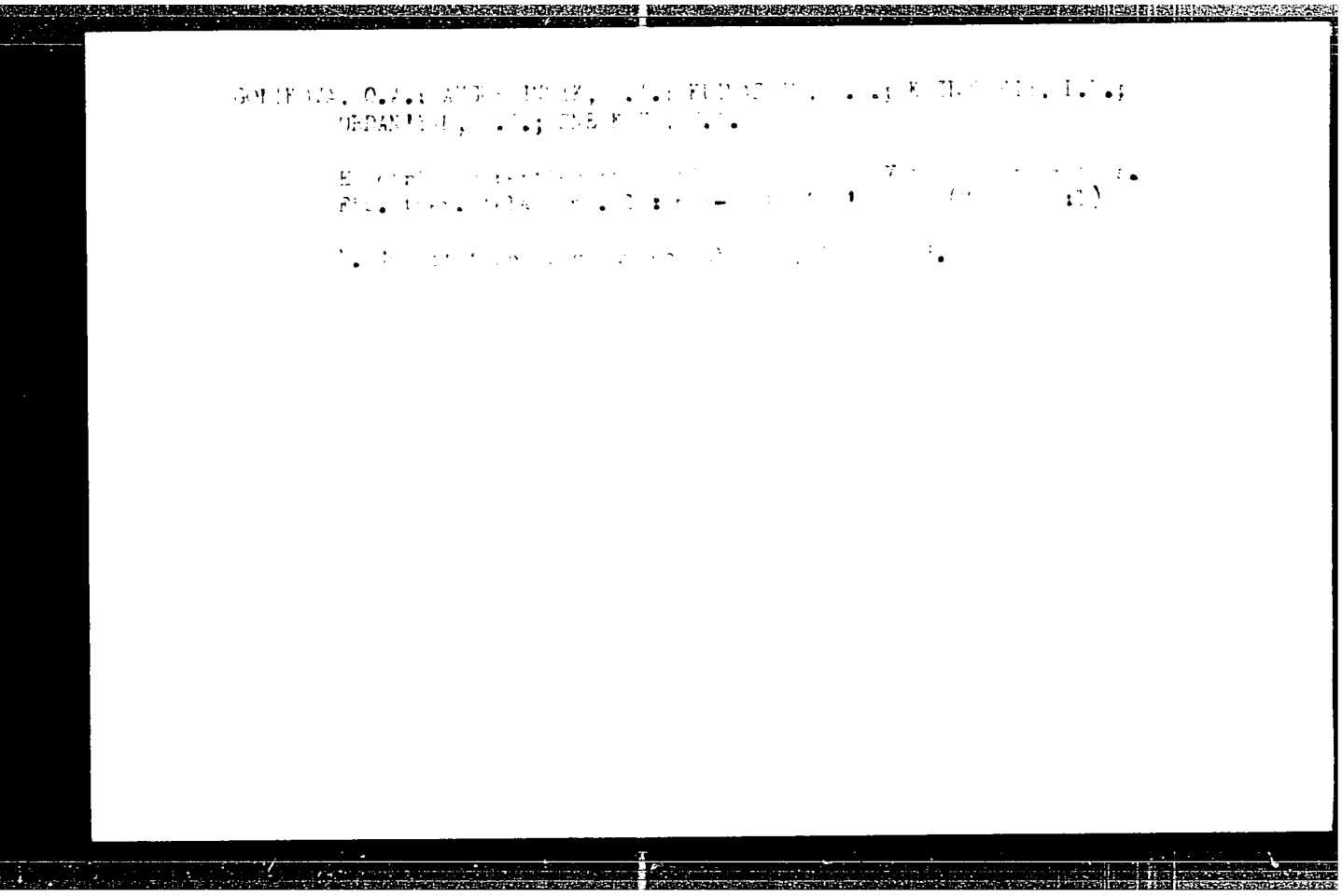
SUB CODE: CH NO REF SOV: 001 OTHER: 004

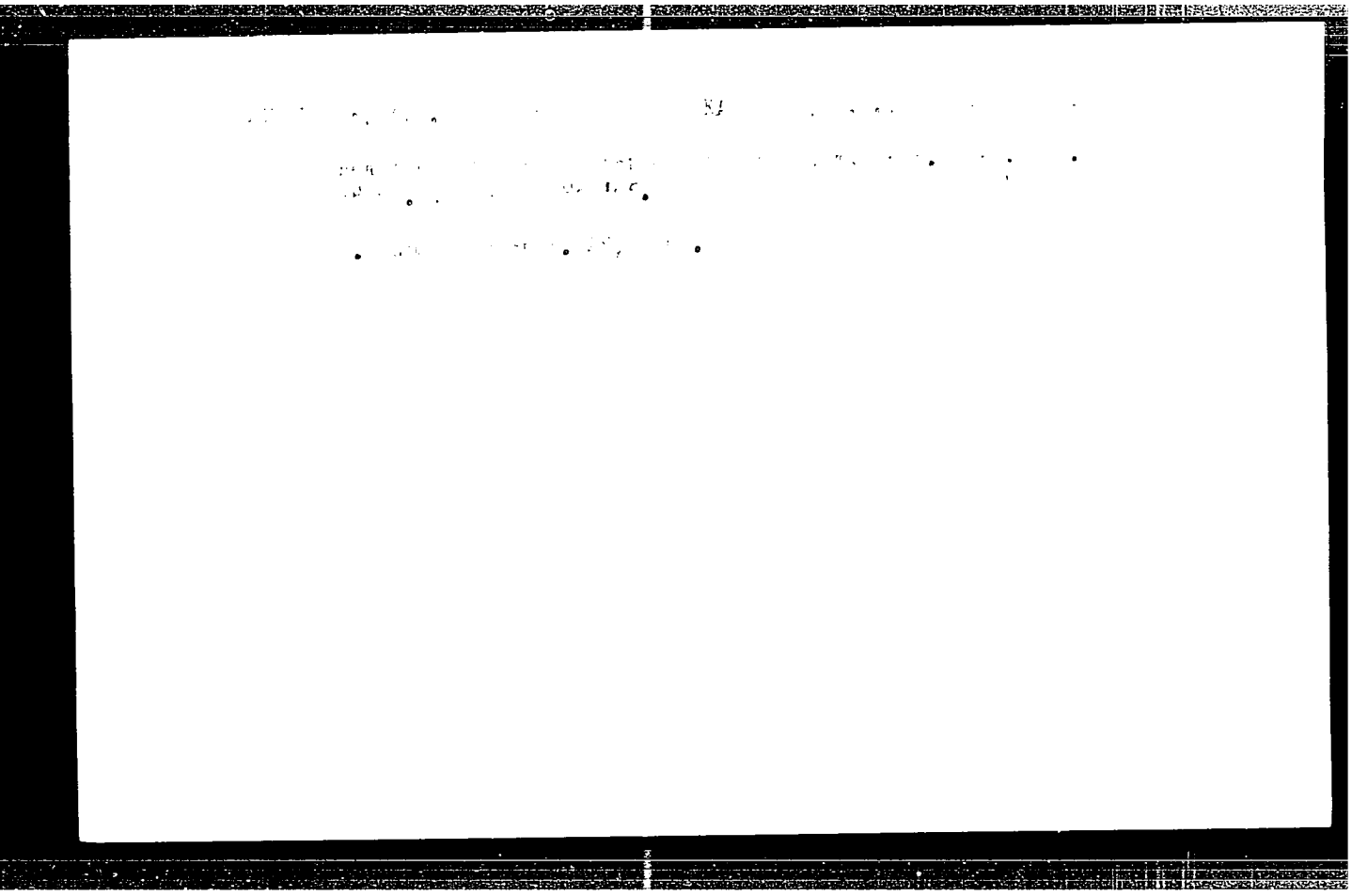
Card 2/2

KAAL, T.A.; ORDYAN, M.B.; [illegible]

Synthesis of [illegible] from carbon monoxide, [illegible], and [illegible]. 19: Hydrocarbomethoxylation of [illegible] with formic acid at atmospheric pressure. Zhur. org. khim. [illegible]
2180 Jl '65.

1. Institut organicheskogo [illegible]





L 16787-66 EWT(m)/EPF(n)-2/EWP(t) IJP(c) JD

ACC NR: AP6002507 (A) SOURCE CODE: UR/0286/65/000/023/0016/0016

AUTHORS: Akhnazarova, S. L.; Kafarov, V. V.; Ordyan, V. A.; Kalashyan, V. M.

ORG: none

TITLE: A method for automatically regulating the process of neutralizing nitric acid in the production of ammonium niter. Class 12, No. 176572

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 16

TOPIC TAGS: niter, nitrogen compound, ammonium, nitric acid

ABSTRACT: This Author Certificate presents a method for automatically neutralizing nitric acid in the production of ammonium niter. The method involves adjusting pH of the alkali by changing the feeding rate of nitric acid and correcting the concentration of nitric acid. To optimize the process, the pressure of the liquor vapor is also adjusted.

SUB CODE: 07/ SUBM DATE: 13Mar65

Card 1/1 UDC: 66.--503.51:661.525.3

ORDYANSKAYA, A.B.

Mariia Petrovna Sofronitskaia. Med. sestra 20 no.8:62-63 Ag '61.
(MIRA 14:10)

1. Zaveduyushchaya muzhskim otdeleniyem Kazanskogo gorodskogo psikhonevrologicheskogo dispansera.
(SOFRONITSKAIA, MARIIA PETROVNA)

ORDYNETS, G. V. DECEASED 1963/1

c. 1961

MEDICINE

See ILC

OKDYMETS, R.N.; BOGIKOVA, M.Yn.

Nitrogen, calcium, and phosphorus metabolism in heifer calves during the preweaning period in connection with a varied dietary program. Izv.Otd.est.nauk AN Tadzh.SSR no.11:137-145 '55. (MLRA 9:10)

1.Institut zoologii i parazitologii Akademii nauk Kirgizskoy SSR.
(Calves--Feeding and feeding stuffs)

ORDYNSKAYA, L. V.

The utilization of lime by-products of the smelter industries. L. V. Ordynskaya (Agr. Inst., Gorki). *Udobrenie i Urozhai* 1, No. 12, 22–5 (1950).—Tests with slags of the Martin and elec. furnaces (contg. CaO + MgO, 51.0 and 44%, resp., as meta- and orthosilicates) showed them to be very effective in neutralizing soil acidity and increasing yield of crops. I. S. Joffe

27342
S/080/61/034/009/[illegible]
D204/D305

18 83 00

AUTHORS: Roykh, I.L., and Ordynskaya, V.V.

