SOV/124-57-9-10348

On the Formation of Whirlpools in Front of Water Gates in Canals

the whirlpools. In the investigations conducted the intensity of a whirlpool formation is characterized by the degree of the transporting capacity of the whirlpool, namely, the number of uniform objects passing through the whirlpool in a specific period of time. According to the test results, an increase in the intensity of the whirlpool formation results in a decrease both of the velocity coefficient ϕ and of the discharge capacity of the gate aperture. As a result of the elimination of whirlpools by means of baffles preventing back currents at the gate the coefficient ϕ can be increased by 1.5 - 3%. The formation of whirlpools occurs in both unsubmerged and submerged outflows. The authors also repeated the tests made by V. S. Fokeyev (Gidrotekhn. str-vo, 1951, Nr 5; Gidrotekhn. i melioratsiya, 1951, Nr 12). The eddy-stimulator water gate recommended by him has contributed toward an increase in the intensity of the whirlpools. A paper by S. M. Isaakyan (RZhMekh, 1957, abstract 533) is devoted to a question similar to that under review.

N. A. Pritvits

Card 2/2

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1202
AUTHOR NIKITOV, A.I.
TITLE On the Charge Distribution of the Mesons on the Occasion of Nucleon-Antinucleon Annihilation.
PERIODICAL Žurn. eksp. i teor. fis, 30, 1149-1150 (1956)
Publ. 6 / 1956 reviewed 8 / 1956

S.Z.BELEN'KIJ and I.L.ROZENTAL' (Žurn.eksp.i teor.fis, 30, 595 (1956)) investigated the production of stars on the occasion of the annihilation of antinucleons and computed the probability of the processes with different plurality according to the statistical theory of the plural production of particles. Here the charge distribution computed on the basis of the conservation of isotopic spin is given. Denotations: p - proton, n - neutron, $\bar{p}$ - antiproton, $\bar{n}$ - antineutron. The products of annihilation (pions) are characterized by the signs of their charges.
The charge distribution for $p\bar{n}$ is obtained from the distributi n for $p\bar{n}$ (misprint in the original text?) by reversing the signs of the meson charges. A table shows the distribution of the process with given plurality among the charge states. If, e.g. the cross section of the annihilation of $p\bar{p}$ with production of two mesons has the value σ_2, than it may be seen from this table that 0,167 of the cross section is due to the process

NIKITOV A I

CARD 1 / 2 PA - 1740

SUBJECT USSR / PHYSICS
AUTHOR MAKSIMENKO, V.M., NIKITOV, A.I.
TITLE The Multiple Production of Particles on the Occasion of Nucleon-Nucleon Collisions at 5,3 BeV.
PERIODICAL Žurn.eksp.i teor.fis, 31, fasc.4, 727-729 (1956)
Issued: 1 / 1957

The authors theoretically computed the distribution of nucleon-nucleon collisions at 5,3 BeV over the number of secondary particles. These computations were carried out in accordance with the statistical theory of the multiple production of particles with and without consideration of isobaric states. For these computations the method suggested by V.M. MAKSIMENKO, I.L. ROSENTAL', Žurn.eksp.i teor.fis (in print) was used, which makes the exact computation of statistical weights possible.

The statistical weight of the various processes (in %) are shown in form of a table. Two further tables illustrate the further distribution of p - p and n - p - collisions obtained from the postulate for the conservation of isotopic spin. On the occasion of a p - p - collision the process NN 2π (its statistical weight is given by the table) thus leads to the charge state (pp+-) with the probability 0,300, and to the charge state (pp00) with the probability 0,100, etc.

From the aforementioned data it is easy to obtain the distribution of non-elastic collisions over the number of charged particles (rays) which, on the

[illegible] of the Academy of Science in the USSR.

NIKITOVA, A.N., Dotsent

Reparative and regenerative processes in focal and fibro-focal pulmonary tuberculosis. Probl.tub. no.2:39-46 Mr-Ap '55.(MLRA 8:6)

1. Iz kafedry patologicheskoy anatomii (zav. -prof. P.P.Erofeyev) Ivanovskogo meditsinskogo instituta.
(TUBERCULOSIS, PULMONARY, physiology, regen. processes in fibrous & focal forms)

BLAGOVESHCHENSKIY, M.A., prof. (Ivanovo, 2-ya Plekhanova ul., d.10)
NIKITOVA, A.N., dots.

Epifascial progressive gangrene. Vest.khir. 81 no.10:132-136 O '58
(MIRA 11:11)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. M.A. Blagoveshchenskiy) i kafedry patologicheskoy anatomii (zav. - prof P.P. Yerofeyev) Ivanovskogo meditsinskogo instituta.
(FACE, ulcer
phagedenic (Rus))

NIKITOVA, A. N. Doc Med Sci -- "Pathomorphology of the development and self-healing of pulmonary tuberculosis." Mos, 1960 (Acad Med Sci USSR). (KL, 1-61, 205)

NIKITOVA, A.N., dotsent

Reparative processes in the lungs in primary tuberculosis in children treated with antibacterial preparations. Pediatriia no.12:3-8 '61. (MIRA 15:1)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. P.P. Yerofeyev) Ivanovskogo meditsinskogo instituta (dir. - dotsent Ya.M. Romanov).
(TUBERCULOSIS) (STREPTOMYCIN) (CHEMOTHERAPY)

NIKITSIN, P.

Rural medical station. Rab. i sial. 34 no.1:8 Ja '58. (MIRA 11:1)
(POGOST (MINSK PROVINCE)--MEDICINE, RURAL)

NIKITSINA, Alena.

Exploit. Rab. i sial. 33 no.8:16-17 Ag '57. (MLRA 10:8)
(White Russia--World War, 1939-1945--Underground movements)

N. K. Sinitsyn

LYUBOSHYTS, I.L., kand.tekhn.nauk; NIKITSINA, L.M., kand.tekhn.nauk.

Drying and heating corn in pneumatic gas dryers before sowing.
Vestsi AN BSSR. Ser. fiz.-tekh. nav. no.2:137-143 '57.(MIRA 11:1)
(Corn (Maize)--Drying)

M

USSR/Cultivated Plants - Fruits. Berries.

Abs Jour : Ref Zhur Biol., No 12, 1958, 53764

Author : Chelyadinova, A.I., Nikitskaya, K.I.
Inst :
Title : Biological Control of the Development and Growth of the Buds of Fruit and Berry Plants.

Orig Pub : Nauka i perolov, opyt s. kh., 1957, No 7, 48-49

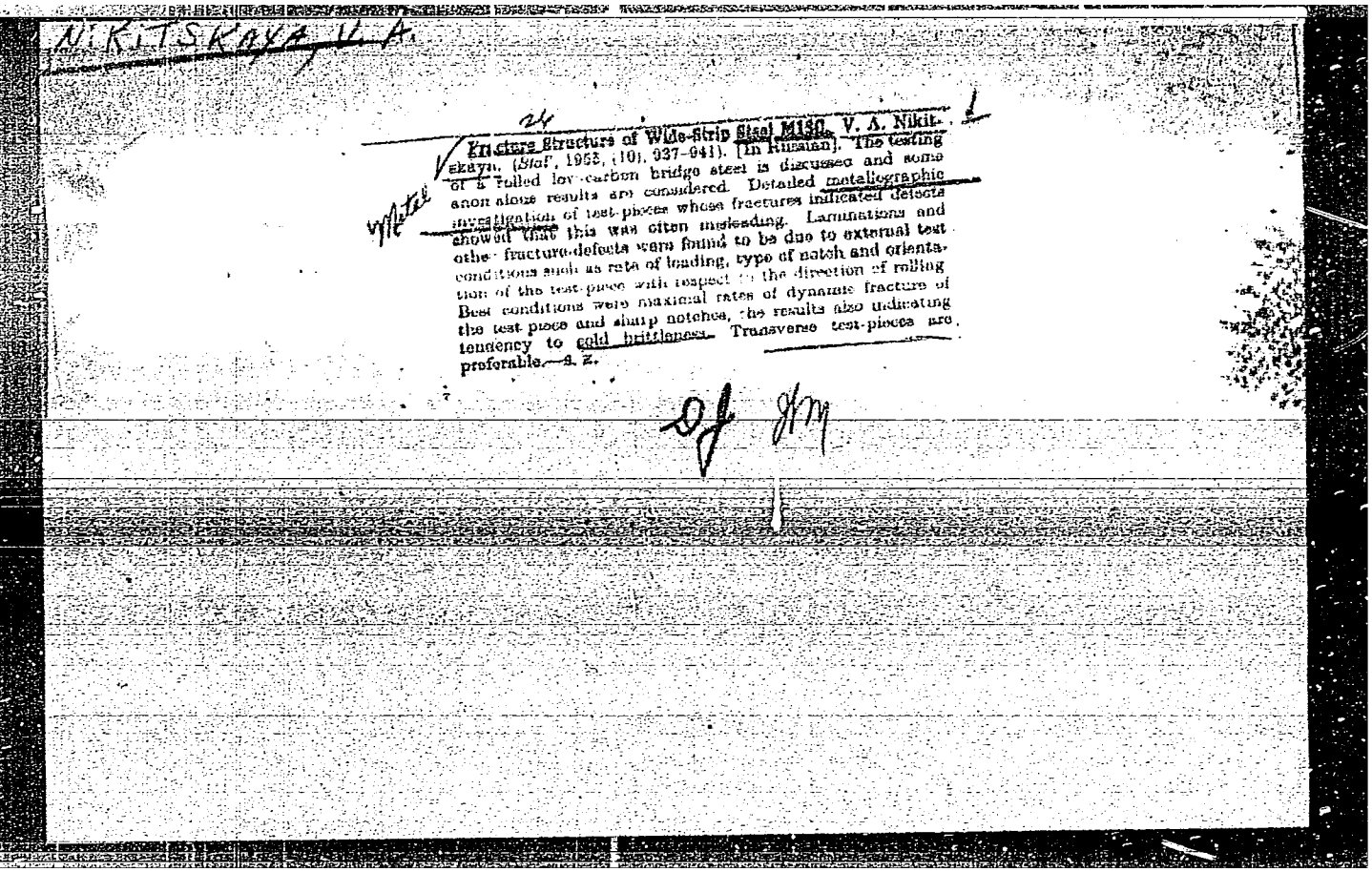
Abstract : Studies of the morphological structure of the fruit buds and also of the degree of their differentiation before winter quiescence and the subsequent development of blossoms in spring were conducted at Moscow University on the following: Siberain crabapple, Vladimir cherry (Prunus cerasus austera), and black and golden currents. The blossoms of the Vladimir cherry have - before retiring for the winter - fully formed outer covering organs (calyx and corolla), a developed pistil, and only incipient stamen protuberances. The pollens, the stamen

Card 1/2

CHELYADINOVA, A., kand. biol. nauk; NIKITSKAYA, K., nauchnyy sotrudnik.

Biological investigation of the growth and development of flower buds of woody plants. Nauka i pered. op. v sel'khoz. 18 no.2:47-49 F '58. (MIRA 11:3)

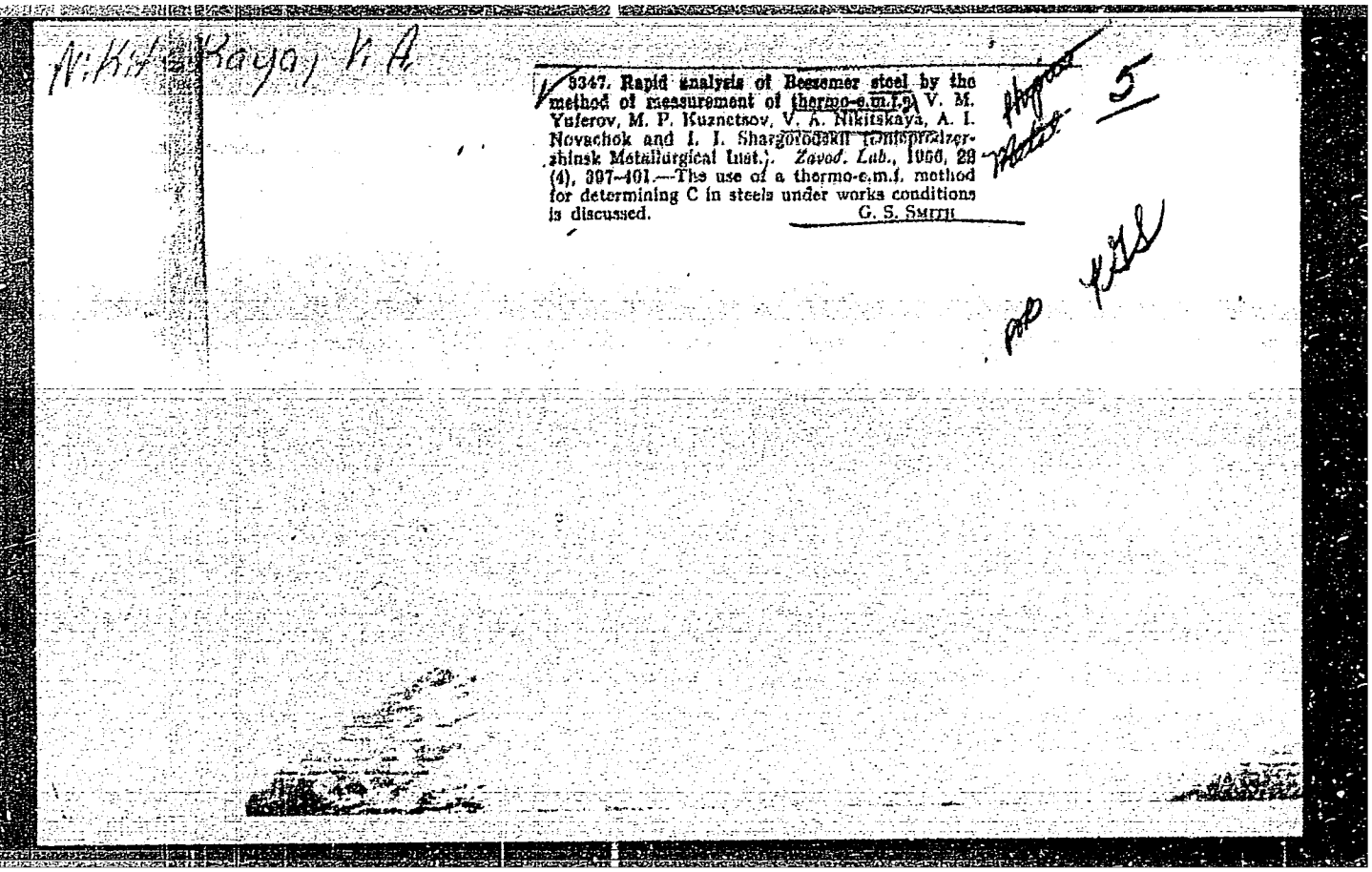
1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
(Flowers) (Buds)



NIKITSKAYA, V. A.

