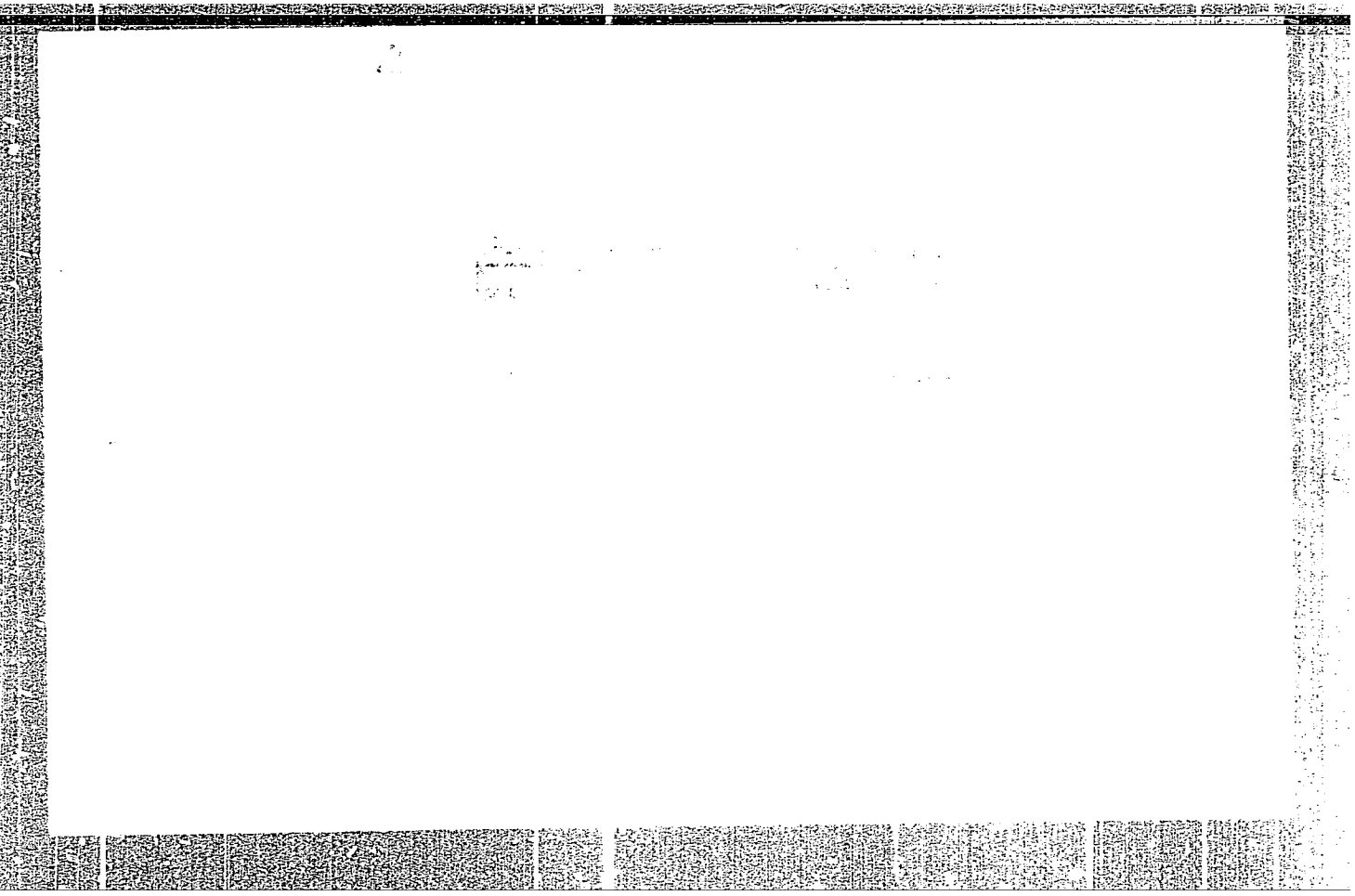

PANICHEVA, A. S.: Master Tech Sci (diss) -- "Investigation of the properties of austenitic steel on a chrome-manganese base". Moscow, 1958. 15 pp (Min Higher Educ USSR, Moscow Order of Lenin and Order of Labor Red Banner Higher Tech School im Bauman), 150 copies (KL, No 4, 1959, 127)

PANICHEVA, G.F., ISHMAMETOV, A.S.