TITLE: Influence of mechanical surface treatment on H_2O_2 evolution in the atmospheric corrosion of metals

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 9, 1961, 1979 - 1986

TEXT: The influence on the mechanism of oxidation of magnesium, aluminum, zinc and cadmium of abrading their surfaces with wheels of different grain sizes was investigated by means of a photographic method. This was based on the photographic activity of H_2O_2 evolved during the corrosion of the above metals. For investigating the H_2O_2 evolution kinetics during oxidation, six metal specimens, cleaned by hand on an abrasive wheel, were placed on a photographic plate for various lengths of time. Successive specimens were removed from the plate at two minute intervals. The photogra-

Card 1/4

phic plates were developed 15-20 hours after exposure. Six isotherms of optical blackening (D_{kin}), depending on the time of contact between specimen and photographic emulsion, were obtained on each plate. The values of D_{kin} were used in order to plot H_2O_2 evolution kinetics curves, n-t, where n is the relative number of H_2O_2 particles having struck the photographic plate. The value of n was found from the characteristic curve representing the dependence of D on lg t. In order to obtain the characteristic curve, aluminum specimens, cleaned on an emery wheel, no. 180, were placed on a photographic plate for 2, 4 ... 24 minutes, the specimen surface being cleaned every two minutes. This enabled the quantity of H_2O_2 molecules separated from the metal and hitting the photographic emulsion film, to be increased to an integer number. The number of molecules separated in two minutes was taken as the unit of measurement. The magnitude of the values of $D_{char.}$ obtained by photometering, was found to depend on the length of contact between the

Card 2/4

specimen and the photographic plate. It was found that [illegible] first stages of atmospheric corrosion of metals, the [illegible] H_2O_2 evolved increased with increase of surface roughness. [illegible] investigations of H_2O_2 evolution in an interval of from [illegible] tes and from 1-5 hours, after grinding the surface with [illegible] wheels of six degrees of coarseness, showed that a [illegible] tionship exists between the rate of H_2O_2 evolution [illegible] of surface coarseness. On flat grinding of metals to [illegible] grees of surface cleanliness, the increase in roughness [illegible] mined by the degree of unevenness of the profile, [illegible] of high chemical activity to a greater extent, increasing the rate of corrosion. Passivation by preliminary radiation [illegible] na discharge field considerably decreases the influence [illegible] ness. Similar results are obtained in the later stages [illegible] on (12 minutes), as in the earlier ones (2 minutes) [illegible] formation of the protective film. In the interval of [illegible] after the beginning of oxidation, a change in roughness [illegible]

Card 3/4

S/080/61/034/[illegible]
D204, D208

Influence of mechanical surface ...

cally no effect on H_2O_2 evolution. There are [illegible] figures [illegible] and 12 references: 11 Soviet-bloc and 1 non-Soviet-bloc. The [illegible] reference to the English-language publication reads as follows: P.S. Aziz and H.P. Godard, J. Electrochem. Soc., 104, 768, [illegible]

ASSOCIATION: Odesskiy tekhnologicheskiy institut imeni I. V. Stalina (Odessa Technological Institute imeni I. V. Stalin)

SUBMITTED: August 11, 1960

Card 4/4

S/020/62/146/006/008/016
B104/B186

AUTHORS: Roykh, I. ..., Ordynskaya, V. V., Bolotich, I. P.

TITLE: The influence of machining on the finish size of metal surfaces

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 146, no. 6, 1962, 1316-1317

TEXT: The influence of different machining methods (cutting, shaping, milling and grinding) on the true surfaces of Mg, Al, steel Ст-3 (St-3), steel Ст-45 (St-45), bronze and cast iron is investigated using a profilometer of the type Kalibr-VEI. With this instrument, surfaces of the 6th and up to the 14th class of surface finish can be examined. The enlargement varied between the limits of $2 \cdot 10^3$ and $12 \cdot 10^4$ vertically, between 116.7 and 4200 horizontally. In the instrument a diamond tip (radius of curvature 1.25 μ) exerts a pressure of 0.1 g against the metal surface. For all metals and all grades of finish the ratio of $n = S_{measured}/S_{geom} = 1/\sin(\alpha/2)$ was almost equal to unity. The angle α, defined as the apex angle of the four-faced pyramids constituting the metal

Card 1/2

The influence of machining on the...

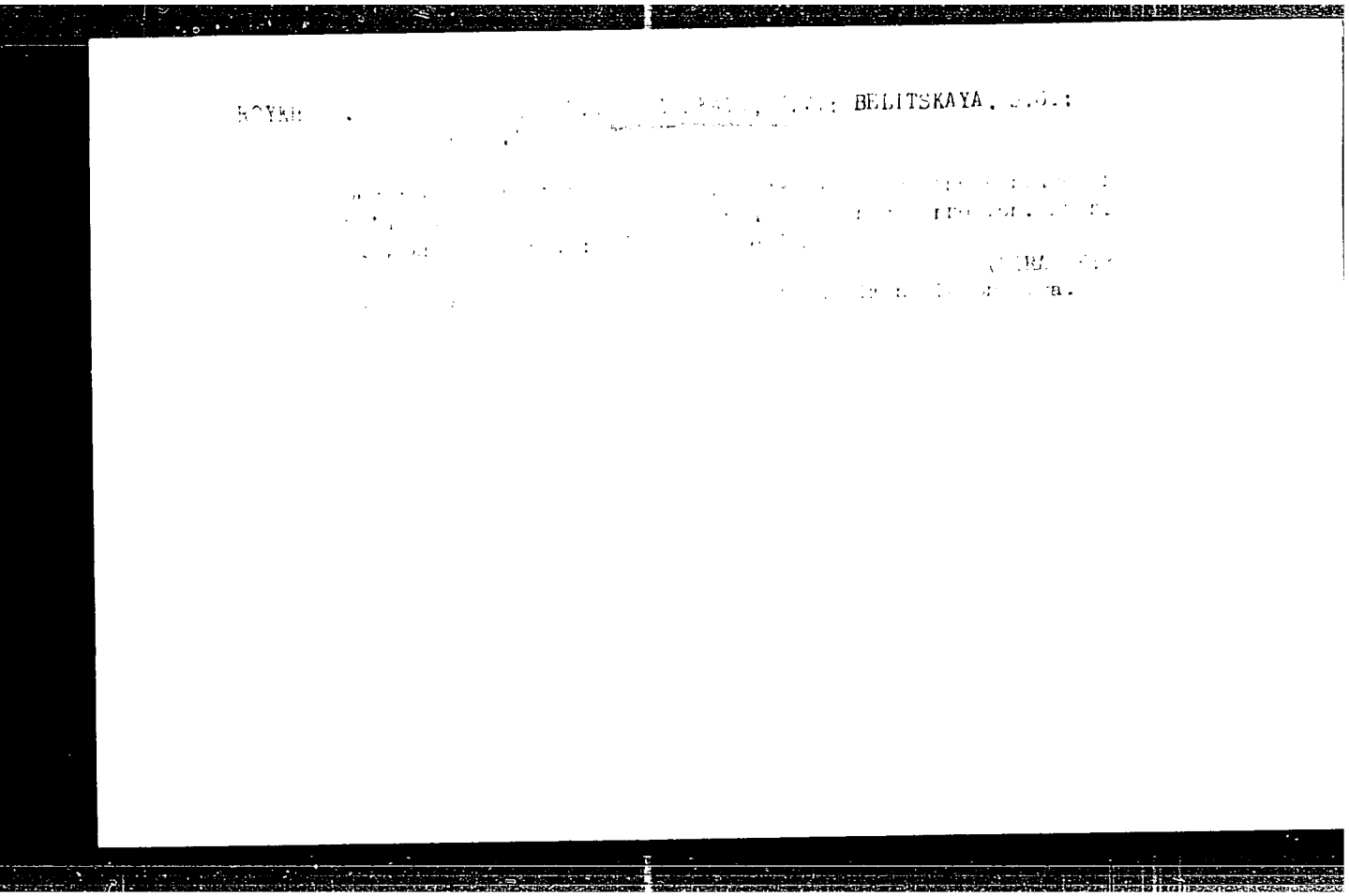
surface, showed only small variations from 166 ± 2° in all of the test pieces. From the results of roentgenograms it follows that the kind of machining and the degree of surface finish exert little influence on $S_{measured}$. Differences between true and measured surface values are attributed to unevennesses characteristic of surface qualities far exceeding the highest measurable classes of finish quality. There is 1 figure.

ASSOCIATION: Odesskiy tekhnologicheskiy institut im. M. V. Lomonosova (Odessa Technological Institute imeni M. V. Lomonosov)

PRESENTED: May 28, 1962, by L. A. Artsimovich, Academician

SUBMITTED: May 25, 1962

Card 2/2



L 1143-66 EWT(1)/T IJP(c) GG

ACCESSION NR: AP5023694 UR/0076/65/039/009/2306/2308
541.17

AUTHOR: Roykh, I. L.; Belitskaya, S. G.; Bolotich, I. P.; Ordynskaya, V. V.; Nedavedskaya, N. A. 44,55

TITLE: Study of the oxidation of silicon in air by the optical polarization and photographic method

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 9, 1965, 2306-2308

TOPIC TAGS: silicon single crystal, hydrogen peroxide, oxidation kinetics

ABSTRACT: The oxidation of the surface of an n-type silicon single crystal oriented in the [111] plane was studied at 70-73% humidity and 28-30°C. The kinetic results representing a three-hour growth of the oxide layer showed that this growth obeys the parabolic law $L^{1.8} = 54.3t$. During the first three hours following the polishing, the oxide layer grew to a thickness of 17.5 Å. It was found that the freshly cleaned silicon surface has an effect on a photographic film, and the photographic density D was plotted as a function of the exposure time. Chemical analyses showed that H_2O_2 was formed during the oxidation of silicon in air. The con-

Card 1/2

L 1143-66

ACCESSION NR: AP5023694

cordance between the kinetics of growth of the oxide layer and the kinetics of evolution of H_2O_2 indicates that the latter may serve as the criterion for the oxidation of silicon in air. Experiments showed that the surface of silicon under vapors of a 10% aqueous solution of hydrogen peroxide decomposes 96.2% of absorbed H_2O_2. Thus, the fraction of H_2O_2 evolved amounts to only a minute part of the H_2O_2 formed during the oxidation. Orig. art. has: 2 figures.

ASSOCIATION: Odesskiy tekhnologicheskiy institut im. M. V. Lomonosova (Odessa Technological Institute)

SUBMITTED: 31Jul64 ENCL: 00 SUB CODE: GC

NO REF SOV: 007 OTHER: 004

Card 2/2

ORDYNSKI, JAN

GERKOWICZ, Teresa; ORDYNSKI, Jan

Thrombopathy of the Willebrand-Jurgens type. Polski tygod lek. 12 no.5[illegible]: 1940-1943 16 Dec 57.

1. Z Kliniki Pediatrycznej A. M. w Lublinie; kierownik: doc. dr med. W. Klepacki. Adres: Lublin, ul. Pedgrodzie 8/7.
(PURPURA, THROMBOPENIC, case reports
Willebrand-Jurgens type (Pol))

DOBRZANSKA, Alina; MIERZEJEWSKI, Tadeusz; ORDYNSKI, Jan

Dysproteinemia in vascular hemorrhagic diathesis of the purpura hyperglobulinemica type. Polski tygod. lek. 13 no.5:176-178 3 Feb 58.

1. Z Kliniki Pediatrycznej A. M. w Lublinie; kierownik: doc. dr med. W. Klepacki. Adres: Lublin, 22 Lipca 8-a m. 6.

(BLOOD PROTEINS
dysproteinemia in purpura hyperglobulinemica in child, (Pol))
(PURPURA, NONTHROMBOPENIC, in inf. & child
hyperglobulinemica with dysproteinemia, case report(Pol))

GERKOWICZ, Teresa; ORDYNSKI, Jan

Thrombocytopenic hemorrhagic diathesis in children. Polski tygod. lek.15 no.9:301-306 29 F '60.

1. Z Kliniki Chorob Dzieci A.M. w Lublinie; kierownik: doc.dr.med. Witold Klepacki.
(HEMORRHAGIC DIATHESIS in inf.& child.)
(THROMBOPENIA in inf.& child.)

POLAND

PIETRZAK, Tadeusz and OKOŃSKI, Jan; First Clinic of Pediatrics of Klinika Pediatryczna, Medical Academy, in Lodz in collaboration: Docent, Dr. Med. Wanda SOKOŁOWSKA-DĘBOWA

"Incomplete Form of Laurence-Moon-Biedl Syndrome in a 2-1/2 Year Old Boy. Sex Chromatine Test. Case Report."

Warsaw, Polskie Tygodnik Lekarski, Vol 18, No 35, 26 Aug 63, pp 1311-1313

[Abstract: [Authors' English summary] Authors describe a case of incompleted form of Laurence-Moon-Biedl syndrome in a boy 2-1/2 years of age. Main symptoms were syn- and poly-dactylia, mental underdevelopment, and aplasia at bottom of eye. The sex chromatin test revealed the sex concordant with the phenotype. Authors call attention to the familial occurrence of the disease. There are 3 Polish and 2 English-language references.