24

Fracture Structure of Wide-Strip Steel M16C. V. A. Nikitskaya. (*Stal'*, 1953, (10), 937–941). [In Russian]. The testing of a rolled low-carbon bridge steel is discussed and some anomalous results are considered. Detailed metallographic investigation of test-pieces whose fractures indicated defects showed that this was often misleading. Laminations and other fracture-defects were found to be due to external test conditions such as rate of loading, type of notch and orientation of the test-piece with respect to the direction of rolling. Best conditions were maximal rates of dynamic fracture of the test-piece and sharp notches, the results also indicating tendency to cold brittleness. Transverse test-pieces are preferable.—S. Z.



Nikitskaya, V. A.

8347. Rapid analysis of Bessemer steel by the method of measurement of thermo-e.m.f.s. V. M. Yuferov, M. P. Kuznetsov, V. A. Nikitskaya, A. I. Novachok and I. I. Shargorodskii (Chelyabinsk Metallurgical Inst.). *Zavod. Lab.*, 1960, 26 (4), 397–401.—The use of a thermo-e.m.f. method for determining C in steels under works conditions is discussed.

G. S. SMITH

AUTHORS: Nikitskaya, V. A. and Karpunin, A.M., Engineers. (Dzerzhinskiy Works).

TITLE: Longitudinal cracks on flanges of railway rails. (Prodol'nye treshchiny na flantsakh zheleznodorozhnykh rel'sov).

PERIODICAL: "Stal'" (Steel), 1957, No.4, pp.347-351 (U.S.S.R.)

ABSTRACT: An investigation of the causes of surface defects on the base and head of rails in the form of cracks and fissures stretched along the rolling direction, usually associated with surface bubbles, was investigated. It was found that the observed defects originate from longitudinal cracks often present on the bottom part of the ingots of rail steel. The appearance of the above cracks on ingots was co-related with the fluidity of steel and the rate of casting of ingots. With bottom pouring the optimum temperature is limited to a narrow temperature range 1470-1475, therefore, the real solution for the problem is top pouring. From top poured ingots the yield of the quality rails increases to 90-92%. There are two tables, 9 figures and 2 Russian references.

NIKITSKAYA, V.

PHASE I BOOK EXPLOITATION SOV/4380

Zavod imeni Dzerzhinskogo, Dneprodzerzhinsk

Metallurgi v bor'be za tekhnicheskiy progress (Metallurgists in the Fight for Technical Progress) [Moscow] Izd-vo VTsSPS Profizdat 1959 56 p. 3,000 copies printed.

Special Eds.: Ye. V. Kochinev, F.M. Novikova, and I.B. Polyak; Ed.: N.A. Makarova; Tech. Ed.: N.D. Shadrina.

PURPOSE: This book is intended for technical personnel interested in metallurgical processes.

COVERAGE: The book contains 9 articles dealing with technical improvements developed and implemented by members at the Plant imeni Dzerzhinskiy, Dneprodzerzhinsk, of the Nauchno-tekhnicheskoye obshchestvo chernoy metallurgii (Scientific and Technical Society for Ferrous Metallurgy). Individual articles discuss techniques in limestone kilning, blast-furnace charges, intensification of open-hearth processes, ingot rolling, and improvements in rail production.

AVAILABLE: Library of Congress (TN705.Z3)

JA/9/9

AC/dwm/mas
11-15-60

TYLKIN, M.A., kand.tekhn.nauk; NIKITSKAYA, V.A., inzh.; BURKHAN, G.N., inzh.

Efforts to avoid discards in rolled telegraph wire rods. Stal' 21 no.5:448-451 My '61. (MIRA 14:5)

1. Dneprodzerzhinskiy metallurgicheskiy zavod-vtuz i zavod im. Dzerzhinskogo.

(Rolling (Metalwork)--Quality control)
(Telegraph wire)

TYLKIN, M. A., kand. tekhn. nauk; GREBENIK, V. M., kand. tekhn. nauk; KUCHERENKO, V. F., inzh.; ALPEYEV, V. G., inzh.; NIKITSKAYA, V. A., inzh.

Heat treatment of crane wheels. Mashinostroenie no.5:57-60 S-O '62. (MIRA 16:1)

1. Dneprodzerzhinskiy metallurgicheskiy zavod-vtuz im. M. I. Arsenicheva (for Tylkin, Grebenik, Kucherenko). 2. Metallurgicheskiy zavod im. Dzerzhinskogo (for Alpeyev, Nikitskaya).

(Steel--Heat treatment)
(Cranes, derricks, etc.)

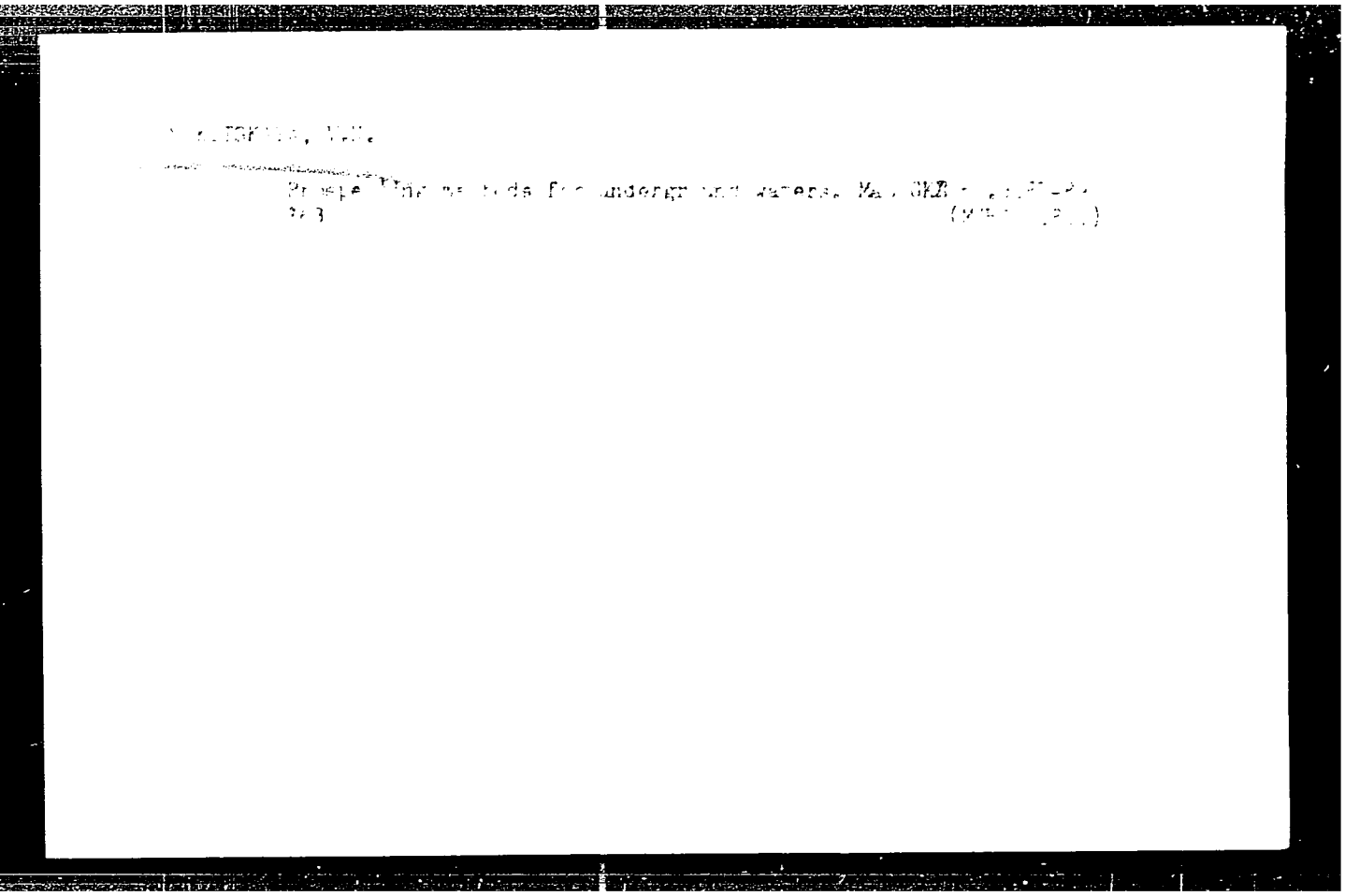
NIKITSKAYA, V.

Research carried out at the Dzerzhinskii Metallurgical Plant.
Stal' 22 no.12:1078, 1086-1087, 1105, 1122 D '62. (MIRA 15:12)

(Dneprodzerzhinsk--Metallurgical research)

NIKITSKAYA, V.

Research at the Dzerzhinskii Metallurgical Plant. Stal' 23 no.2:180 F '63. (MIRA 16:2)
(Dneprodzerzhinsk—Blast furnaces)



NIKITSKAYA, E. A.

Chemical Abst.
Vol. 48 No. 8
Apr. 25, 1954
Petroleum, Lubricants, and Asphalt

(2)

A method of determining the threshold shear stress of mineral oils. P. I. Sanin and E. A. Nikitskaya. *Trudy Inst. Nefti, Akad. Nauk S.S.S.R.* 2, 47-52(1952).—Static shear stress, θ_s, computed from $\theta_s = P_k d/4l$ (where P_k is the crit. pressure at which motion of oil occurs, d = diam. of capillary in cm., l = length of column of oil in cm.) is independent, within broad limits, of rate of application of load, diam. of capillary, and length of oil column if the pressure accurately corresponding to the beginning of motion is taken as the crit. pressure. V. N. Bednarski

10-19-54

SOV/65-58-8-5/14

AUTHORS: Sanin, P. I; Sher, V. V. and Nikitskaya, Ye. A.

TITLE: Metal Dialkyl Dithiophosphates as Complex Additives to Lubricating Oils. (Dialkilditiofosfaty metallov kak kompleksnyye prisadki k smazochnym maslam).

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr.8. pp. 24 - 28. (USSR).

ABSTRACT: In early articles it was shown that metal dialkyl dithiophosphates are active complex additives (Ref.1 - 2). Dialkyl dithiophosphates of various metals have varying effect on the detersive and corrosion properties of oils. Tests were carried out on two types of oil: the oil MS-20 (from the Emba Region) and the oil MK-22 (from the Baku Region). Properties of these oils are given. From Table 1 it can be seen that these additives show varying degrees of activity. The most active additive was the barium dialkyl dithiophosphate DF-1 when added to the oil MS-20. This additive contained about 4% P, 9% S, and 8% barium, and was used in the form of a 50% solution in spindle oil AU. The action of this additive on the characteristics of various oils was investigated under laboratory conditions. Table 3: the dependence of the corrosion of oils on the concentration of DF-1. Results of this

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SOV/65-58-9-5/14

Metal Dialkyl Dithiophosphates as Complex Additives to Lubricating Oils.

investigation indicate that the optimum concentration of the additive DF-1 is about 3%. Other tests concerned the effect of the additive on the oil MS-20 with regard to its stability to oxidation (GOST 4953-49), and its tendency to lacquer formation (GOST 6049-51) (Table 4). The acid number of the samples containing the additive, after testing in the device PZV, were considerably lower than for oils not containing the additive (Table 5). Practical experiments were carried out on the one-cylinder engine IT-9-3 (devised by VNII NP) under the supervision of V. F. Filippova. Results of these tests are given in Table 6. Table 7: the effect of the additive on the solidification point of the oils; Table 8: the effect of complex additives on some properties of the oil MS-20 (containing 3% of the additive). There are 8 Tables and 4 Soviet References.

ASSOCIATION: Institut nefti AN SSSR. (Petroleum Institute, AS USSR).

1. Lubricant additives--Effectiveness 2. Phosphates--Applications
3. Lubricating oils--Test results

Card 2/2

NIKITSKAYA, Ye. A.

SOV/62-59-6-15/42

5(3), 5(4) Petrov, Al. A., Sergiyenko, S. R., Tsedilina, A. L., Nechitayle, E. A., Amin, P. L., Nikitskaya, Ye. A.

TITLE: Synthesis and Properties of the Dimethyl-substituted Alkanes Having the Composition C_{12}-C_{16}

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 6, pp 1421-1424 (USSR)

ABSTRACT: The present paper discusses the synthesis and properties of some of the compounds mentioned in the title. The properties of the synthesized materials are given in table 1. Nearly all substances crystallize at low temperatures; only 2,4-dimethyldecane and 3,5-dimethyldecane vitrify at much lower temperatures than do their isomers or adjacent homologs. Besides reference 3 investigations aiming at an explanation of these phenomena have also been carried out by Petrov (Ref 4). It was assumed that the characteristic feature of vitrification of the two compounds mentioned is due to their structure. Various investigations were carried out to prove this assumption (determination of viscosity as a function of temperature (Table 2) and determination of molecular weight). From the results it is seen that the influence of the structure on the vitrification effect cannot be limited. It was only possible to establish a certain dependence on the branching degree of the compounds. There are 2 tables and 5 Soviet references.

Card 1/2

Card 2/2

ASSOCIATION: Institut nefti Akademii nauk SSSR (Petroleum Institute of the Academy of Sciences, USSR)

SUBMITTED: December 10, 1957

NIKITSKAYA, YL. A.

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S/062/60/000/010/012/018
B015/B064

AUTHORS: Petrov, Al. A., Sergiyenko, S. R., Tsedilina, A. L., Sanin, P. I., Nikitskaya, Ye. A., and Nechitayla, N. A.