Stamped plywood barrels. Standartizatsiia 24 no.7:37-38 Jl '60. (MIRA 13:7)
(Barrels--Standards)

PANICHEVA, G.S.

Development of the state standard 5958-59 for stamped plywood barrels for various products. Trudy NIL Tary no.4:39-44 '60. (MIRA 14:12)

(Barrels—Standards)
(Plywood)

ACCESSION NR: AP4043677 S/0109/64/009/008/1433/1439

AUTHOR: Morgulis, N. D.; Levitskiy, S. M.; Panichevskiy, V. A.

TITLE: Determination of parameters of gas-discharge cesium plasma by the superhigh-frequency method

SOURCE: Radiotekhnika i elektronika, v. 9, no. 8, 1964, 1433-1439

TOPIC TAGS: plasma, plasma gas collision, plasma measurement, cesium plasma, gas discharge plasma

ABSTRACT: An experimental investigation of the electron-collision frequency and rate of decay of a weak ionized cesium plasma by the SHF-resonator method at 3-cm wavelength is reported. Charge concentrations within 10^{11}—10^{12} cm^{-3} and cesium vapor pressures within 0.01—0.2 torr were used. By measuring the Q-factor of a cesium-plasma-filled resonator at various pressures, the collision frequency at 1 torr was found to be 3×10^9 per sec and the effective cross-section

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ACCESSION NR: AP4043677

of the scattering of electrons by plasma atoms, 0.4×10^{-14} cm^2. Also, the coefficient of bipolar diffusion (10--20 cm^2/sec) was determined. This data is compared with results published by other researchers and discussed. Orig. art. has: 6 figures and 5 formulas.

ASSOCIATION: \Kiyevskiy gosudarstvenny*y universitet (Kiev State University)