1/1

GRABKOWICZ, Kazimierz; GRABOWICZ, Teresa; ORDYNSKI, Jan

Pathogenesis of retinal hematomas in newborn infants. Przegl. lek. 20 no.2:144-146 '64.

1. Eye Clinic of the School of Medicine, Lublin. Head: Prof. dr. K. Grabowicz, and Perinatal Clinic of the School of Medicine, Lublin.

DZHABIROV, A.; ORDYNSKIY, I.; KHOBOTOV, N., pensioner; TOMUS, Ye., domokhozyayka; GUTKOVSKAYA, R., KRYLOVSKAYA, L.

Saran' today. Mast.ugl. 8 no.9:19-21 S '59.
(MIRA 13:2)

1. Karagandinskiy ugol'nyy basseyn. 2. Brigadir dobychnoy shakhty No.106 g.Saran' (for Dzhabirov). 3. Predsedatel' postoyanno deystvuyushchey komissii obshchestvennogo kontrolya za rabotoy otdela rabochego snabzheniya g.Saran' (for Ordynskiy) 4. Literaturnyy sotrudnik gorodskoy gazety "Golos shakhtera," g.Saran' (for Gutkovskaya). 5. Spetsial'nyy korrespondent zhurnala "Master ugl'ya" (for Krylovskaya).
(Karaganda Basin--Cities and towns)

ZAYATS, I.N.; ORDYNSKIY, I.S.

Use of pregnant mare serum to control sterility in cows. Veterinariia 40 no.5:7-8 My '63. (MIRA 17:1)

1. Glavnyy veterinarnyy vrach Khersonskogo oblastnogo upravleniya proizvodstva i zagotovok sel'skokhozyaystvennykh produktov (for Zayats). 2. [illegible] skoy oblastnoy veterinarnoy poliklinik (for Ordynskiy).

ORDYNSKIY, L.I.

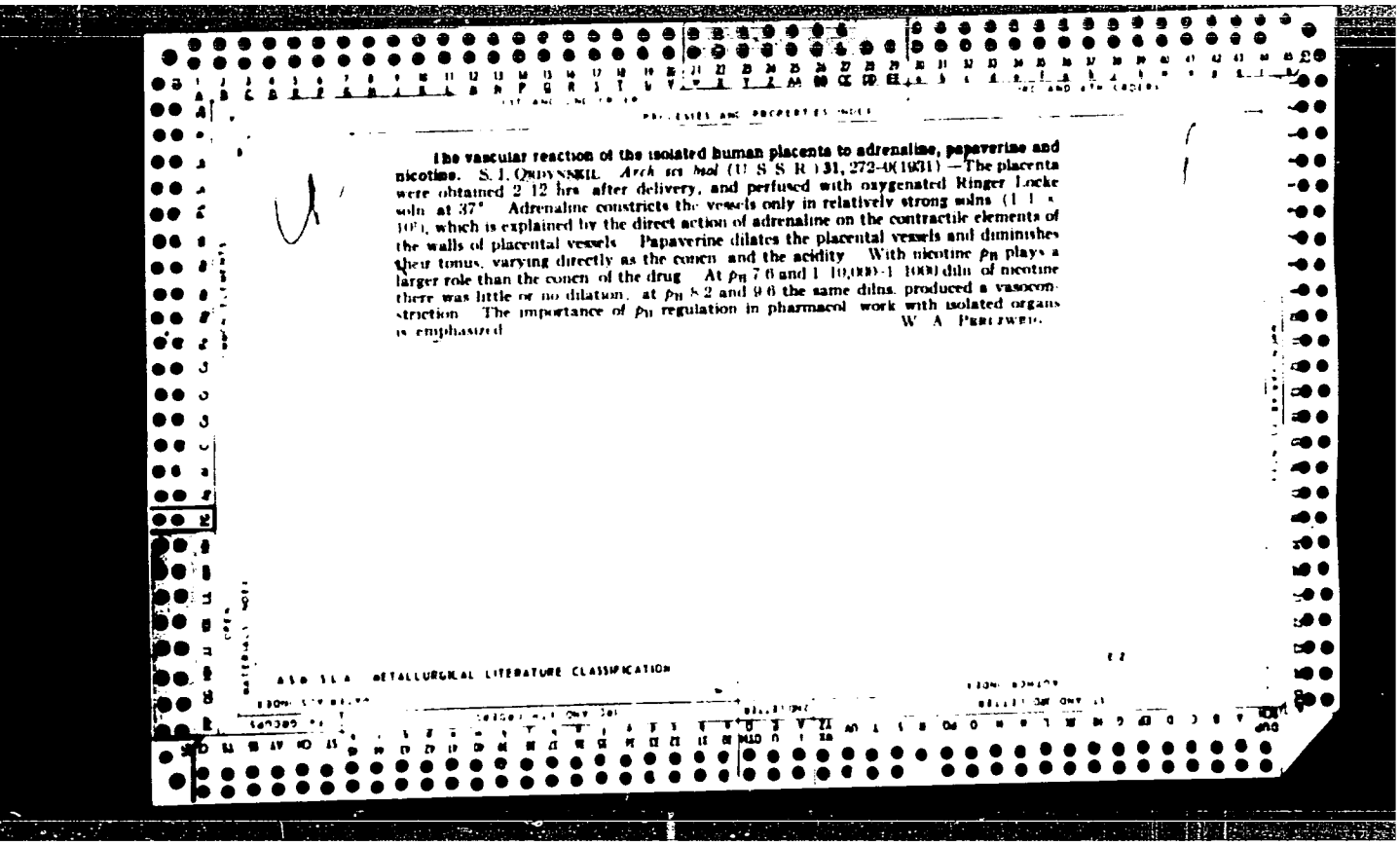
Use of a new photographic technique in studying the circling dances of bees. Zool. zhur. 40 no.11:1651-1655 N '61. (MIRA 14:11)

1. Department of Invertebrate Zoology, State University of Moscow.
(Bees) (Insects--Behavior) (Photography of insects)

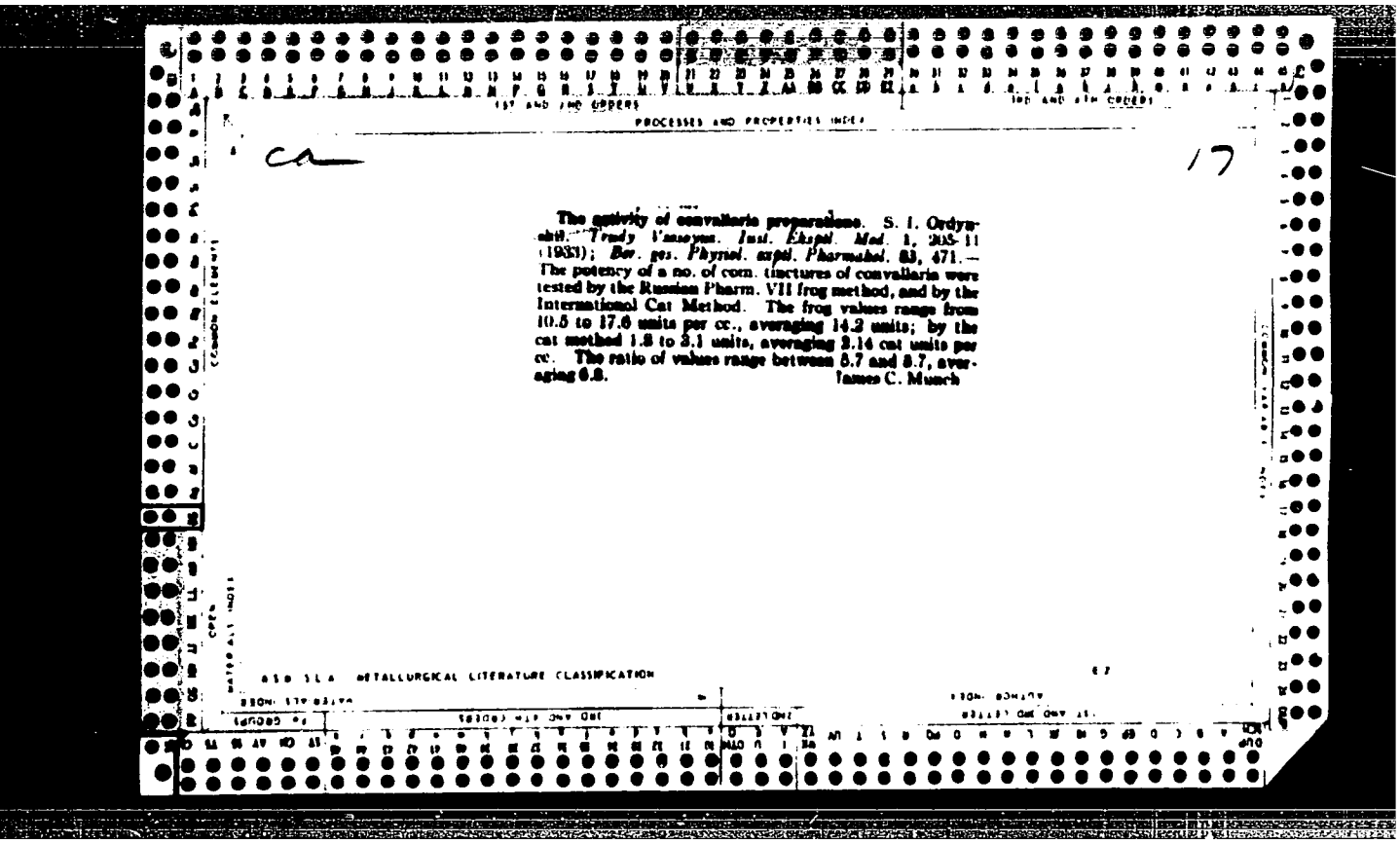
TERESHCHENKO, P.L., inzh.; ORDYNSKIY, N.G., inzh.

Laying small-diameter pipelines in the ocean. Transp. strci. 12 no.6:30 Je '62. (MIRA 15:6)

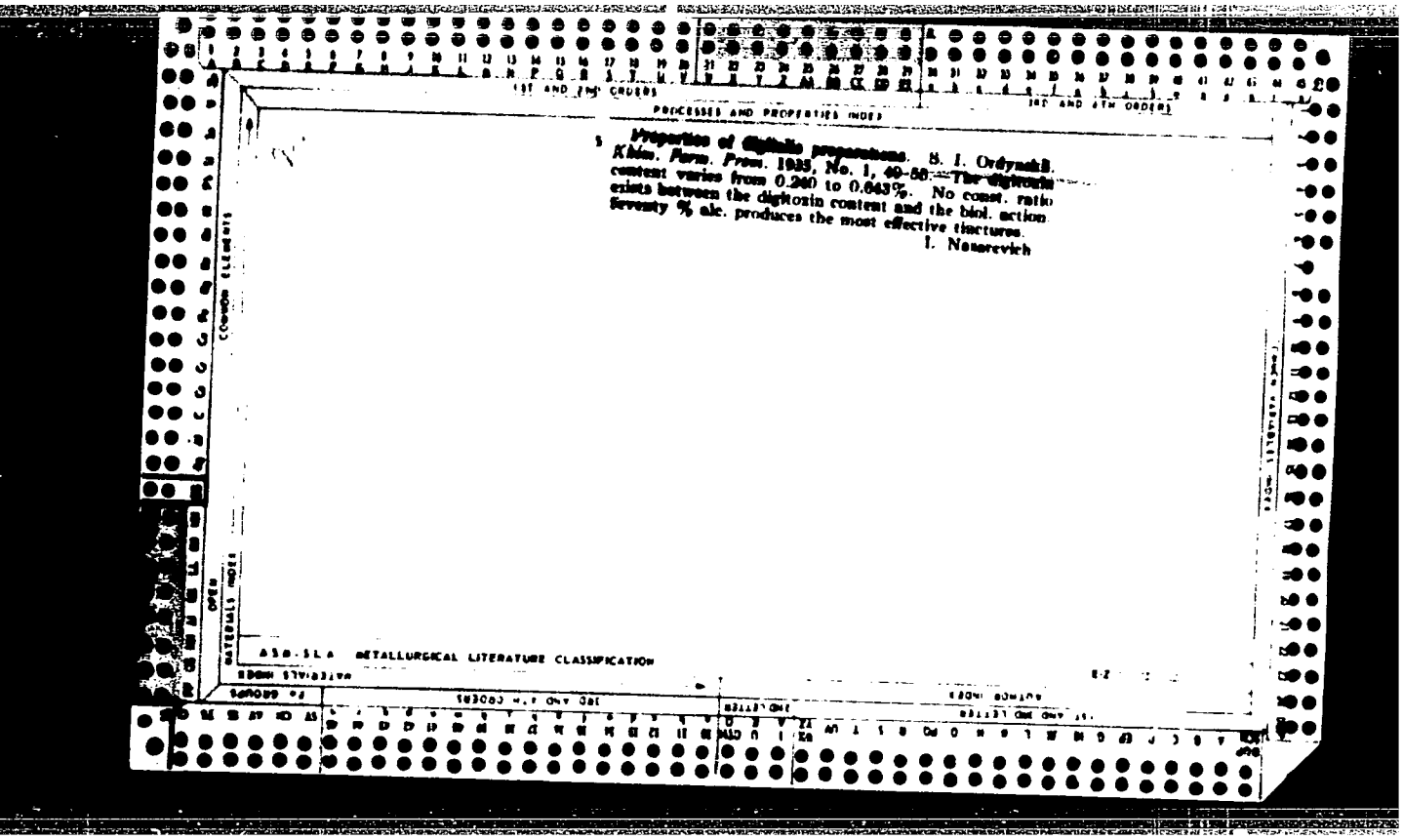
(Baltic Sea—Pipelines)