TITLE: Synthesis and Properties of High-molecular Hydrocarbons of Mixed Structures. Information 1. Synthesis of Hydrocarbons of the Composition C_{24}

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1960, No. 10, pp. 1848 - 1857

TEXT: The authors synthesized several hydrocarbons that, up to a certain extent, may serve as models for the hydrocarbons contained in high-boiling petroleum fractions. The present paper reports on the synthesis and properties of 23 hydrocarbons with mixed structures, containing 24 hydrocarbon atoms per molecule. Compared to a similar investigation carried out by R. Schiessler et al. (Ref.2), the present studies were made on a larger scale. The influence of the degree of cyclization of the hydrocarbon molecules, the effect of the relative position of some cycles in the paraffin chain of the molecules, and the effect of the

Card 1/3

degree of substitution of the aromatic or cycloparaffin rings in the molecule upon the properties of the whole molecule were investigated (cf. Scheme of the structural changes). The hydrocarbons were synthesized by the Grignard reaction. The alcohols were dehydrated in the vapor phase by means of an aluminum catalyst used (method of the American Petroleum Institute); this was, however, done in vacuum (3-4 mm). Purification was carried out by distillation and absorption. The conditions of synthesis are described in detail for 1,1-diphenyl dodecane, while only a short information is given on the preparation of the remaining 22 hydrocarbons. Since a peculiar behavior of 2,4,6-trimethyl chloro benzyl was observed under the preparation conditions of the Grignard reagent, the characteristics of the reaction between methylated benzyl halides and magnesium are discussed (Table 1, data on diaryl ethanes obtained by reacting some substituted benzyl chlorides with magnesium). Table 2 gives the structural formulas and the most important properties of the 23 hydrocarbons obtained. The anomalies of viscosity as a function of the temperature of the polymethyl substituted benzene derivatives are remarkable, i.e., the aromatic hydrocarbons having

Card 2/3

several methyl groups on the ring have a much higher viscosity than the monosubstituted isomers. In the near future, the authors will publish a paper on the physico-chemical properties of the hydrocarbons described here (data on various spectra). There are 2 tables and 10 references: 5 Soviet, 3 US, 1 German, and 1 British.

ASSOCIATION: Institut geologii i razrabotki goryuchikh iskopayemykh Akademii nauk SSSR (Institute of Geology and Prospecting of Mineral Fuels of the Academy of Sciences USSR)

SUBMITTED: May 6, 1959

Card 3/3

SAHIN, P.I.; PETROV, Al.A.; SERGIYENKO, S.R.; NIKITSKAYA, Ye.A.

Viscous properties of some C_{24} cyclic hydrocarbons. Zhur.prikl. khim. 33 no.4:919-930 Ap '60. (MIRA 13:9)

1. Institut neftekhimicheskogo sinteza AN SSSR i Institut geologii i razrabotki goryuchikh iskopayemykh AN SSSR.
(Hydrocarbons) (Viscosity)

67570

5.3300 (B)

5(3)

SOV/20-130-2-26/69

AUTHORS: Sanin, P. I., Petrov, Al. A., Sergiyenko, S. R., Academician AS Turkm SSR, Nikitskaya, Ye. A.

TITLE: Viscosity Properties of Alkyl-aromatic Hydrocarbons and Their Hydrogenated Analogs

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 2, pp 338 - 340 (USSR)

ABSTRACT: An investigation of the viscosity of aromatic hydrocarbons containing isolated benzene rings, and their hydrogenated analogs, showed (Table 1) that the change in viscosity on hydrogenation considerably depends on the structure of the hydrocarbons. Hydrogenation of certain structures reduces the viscosity extraordinarily. The aromatic hydrocarbons (C_{24}) investigated here may be divided into 2 groups: 1) without substituents on the ring (Table 1, Nrs 1-5); 2) with methyl groups on the ring (Nrs 6-8). Hydrogenation (or transformation of aromatic into naphthene hydrocarbons, respectively) of the hydrocarbons of the 1st group increases the viscosity, and causes a higher viscosity increase with de-

Card 1/3

Viscosity Properties of Alkyl-aromatic Hydrocarbons and Their Hydrogenated Analogs

SOV/20-130-2-26/69

The data obtained by the authors make it possible to assert that the viscosity on hydrogenation of the higher-boiling petroleum fractions may also be reduced by the presence of polycyclic aromatic hydrocarbons with isolated benzene rings containing alkyl- (methyl-) groups on the ring. The cause of the viscosity change of some types of aromatic hydrocarbons on hydrogenation is unknown and must be investigated yet. There are 2 tables and 4 references, 3 of which are Soviet

ASSOCIATION: Institut neftekhimicheskogo sinteza Akademii nauk SSSR (Institute of Petroleum-chemical Synthesis of the Academy of Sciences, USSR) Institut geologii i razrabotki goryuchikh iskopayemykh Akademii nauk SSSR (Institute of Geology and the Working of Combustible Minerals of the Academy of Sciences, USSR)

SUBMITTED: September 22, 1959

SANIN, P.I.; BAGRIY, Ye.I.; PETROV, Al.A.; NIKITSKAYA, Ye.A.; TSEDILINA, A.L.

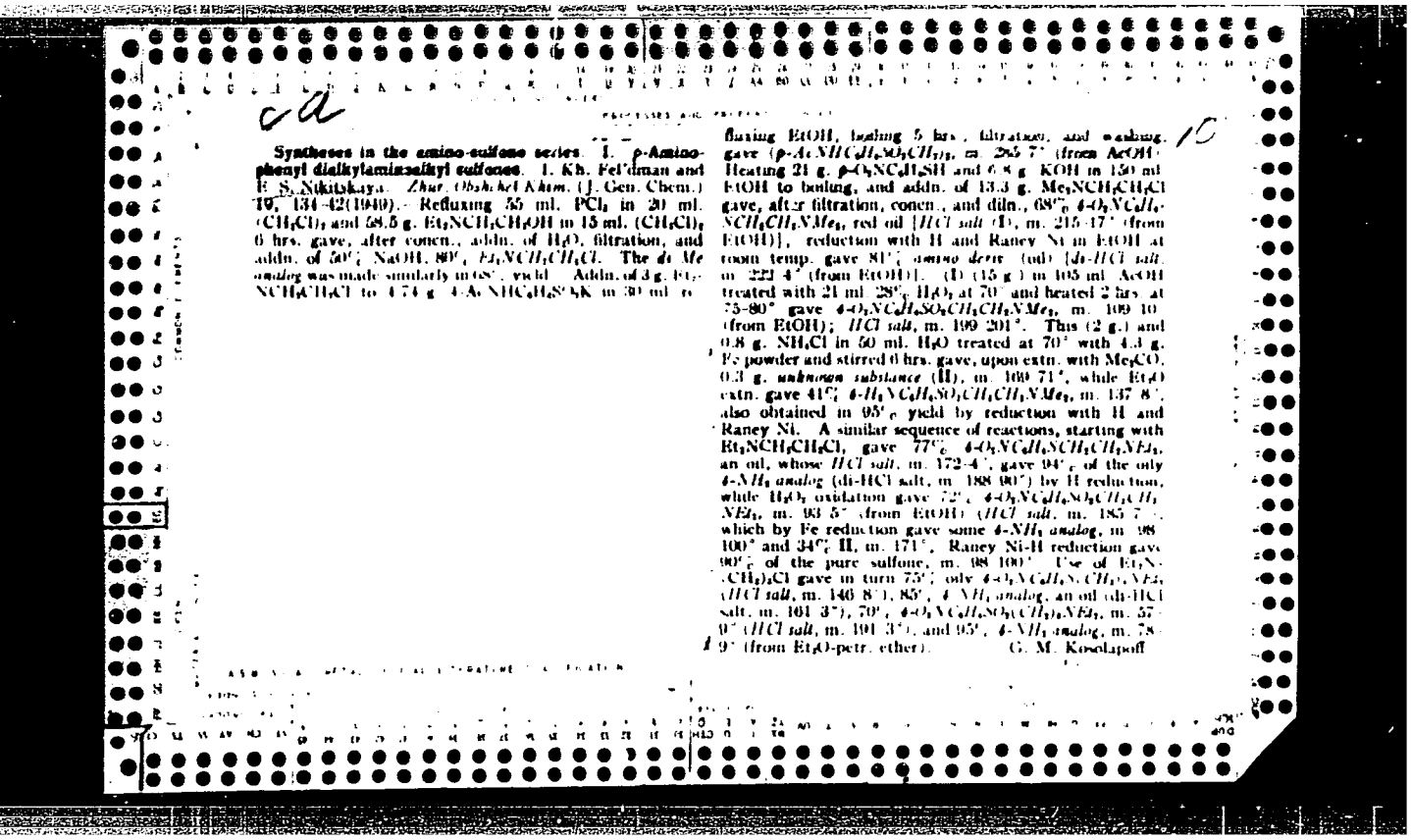
Viscosity of C_{24} and C_{28} polycyclic hydrocarbons. Neftekhimiia 3 no.6:835-844 N-D '63. (MIRA 17:3)

1. Institut neftekhimicheskogo sinteza AN SSSR im. A.V.Topchiyeva i Institut geologii i razrabotki goryuchikh iskopayemykh.

Nikitskaya, E. S.

"Sur la question de l'hydrolyse [illegible] de l'acide acétylsalicylique. [illegible] by S. I. Lourié et stati mes C. J. Starobogatov et E. S. Nikitskaïa. (p. 2-)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1939, 9, [illegible].



Syntheses in the amino-sulfone series. I. p-Aminophenyl dialkylaminoalkyl sulfones. I. Kh. Fel'dman and E. S. Nikitskaya. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 10, 134–42(1940).—Refluxing 55 ml. PCl_5 in 20 ml. $(CH_2Cl)_2$ and 58.5 g. $Et_2NCH_2CH_2OH$ in 15 ml. $(CH_2Cl)_2$ 6 hrs. gave, after concn., addn. of H_2O, filtration, and addn. of 50% NaOH, 80% *Et₂NCH₂CH₂Cl*. The *di Me analog* was made similarly in 65% yield. Addn. of 3 g. $Et_2NCH_2CH_2Cl$ to 4.74 g. $4\text{-}AcNHC_6H_4SO_2K$ in 30 ml. refluxing EtOH, boiling 5 hrs., filtration, and washing gave (*p-AcNHC₆H₄SO₂CH₂*)₂, m. 295.7° (from AcOH). Heating 21 g. $p\text{-}O_2NC_6H_4SH$ and 6.8 g. KOH in 150 ml. EtOH to boiling, and addn. of 13.3 g. $Me_2NCH_2CH_2Cl$ gave, after filtration, concn., and dilu., 68% *4-O₂NC₆H₄-NCH₂CH₂NMe₂*, red oil [*HCl salt* (I), m. 215–17° (from EtOH)], reduction with H and Raney Ni in EtOH at room temp. gave 81% *amino deriv.* (oil) [*di-HCl salt*, m. 222.4° (from EtOH)]. (I) (15 g.) in 105 ml. AcOH treated with 21 ml. 28% H_2O_2 at 70° and heated 2 hrs. at 75–80° gave *4-O₂NC₆H₄SO₂CH₂CH₂NMe₂*, m. 109.10° (from EtOH); *HCl salt*, m. 199.201°. This (2 g.) and 0.8 g. NH_4Cl in 50 ml. H_2O treated at 70° with 4.3 g. Fe powder and stirred 6 hrs. gave, upon extn. with Me_2CO, 0.3 g. *unknown substance* (II), m. 169.71°, while Et_2O extn. gave 41% *4-H₂NC₆H₄SO₂CH₂CH₂NMe₂*, m. 137.8°, also obtained in 95% yield by reduction with H and Raney Ni. A similar sequence of reactions, starting with $Et_2NCH_2CH_2Cl$, gave 77% *4-O₂NC₆H₄SCH₂CH₂NEt₂*, an oil, whose *HCl salt*, m. 172–4°, gave 94% of the only *4-NH₂ analog* (di-HCl salt, m. 188.90°) by H reduction, while H_2O_2 oxidation gave 72% *4-O₂NC₆H₄SO₂CH₂CH₂NEt₂*, m. 93.5° (from EtOH) (*HCl salt*, m. 185.7°), which by Fe reduction gave some *4-NH₂ analog*, m. 98.100° and 34% II, m. 171°. Raney Ni-H reduction gave 90% of the pure sulfone, m. 98.100°. Use of $Et_2N(CH_2)_2Cl$ gave in turn 75% only *4-O₂NC₆H₄N(CH₂CH₂NEt₂)₂* (*HCl salt*, m. 146.8°), 85% *4-NH₂ analog*, an oil (di-HCl salt, m. 161.3°), 70% *4-O₂NC₆H₄SO₂(CH₂)₂NEt₂*, m. 57.9° (*HCl salt*, m. 191.3°), and 95% *4-NH₂ analog*, m. 78.9° (from Et_2O-petr. ether). G. M. Kosolapoff

NIKITSKAYA, Ye. S.

USSR/Chemistry - Pharmaceuticals Feb 52

"Synthesis of Aminosulfides and Aminosulfones. VIII. Synthesis of Aminoaryl- β-Ketonosulfones and Their Derivatives," I. Kh. Fel'dman, Ye. S. Nikitskaya, All-Union Sci Res Chem-Phar Inst imeni S. Ordzhonikidze, Moscow

"Zhur Obshch Khim" Vol XXII, No 2, pp 278-285

Prepd 12 aminoaryl- β-ketonosulfones and derivs not described in the literature. Studied acid properties of methylene group in 2 of these: p-acetylaminophenylphenacylsulfone (I) and p-acetylaminophenyl-p'-acetylaminophenacylsulfone (II). Found that (a) H atom of methylene group of I reacts with alkylhalides

209T25

USSR/Chemistry - Pharmaceuticals (Contd) Feb 52

to form monoalkyl compds, with aldehydes to form ethylene derivs, while H atom of methylene group of II under same conditions does not react with alkylhalides, but reacts with aldehydes to yield ethylene derivs; (b) ethylene derivs of I and II prepd by reaction with salicylic aldehyde (III) react with Br_2, adding Br in nucleus of III to form dibromides; (c) hydrolysis of acetyl groups of ethylene derivs yields amino compds whose double bonds can not be hydrogenated at normal pressure and room temp or in presence of either Raney Ni or Pt (according to Adams) catalysts.

209T25

SHCHUKINA, M.N.: PERCHIN, G.M.: MAKEYEVA, G.G.: GAZOVSKA, YE. D.: MIKITSKAYA, YE. I.: YANINA, A.I.: YAKOVLEVA, A.I.

Tuberculosis

Isonicotinoylhydrazones and their antituberculous activity. [illegible]

Monthly List of Russian Accessions, Library of Congress, [illegible]

NIKITSKAYA, E.S.