SUBMITTED: 15Jun63 ENCL: 00

SUB CODE: ME NO REF SOV: 008 OTHER: 008

Card 2/2

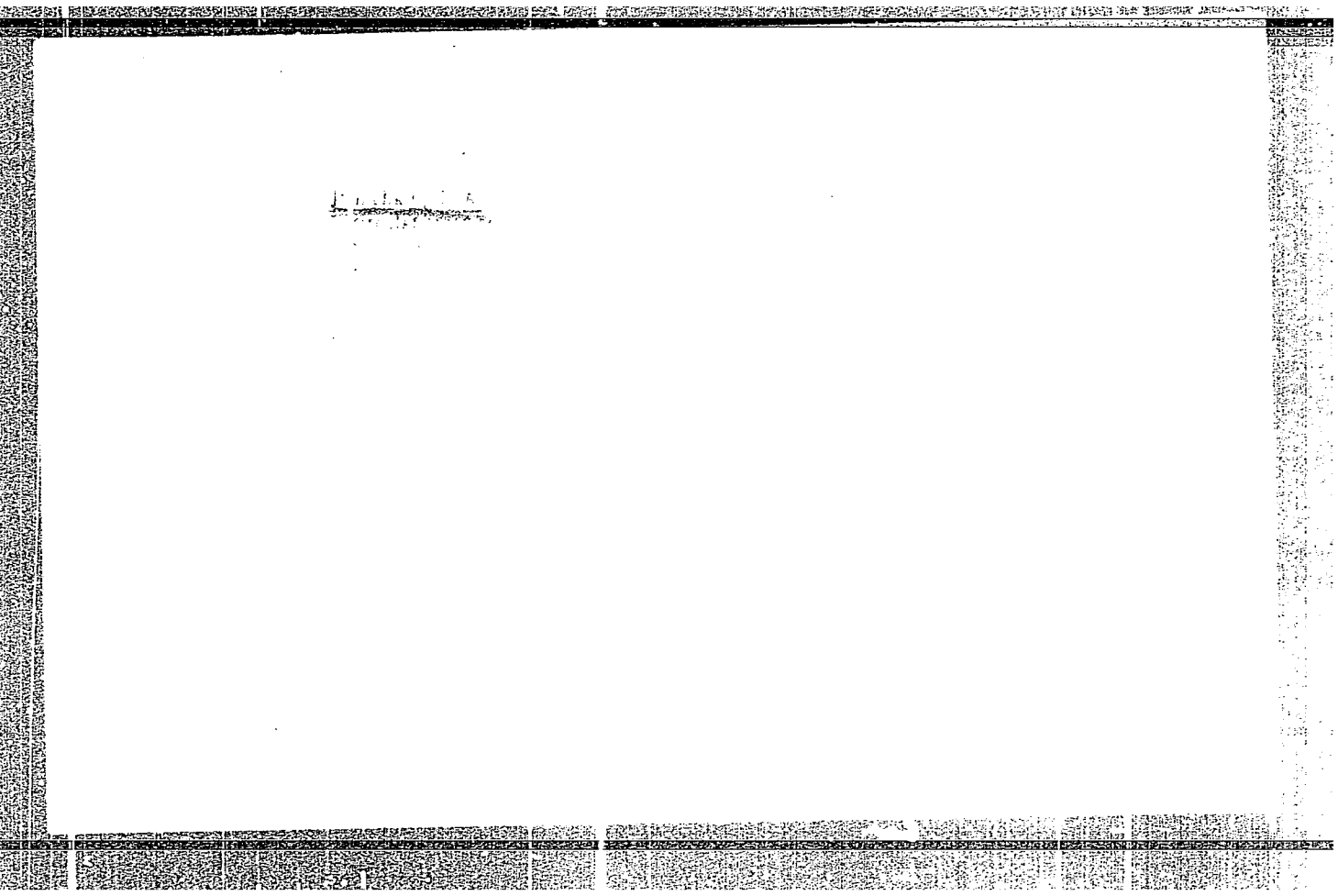
MORGULIS, N.D.; LEVITSKIY, S.M.; PANICHEVSKIY, V.A.

Determination of the parameters of gas-discharge cesium plasma using a microwave technique. Radiotekh. i elektron. 9 no.8:1433-1439 Ag '64. (MIRA 17:10)