The vascular reaction of the isolated human placenta to adrenaline, papaverine and nicotine. S. I. QRDYNSKII. *Arch sci biol* (U S S R) 31, 272-80(1931).—The placenta were obtained 2-12 hrs after delivery, and perfused with oxygenated Ringer Locke soln at 37°. Adrenaline constricts the vessels only in relatively strong solns (1:1 × 10⁴), which is explained by the direct action of adrenaline on the contractile elements of the walls of placental vessels. Papaverine dilates the placental vessels and diminishes their tonus, varying directly as the concn and the acidity. With nicotine p_H plays a larger role than the concn of the drug. At p_H 7.6 and 1:10,000-1:1000 dilns of nicotine there was little or no dilation, at p_H 8.2 and 9.6 the same dilns. produced a vasoconstriction. The importance of p_H regulation in pharmacol. work with isolated organs is emphasized. W. A. PERLZWEIG.

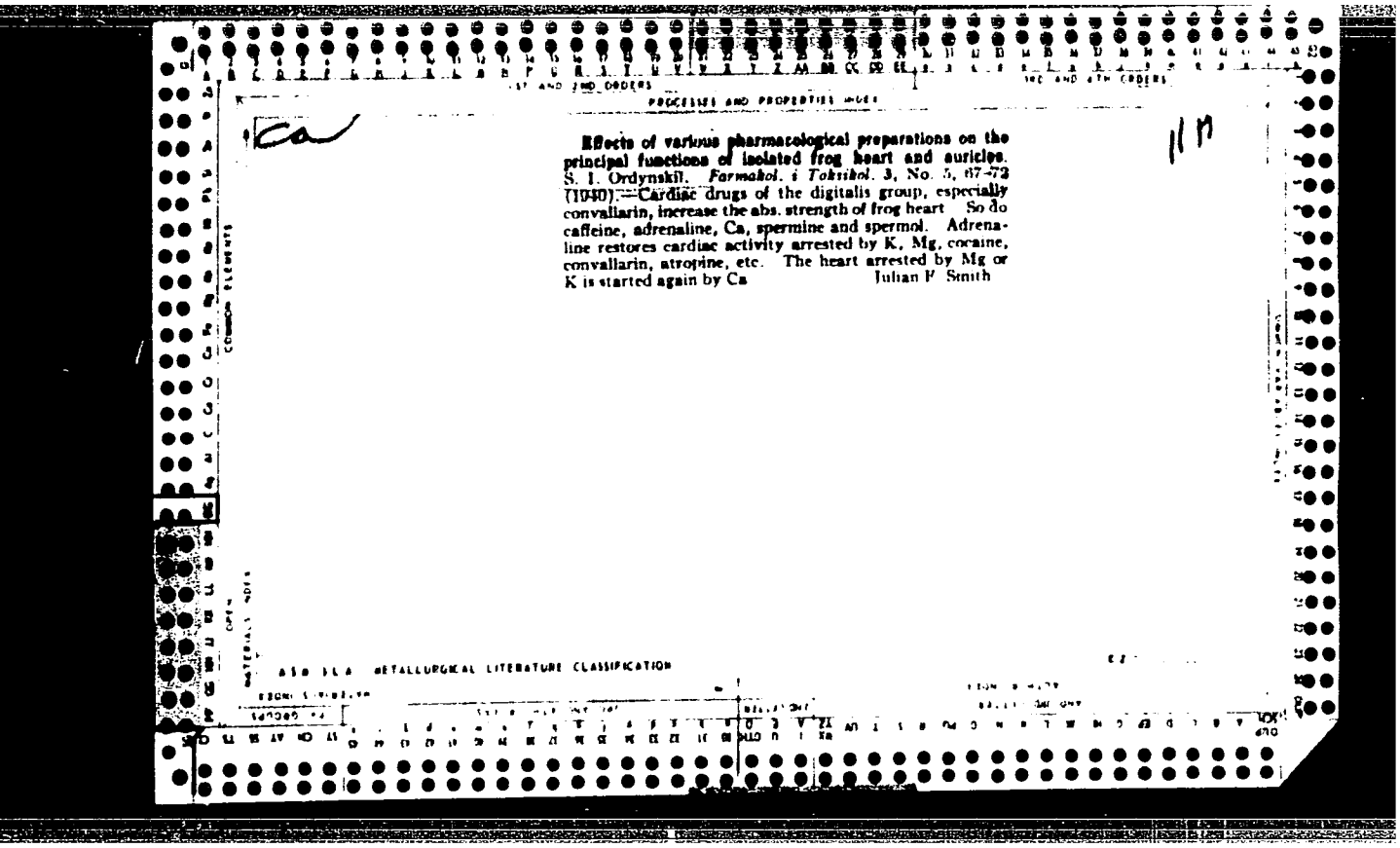


The activity of convallaria preparations. S. I. Ordynskii. *Trudy Vsesoyuz. Inst. Eksptl. Med.* 1, 205-11 (1933); *Bor. ges. Physiol. exptl. Pharmakol.* 83, 471.—The potency of a no. of com. tinctures of convallaria were tested by the Russian Pharm. VII frog method, and by the International Cat Method. The frog values range from 10.5 to 17.6 units per cc., averaging 14.2 units; by the cat method 1.8 to 3.1 units, averaging 2.14 cat units per cc. The ratio of values range between 5.7 and 8.7, averaging 6.8. James C. Munch


PROCESSES AND PROPERTIES INDEX

Properties of digitalis preparations. S. I. Ordynskii. *Khim. Farm. Prom.* 1935, No. 1, 49-58.—The digitoxin content varies from 0.260 to 0.643%. No const. ratio exists between the digitoxin content and the biol. action. Seventy % alc. produces the most effective tinctures.
I. Nasarevich

A50-51A METALLURGICAL LITERATURE CLASSIFICATION



Ca

Effects of various pharmacological preparations on the principal functions of isolated frog heart and auricles. S. I. Ordynskii. *Farmakol. i Toksikol.* 3, No. 5, 67-72 (1940).—Cardiac drugs of the digitalis group, especially convallarin, increase the abs. strength of frog heart. So do caffeine, adrenaline, Ca, spermine and spermol. Adrenaline restores cardiac activity arrested by K, Mg, cocaine, convallarin, atropine, etc. The heart arrested by Mg or K is started again by Ca. Julian F. Smith

METALLURGICAL LITERATURE CLASSIFICATION

ORDYNSKIY, S. I.

4771. Action of valerian tincture on respiration. S. I. Ordynski *Sborn. Nauch. Trud. Leningr. Inst. Vet. Vrach.*, 1953, No. 8, 143–147; *Referat. Zh. Biol.*, 1956, Abstr. No. 51889.—A 20% infusion of valerian roots, obtained with 70% alcohol, stimulates respiration. The effect is clearly expressed on a background of disturbances provoked by narcotics (urethane, morphia on rabbits and cats; chloral hydrate on rabbits). I.v. or rectal administration is most effective. The active principle seems to be an ether oil, although other substances may be involved. I.v. administration of 20% soln. of ether oil gives a positive result. (Russian) R. SCHACHTER.

ORDYNSKIY, S.I.; ZUBCHENKOV, V.I.

New method for graphic registration of arterial pressure in horses in a continuous experiment without anesthesia. Fiziol. zhur. 41 no.5:695-697 S-O '55. (MLRA 8:12)

1. Kafedra farmakologii Instituta usovershenstvovaniya vetvrachey, Leningrad.
(BLOOD PRESSURE, determination,
graphic registration of arterial pressure in horse in continuous exper. without anesth.)

BRYZGALOV, V. A., ORDYNSKIY, V. V., CHERNETCHENKO, V. S.

Vegetables

What scientists are working on in 195[illegible]. Sad i og. no. 6, 195[illegible].

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

ORDYNSKIY, V. V.

Vegetable Gardening - Gor'kiy Province

Large scale selection of vegetable plants on collective farms of Gor'kiy Province. Sad i og. No. 7, 1952.

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

ORDYNSKIY, V.V., prof.; ZEMLYANOV, V.N., kand. sel'skokhozyaystvennykh nauk

Using purple rennet as graft stock in Gorkiy Province. Agrobiologiia no. 3:113-117 My-Je '58. (MIRA 11:7)

1. Gor'kovskiy sel'skokhozyaystvennyy institut, kafedra selektsii i semenovodstva ovoshchnykh i plodovykh kul'tur.
(Gorkiy Province--Apple)

AUTHOR: Ordyntsev, V.M., Engineer 67-58-[illegible]

TITLE: The Automatization of Plants for Fractionating Gas (Avtomatizatsiya ustanovok razdeleniya gazov)

PERIODICAL: Kislorod, 1956, Nr 2, pp. 77-77 (USSR)

ABSTRACT: In his introduction the author says that hitherto it has not been possible to automatize such apparatus, mainly because for the process of deep cooling down to temperatures of -200° the necessary measuring devices were not available and because there were also no technical data. Besides, the process is described as very complicated, as is proved by the fact that 18 different apparatus are necessary for the process of fractionating coke gases. The laboratory for the automatization of the chemical industry of the Central Scientific Research Institute for Complex Automatization (TsNIIKA) in cooperation with VNIIKIMASh (All-Union Scientific Research Institute for the Construction of Oxygen Machines) and the ATZ (Nitrogen- and Fertilizer Factory) of Dneprodzerzhinsk is at present carrying out work for the automatization of the said process. At the same time, the necessary technical data concerning

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The Automatization of Plants for Fractionating Gas 67-58-2-21/26

statics and dynamics of gases are being worked out. This work aims at saving electric energy and working power and rendering conditions of work more favorable, especially because it must be expected that poisonous gases are formed in the course of these processes.