7

Synthesis of γ-substituted pyridines. M. V. Rubtsov, E. S. Nikitskaya, and A. D. Yablokova (S. Ordzhonikidze All-Union Chem. Pharm. Inst., Moscow). *Zhur. Obshchei Khim.* 23, 1069–74(1953); cf. *C.A.* 48, 1532g.—To 2.42 g. 4-formylpyridine (I) (prepd. by oxidation of 4-picoline) in PhMe was added 10 ml. 50% $NaHSO_3$, the mixt. cooled to 0°, stirred until a mush formed, the liquid was decanted off, and the solid mass rubbed with EtOH, yielding 7.3 g. *Na 1-pyridylhydroxymethanesulfonate* (II) mixed with $NaHSO_3$. Cryst. from H_2O gave needles of $^+HN{:}CH{-}CH{:}C[CH(OH)SO_3^-]{\cdot}CH{:}CH$ (A), sol. in hot H_2O, insol. in org. solvents, does not melt. A (0.5g.) treated with 2.25 ml. *N* NaOH followed by 50 ml. abs. EtOH gave 95% regenerated II, which with $NaHSO_3$ again gave A. Prolonged stirring in PhMe of 3.1 g. II with 2.61 g. $H_2NNHCSNH_2$ in H_2O at 70–5° gave a green ppt., m. 213–14° (crude), m. 215–17° (from EtOH), identified as I *thiosemicarbazone*, which with 10% HCl formed a yellow *HCl salt*, m. 238.5–9.5° (from 50% EtOH). Crude II (7.6 g.) heated 5 min. with 15 ml. H_2O and 30 ml. 50% K_2CO_3 developed a strong aldehyde odor, and after rapid extn. with $CHCl_3$, the ext. gave 1.56 g. I, b. 182–7°, rapidly freezing to a *monohydrate*, m. 53–60°; I forms a *HCl salt hemihydrate*, m. 133–4°, which sublimes *in vacuo* after loss of H_2O; the *dry salt*, m. 159.5–61.5°, is again rapidly converted to the hemihydrate. Heating 3.1 g. I.HCl with 3.20 g. $CH_2(CO_2H)_2$ and 2.5 ml. AcOH 45 min. at 85–90° gave 5.3 g. *1-(2,2-dicarboxyvinyl)pyridine-HCl* (III), m. 218–20°, which with an equiv. of NaOAc yielded the free base, decomp. 253–6° (*sesquihydrate*, losing H_2O *in vacuo* at 110°). III (1 g.) hydrogenated in 1% HCl over Pt(0) at slight pressure gave 91% *1-(2,2-dicarboxyethyl)piperidine-HCl*, m. 237–8°, yielding with AcONa the free *base*, decomp. 255.5–6.0°. The HCl salt refluxed 4 hrs. with 1% ale. HCl gave, after the usual treatment, 79.5% *mono-Et ester-HCl*, m. 125–9°. Letting 3.3 g. I.HCl stand 1 day with 3.53 g. $CH_2(CO_2Et)_2$, 8.6 ml. pyridine, and 3.3 ml. piperidine gave, after filtration of the piperidine (II), evapn. of the filtrate at 50° *in vacuo*, diln. with H_2O, filtration, washing the soln. with 15% Na_2CO_3, and di-m., 62% gave the *HCl salt*, m. 180–2° (from EtOH). Hydrogenation gave the Et analog described previously. G. M. K.

NIKITSKAYA, YE. S.

USSR/Chemistry - Drugs Sep 53

"Aminoalkyl Derivatives of Quinuclidine," M.V. Rubtsov, Ye.S. Nikitskaya, Ye.Ye. Mikhlina, A.D. Yanina, and V.Ya. Furshtatova, All-Union Sci-Research Chemico-Pharmaceut Inst im Ordzhonikidze

Zhur Obshch Khim, Vol 23, No 9, pp 1555-1559

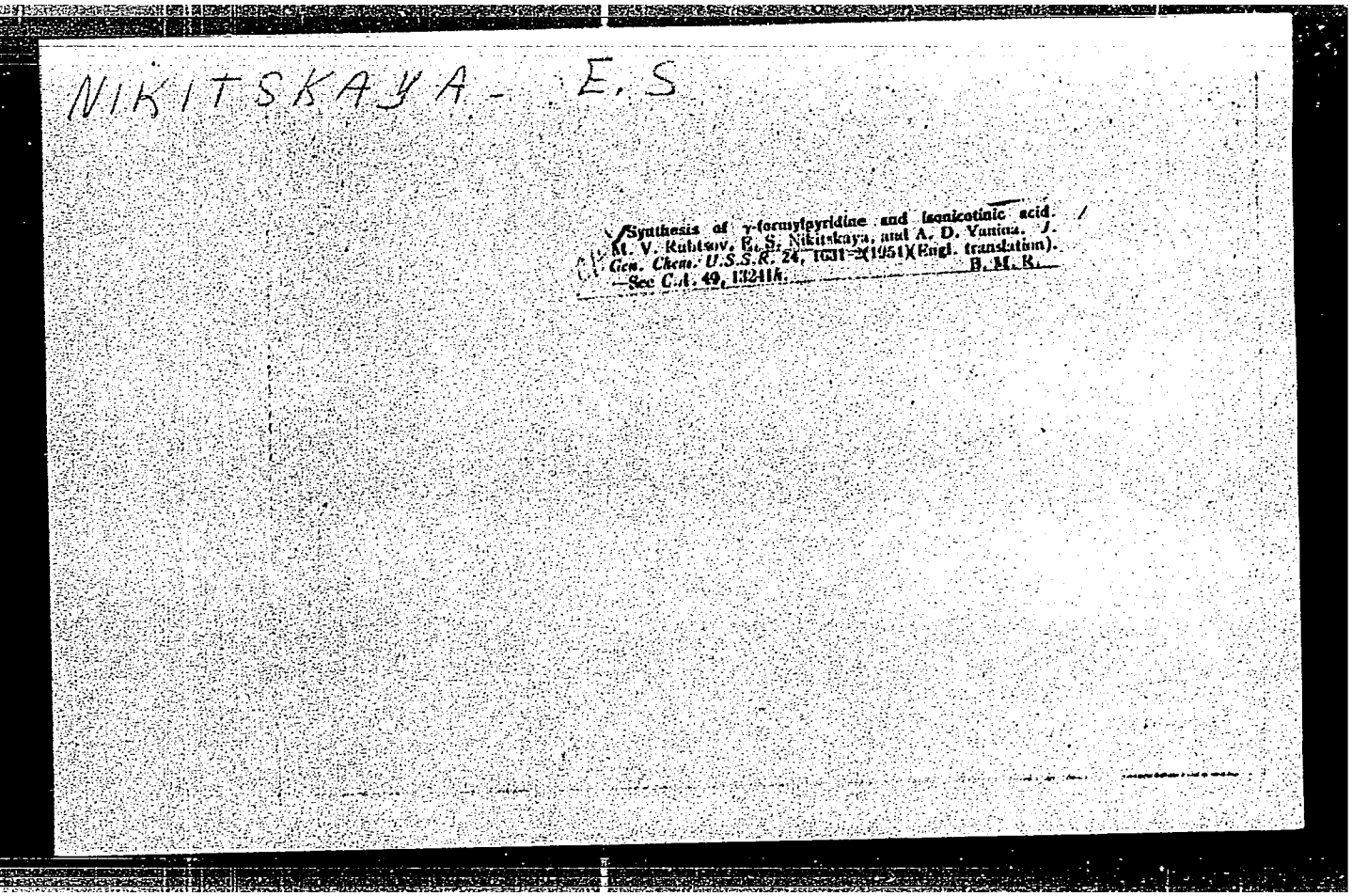
A number of substituted 2-aminomethyl quinuclidines and 2-aminomethyl-3-(β-aminoethyl)-quinuclidines were synthesized.

268T33

NIKITSKAYA E.S.

Chemical Abst.
Vol. 48 No. 8
Apr. 25, 1954
Organic Chemistry

Synthesis of 4-substituted derivatives of pyridine. M. V. Rubtsov, E. S. Nikitskaya, and A. P. Yunina (Ordzhonikidze All-Union Chem. Pharm. Inst., Moscow). *Doklady Akad. Nauk S.S.S.R.* 89, 81-3(1953).—Selective oxidation of 4-picoline is possible in the presence of 1-picoline. 4-Formylpyridine (I) in PhMe with 50% $NaHSO_3$ yields a colorless solid mixt. of $NaHSO_3$ and *Na α-hydroxy-4-pyridinemethanesulfonate* (II); crystn. of the mixt. from H_2O yields Na-free needles of the *inner salt of α-hydroxy-4-pyridinemethanesulfonic acid*, with evolution of Na_2SO_3; AcOH acts similarly. Heating II briefly with 35% K_2CO_3, extn. with $CHCl_3$ or Et_2O, and evapn. of the ext. gave an *odoriferous liquid*, b. 185–7°, which crystallizes in air; this is pure I; in contact with air it yields the *hydrate*, m. 58–60°. Much I is distd. along with the solvent (above), as can be detected by addn. of EtOH-HCl, which ppts. *I.HCl*, m. 132–4° (*hemihydrate*), m. 159.6–61.5° (anhyd. after drying by vacuum distn.). I yields a *semicarbazone*, yellow, m. 216–17° (from EtOH). I.HCl condenses with $CH_2(CO_2H)_2$ in AcOH at 85–90°, yielding 81% *4-(2,2-dicarboxyvinyl)pyridine-HCl* (III), m. 219–20°; with NaOAc it yields the free *base*, contg. 1.5 H_2O, m. 205.5°, which loses all the H_2O *in vacuo* at 109°. I.HCl and $CH_2(CO_2Et)_2$ in pyridine and a slight excess of piperidine kept 4–5 days in the cold gave 62% *4-[2,2-bis(ethoxycarbonyl)vinyl]pyridine* (IV), b. 162–4°. III heated with EtOH-HCl loses CO_2, yielding *Et 4-pyridineacrylate*. The free base of III reacts with $SOCl_2$ only at 70° with partial decarboxylation. Hydrogenation of III gave *4-(2,2-dicarboxyethyl)piperidine-HCl*, m. 235–7°; free *base*, m. 253.5–6.0°, esterified to *di-Et ester*, whose *HCl salt*, m. 143–9°, is also obtained by hydrogenation of IV over Pt. G. M. K.



NIKITSKAYA, E. S.

Synthesis of γ-formylpyridine and isonicotinic acid. / M. V. Rubtsov, E. S. Nikitskaya, and A. D. Yanina. J. Gen. Chem. U.S.S.R. 24, 1631–2(1954)(Engl. translation). See C.A. 49, 13241h. B. M. B.

NIKITSKAYA - E. S.

Synthesis of substituted 2-aminomethylquinuclidines. M. V. Rubtsov and E. S. Nikitskaya. *J. Gen. Chem. U.S.S.R.* 24, 1641–4(1954)(Engl. translation).—See *C.A.* 49, 13250e. B. M. R.

NIKITSKAYA, E.S.

USSR/Chemistry - Synthesis

Card 1/1 : Pub. 151 - 34/42

Authors : Rubtsov, M. V.; Nikitskaya, E. S.; and Yanina, A. D.

Title : Synthesis of gamma-formylpyridine and isonicotinic acid

Periodical : Zhur. ob. khim. 24/9, 1648-1651, Sep 1954

Abstract : The conditions favorable for the synthesis of gamma-formylpyridine by selective oxidation of gamma-picoline, with selenium dioxide in the presence of beta-picoline, are described. Two variants for the derivation of isonicotinic acid, with a yield of 75-80% of the initial gamma-picoline, were developed. The effect of selenium dioxide, on the selective oxidation of gamma-picoline, is explained. Five references: 2-USSR; 1-Swiss; 2-German and USA (1934-1953).

Institution : The S. Ordzhonikidze All-Union Scientific Research Chemical Pharmaceutical Institute

Submitted : April 14, 1954

NIKITSKAYA, E.S.

USSR/Chemistry - Synthesis

Card 1/1 : Pub. 151 - 36/42

Authors : Rubtsov, M. V., and Nikitskaya, E. S.

Title : Synthesis of substituted 2-aminomethylquinuclidine

Periodical : Zhur. ob. khim. 24/9, 1659-1664, Sep 1954

Abstract : The synthesis of numerous 2-alkyl(aryl)aminomethylquinuclinidines, from 2-quinuclinidine carboxylic acid, is described. The derivation of 2-aminomethylquinuclidine containing the quinoline and acridine cycles through the reaction of 2-aminomethylquinuclidine with 6-methoxy-4-sulfoquinoline and 9-phenoxyacridine is reported. One USSR reference (1953).

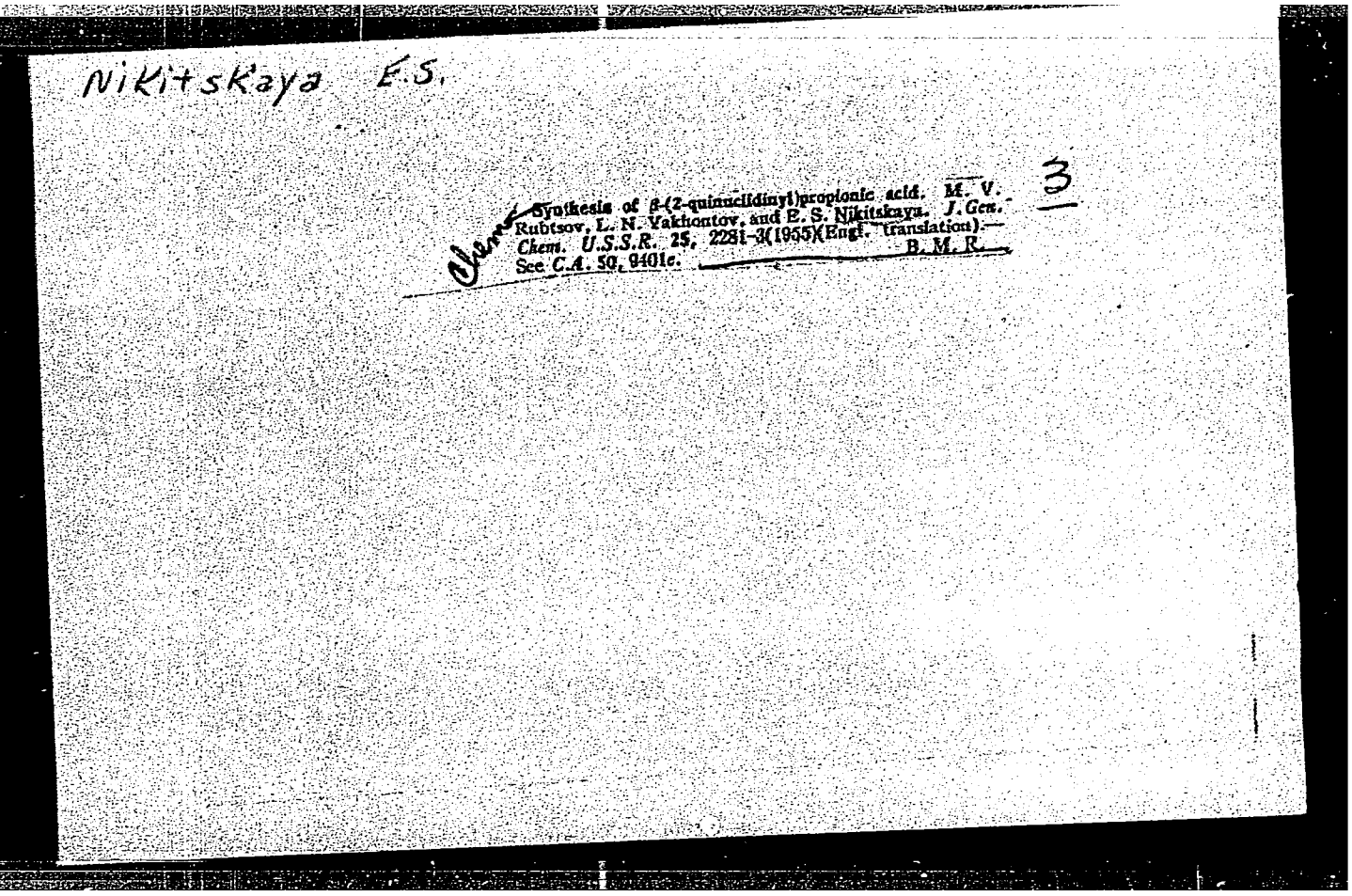
Institution : The S. Ordzhonikidze All-Union Scientific Research Chemical Pharmaceutical Institute

Submitted : January 13, 1954

NIKITSKAYA, Ye. S.