1. Kiyevskiy gosudarstvennyy universitet.

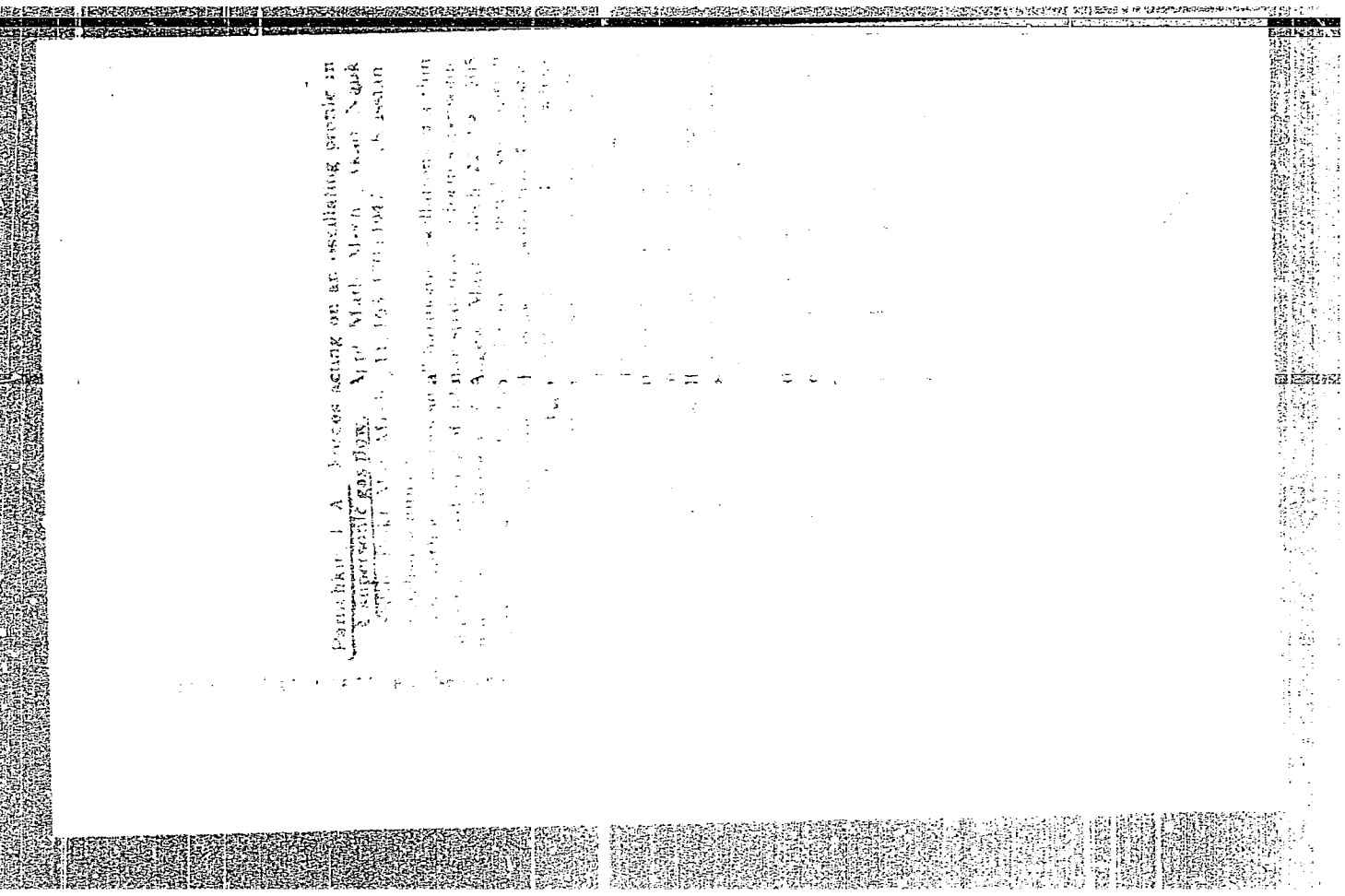
PANICHKIN, I. A.

"K voprosu vliyaniya granits potoka kruglogo poperechnogo secheniya na aerodinamicheskie kharakteristiki kryla." "On the Question of the Influence of the Edges of a Stream with Curved Cross-Section on the Aerodynamic Characteristics of the Wing."
Prik. Mat. i. Mekh, Vol. 9, No. 2, pp. 171-178, 1945



PANICHKIN, I. A.

"Opredelenie tsirkulyatsiy po razmakhu kryla v otkrytoy i poluotkrytoy strue prymougolnogo secheniya." "Determination of the Circulation On the Wing Spread in Open and Half-Open Stream with Right Angle Cross-Section."
Prik. Mat. i Mekh., Vol. 10, No. 4, pp. 529-536, 1946



PA 8T94

PANICHKIN, I. A.

USSR/Velocity, Ultrasonic Jan 1947
Wing profiles - Wind tunnel tests

"Forces Acting on an Oscillating Profile in a Supersonic Gas Flow," I. A. Panichkin, 4 pp

"Prik Mate i Mekh" Vol XI, No 1, pp. 165-170

Supersonic gas flow past a thin, slightly bent, oscillating wing profile, in two cases: a) where the angle of incidence of the profile varies according to the harmonic law, b) the case of a flapping wing.

8T94

PANICHKIN, I. A.