AVAILABLE: Library of Congress

1. Gases—Fractionization 2. Industrial plants—Automation

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06288

SOV/119-59-11-2/13

5 (1), 9 (6)

AUTHOR: Ordyntsev, V. M., Engineer

TITLE: The Automatic "Optimization" of Technological Processes in the Chemical Industry and the Possibility of Using Automatic Stabilizing Regulators as "Optimizers"

PERIODICAL: Priborostroyeniye, 1959, Nr 11, pp 3-6 (USSR)

ABSTRACT: In the introduction the necessity is pointed out to have the optimum operation of units hitherto adjusted by workers controlled by automatic devices. Such control systems are called "systems for automatic optimization". The most simple systems of this kind are those for extremum and optimum control. First, the problem of extremum control is dealt with and explained on the basis of figure 1a. Here, the dependence of the property π on the parameter σ for a certain σ has a maximum: $\frac{d\pi}{d\sigma} = 0$; in the case of the second kind $\frac{d\pi}{d\sigma} = A$. It is found that the usual stabilization of σ which corresponds to the optimum of π is not possible because the coordinates of the optimum may vary as the result of the effect of internal conditions. Several units are given, which are suited for extremum control. The problem of optimum control is described

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as not being completely solved. In the case of the use of $\frac{d\pi}{d\sigma}$ as a regulating quantity, if $\pi = f(\sigma)$ is a parabola, $\frac{d\pi}{d\sigma}$ becomes a sloped straight line. In practice this is not exactly the case, but it may be approximated within certain intervals. The author investigated optimum control systems under laboratory conditions. The device consisted of a simulator of the object to be controlled, an instrument that measures $\frac{d\pi}{d\sigma}$, and an electronic regulator of the ER-III-K type. The analysis diagram is shown in figure 2. The simulator consists of two linear elements and one nonlinear inertialess element. The latter determines the optimum value π which depends on σ_1 and σ_2. The static characteristic of the nonlinear element has a dome-shaped or saddle-shaped surface, and the construction of the simulator makes it possible to obtain four variants of the nonlinear surface. In the

calculator, which, in principle, is a differentiator, the quantity $\frac{d\pi}{d\sigma}$ is obtained, which acts upon the input of the automatically stabilizing regulator, by means of which the quantities σ_1 and σ_2 are then controlled. The calculator is then discussed in detail, which consists of two analyzers for the quantities π and σ, of two modulators transforming the direct current signals from the analyzers into alternating current signals, and which, as an end part, has a dividing device, which then furnishes $\frac{d\pi}{d\sigma}$. A difficult problem was that of differentiating the signals π and σ, which vary slowly with time, because in the calculator the quantity $\frac{d\pi}{d\sigma}$ is obtained from $\frac{d\pi}{dt} / \frac{d\sigma}{dt}$. Two calculators were investigated: One calculator was of the steady type, which operated well at a small τ, and a semisteady one, which is of particularly simple construction (Fig 5). This calculator is discussed in detail.

The Automatic "Optimization" of Technological Processes SOV/119-59-11-2/13
in the Chemical Industry and the Possibility of Using Automatic Stabilizing Regulators as "Optimizers"

Furthermore, a calculator of the discrete type is dealt with. All three types, which operate on the basis of the calculation of the first differences, are composed of electrical elements. The investigation of the approximation of derivatives by the first differences of the functions to be differentiated showed that this method offers a number of advantages when applied to signals slowly varying with time. In the last part of the paper several final-control elements of the device, as e.g. a 2ASM50 condenser motor, the previously mentioned electronic regulator, and several tubes are discussed. In this connection, also the possibility of carrying out control through two channels in the regulator is discussed. In conclusion, it is said that laboratory tests of this system proved its efficiency. There are 6 figures.

PHASE I BOOK EXPLOITATION SOV/5559

Ordyntsev, Vyacheslav Mikhaylovich, and Yuliy Ivanovich Shendler

Avtomaticheskoye regulirovaniye i avtomaticheskiye regulyatory tekhnologicheskikh protsessov; osnovy teorii (Automatic Control and Controllers of Manufacturing Processes; Fundamentals of the Theory) Moscow, Mashgiz, 1960. 504 p. 25,000 copies printed.

Reviewer: Ye. G. Dudnikov, Doctor of Technical Sciences; Ed.: M. A. Seleznev, Candidate of Technical Sciences; Ed. of Publishing House: A. G. Akimova; Tech. Ed.: T. F. Sokolova; Managing Ed. for Literature on Instrument Construction and Means of Automatization: N. V. Pokrovskiy, Engineer.

PURPOSE: This book is intended for students at tekhnikums. It may also be useful to technical personnel concerned with the automation of manufacturing processes.

COVERAGE: The book discusses basic problems in the theory of linear systems of automatic control, some elements of nonlinear systems, and the designs of widely used automatic controllers. Important concepts connected with the

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calculation of characteristics and the selection of control elements are also covered. No personalities are mentioned. There are 40 references: 37 Soviet and 3 English.

TABLE OF CONTENTS:

ORDYNTSEV, V. M.

report to be presented at the 1st Intl Congress of the Int. Federation of Automatic Control, 29 Jun-5 Jul 1960, Moscow, USSR.

LERNER, A. Ya., - "The application of a self-adjusting system of automatic contr..."

MELOV, V. S., PERE LENTSKY, A. M., and [illegible] A. - "Industrial telemeasurement systems and digital technique"

MITKOV, M. V. - "Some peculiarities of the structure of multi-communications regulation systems"

MIKHAILOVSKII, V. M. - "Evaluation indexes and the possibility of increasing the quality of telemeasurement systems"

MOISEEV, V. F. - "Concerning the problem of established routines in automatic regulation systems"

MUKHANOV, E. A. "Principals of construction of digital double code automatic compens...g"

MYSHAK, Yu. I. - "...moving the relation of systems of automatic regulation with the parameters of periodic movements"

NIKOLAYEV, N. S., and USTINOV, Y. L. - "System of automatic control of cutting of rolled metal on a continuous bar mill with the use of digital calculating machines"

OBRAZTSOV, V. M. - "Some principles of organizing systems of complex automation of large scale chemical production and optimization of these systems"

OKHOTNIKOV, O. M. - "Systems of automatic regulation with intermittent change of parameters"

PEGOV, V. P. - "Statistical synthesis of impulse systems"

PETROV, B. N. - "The invariant principle and its application in the calculation of linear and nonlinear systems"

PIVEN, V. D. - "The problem of autonomy in the technique of automatic control"

POPOV, E. P. - "Some problems of synthesis of automatic control nonlinear systems"

POSNER, V. S. - "Method of determining the optimum system with nonlinear relation of the observed function with the parameters of the signal"

POSTNIKOV, V. F., PETROV, V. V., MIKHEYEV, B. T., and VOLODIN, E. I. - "Principles of construction of a single class of servo control systems for automating production processes"

ROZENKNOP, N. M. - "The development of the theory of relay devices in the USSR"

ROZENVLAT, M.A. - "Dynamic characteristics of cores with eight angle transverse winding and their influence on magnetic boosters"

ROZONOER, L. I. - "Varied methods of investigating the quality of automatic control systems"

RUBINSHTEYN, V. M. - "Dynamics of automatic regulation of boiler-turbine units"

SHNEYDOVICH, M. E., MEL'TSER, L. V., MAIMOV, A. A., KEN-CHEN-YEN-IY, and PIVOVAROV, L. A. - "Automatic control of composition of multi-ingredient mixtures"

SMAGOVICH, M. G., and SERALIN, V. G. - "Some results of work for the utilization of radioactive radiation for automatic control of mining machinery"

SOLODOVNIKOV, V. V., BATKOV, A. M., BASKIN, V. M., PAL'DERMAN, Ya. S., MAYEROV, P. S., and POPOVSKII, A. K. - "Analysis and synthesis of automatic control systems with the aid of calculating machine facilities"

STRAKHOVSKII, M. I., FISHER, L. E., and KHALE, Ye. Ya. "Automatic optimizers and their use for solution of variation problems in automatic synthesis"

STRAUSS, S. V. - "A system of alternating current electric drives with autonomous power supply"

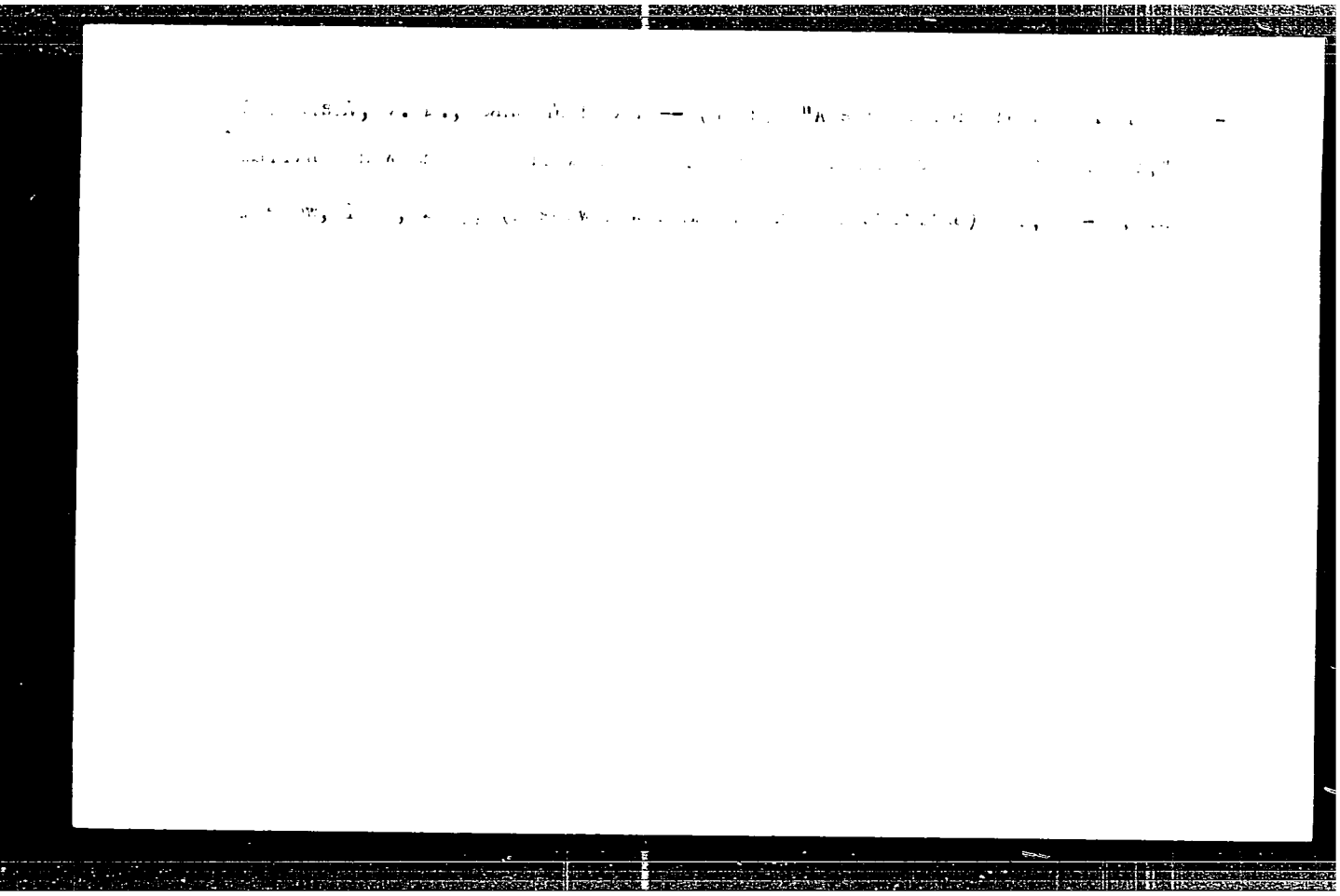
TAKAR, I. M., and YASHENOVSKII, Y. A. - "Apparatus for technical control of production with the use of nuclear radiation"

TEREKHOV, K. P., and BEDNYAKOV, G. A. - "Methods of organizing the trajectory of roots of linear systems and qualitative determination of type of trajectory"

TSYPKIN, Ya. Z. - "Elements of the theory of digital automatic systems"

VERKHOVSKII, D. B., KASHKIN, V. A., [illegible], and SOLNTSEVA, G. A. - "Static stability of telemeasurement"

VERNOV, V. A. - "Interactions of a mathematical modeling and calculating technology experiment in calculating loads in electrical systems"



ORDYNTSEV, V.M.