Basic methods of isonicotinic acid production. Med.prom. no.1:12-14 Ja-Mr '55. (MLRA 8:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(NICOTINIC ACID ISOMERS, preparation of)



Nikitskaya E.S.

Synthesis of β-(2-quinuclidinyl)propionic acid. M. V. Rubtsov, L. N. Yakhontov, and E. S. Nikitskaya. *J. Gen. Chem. U.S.S.R.* 25, 2281-3(1955)(Engl. translation). See *C.A.* 50, 9401e. B.M.R.

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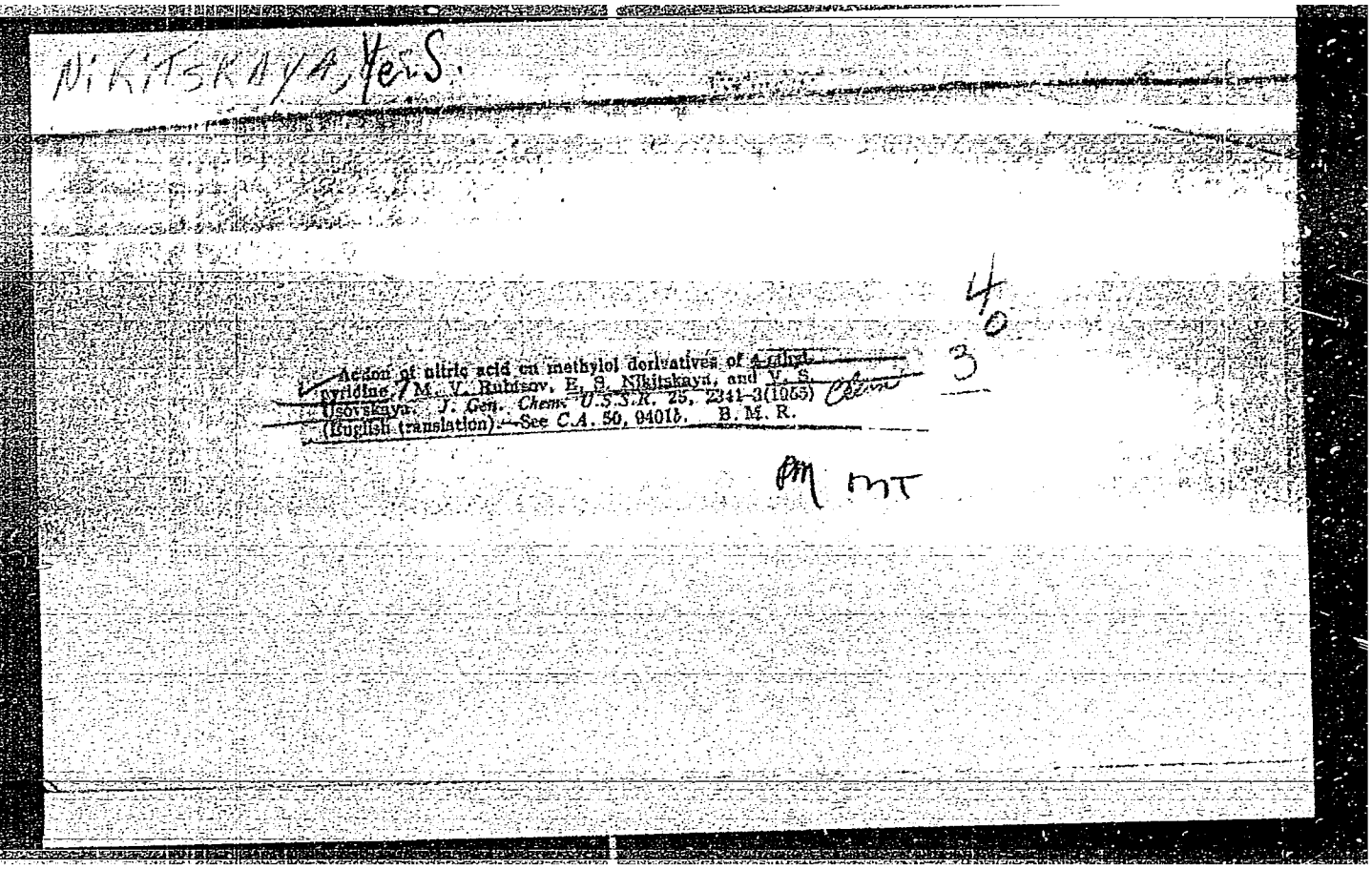
NIKITSKAYA, E. S.

690

Synthesis of β-(2-quinuclidinyl)propionic acid. M. V. Rubtsov, L. N. Yakhontov, and E. S. Nikitskaya (S. Ordzhonikidze All-Union Chem. Pharm. Research Inst., Moscow). *Zhur. Obshchel Khim.* 25, 2311–13(1955).—Keeping 6.7 g. 2-formylquinuclidine, 3 ml. dry pyridine, and 5 drops piperidine with 0.8 g. $CH_2(CO_2Et)_2$ 4 days gave after extn. with Et_2O, 66% *di-Et 2-quinuclidinylmethylenemalonate*, $C_{18}H_{29}O_4N$, b_7 142–3°, $n^{20}D$ 1.4821. Refluxed with concd. HCl 6 hrs. it gave 90% *β-(2-quinuclidinyl)acrylic acid·HCl*, m. 197–8°, which hydrogenated over Raney Ni gave *β-(2-quinuclidinyl)propionic acid·HCl*, decomp. 215–16°, also formed from upon hydrolysis of the ester, b_{11} 140–50°, obtained by condensation of 2-bromoethylquinuclidine·HBr with $NaCH(CO_2Et)_2$. Treatment of the acid HCl salt with $SOCl_2$, followed by refluxing the crude acyl chloride with EtOH gave *Et β-(2-quinuclidinyl)propionate*, isolated as the *methiodide*, m. 87–9°, in 37.5% yield.
G. M. Kosolapoff



NIKITSKAYA, Ye. S.

Action of nitric acid on methylol derivatives of 4-ethyl-pyridine. M. V. Rubtsov, E. S. Nikitskaya, and V. S. Usovskaya. *J. Gen. Chem. U.S.S.R.* 25, 2341-3(1955) (English translation).—See *C.A.* 50, 9401b. B. M. R.

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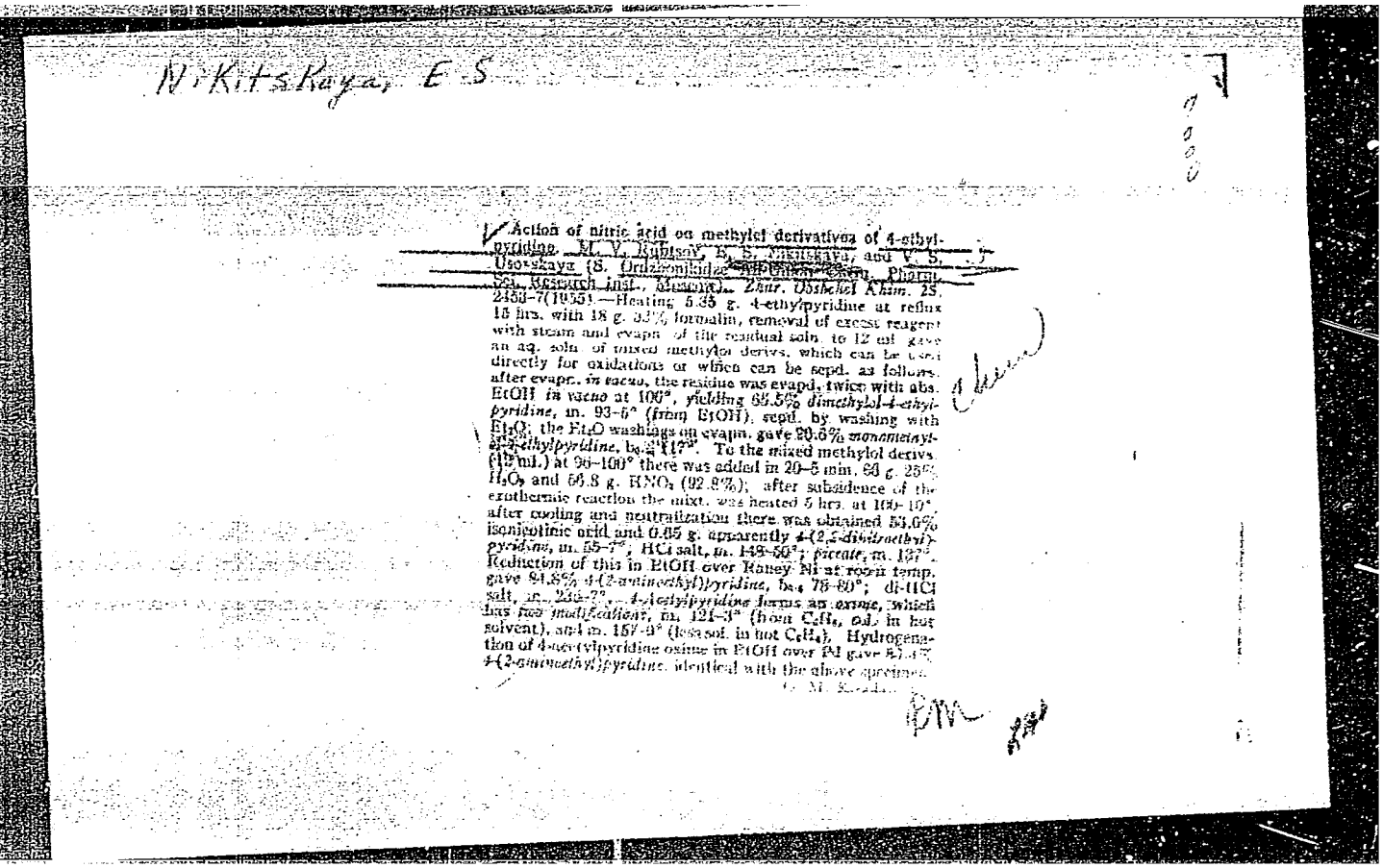

Nikitskaya, E S

Action of nitric acid on methylol derivatives of 4-ethylpyridine. M. V. Rubtsov, E. S. Nikitskaya, and V. S. Useteskaya (S. Ordzhonikidze All-Union Chem. Pharm. Co., Research Inst., Moscow). *Zhur. Obshchei Khim.* 25, 2453–7(1955).—Heating 5.35 g. 4-ethylpyridine at reflux 15 hrs. with 18 g. 37% formalin, removal of excess reagent with steam and evapn. of the residual soln. to 12 ml. gave an aq. soln. of mixed methylol derivs. which can be used directly for oxidations or which can be sepd. as follows. after evapn. *in vacuo*, the residue was evapd. twice with abs. EtOH *in vacuo* at 100°, *yielding* 65.5% *dimethylol-4-ethylpyridine*, m. 93–6° (*from* EtOH), sepd. by washing with Et_2O; the Et_2O washings on evapn. gave 20.6% *monomethylol-4-ethylpyridine*, b$_{4}$ 112°. To the mixed methylol derivs. (12 ml.) at 90–100° there was added in 20–5 min. 80 g. 25% H_2O_2 and 66.8 g. HNO_3 (92.8%); after subsidence of the exothermic reaction the mixt. was heated 5 hrs. at 100–10°, after cooling and neutralization there was obtained 51.0% isonicotinic acid and 0.05 g. apparently *4-(2,5-dinitroethyl)-pyridine*, m. 65–7°, HCl salt, m. 148–50°; *picrate*, m. 137°. Reduction of this in EtOH over Raney Ni at room temp. gave 94.8% *4-(2-aminoethyl)pyridine*, b$_{4}$ 78–80°; di-HCl salt, m. 240–2°. *4-Acetylpyridine* forms an *oxime*, which has *two modifications*, m. 121–3° (from C_6H_6, oil in hot solvent), and m. 157–9° (less sol. in hot C_6H_6). Hydrogenation of 4-acetylpyridine oxime in EtOH over Pd gave 87.4% *4-(2-aminoethyl)pyridine*, identical with the above specimen.

G. M. Kosolapoff

NIKITSKAYA, YE S

USSR/Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61543

Author: Rubtsov, M. V., Nikitskaya, Ye. S., Usovskaya, V. S.