O skose potoka za krylom. (Akademiia Nauk SSST. Institut mekhaniki. Inzhenernyi sbornik, 1949, v. 5, no. 2, p. 164-170, diagrs.)

Title tr.: Angle of downwash past the wing.

Reviewed by F. H. Giese in Mathematical Reviews, 1951, v. 12, no.8, p. 646)

TA4.37 1949, v.5

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

PANICHKIN, I.A.

Kvoprosu vliianiia granits potoka kruglogo poperechnogo secheniia na aerodinamicheskie kharakteristiki kryla. (Prikladnaia matematika i mekhanika, 1945, v.9, no.2, p. 171-178, diagrs.)

Summary in English.

Title tr.: Effect of the boundary of a flow with a circular cross section on aerodynamic characteristics of the wing.

QA801.P7 1945

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

PANICHKIN, I.A.

K teorii kryla v strue s kruglym poperechnym secheniem. (Prikladnaia matematika i mekhanika, 1945, v.9, no.4, p. 312-317, diagrs.)

Summary in English.

Title tr.: On the theory of a wing in a flow of circular cross section .

QA801. P7 1945

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

PANICHKIN, I.A.

Opredelenie tsirkuliatsii po razmakhu kryla v otkrytoi i poluotkrytoi strue priamougol'nogo secheniia. (Prikladnaiá matematika i mekhanika, 1946, v.10, no4, p. 529-536, diagrs.)

Summary in English.

Title tr.: Determination of the circulation along a span of a wing in an open and sime-open flow of rectangular cross-section.

QA801.P7 1946

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

PANICHKIN, I.A.

O silakh, deistvuiushchikh na kolebliushchiisia profil' kryla v sverkhzvukovom potoke gaza. (Prikladnaia matematika i mekhanika, 1947, v.11, no.1, p.165-170)

Summary in English.

Bibliography: p. 170

Title tr.: Forces acting on an oscillating airfoil in a supersonic gas flow.

QA801. P7 1947

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

PANICHKIN, I A.

Vliianie granits svobodnoi strui ellipticheskogo secheniia na aerodinamicheskie kharakteristiki kryla. (Akademiia Nauk SSSR. Institut mekhaniki. Inzhenernyi sbornik 1948, v.4, no.2, p. 161-173)

Title tr.: Effect of the boundaries of a free elliptical flow on aerodynamic characteristics of the wing.

Reviewed by J.H. Giese in Mathematical Reviews, 1951, v.12, no.8, p.646.

TA4.A37 1948, v.4.

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

PANICHKIN, I.A.

Opredelenie tsirkuliatsii po razmakhu kryla v zakrytoi strue priamougol'nogo secheniia. (Akademiia Nauk SSSR. Institut mekhaniki. Inzhenernyi sbornik, 1948, v.5, no.1, p.189-197, diagrsl, bibliography)

Title tr.: Determination of the circulation along wing span in a closed flow of a rectangular cross section.

Reviewed by J.H. Giese in Mathematical Reviews, 1951, v.12, no.8. p1646.

TA4, A37 1948, v.5

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

PANICHKIN, I.A.

O skose potoka za krylom. (Akademiia Nauk SSSR. Institut mekhaniki. Inzhenernyi sbornik, 1949, v.5, no.2, p.164-170, diagrs.)

Title tr.: Angle of downwash past the wing.

Reviewed by J.H.Giese in Mathematical Reviews, 1951, v.12, no.8, p.646.

TA4.A37 1949, v.5

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

PANICHKIN, L.A.

Mathematical Reviews
Vol. 14 No. 7
July - August, 1953
Mechanics.

Panichkin, L. A., Supersonic flow of a gas about an oscillating wing profile. Moskov. Gos. Univ. Učenye Zapiski 152, Mehanika 3, 226-253 (1951). (Russian)

Operational calculus has been applied to the linearized two-dimensional flow about an airfoil performing small harmonic oscillations in a uniform supersonic stream to simplify derivations of the lift previously given by the author [Akad. Nauk SSSR. Prikl. Mat. Mek. 11, 165–170 (1947) = Grad. Div. Appl. Math., Brown Univ. Translation A9-T-21 (1948); these Rev. 9, 545.632] and by Krasil'ščikova [Akad. Nauk SSSR. Prikl. Mat. Mek. 11, 147–161 (1947); these Rev. 9, 392]. *J. H. Giese.*

4 Feb 54

PANICHKIN, I-A.