Over-all automation of ammonia production. Priborostroenie no.2:1-7 F '60. (MIRA 13:5)
(Automation) (Ammonia)

ORDYNTSEV, V.M.

Experimental investigation of an automatic improvement system with a stabilizing regulator as the improvement agent. Priborostroenie no.5:24-27 My '60. (MIRA 14:5)
(Electronic control)

ORDYNTSEV, V.M., delegat kongressa

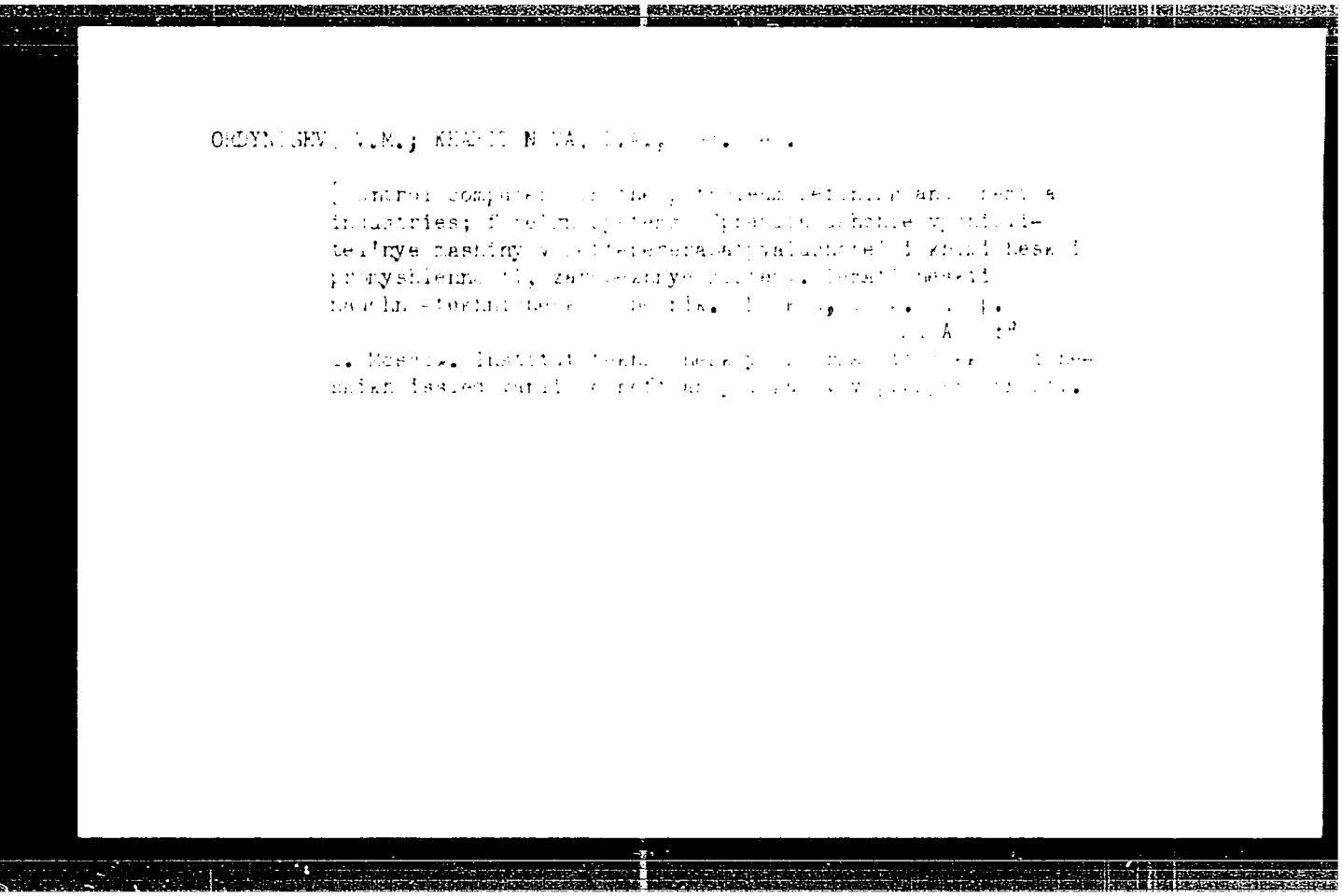
The First International Congress on Automatic Control. Priboros-troenie no.8:21-22 Ag '60. (MIRA 13:9)

1. Pervyy mezhdunarodnyy kongress po avtomaticheskomu upravle-niyu, Moskva.

(Automatic control--Congresses)

ORDYNTSEV, V.M.

System of automatic control of technological processes of large ammonia plants. Zhur.VKHO 6 no.5:509-517 '61. (MIRA 14:10)
(Ammonia) (Automatic control)



Z/011/62/014/004/006/003
E073/E335

AUTHOR: Ardyncev, V.A.

TITLE: A system for automatic process control in a large ammonia-producing plant

PERIODICAL: Chemie a chemicka technologie; Prehled technicke a hospodarske literatury, v. 19, no. 4, 1962, 167, abstract 04-32B (Zh. vsesoyuz. khim. obsch. ..., ..., ..., 717-723)

TEXT: A detailed description is given of the operation of digital machines used for controlling the manufacture of ammonia. A functional sketch of the control and its relation to the remaining systems of comprehensive automation of a nitrogen-fat producing combine.
4 photographs, 5 diagrams, 7 references.
Abstracter's note: this is a complete translation.

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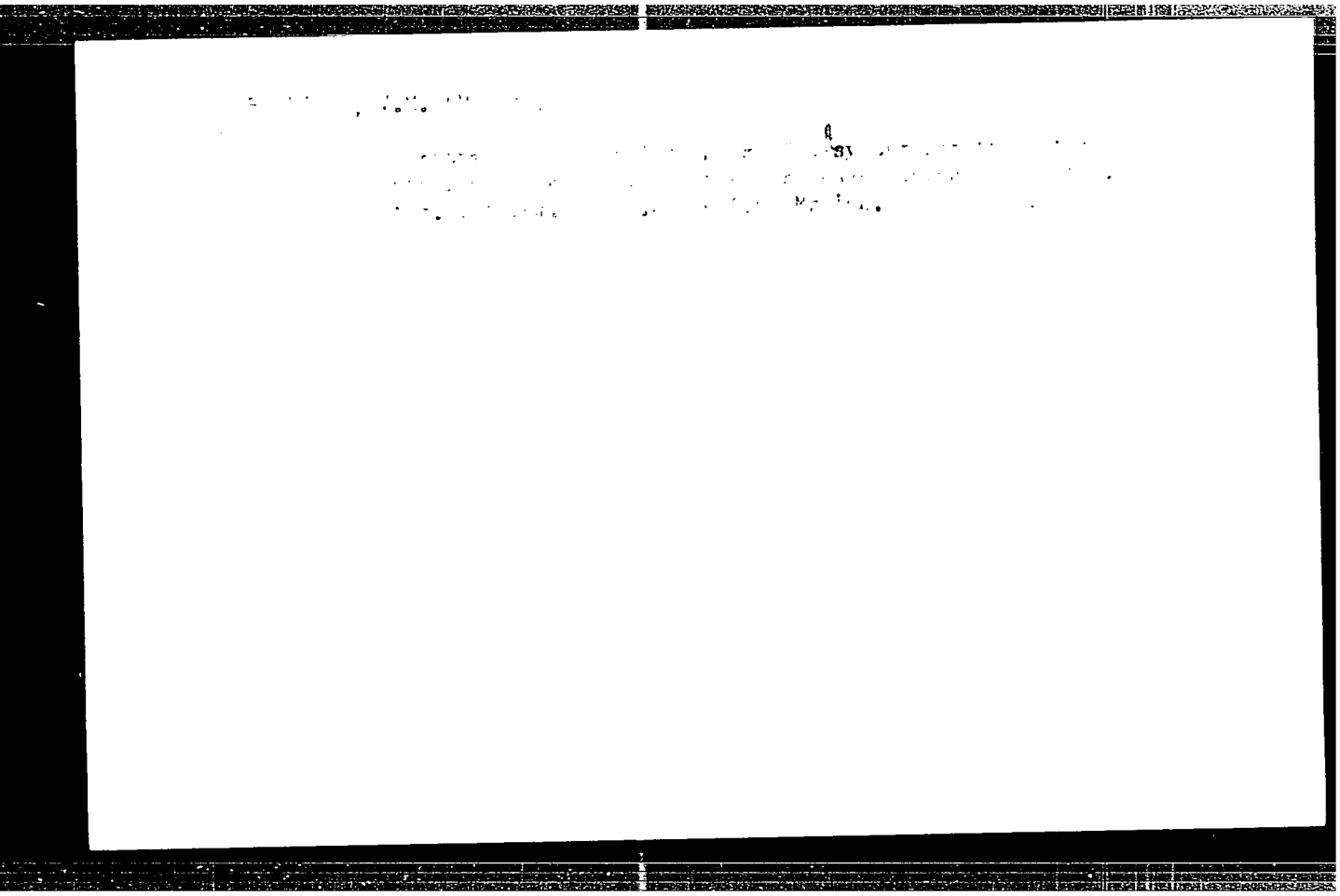

ACC NR: AM6008338

Monograph UR/

Ordyntsev, V. M.

Mathematical description of objects of automation (Matheматicheskoye opisaniye ob"yektov avtomatizatsii) Moscow, Izd-vo "Mashinostroyeniye". 65. 0359 p. illus., biblio. Errata slip inserted. 5,500 copies printed.

TOPIC TAGS: automatic control, mathematic analysis , automatic control design, automatic equipment, automatic frequency control, automatic machine, frequency characteristic, dynamic system

PURPOSE AND COVERAGE: This book describes the basic methods of composition of mathematical descriptions of objects of automation in industry. Special attention is given to the experimental researches being done on the special apparatus which is used. Theoretical and experimental methods are described which are necessary for the determination of various types of mathematical descriptions is well as for the switch from one type to another. The majority of methods which are described here, is illustrated with diagrams which allow the book to be also used as a handbook. This book is intended for engineering and technical scientific workers, who work on the construction of automatic control system for the industrial objects. It can be useful to aspirants and students who specialize in the field of automation.

Card 1/2 UDC: 511.292+0.01.5:62-531.3

ACC NR: AM6008338

TABLE OF CONTENTS (abridged):

SUB CODE: 09, 12 /SUBM DATE: 30Aug65/ ORIG REF: 042/ OTH REF: 024/

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L 34810-66

ACC NR: AP6021794 SOURCE CODE: UR/0413/66/000/012/0058/0058

INVENTOR: Ordyntsev, V. M.; Khanin, V. P.

ORG: none

TITLE: Automatic multirange multiposition bridge. Class 21, No. 182796

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 12, 1966, 58

TOPIC TAGS: resistance bridge, ELECTRIC MEASURING INSTRUMENT

ABSTRACT: An automatic multirange variable arm bridge is shown in Fig. 1. It consists of a rheostat measuring circuit, voltage divider, unbalance signal amplifier,

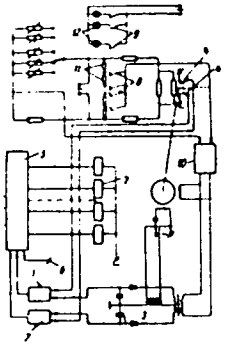

Fig. 1. Automatic multirange resistance bridge

1, 2 - Coincidence gates; 3 - phase detector; 4 - end terminals; 5 - register; 6 - control pulse source; 7 - relay; 8, 9 - normally open contacts; 10 - amplifier; 11 - calibrated resistors, 12 - range indicator.