Institution: None

Title: Alkamino Esters of Some Heterocyclic Acids as Possible Hypotensive Remedies

Original Periodical: Zh. obshch. khimii, 1956, 26, No 1, 130-134

Abstract: There have been synthesized the diethylaminoethyl esters of dipicolinic (I), dipipecolinic (II), N-methyl dipipecolinic (III), 6-methyl picolinic (IV), 6-methyl pipecolinic (V), 1,6-cimethyl pipecolinic (VI), and quinuclidine carboxylic-2 acid (VII). On pharmacological investigation it was found that the di-methyl iodides of VI and VII have high ganglion-blocking activity. A mixture of 3 g dipicolinic acid (VIII) and 30 ml $SOCl_2$ is boiled until completely dissolved (6-8 hours) heat the thus formed di-acid chloride (IX) with 30 ml diethylaminoethanol (X) for 6 hours at

Card 1/3

USSR/Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61543

Abstract: 90%, BP 103-105°/0.25 mm, and the ethyl ester of 6-methyl pipecolinic acid (XV), yield 92%, BP 99-100°/13 mm; hydrochloride MP 213-215°. Mixture of 4.27 g XIV, 1.32 g CH_3J and 23 ml absolute alcohol heated for 6 hours at 40-45°, evaporated in vacuum, residue extracted with dry C_6H_6, the insoluble hydroiodide of XIV is filtered off and from the benzene extract is recovered the diethyl ester of N-methyl dipipecolinic acid (XVI), yield 52.7%, BP 107-108°/0.2 mm. Analogously is prepared the ethyl ester of 1,6-dimethyl pipecolinic acid, yield 43.7%, BP 53-54°/0.2 mm; hydrochloride MP 198-200°. In 7 ml of X are dissolved 0.01 g Na, added with stirring 1.32 g XVI, heated 3 hours at 150° (distilling off the alcohol) excess of X is distilled off, the residue is treated with 50% solution K_2CO_3 and extracted with ether; III is thus obtained, yield 51.2%, BP 176-178°/0.2 mm; methyl iodide and hydrochloride are oily subs[redacted] Analogously is synthesized VI, yield 44.7%, BP 106-108°/0.25 mm; dimethyl iodide MP 201-202°.

Card 3/3

Nikitskaya, Ye. S.

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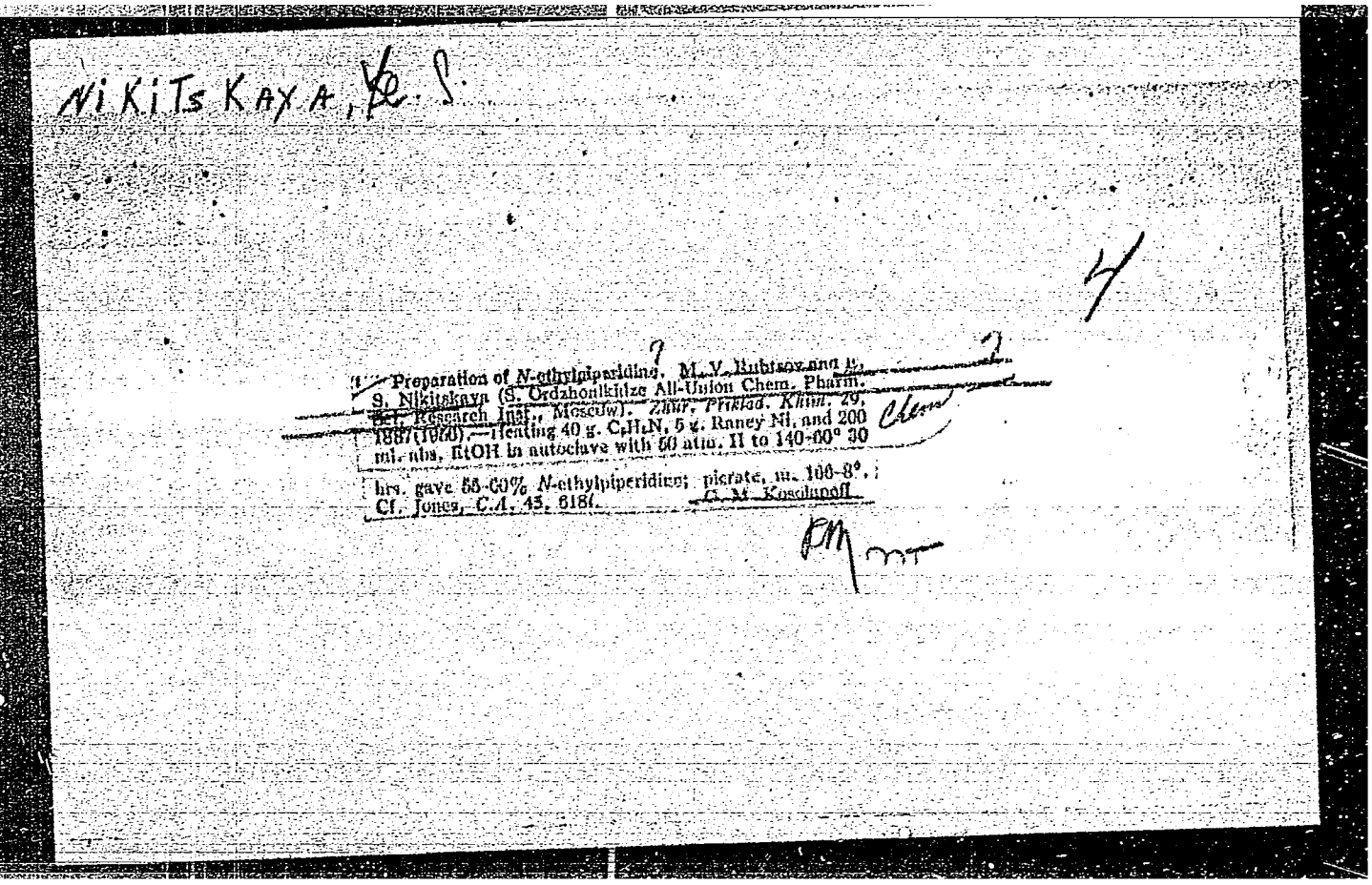
7 2

✓Hydrogenation of 4-(β,β-dicarbethoxyvinyl)pyridine in the presence of Raney nickel catalyst. [illegible] Nikitskaya and M. V. Rubtzov (S. Ordzhonikidze All-Union Chem. Pharm. Research Inst., Moscow). *Zhur. Obshchei Khim.* 26, 3119-23(1956); cf. C.A. 48, 7610a.—Hydrogenation of 4-(β,β-dicarbethoxyvinyl)pyridine (I) (40 g.) in 200 ml. dry EtOH over 4 g. Raney Ni with 50 atm. H 8 hrs. at room temp. gave 13.9% *1,4-di(4-pyridyl)-2,2,3,3-tetracarbethoxybutane* (II), m. 145-7°, while the mother liquor on distn. gave 63.5% *4-(β,β-dicarbethoxyethyl)pyridine* (III), m. 166-7°; *HCl salt*, m. 146-8°, which on hydrolysis and decarboxylation gave *β-(4-pyridyl)propionic acid*, m. [illegible]-9°. Refluxing II with concd. HCl 8 hrs. gave [illegible] *1,4-di(4-pyridyl)-2,3-dicarboxybutane*, m. 344-5°. When I was hydrogenated as above but at 80-120° there was formed 70% III. Hydrogenation of I at 140-60° 30 hrs. gave 91% *Et β-(1-ethyl-4-piperidyl)propionate* (IV), b[illegible] 105-10°, *picrate*, m. 102-4°; *HCl salt*, m. 101-[illegible]°. Refluxing the ester 8 hrs. with concd. HCl gave the *free acid*, isolated as the *HCl salt*, m. 167-9°. Hydrogenation of I in [illegible] at 140-60° gave *Me β-(1-methyl-4-piperidyl)propionate* [illegible] *HCl salt*, m. [illegible] *picrate*, m. [illegible] HCl gave *β-(1-methyl-4-piperidyl)propionic acid* [illegible] some mixed *Me and Et* [illegible] *propionic acid*, b. 104-6°, which [illegible] the *free acid*, isolated as the *HCl salt* [illegible] Hydrogenation of I at 140-60° in dioxane gave [illegible] IV. [illegible] M. Kosolapoff



NIKITSKAYA, Ye. S.

4

Preparation of *N*-ethylpiperidine. M. V. Rubtsov and E. S. Nikitskaya (S. Ordzhonikidze All-Union Chem. Pharm. Sci. Research Inst., Moscow). *Zhur. Prikład. Khim.* 29, 1867(1960).—Heating 40 g. $C_5H_{11}N$, 5 g. Raney Ni, and 200 ml. abs. EtOH in autoclave with 50 atm. H to 140–60° 30 hrs. gave 55–60% *N*-ethylpiperidine; picrate, m. 106–8°. Cf. Jones, *C.A.* 45, 618f. G. M. Kosolapoff

AUTHORS: Nikitskaya, Ye. S., Rubtsov, M. V.

TITLE: Synthesis of Bicyclic Systems Starting From 2,6-Lutidine. Synthesis of 9-Methyl-2-Oxy-9-Azabicyclo (3,3,1)-Nonanes (Azobicyclic)
(Sintez bitsiklicheskikh sistem, iskhodya iz 2,6-lutidina)
(Sintez 9-Metil- 2- oksi - 9 - azabitsiklo (3,3,1) - nonana).

PERIODICAL: Zhurnal Obshchey Khimii, 1957, Vol. 27, Nr 11, pp. 2123-2126 (USSR)

ABSTRACT: The investigation of the azobicyclic compounds of the octane series (quinuclidine, tropane) showed that they are of great interest as raw products for the synthesis of remedies. Thus compounds with curative, ganglion-blocking, spastmatic, mydriatic and other properties were discovered among the tropine derivatives. It was of interest to investigate the bicyclic systems close to the tropane series. Thus the authors synthesized 9-methyl-2-oxy-9-azobicyclo- (3,3,1)-nonane by starting from the ethyl ester of 6-methylpicolinic acid (obtained from 2,6-lutidine). (See the process of reaction). The initial, intermediate and final products are as follows: the ethyl ester of 6-methylpicolinic acid, the product of

Card 1/2

Synthesis of Bicyclic Systems Starting From 2,6-Lutidine. 79-1-46/56
Synthesis of 9-Methyl-2-Oxy-9-Azabicyclo (3,3,1)-Nonanes (Azobicyclic)

its condensation with chloral, 2-carboxy-6- (β-carboxyvinyl)-pyridine, 2-carbethoxy-6- (β-carbethoxyethyl)-piperidine, 9-methyl-2-keto-9-azobicyclo (3,3,1)-nonane which on reduction with aluminumhydrate of lithium is converted to 9-methyl-2-oxy-9-azobicyclo (3,3,1)-nonane.
There are 3 references, 1 of which is Slavic.

ASSOCIATION: All-Union Scientific Research Institute for Pharmaceutical Chemistry imeni S. Ordzhonikidze (Vsesoyuznyy nauchno - issledovatel'skiy khimiko - farmatsevticheskiy institut im. S. Ordzhonikidze).

SUBMITTED: November 27, 1956

AVAILABLE: Library of Congress

1. Cyclic compounds - Synthesis

Card 2/2

NIKITSKAYA, YE. S.

AUTHORS: Nikitskaya, Ye. S., Vasyukova, V. S., [illegible]

TITLE: Tertiary Amines of Some Heterocyclic Compounds as Potential Means For Blocking Nerve Ganglia (Tretichnyye aminy nekotorykh geterotsiklov kak vozmozhnyye gipotensivnyye sredstva.)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 1, pp. 141-[illegible] (USSR).

ABSTRACT: The quaternary ammonia salts with their quaternary nitrog[illegible] were formerly considered the most important source of re[illegible] medies for blocking ganglia. But the most recent investiga[illegible] ions showed that this may also be the case with secondary and tertiary amines (reference 2). Thus the authors had already earlier found that e.g. the pertinent 2-diethylaminoethyl-aminomethylquinuclidine (formula (a)) possesses a high activity in the above-mentioned sense. As compounds of this type of activity are of great importance for healing hypertonia it was expedient to synthesize simpler compounds of a similar type, namely that of the pyridine and piperidine series. By the conversion of the hydrochlorides or esters of dipicolinic and 6-methylpicolinic acid with different amines it was possible to produce the amides (I and II). In spite of

Card 1/2

Tertiary Amines of Some Heterocyclic Compounds as Possible [illegible]
Means For Blocking Nerve Ganglia.

indications in publications that no amines can be obtained from the amides of pyridincarboxylic acids with the aid of the aluminum hydride of lithium the authors succeeded in converting most of the obtained amides to the amines (III) although the yield on that occasion was small and by-prod. occurred. The reduction of the amides of piperidincarboxylic acids took place much better with good yields and easy isolation (IV). The pharmacological investigation of the pyridine and piperidine derivatives which was performed by I. M. Sharapov showed that 1 6-dimethyl-2-(β-diethylaminoethyl-aminomethyl)-piperidine (IV d) possesses a high activity in the above-mentioned sense that it even ten times surpasses that of tetraethylammoniumiodide. There are 1 table and 6 references, 5 of which are Slavic.

ASSOCIATION. All Union Scientific Chemical-Pharmaceutical Institute imeni S. Ordzhonikidze (Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze)

SUBMITTED: January 7, 1957

AVAILABLE: Library of Congress

Card 2/2 1. Chemistry 2. Cyclic compounds 3. Amides

SOV/79-28-10-32/60

AUTHORS: Nikitskaya, Ye. S., Mikhlina, Ye. Ye., Yakhontov, L. N., Furshtatova, V. Ya.