ACHERKAN, N.S., doktor tekhnicheskikh nauk, professor, glavnyy redaktor; ANTSYFEROV, M.S., kandidat fiziko-matematicheskikh nauk; ASTAKHOV, K.V., professor; VUKALOVICH, M.P., professor, doktor tekhnicheskikh nauk; KORELIN, A.I., kandidat tekhnicheskikh nauk; KHIPETS, E.S., inzhener; LAZAREV, L.P., kandidat tekhnicheskikh nauk; MAZYRIN, I.V., inzhener; MATYUKHIN, V.M., kandidat tekhnicheskikh nauk; NIKITIN, N.N., kandidat fiziko-matematicheskikh nauk; PANICHKIN, I.A., kandidat tekhnicheskikh nauk; PETUKHOV, B.S., kandidat tekhnicheskikh nauk; PODVIDZ, L.G., kandidat tekhnicheskikh nauk; SIMONOV, A.F., inzhener; SMIRYAGIN, A.P., kandidat tekhnicheskikh nauk; FAYNZIL'BER, E.M., professor, doktor tekhnicheskikh nauk; KHALIZEV, G.P., kandidat tekhnicheskikh nauk; YAN'SHIN, B.I., kandidat tekhnicheskikh nauk; MARKUS, M.Ye., inzhener, redaktor; KARGANOV, V.G., redaktor graficheskikh materialov, inzhener; SOKOLOVA, T.F., tekhnicheskiy redaktor.

[A machinebuilder's manual in six volumes] Spravochnik mashinostroitelia v shesti tomakh. Izd. 2-e, ispr. i dop. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry. Vol. 2. 1954. 559 p. (MIRA 8:1)
(Machinery--Construction) (Mechanical engineering)

PANICHKIN, I.A., kandidat tekhnicheskikh nauk, dotsent.

Investigating gas flow in the vicinity of the critical cross section of the nozzle. [Trudy] MVTU no.32:47-74 '55. (MLRA 9:8)
(Gas flow) (Nozzles)

PANICHKIN, I.A., doktor tekhnicheskikh nauk.

Detached shock waves. [Trudy] MVTU no.67:35-76 '55. (MLRA 9:10)

(Shock waves)

PANICHKIN, I.A. PHASE I BOOK EXPLOITATION 351

Sinyarev, Gennadiy Borisovich and Dobrovol'skiy, Mstislav Vladimirovich

Zhidkostnyye raketnyye dvigateli; teoriya i proyektirovaniye (Liquid Propellant Rocket Engines; Theory and Design) 2d ed., rev. and enl. Moscow, Oborongiz, 1957. 579 p. Number of copies printed not given.

Reviewer: Panichkin, I. A., Doctor of Technical Sciences, Professor; Ed.: Senichkin, G. V., Engineer; Ed. of Publishing House: Petrova, I. A., Tech. Ed.: Zudakin, I. M.; Managing Ed.: Sokolov, A. I., Engineer

PURPOSE: This book was written as a textbook for tekhnikums, but may also be useful to students in institutions of higher learning and to workers specializing in the field of rocket engineering.