Card 1/2 UDC: 621.317.733

L 34810-66
ACC NR: AP6021794

phase detector, reversible divider, transducer switch, printing carriage with end terminals, measurement range switch, and a digital range indicator. The range switch is in the form of two coincidence gates whose inputs are the phase detector outputs and the printing carriage end terminals. The two AND gates together with a control pulse generator drive a reversible shift register which in turn controls the states of electromagnetic relays. A portion of the relay normally open contacts are connected between the amplifier input and voltage divider circuit containing calibrated resistors. The other normally open contacts control the states of digital range indicator lamps. Orig. art. has: 1 figure. [BD]

SUB CODE: 09/ SUBM DATE: 30Apr65/ ATD PRESS: 5030

Card 2/2

24(7)

AUTHORS: Pivovarov, V.M. and Ordyntseva, N.D. SOV/51-6-5-10/34

TITLE: Effect of the Concentration and the Type of the Solvent on the Raman Line Intensity of the Fully-Symmetric Vibration of the Nitro-Group and on the Electronic Absorption Spectra of Aromatic Nitro-Compounds (Vliyaniye kontsentratsii i tipa rastvoritelya na intensivnost' liniy kombinatsionnogo rasseyaniya polnosimmetrichnogo kolebaniya nitrogruppy i na elektronnyye spektry pogloshcheniya aromaticheskikh nitrosoyedineniy)

PERIODICAL: Optika i Spektroskopiya, 1959, Vol 6, Nr 5, pp 620-624 (USSR)

ABSTRACT: The authors report investigations of the effect of the concentration and the type of solvent on the intensity of the Raman line due to fully-symmetric vibrations of NO_2 (1340 cm^{-1}) and on the nature of the absorption spectra of the following aromatic nitro-compounds: n-nitroaniline, n-nitrophenol, n-nitrophenetole and n-nitrotoluene. The Raman spectra were excited with light of 4358 and 5461 Å wavelengths and the spectra were recorded by means of a photoelectric instrument described earlier (Refs 3, 5). The 1380 cm^{-1} naphthalene line (a small amount of naphthalene was added to each solution) was used as an internal standard in order to allow for the absorption of solutions in the region of the 1340 cm^{-1} line. The results on the Raman spectra are collected

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Effect of the Concentration and the Type of the Solvent on the Raman Line Intensity of the Fully-Symmetric Vibration of the Nitro-Group and on the Electronic Absorption Spectra of Aromatic Nitro-Compounds

in Table 1, in which col 4 lists the ratios of the intensity of the 1340 cm^{-1} line to the intensity of the naphthalene line at 1380 cm^{-1}, reduced to the same concentrations of the nitro compounds and naphthalene. The absorption spectra in the region 230-400 mμ were obtained using a spectrophotometer SF-4. The thickness of the absorbing layer was 4-5 μ. The results of measurements are collected in Table 2 where the frequency at the absorption maximum is a mean of several measurements. The oscillator strength f was determined from

$$f = 1.23 \times 10^{-5} \int \varepsilon . d\nu,$$

where ε is the extinction coefficient. The values of f are given in col 4 of Table 2. Fig 1 shows the extinction coefficient ε as a function of wavelength. Curves 1 to 11 represent the results obtained on the four nitro-compounds listed above dissolved in acetone, in hexane + acetone and in hexane. The solution concentrations were from 0.003 to 0.30 mole/litre. In order to see the effects of the type of solvent and the solution concentration more clearly some of the curves of Fig 1 are re-plotted in Fig 2 with the maxima reduced to the same height and displaced to the same position. Fig 3 shows the absorption spectra of

Effect of the Concentration and the Type of the Solvent on the Raman Line Intensity of the Fully-Symmetric Vibration of the Nitro-Group and on the Electronic Absorption Spectra of Aromatic Nitro-Compounds

n-nitroaniline dissolved in acetone (curve 1), in CCl_4 (curve 2), in hexane (curve 3) and in benzene (curve 4). The results shown in Figs 1-3 and Tables 1-3 can be summarized as follows. (1) In the Raman spectrum the intensity increased with increase of the solution concentration. (2) When acetone was replaced by a mixture of acetone and CCl_4 or by pure CCl_4 the Raman intensity generally decreased. The only exception to this rule was m-nitroaniline excited with 5461 Å. (3) The absorption bands which are active in the Raman scattering NO_2-line region were found to be displaced towards shorter wavelengths when a polar solvent was replaced by a non-polar one (Fig 4). Simultaneously with the absorption band displacement, certain changes in their form were also observed, as shown in Fig 5. (4) The effect of the solution concentration was small and did not exceed the experimental error (or 10-15%). From these results the following conclusions were drawn: (1) the changes in the Raman line intensity with the type of solvent are due to the changes in the electronic transition frequency of the appropriate absorption band (this conclusion is in agreement with that reported by Mizushima and Kuratsuji in Ref 7); (ii) dependence of the Raman line intensity on the solution concentration

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Effect of the Concentration and the Type of the Solvent on the Raman Line Intensity of the Fully-Gymmetric Vibration of the Nitro-Group and on the Electronic Absorption Spectra of Aromatic Nitro-Compounds

cannot be related to the absorption spectrum since the positions and intensities of the absorption bands were found to be practically independent of the concentration. Acknowledgment is made to Ya.S. Bobovich for his advice. There are 3 figures, 2 tables and 8 references, 7 of which are Soviet and 1 German.

SUBMITTED: July 7, 1958

ORDYNTSEVA, N.D.

PHASE I BOOK EXPLOITATION SOV 4186

Akademiya nauk SSSR

Stroyeniye veshchestva i spektroskopiya (Structure of Matter and Spectroscopy) Moscow, Izd-vo AN SSSR, 1960. 113 p. Errata slip inserted. 2,300 copies printed.

Ed.: K. V. Astakhov, Professor; Tech. Ed.: T. P. Polenova.

PURPOSE: This collection of articles is intended for physicists and chemists interested in spectroscopic methods of research on the structure of molecules and related problems.

COVERAGE: The articles contained in this collection were taken from the editorial files of the Zhurnal fizicheskoy khimii (Journal of Physical Chemistry) and are concerned with spectroscopic methods in research on the structure of molecules, the hydrogen bond, isotopic effects, problems in magnetochemistry, the structure of aqueous solutions of electrolytes, and the chemistry of complex compounds. References accompany individual articles.

Card 3/6

KITAYEV, V., inzh.; ORDZHIKOVSKIY, I., inzh.

Centralized preparing of wallpaper. Na stroi.Mosk. 1 no.10:18-19 O '58. (MIRA 11:12)

(Wallpaper)

ORDZHIKOVSKIY, I.; KITAYEV, V., inzh.

Dismountable scaffolding. [Suggested by] I.Ordzikovskiy, V. Kitayev. Na stroi.Mosk. 2 no.3:25 Mr '59. (MIRA 12:5)

1. Glavnyy tekhnolog tresta Mosotdelstroy No.1 (for Ordzhikovskiy).

(Scaffolding)

ORDZHIKOVSKIY, I., inzh.

Mechanized placing of cement underlayers. Na stroi. Mosk. 2 no.4:21 Ap '59. (MIRA 12:7)
(Floors) (Cement)

SOV/20-128-3-24/58

3(7)

AUTHORS: Bibilashvili, N. Sh., Zaytseva, A. M., Lapcheva, V. F., Ordzhonikidze, A.A., Sulakvelidze, G. K.

TITLE: On the Influence Exerted by a Variation of the Vertical Wind Component on the Formation of Shower Precipitations and Hail

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 3, pp 521-524 (USSR)

ABSTRACT: Observations made in Transcaucasia and the Caucasus in 1956-1958 on stratocumuli, cumuli, and massy cumuli showed the following: 1) The vertical component of the velocity of currents, determined by radar methods, amounts to 0.1 - 0.3 m/sec for stratocumuli, 5 m/sec for cumuli, and 10-15 m/sec for massy cumuli. Several wind gusts attain velocities of 25 m/sec. The velocity W of vertical currents within the cloud increases with rising altitude up to a maximum, W_m, in the upper part of the cloud, and then decreases rapidly. 2) The temperature of the cumulus during its formation is higher by 0.5-1.0° than the temperature of the surrounding medium at the same altitude. During stabilization and decomposition of the cumulus in the

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upper part, the cloud temperature is lower by 0.5-1.0° than it is in the surrounding medium. 3) In the part before the peak, the cumulus becomes rapidly aqueous. Yet in the lower and medium part, the water content and the spectrum of the water of the water drops vary but little. The size of the drops is given. On the basis of these data, the increasing size of the drops contained in cumuli and massy cumuli, which is due to gravitational coagulation was calculated by a method devised by E. Bowen (Ref 4) and B. V. Kiryukhin. At high velocities of the vertical currents, the drops almost do not increase on the ascending branch of the trajectory. Formulas for the dependence of radius R of the drop on altitude z are written down. The drops are retained in the upper part of the cloud, where velocities are low. The principal increase in the drop or the hailstone occurs in the cloud range near the peak. If the upper part of the cumulus has a temperature higher than that of natural crystallization, then the cloud remains droplike liquid. However, hail occurs, if the temperature of the cloud peak is below that of natural crystallization. The increasing size of the hailstones up to R ~ 2-4 cm

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at W_m from 10 to 20 m/sec, primarily occurs in the cloud part near the peak, i.e. at the origin of the descending branch of the hailstone trajectory . The authors write down a corresponding formula for the size of the hailstone. The time required for an increase in the hailstone largely depends on W_m, and varies between 20 and 70 min. The definite size of the hailstones depends but little on the vertical thickness of the cloud. Completely new results are obtained if the variations in the vertical component of the velocity of air currents with the altitude are taken into account. This permits, among other things, the following conclusions: 1) A large amount of droplike water and hail is piled up in the cloud part near the peak. 2) The influence exerted by surface-active and hygroscopic substances on the upper part of the forming massy cumulus does not offer any positive effect at $W_m > V_k$. V_k denotes the critical velocity. 3) By complete crystallization of the droplike liquid, undercooled fraction which enters

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the cloud, hail may be prevented or at least reduced [illegible] preventing a gravitation-dependent increase in the [illegible]. If place and time of the center formation were known, [illegible] could be prevented with 4 to 10 kg of silver iodide. [illegible] these quantities are unknown, an amount of silver iodide larger by two or three orders is required for hail prevention. There are 3 figures, 1 table, and 4 references, 3 of which are Soviet.

ASSOCIATION: El'brusskaya ekspeditsiya Instituta prikladnoy geofiziki Akademii nauk SSSR
(Elbrus Expedition of the Institute of Applied Geophysics of the Academy of Sciences, USSR)

PRESENTED: May 25, 1959, by I. N. Vekua, Academician

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AUTHORS: Bibilashvili, N.Sh., Lapcheva, V.F., Ordzhonikidze, A.A. and Sulakvelidze, G.K.