TITLE: Synthesis of the Hydrazines and Hydrazones of Some Heterocyclic and Aromatic Acids (Sintez gidrazidov i gidrazonov nekotorykh geterotsiklicheskikh i aromaticheskikh kislot)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol 28, Nr 10, pp 2786 - 2790 (USSR)

ABSTRACT: In earlier investi ations (Ref 1) it was shown that t e hydrazine of isonicotinic acid and its hydrazones develop an antitubercular activity. It was, therefore, of interest to the authors to syntnesize the hydrazides and their derivatives of the pyridyl-4-acetic acid, β-(pyridyl-4)acrylic and β-(pyridic-4)-propionic acid, as these differ from the isonicotinoyl hydrazone only by the presence of one and more methyl groups between the pyriline nucleus and the hydrazine radical. Therefore it was desired to obtain hydrazides and hydrazones from acids of the pyperidine and quinuclidine series in order to explain the effect of the mutioned cycles on the biological effect of these compounds and to

Card 1/3

compare them in this respect with the similar compounds of the pyridine series. To this end the hydrazides of the following acids were synthesized: isonipecotinic, pyridyl-4-acetic-, piperidyl-4-acetic-, β-(pyridyl-4)propionic-, β-(piperidyl-4)propionic-, β-(pyridyl-4)-acrylic-, 6-methyl picolic- and α- quinuclidine carboxylic acid. As the p-nitro-benzoic acid is closely related to the isonicotinic acid, its hydrazide and hydrazones were also synthesized to explain its structure and activity. The synthesis of the hydrazides was carried out by the reaction of the ethyl esters of the acids with hydrazine hydrate in alcohol solution (Refs 5,6) already earlier synthesized by the authors. The subsequent reaction of the hydrazides with various aldehydes lead to the hydrazones. The constants of the obtained products, analyses and yields are given in tables 1-4. The biological investigation of the antitubercular activity showed that the synthesized products are much less effective than the corresponding derivatives of isonicotinic acid. There are 4 tables

Card 2/3

Synthesis of the Hydrazines and Hydrazides of Some Heterocyclic and Aromatic Acids

and 6 references, 3 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze (All-Union Scientific Chemopharmaceutical Research Institute imeni S.Ordzhonikidze)

SUBMITTED: September 28, 1957

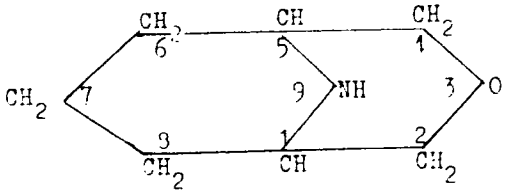
Card 3/3

AUTHORS: Nikitskaya, Ye. G., Usovskaya, V. S., SOV/79-29-1-28/74
Kuptsov, P. V.

TITLE: Bicyclic Systems Derived From 2,6-Lutidine (Bitsiklicheskiye sistemy na baze 2,6-lutidina)
II. Synthesis of the 3,9-Oxazabicyclo-[3,3,1]-Nonane and Its N-Derivatives (II. Sintez 3,9-oksazabitsiklo-[3,3,1]-nonana i yego N-proizvodnykh)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 1, pp 124-129 (USSR)

ABSTRACT: In continuing work on the synthesis of the bicyclic systems derived from 2,6-lutidine the authors obtained a new compound, the 3,9-oxazabicyclo-(3,3,1)-nonane



Card 1/3 The diethyl ester of the dipipecolinic acid, obtained from

SOV/79-29-1-28/71

Bicyclic Systems Derived From 2,6-Lutidine.
II. Synthesis of the 3,9-Oxazabicyclo-[3,3,1]-Nonane and Its N-Derivatives

2,6-lutidine, was used as initial product (Ref 1). By the reduction of the ethyl ester of this acid with aluminum-lithium hydride in ether solution compound (I) was obtained which yielded (II) by methylation. By the action of thionyl chloride in the hydrochlorides of (I) and (II), (III) and (IV) were formed. On longer boiling of (I) with sulfuric acid (V) resulted, a slightly volatile, crystalline and salt-forming product (on nitrogen), from which some of its N-substituted derivatives were obtained. From compound (I) the nonane (VI) was formed by formic acid and formaldehyde. The sulfurization yielded the N-sulfo acid which was separated in the form of potassium salt (VII). By the reaction of (I) with the chloric acid anhydride of β-chloro propionic acid in alkaline medium with subsequent boiling of the resulting amide of this acid with piperidine and diethylamine the compounds (VIII) and (IX) were formed. By reduction of the amides obtained with aluminum-lithium hydride (X) and (XI) were synthesized. The reaction of an excess of (I) with dichloric acid anhydride of glutaric and adipic acid the diamides (XII) and (XIII) were obtained. The latter were transformed by reduction with aluminum-lithium

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Bicyclic Systems Derived From 2,6-Lutidine. SOV/79-29-1-29/71
II. Synthesis of the 3,9-Oxazabicyclo-[3,3,1]-Nonane and Its N-Derivatives

hydride and subsequent treatment of the resulting amines with methyl iodide into the compounds (XIV) and (XV). Compounds (V) and (VI) show a nicotine-like activity, whereas compounds (VIII-XI) exert a lower activity. There are 2 references, 1 of which is Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze (All-Union Chemico-pharmaceutical Scientific Research Institute imeni S. Ordzhonikidze)

SUBMITTED: November 30, 1957

Card 3/3

SOV/79-29-2-2[illegible]

AUTHORS: Nikitskaya, Ye. S., Usovskaya, V. S., Rubtsov, M. V.

TITLE: Piperidine Derivatives as Possible Hypotensive Agents (Pr[illegible] nyye piperidina kak vozmozhnyye gipotensivnyye sredstva)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 2, pp 472-476 (USSR)

ABSTRACT: According to the sec tertiary amines of the quinuclidine and piperidine series, which develop a high ganglion-blocking activity, the authors synthesized some N-substituted piperidine derivatives, in order to examine further tertiary amines 2,6-lutidine, a waste product in the preparation of [illegible] (Ftivazid), served as initial product. The reaction of 2,6 lupetidine (obtained from 2,6-lutidine) with the chloric an- hydride of β-chloropropionic acid and subsequent boiling of the reaction product in ethyl alcohol with piperidine and diethy amine gave the compounds (I) and (II). By reduction, the latte correspondingly passed over to compounds (III) and (IV). Scheme After a number of failures, the authors succeeded in carrying out the synthesis, beginning from 2,6-lupetidine, of the sec quaternary salts by the aid of dichloric anhydride of glutar- and adipic acid namely, compounds (V) and (VI). These

Card 1/2

Piperidine Derivatives as Possible Hypotensive Agents

piperidides of both acids could, correspondingly, be [illegible] by reduction into 1,5-bro(2',6'-dimethyl piperidine-[illegible])-hexane (VII) and 1,6-bis(2',6'-dimethyl piperidine-[illegible])-hexane (VIII). Sec quaternary salts (Scheme 2) easily result from these [illegible] compounds. By reaction of ethyl ester of 6-methyl piperidine-[illegible] acid with maleic anhydride of β-chloro propionic acid and by subsequent treatment of the reaction product with piperidine or diethyl amine, piperidines (IX and X) were obtained, which in their turn changed over to piperidines (XI and XII) by reduction (Scheme 3). The constants of the compounds synthesized will be given in a following paper. There is 1 Soviet reference.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy khimiko farmatsevticheskiy institut imeni S. Ordzhonikidze (All-Union Scientific Chemical Pharmaceutical Research Institute imeni S. Ordzhonikidze)

SUBMITTED: January 3, 1958

Card 2/2

RUBTSOV, M.V.; NIKITSKAYA, Ye.S.; ZANINA, A.D.; USOVSKAYA, V.S.

New ganglion blocking preparations. Khim. i med. no.15:16-22 '60.
(MIRA 15:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(AUTONOMIC DRUGS)

5.3610

77372
SOV/79-30-1-35/72

AUTHORS: Nikitskaya, Ye. S., Usovskaya, V. S., Rubtsov, M. V.

TITLE: Bicyclic Systems Based on 2,6 Lutidine. III. N-Derivatives of 3-Oxa-9-azabicyclo-(3,3,1)-Nonane

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 1, pp 171-182 (USSR)

ABSTRACT: Acyl and alkyl derivatives of 3-oxa-9-azabicyclo-(3,3,1)-nonane (I) were synthesized. Acid chlorides of acetic, propionic, and benzoic acids were reacted with I in anhydrous benzene with cooling and 9-acetyl- (IIa), 9-propionyl- (IIb), and benzoyl-3-oxa-9-aza-bicyclo-(3,3,1)- nonanes (IIc) were obtained. The obtained products, on reduction with lithium aluminum hydride, were converted into corresponding amines. Morpholine and dimethylamine in anhydrous alcohol, phenothiazine in anhydrous benzene, and the sodium salt of quinozolone-4 in anhydrous alcohol were

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Bicyclic Systems Based on 2,6-Lutidine. III

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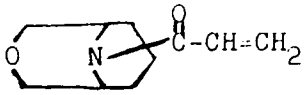
SOV/79-30-1-36/78

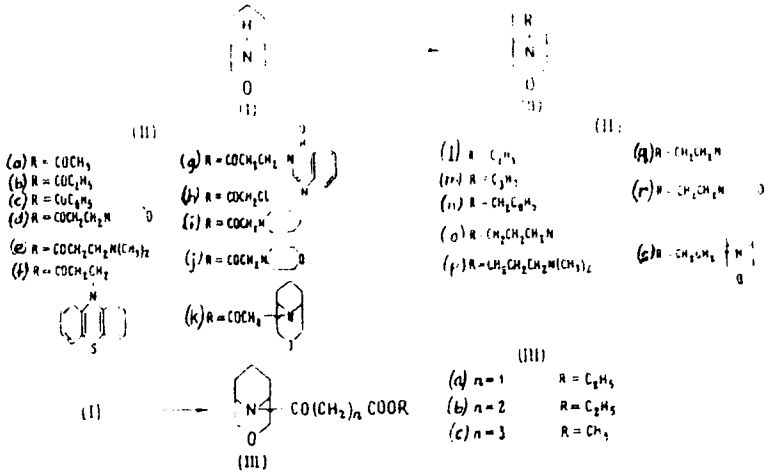
reacted with 9-(β-chloropropionyl)-3-oxa-9-azabicyclo-(3,3,1)-nonane and corresponding β-substituted derivatives of 9-propionyl-3-oxa-9-azabicyclo-(3,3,1)-nonanes (IId, IIe, IIf, IIg) were obtained. The above reaction with phenothiazine and quinozolone takes place with formation of a sideproduct, 9-acryloyl-3-oxa-9-azabicyclo-(3,3,1)-nonane.



Acetyl chloride reacts with I, in aqueous alkali, forming as main product 9-[3'-oxa-9'-azabicyclo-3', 3', 1'-nonano-9'] -acetyl-3-oxa-9-azabicyclo-(3,3,1)-nonane (IIj).

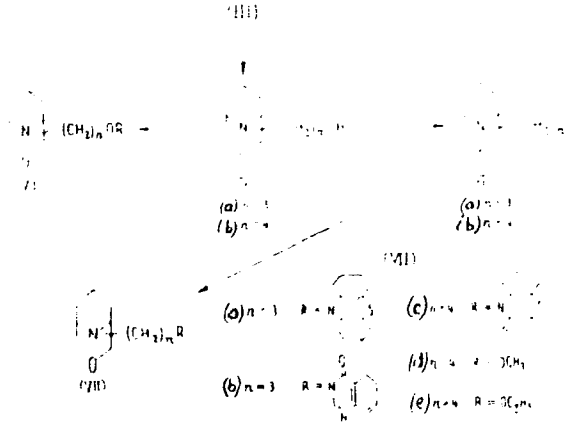
Card 2/10

Biocyclic Systems Based on 2,4-Lactones. III SOV/7[illegible]



Card 3/10

Bicyclic Systems Based on 2,2'-Imidazoles. III



Card 4/10

Bicyclic Systems Based on 2,6-Lutidine. III 7737;
SOV/79-30-1-38/74

The corresponding amines (IIo, IIp, IIr, IIs, IIt) were obtained on reduction of IId, IIe, III, IIJ, IIk, with lithium aluminum hydride. Attempts to reduce compounds IIf and IIg were unsuccessful. The desired amines were prepared as follows: I was reacted with carbethoxyacetyl chloride. The obtained IIIa was reduced to IVa; the latter with thionyl chloride gave VIa. Phenothiazine and quinozol-4-one were reacted with VIa; corresponding VIIa and VIIb were obtained. IIIb and IIIc were obtained similarly from β-carbethoxy-propionyl chloride and β-carbomethoxypropionyl chloride, forming on reduction IVb. Thionyl chloride was reacted with IVb and a corresponding hydrochloride (VIb) was obtained. Phenothiazine reacts with VIb, forming VIIc (yield 34%). Alkoxides react with VIb, forming corresponding ethers. VIId and VIIe were obtained by the above reaction.

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Bicyclic Systems Based on 2,6-Lutidine. III

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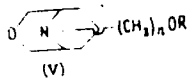
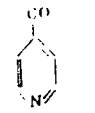
SOV/79-30-1-36/78



(V)

n	R	Reaction time (hr)	Reaction temperature	Yield (%)	Boiling point (pressure in mm)	Melting point of hydrochloride
3	$COCH_3$	4	On boiling	67	—	200—202°
3	COC_2H_5	4	On boiling	58	—	170—172
3	COC_6H_5	4	On boiling	80	—	189—191
3*		3	60—70°	59	183.5° (0.9)	179—181
3**		1	45—50	72	183 (1)	150—152

(Continuation, and explanation of asterisks, on next card)

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Bicyclic Systems Based on 2,6-Lutidine. III 77375

('table cont'd)

n	R	Reaction time (hr)	Reaction temperature	Yield (%)	Boiling point (pressure in mm)	Melting point of hydrochloride
4	$COCH_3$	4	On boiling	95		201—202
4	COC_2H_5	4	On boiling	~100		194—196
4	COC_6H_5	4	On boiling	87		194—195.5
4 *		2	60	67	200—201 (0.8)	137—139
4 **		2	60	60	184 (0.9)	152—155

* Was isolated in the form of dihydrochloride.

** Was isolated in the form of dihydrochloride monohydrate.

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The yields and properties of compounds are given below:

Compound	Yield (%)	bp (°C) (Pressure in mm)	mp (°C)
IIa	70	106-109/1	74-75
IIb	60	113-114/0.6	-
IIc	81	162-163/0.7	78-80
IId	72	183-185/0.2	-
IIe	75	140/0.8	68-70
IIf (1st fraction)	~30	101-103	-
IIf (2nd fraction)	56	260	-
IIg	27	-	138-139
IIh	78	124-126/0.5	77-79
IIi	83	157-159/0.55	97-99
IIj	90	148-150/0.4	100-102
IIk	43	-	140-142
III	81	67-67.5/3	-
IIm	64	55-56/0.8	-
IIn	93	119-121/0.7	38-40

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137030001-5"

Bicyclic Systems Based on 2,6-Lutidine. III 77375
SOV/79-30-1-36/76

(Continued from Card 8/10.)
The yield and properties of compounds are given below:

Compound	Yield (%)	bp (°C) (Pressure in mm)	mp (°C)
IIo	72	140-142/0.6	-
IIp	62	98-100/0.6	-
IIq	79	108/0.35	-
IIr	70	118-120/0.3	-
IIs	84	-	113-115
IIIa	77	157-159/0.7	-
IIIb	55	151-152/0.5	-
IIIc	77	171-172/1	63-65
IVa	65	107-109/0.5	-
IVb	70	135-137/1	-
VIa	75	217-219 (dec)	-
VIb	80	-	173-175
VIIa	41	-	234-236 (alc)
VIIb	52	215/0.4	-
VIIc	34	-	194-196
VIId	-	-	163-165

Bicyclic Systems Based on 2,6-Lutidine. III

77375
SOV/79-30-1-36/78

VIIe

(Continued from card 9/10.)

64

176-177

There is 1 table; and 1 Soviet reference.

ASSOCIATION: Ordzhonikidze All-State Scientific Research Chemical-Pharmaceutical Institute (Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze)

SUBMITTED: January 21, 1959

Card 10/10

NIKITSKAYA, Ye.S.; USOVSKAYA, V.S.; RUBTSOV, M.V.

Bicyclic compounds based on 2,6-lutidine. Part 4: 3-Substituted derivatieves of 9-methyl-3,9-diazabicyclo [3.3.1]nonane. Zhur.ob. khim. 30 no.10:3306-3315 O '61. (MIRA 14:4)
(Diazabicyclononane)

NIKITSKAYA, Ye.S.; USOVSKAYA, V.S.; RUBTSOV, M.V.

Bicyclic systems based on 2, 6-lutidine. Part 5: Biquaternary salts of α,ω -bis[9-methyl-3, 9-diazabicyclo (3, 3, 1)-nonano-3]-alkanes. Zhur.ob.khim. 31 no.10:3202-3205 O '61. (MIRA 14:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze.
(Lutidine) (Paraffins)

NIKITSKAYA, Ye.S.; USOVSKAYA, V.S.; RUBTSOV, M.V.

Bicyclic systems on the basis of 2,6-lutidine. Part 6: Synthesis of 3,9-diazabicyclo [3,3,1]nonane. Zhur.ob.khim. 32 no.9:2886-2888 S '62. (MIRA 15:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Bicyclononane)

NIKITSKAYA, Ye.S.; USOVSKAYA, V.S.; RUBTSOV, M.V.

Bicyclic systems on the basis of 2,6-lutidine.
Part 7: Interaction of alkyl (aryl) magnesium
halides with benzylimide of N-methyldipipecolic
acid. Zhur.ob.khim. 32 no.11:3687-3693 N '62.(MIRA 15:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy [redacted]
farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Pipecolic acid)
(Magnesium organic compounds)

NIKITSKAYA, Ye.S.; LEVKOYEVA, Ye.I.; VSOVSKAYA, V.S.; RUBTSOV, M.V.

Synthesis of 2-hydroxy-2-methyl-1,4-diazabicyclo [illegible] and some of its derivatives. Zhur. org. khim. 1 no.1:174-184 Ja '65. (MIRA 18:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze.

06218

5(1) 25(5)
AUTHORS: Atroshchenko, V. I., Doctor of Technical Sciences, SOV/64-59-6-10/28
Asnin, Ya. I., Candidate of Technical Sciences,
Vilesov, G. I., Nikitskaya, Z. A., Rabin, P. S.

TITLE: Removal of Salt From Industrial Condensates of Nitrogen Fertilizer Enterprises by Means of Ion Exchange Resins

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 6, pp 499 - 501 (USSR)

ABSTRACT: The vapor condensate of the evaporators used in the nitrogen fertilizer industry is contaminated with NH_4^+ and NO_3^- ions and has to be purified prior to its further use (as a steam boiler feed). Experiments carried out under the supervision of B. D. Bryanskiy (deceased) showed that by means of ion exchange resins it is not only possible to remove salt from the condensate but to re-use the ammonium nitrate obtained if the cation exchanger is regenerated with nitric acid and the anion exchanger with an ammonia solution. Among the investigated cation exchangers the type KU-2 proved to be best; in this case the regeneration takes place by means of a

Card 1/2

ATROSHCHENKO, V.I., doktor tekhnicheskikh nauk; ASNIN, Ya.I., kand.tekhn. nauk; NIKITSKAYA, Z.A.

Investigation of the stability of KU-2 and AN-2F ion exchangers used in the filtration of concentrated solutions. Khim. prom. no. 7:551-553 O-N '60. (MIRA 13:12)
(Ion exchange)

ATROSCHENKO, V.I., doktor tekhn.nauk; ASNIN, Ya.I., kand.tekhn.nauk;
NIKITSKAYA, Z.A.

Investigating the possibility of the repeated use of a part of wash waters in desalting units. Khim.prom. no.1:66-68 Ja '61.
(MIRA 14:1)

(Saline waters—Demineralization)

Khitrin, L.N.

PHASE I BOOK EXPLOITATION SOV/4488

Akademiya nauk SSSR. Energeticheskiy institut

Goreniye pri ponizhennykh davleniyakh i nekotoryye voprosy stabilizatsii plameni v odnofaznykh i dvukhfaznykh sistemakh (Combustion at Reduced Pressures and Certain Problems in the Stabilization of the Flame in Single-Phase and Two-Phase Systems) Moscow, 1960. 85 p. Errata slip inserted. 5,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Energeticheskiy institut imeni G. M. Krzhizhanovskogo.

Resp. Ed.: L. N. Khitrin; Ed. of Publishing House: Ye. N. Grigor'yev; Tech. Ed.: V. N. Karpov.

PURPOSE: This book is intended for scientists engaged in combustion research.

COVERAGE: The book contains five reports delivered at the Obshchemoskovskiy seminar po goreniyu (Moscow General Seminar on Combustion) in 1958. The problems discussed in these reports concern the effect of reduced pressure on the ignition and combustion of a stream of gas-vapor mixture in turbulent flow. Each report is followed by Soviet and other references.

Card 1/6

TABLE OF CONTENTS:

2*323
S/124/61/000/004/022/033
A005/A126

11.7100

AUTHORS: Doroshenko, V. Ye., Nikitskiy, A. I.

TITLE: Investigation of the influence of mixture parameters on the characteristics of a turbulent burning process

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 4, 1961, 84 - 85, abstract 4 B 579 (V sb.: Goreniye pri ponizhennykh davleniyakh i nekotoryye vopr. stabilizatsii plameni v odnofazn. i dvukhfazn. sistemakh. Moscow, AN SSSR, 1960, 3 - 23)

TEXT: The authors present results of an experimental study of the effect of pressure and temperature on the propagation rate of a turbulent flame and the width of the burning zone at turbulent combustion of a homogeneous fuel-air mixture. The open steady flame in a benzene-air mixture emitted from a round nozzle was investigated. The mean flame propagation rate $\overline{U}_T$ was determined from the correlation

$$\overline{U}_T = \frac{F}{S} U,$$

where F is the nozzle area, S is the area of inner flame cone, U is the mean mix-

Card 1/2

ture rate. The profiles of the inner cone were determined by measuring the temperature in the flame cross sections by thermocouples. The width of the burning zone δ_T was determined by measuring the temperature over the flame axis. The turbulence intensity of the flow was measured by an electrothermoanemometer. The turbulence intensity was varied by means of a disturbing grid. The experiments were conducted within a pressure range of from 600 to 60 mm Hg and a temperature range of from 100° to 300°C. A decrease in pressure and temperature of the mixture led to a marked deterioration of the burning characteristics (decrease of the flame propagation rate as expressed by $U_n \sim p^{0.5}$; $U_T \sim T$; increase of the width of the burning zone as expressed by $\delta_t \sim p^{-0.5}$; $\delta_t \sim T^{-1.6}$). The authors showed that a decrease in turbulence intensity and increase in turbulence rate are the main causes for the deterioration of the burning characteristics. With burning processes behind stabilizing devices, the turbulence attenuation behind the stabilizers extends along the length of the flame tongue. There are 11 references.

V. Librovich

[Abstracter's note: Complete translation]

Card 2/2

BRODSKIY, V.B.; NIKITSKIY, A.N.; PAVSHUK, I.S.

Compensating the drift of electrical length of cables in the UKVUN instrument. Priborostroenie no.5:7-8 My '57. (MLRA 10:6)
(Electric circuits) (Measuring instruments)

NIKITSKIY, A.S., inzh.

Device for protecting tower cranes against wind loads. Mekh. stroi. 17 no.3:22-23 Mr '60. (MIRA 13:6)
(Cranes, derricks, etc.) (Wind pressure)

NIKITSKIY, A.S., inzh.

Automatic grab. Mekh. stroi. 17 no.9:26-27 S '60.
(MIRA 13:9)
(Cranes, derricks, etc.--Equipment and supplies)

NIKITSKIY, Al'bert Sergeyevich; KASHTANOV, F., red.; NOVIKOVA, V., tekhn. red.

[Hardeners for concretes and mortars]Uskoriteli tverdeniia betonov i rastvorov. Minsk, Gosizdat BSSR, 1962. 40 p. (MIRA 15:10)

(Concrete) (Mortar)

NIKITSKIY, A. Ye., Glavgeofizika (probably Glavnoye Geofizicheskoye Upravleniye, Main Geophysical Administration)

Prospective Plan of Aeromagnetic Improvement and Development of Aeromagnetic Surveys in Geological Prospecting Work, 1956-1960, and the Further Improvement and Development of Aeromagnetic Methods," paper presented at the All-Union Interdepartmental Conference, on Aerial Surveying, Leningrad, 29Nov-1 Dec 1956.

SUM: 1391

NIKITSKIY, I.N. (Moskva)

Materials for a hygienic evaluation of labor conditions in the feed preparation plant on poultry farms. Vrach.delo no.2:177-179 F '60. (MIRA 13:6)

1. Moskovskiy nauchno-issledovatel'skiy institut sanitarii i gigiyeny imeni F.F. Erismana.
(FEED MILLS--HYGIENIC ASPECTS)

NIKITSKIY, I.N. (Moskva)

Effect of occupational workloads on the extremities of female workers engaged in the mechanized fattening of poultry. Gig. truda i prof.zab. 5 no.6:19-21 Je '61. (MIRA 15:3)

1. TSentral'nyy nauchno-issledovatel'skiy institut ptitseperera-batyvayushchey promyshlennosti.
(POULTRY--FEEDING AND FEEDS)
(POULTRY WORKERS--DISEASES AND HYGIENE)
(EXTREMITIES (ANATOMY))

NIKITSKIY, L.I.; BERLYANT, I.Ya., red.; BOYDAREV, M.S., tekhn.red.

[Producers' cooperatives of the people's democracies; a collection of articles] Promyslovaia kooperatsiia stran narodnoi demokratii; sbornik statei. [Leningrad] Koiz, 1957. 122 p. (MIRA 11:5)
(Cooperative societies)

NIKITSKIY, N.; ZUBKOV, P., IYUDINA, Ye.; KHODOSOVA, V., metodisty

Exhibitions of special topics. Inform.biul.VLIKH no.5 [illegible] My '64.
(MIRA 18:5)

1. Starshiy metodist razdela "Torfyanaya promyshlennost'" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Nikitskiy). 2. Direktor ob"yedinennykh pavil'onov "Toplivnaya promyshlennost' i geologiya" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Zubkov). 3. Starshiy inzh.-metodist ob"yedinennykh pavil'onov "Toplivnaya promyshlennost' i geologiya" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Iyudina). 4. Pavil'on "Legkaya promyshlennost'" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Khodosova).

KOTEL'NIKOV, V.A.; APRAKSIN, L.V.; VOYTOV, V.O.; GOLUBTSOV, M.G.; DUBROVIN, V.M.; ZAYTSEV, N.M.; KORENBERG, Ye.B.; MINASHIN, V.P.; MOROZOV, V.A.; NIKITSKIY, N.I.; PETROV, G.M.; RZHIGA, O.N.; SHAKHOVSKOY, A.M.

Radar system used in the Venus probe of 1961. Radiotekh. i elektron. 7 no.11:1851-1859 N '62. (MIRA 15:11)

1. Institut radiotekhniki i elektroniki AN SSSR.
(Radar)
(Venus probes)

KOTEL'NIKOV, V.A., akademik; DUBROVIN, V.M.; KISLIK, M.D.; KORENBERG, Ye.B.; MINASHIN, V.P.; MOROZOV, V.A.; NIKITSKIY, N.I.; PETROV, G.M.; RZHIGA, O.N.; SHAKHOVSKOY, A.M.

Radar observation of Venus. Dokl.AN SSSR 145 no.5:1035-1038 '62. (MIRA 15:8)

1. Institut radiotekhniki i elektroniki AN SSSR.
(Radio astronomy) (Venus (Planet))

KOTEL'NIKOV, V. A., akademik; GUS'KOV, G. Ya.; DUBROVIN, V. M.; DUBINSKIY, B. A.; KISLIK, M. D.; KORENBERG, Ye. B.; MINASHIN, V. P.; MOROZOV, V. A.; NIKITSKIY, N. I.; PETROV, G. M.; PODOPRIGORA, G. A.; RZHIGA, O. N.; FRANTSESSON, A. V.; SHAKHOVSKOY, A. M.

Radar tracking of the planet Mercury. Dokl. AN SSSR 147 no.6: 1320-1323 D '62. (MIRA 16:1)

1. Institut radiotekhniki i elektroniki AN SSSR.

(Mercury(Planet)) (Radar in astronomy)

NIKITSKIY, N.P.

Exhibition on the winning and comprehensive utilization of peat in agriculture. Zemledelie 8 no.11:79-83 N '60. (MIRA 13:10)

1. Starshiy metodist pavil'ona "Torf" na Vystavke dostizheniy narodnogo khozyaystva.
(Peat--Exhibitions)
(Moscow--Agricultural exhibitions)

DOBROSKOK, I.I.; SURIN, Ye.V.; BROVMAN, M.Ya.; MIKHAYLOV, G.M.; KRULEVETSKIY, S.A. Prinimali uchastiye: ASFANDIYAROV, R.F.; BELOV, Ye.M.; IVANOV, V.I.; MARKOV, V.I.; SOLOV'YEV, Yu.P.; PIMENOV, F.A.; TUROMSHEV, A.F.; KHVES'KO, V.A.; NIKITSKIY, N.V.

Investigating the power parameters of a continuous steel casting plant. Stal' 22 no.3:223-225 Mr '62. (MIRA 15:3)

1. Yuzhnoural'skiy mashinostroitel'nyy zavod (for Asfandiyarov, Belov, Ivanov, Markov, Solov'yev). 2. Novolipetskiy metallurgicheskiy zavod (for Pimenov, Turomshev, Khves'ko). 3. TSentral'nyy nauchno-issledovatel-skiy institut chernoy metallurgii (for Nikitskiy).
(Continuous casting--Equipment and supplies)