TITLE: Characteristics of Coagulational Growth of Hailstones Associated with Changes in the Velocity of Vertical Streams with Altitude

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya, 1960, No.4, pp.585-593

TEXT: Existing theories of precipitation from thick cumulus clouds lead to certain results which are not confirmed by observation. Thus, for example, in order to obtain hailstones having a radius of 2 to 3 cm, cloud thicknesses of 10 to 15 km are required (Ref.1) with constant upward current velocities of the order of 20 to 25 m/sec. The amount of precipitation from hail and shower clouds exceeds the store of moisture in these clouds by a factor of 5-10. These and other results are not confirmed in practice. Studies of cumulus and thick cumulus clouds carried out by the present authors have led to the following results: a) in cumulus and thick cumulus clouds one observes an increase in the velocity of the upward currents with altitude until a certain maximum value

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is reached. Thereafter the velocity begins to decrease. The maximum value of the upward current velocity in developing thick cumulus and storm clouds does not exceed 27 m/sec according to the data obtained in eighteen experiments. The mean maximum velocity is of the order of 7-8 m/sec (Fig.1). A similar distribution of upward current velocities with altitude is also observed in cumulus clouds. The magnitude of the average maximum velocity in cumulus clouds was found to be 3-4 m/sec (average of 40 experiments). Measurements showed that the mean level of maximum velocities for the above types of clouds over the Alazanskaya plane and in the region of El'brus is at 2500-3500 m above the Earth's surface, i.e. in the middle or upper parts of the cloud. b) Microphysical studies showed that in the lower part of a cloud, most of the droplets have radii of 6-10 μ, and the number of particles per cubic centimeter lies between 200 and 1500. The mean liquid water content does not exceed 10^{-6} g/cm^3. Large droplets having a radius of 40-60 μ are also found in the lower part of a cloud. In the middle and the upper parts of a thick cumulus cloud located above the zone of

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maximum vertical velocities, the dimensions of isolated droplets reach 400 - 600 μ and the liquid water content about 2×10^{-5} g/cm^3 (data from ten experiments). The accuracy of these measurements was estimated to be about 20 - 30%. c) Radar studies of hail and shower precipitation showed that the precipitation can continue to appear from a single focus for 10 to 20 minutes. Thus, the formation and precipitation of showers and hail is not a prolonged and continuous process. These results are used in the present paper to set up a theory of coagulational growth of cloud droplets forming showers and hailstones. It is shown that the accumulation of large amounts of water in a cloud takes place as a result of a reduction in the velocity of upward currents towards the upper part of a cloud. Thus, favourable conditions are produced for the droplets to come to rest and increase their size. These droplets then grow by coagulation with the smaller drops coming up with the upward stream and thus increase the liquid water content of the upper part of the cloud. Using this scheme it is possible to predict the appearance of hail, the finite dimensions of hailstones and the amount of precipitation.

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The most effective weapon in the fight against hail at the present time is the continuous crystallization of the supercooled part of the cloud. It is, therefore, important to develop studies of microscopic parameters of thick cumulus clouds so that hail centres can be discovered and neutralized. There are 5 figures, 3 tables and 3 references: 1 Soviet, 1 a Russian translation from English and 1 English.

ASSOCIATION: Akademiya nauk SSSR El'brusskaya ekspeditsiya IPG (Academy of Sciences USSR, El'brus Expedition of the Institute of Applied Geophysics)

SUBMITTED: February 25, 1959

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AUTHORS: Bartishvili, G. S., Bibilashvili, N. Sh., Dgebuadze, A. M., Lapchev, V. P., Orzhonikidze, A. A. and Sulakvelidze, G. K.

TITLE: The growth of drops and hailstones in thick cumulus clouds with allowance for the change in the velocity of vertical currents with height and the physical causes of the effect on hail processes

PERIODICAL: Referativnyy zhurnal, Geofizika, No. 4, 1959, [illegible], abstract 4B194 (V sb. Fiz. oblakov i osadkov, V. 2 (3), M., AN SSSR, 1958, 140-148)

TEXT: In the article a method is given for calculating the growth of cloud drops and hail particles at the expense of condensation processes, and the influence of the character of the change in the velocity of ascending currents on the growth of cloud particles is investigated. The question of calculating the water content of thick cumulus cloud and the amount of precipitation is considered;

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the physical bases of the effects on hail processes are thus illuminated. The results, accumulated during the study of convective clouds on the Elbrus and the Alaskan expedition of [illegible] are used as the original experimental material. On this basis the following deductions are formulated: The accumulation of water reserves in a cloud in liquid or solid phases [illegible] salt of the decreasing velocity of ascending currents with altitude. This creates favorable conditions for the enlargement of the largest drops or of soft hail at the expense of the supercooled drop liquid fraction, entering from below. A "locking-layer" in which a chain reaction in the watery cloud, or a sharp increase in growth of hail particles, occurs, is formed in the zone of the maximum vertical-current velocity. On the whole the hailstone's size will depend on the presence in the cloud's middle part of sufficiently prolonged (not less than 30 - 50 min) vertical currents with velocities of 10 - 25 m/sec, as well as on the height of the [illegible] and not on the thickness and the water content of the [illegible] part. If the zero isotherm is situated at the level of maximum vertical velocities, or below this level, the hailstone's [illegible]

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largely governed by the vertical flow magnitude. If the zero isotherm is located well above the maximum velocity level, the hailstone dimensions are determined by the velocity magnitude at the zero isotherm level. The radius of a falling hailstone satisfies the following disparity, which is one of the criteria for the likelihood of hail fall:

$$R < \frac{2\omega_o^2 \rho_z}{\rho_o}$$

where ω_o is the ascending current velocity, ρ_o is the air density at a standard pressure, and ρ_z is the air density at a set height. The ascending current velocity also determines the water content of a cloud's upper part, which may reach 20 g/m^3 at the beginning of precipitation. The amount of precipitation from intra-mass cumulus clouds depends, too, on the ascending current velocity. Hail processes cannot be averted by the episodic effect of hygroscopic

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or other substances, which accelerate the gravitational coagulation of drops, upon the upper part of a thick cumulus water-drop cloud. However, the continuous action on the cloud's lower part may be an effective means of combating hail in consequence of the "washing out" of the lower part and the coarsening of the hail at its summit. The episodic effect of crystallizing substances on the supercooled part of thick cumulus cloud can lead to the artificial development of hail. In the authors' opinion the most effective way of preventing hail is the full crystallization of the cloud's supercooled part. Questions of the study of the microstructural cloud parameters that are necessary for the advanced detection of hail foci are most pressing at the present time. Questions of the method of introducing active matter into a cloud and of the search for new reagents are also important. [Abstracter's note: Complete translation.]

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E202/E192

AUTHORS: Bibilashvili, N.Sh., Zaytseva, A.M., Kuz'min, Ye.A., Lapcheva, V.F., Ordzhonikidze, A.M., and Sulakvelidze, G.K.

TITLE: Theory of the formation of large drop fractions in the heavy radial cumulo-nimbus clouds, and factors affecting these processes

PERIODICAL: Referativnyy zhurnal, Geofizika, no.8, 1962, 80, abstract 8 B 550. (In the collection: "Issled. oblakov, osadkov i grozovogo elektrichestva" ('Studies of clouds, precipitations and thunderstorm electricity') M., AN SSSR, 1961, 3-6).

TEXT: Using observational data from the strato-cumulus, cumulus and heavy cumulus clouds in the years 1956-1958 in Trans-Caucasus and Caucasus, the growth of clouds' droplets was calculated according to the method of Bouen and Kiryukhin, in terms of the gravitational coagulation, assuming linear increase of the anabatic velocity w, with respect to the height z.

As a result of these calculations it was established that with the greater velocities of the vertical streams the drop does almost cease to grow during the anabatic branch of the trajectory. The droplets are retained in the upper part of the cloud, where the velocities are small and the principal growth of the droplets or hailstones occurs prior to reaching the upper portion of the cloud. With the aqueous exchange of 10^{-6} g/cm^3, and the coefficient of catchment of 0.85, the position of the apex of the trajectory depends principally on the height z_1, at which $w = w_{max}$ and the degree of decrease of w with height at which $z \sim z_1$. With the velocity of the anabatic stream w_{max} greater than the velocity attained by the falling droplet with a radius of 2.5 mm of the v_{cr}, a chain reaction is started which leads to the accumulation of a large quantity of moisture in the upper part of the cloud and to the appearance of intensive showers. A cloud with $w_{max} < v_{cr}$ gives only a very short-duration and weak shower.

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In the case when the temperature of the cloud's top is lower than the temperature of natural crystallisation, hail is formed in the cloud and the size of the falling hail particles is determined by the relation:

$$R \geq 1/8 w_{max}^2 \rho(z) \rho(0),$$

where $\rho(z)$ and $\rho(0)$ are air densities at levels z and y of the Earth's surface. The growth of hail to the size $R \sim 2.4$ cm at $w_{max} \approx 10 - 20$ m/sec occurs substantially above the level w_{max}, at the beginning of the katabatic branch of hail trajectory. The time necessary for the growth of hailstones to the above dimensions depends chiefly on the value of w_{max} and varies within the interval of 20 - 70 min. The terminal dimensions of hailstones depend very little on the vertical thickness of the cloud, and are determined chiefly by the moisture content of the air masses entering the cloud, the height of the zero isotherm, the value and the stability of w_{max}, and also by the velocity gradient of the vertical streams along their height.

Taking into consideration in the calculations the last mentioned, leads to a conclusion that the accumulation of large amounts of droplet water and hail takes place in the zone before the top of the cloud, which explains the high intensity and short duration of the showery precipitates and hail. The pressure of the large droplet fraction in the upper part of the cloud lowers the value of the anabatic velocity of the stream down to v_{cr}, and the corresponding quantity of water holding may be calculated from the formula:

$$q = \frac{m}{2gz} (w_{max}^2 - v_{cr}^2),$$

where m - the mass of air in a unit volume. The action on the upper part of the growing heavy cumulus with $w_{max} > v_{cr}$, with surface active or hygroscopic agents does not give a positive effect. Prevention or even weakening the effect of a hail is possible only by full crystallisation of the supercooled fraction of the liquid droplets entering the upper part of the cloud. 4-10 kg of reagent are required to destroy the hail centre.

Card 4/4 Abstractor's note: Complete translation.

ORDZHONIKIDZE, G.K. (Leningrad, ul. Savushkina, d.13-ya, kv.106)

Acquired bronchoesophageal fistula. Vest.khir. 82 no.1:126-128 Ja '59. (MIRA 12:2)

1. Iz gospital'noy khirurgicheskoy kliniki (nach. - prof. I.S. Kolesnikov) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.

(BRONCHI, fistula
bronchoesophageal, acquired (Rus))
(ESOPHAGUS, fistula
same)

ORDZHONIKIDZE, G.K. (Leningrad, 183, por. Savushkina, d.3, kv.106)

On increased possibilities for a visual study of the bronchial tree with the aid of the optical bronchoscope. Vest.khir. 83 no.9:52-57 S '59. (MIRA 13:2)

1. Iz gospital'noy khirurgicheskoy kliniki (nachal'nik - prof. I.S. Kolesnikov) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.
(BRONCHOSCOPY, equipment & supplies)

ORDZHONIKIZDE, G.K., podpolkovnik meditsinskoy sluzhby

Rational therapy and expert testimony of military personnel with habitual dislocation of the shoulder. Voen.-med. zhur. no.5:47-48 My '60. (MIRA 13:7)
(SHOULDER JOINT—DISLOCATION) (DISABILITY EVALUATION)

ORDZHONIKIDZE, G. K.

Use of a Soviet optic bronchoscope in the diagnosis of lung cancer.
Nov. med. tekh. no.2:65-76 '61. (MIRA 14:12)

1. Voyenno-meditsinskaya ordena Lenina akademiya imeni S. M. Kirova.

(LUNGS—CANCER) (BRONCHOSCOPE)

ORDZHONIKIDZE, G.K. (Leningrad, per. Savushkina, d.3, kv.106)

Optical bronchoscopy in the diagnosis of lung cancer. Vest.khir. no.1:14-17 '62. (MIRA 15:1)

1. Iz gospital'noy khirurgicheskoy kliniki (nach. - prof. I.S. Kolesnikov) Voyenno-meditsinskoy ordena Lenina akademii im. S.M. Kirova.
(LUNGS--CANCER) (BRONCHOSCOPY)

ORDZHONIKIDZE, G.K. (Leningrad, per. Savushkina, d.3, kv.106)

Universal table for bronchoscopic examinations. Vest.khir. no.3: 114-116 '62. (MIRA 15:3)

1. Iz gospital'noy khirurgicheskoy kliniki (nach. - prof. I.S. Kolesnikov) Voyenno-meditsinskoy ordena Lenina akademii im. S.M. Kirova.

(BRONCHOSCOPY--EQUIPMENT AND SUPPLIES)