COVERAGE: The basic textbook on liquid propellant rocket engines is divided into two parts. Part one is concerned with "Theory and Thermodynamic Calculation of Liquid Propellant Rocket Engines" where fundamentals of Thermodynamics and Thermo-chemical analysis of the propellant are extensively presented. Part two deals with the "Design of Liquid Propellant Rocket Engines." The authors describe fundamental theories of liquid propellant

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rocket engines and the design of their basic components. They provide the necessary data for the analyzing thrust and for determining the principal dimensions of various accessories and assemblies of liquid propellant rocket engines. Examples of the application of calculation methods are given. The book covers a considerable number of subjects, pertaining to rocket engine design and describes some equipment. A number of scientists who developed rocket propulsion in the USSR are mentioned. Recent developments in the study of complex phenomena occuring in liquid propellant rocket engines have made necessary the revision of some old concepts presented in the first edition of this book. As a result the new edition differs from the first in a number of chapters. Its extensive Table of Contents gives a detailed review of the book. There are 45 references, all of them Soviet (including 10 translations).

TABLE OF CONTENTS:

Liquid Propellant Rocket Engines (Cont.) 351

PART I. THEORY AND THERMODYNAMIC CALCULATION OF LIQUID PROPELLANT ROCKET ENGINES

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Liquid Propellant Rocket Engines (Cont.)

Liquid Propellant Rocket Engines (Cont.)

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Liquid Propellant Rocket Engines (Cont.)

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L 25586-66 EWT(1)/EWP(m)/EWA(d)/EWA(h)/ETC(m)-6/EWA(1) JKT/WW UR/ 90 88

ACC NR: AM6007342 Monograph B+1

P.nichkin, Ivan Aleksandrovich; Lyakhov, Andrey Borisovich

Princ,ples of gas dynamics and its application to the design of supersonic wind tunnels (Osnovy gazovoy dinamiki i ikh prilozheniye k raschetu sverkhzvukovykh aerodinamicheskikh trub) Kiev, Izd-vo Kievsk. univ., 1965. 150 p. illus., biblio 3600 copies printed.

TOPIC TAGS: aerodynamics, gas dynamics, shock wave, oblique shock wave, supersonic wind tunnel, shock wave reflection, velocity measuring instrument

PURPOSE AND COVERAGE: This book is intended for engineers engaged in the field of high-speed aerodynamics and also for senior students in schools of higher education. It contains an account of the theory of one-dimensional, steady motion of an ideal gas and application of this theory to the design of gas dynamic properites of supersonic wind tunnels. It presents a more detailed treatment of the gas dynamic problems related to wind tunnels than is found in the known textbooks on gas dynamics. It is divided into three main sections dealing with the theoretical aspects of gas motion, the gas dynamics of supersonic wind tunnels, and calculations of gas dynamic characteristics of the latter.

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ACC NR: AM6007342

TABLE OF CONTENTS: [abridged]

Section I. One-Dimensional motion of an ideal gas.

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ACC NR: AM6007342

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SUB CODE: 20/ SUBM DATE: 11Nov65/ ORIG REF: 004/ OTH REF: 001/

Card 3/3

ORLOV, Boris Viktorovich, doktor tekhn. nauk, prof.; MAZING, Georgiy Yur'yevich, kand. tekhn. nauk, dots.; PANICHKIN, I.A., doktor tekhn. nauk, retsenzent; SHELUKHIN, G.G., doktor tekhn. nauk, retsenzent; GOROKHOV, M.S., doktor tekhn. nauk, retsenzent; KOTEL'NIKOV, A.V., kand. tekhn. nauk, red.

[Thermodynamic and ballistic bases for the design of solid-propellant rocket engines] Termodinamicheskie i ballisticheskie osnovy proektirovaniia raketnykh dvigatelei na tverdom toplive. Moskva, Mashinostroenie, 1964. 406 p. (MIRA 17:11)

ANTSYFEROV, M.S., kand.fiz.-mat.nauk; VUKALOVICH, M.P., prof., doktor tekhn.nauk, laureat Leninskoy premii; KRIPETS, E.S., inzh.; LAZAREV, L.P., prof., doktor tekhn.nauk; MAZYRIN, I.V., inzh.; NIKITIN, N.N., kand.fiz.-mat.nauk; OCHKIN, A.V., inzh.; PANICHKIN, I.A., prof., doktor tekhn.nauk; PETUKHOV, B.S., prof., doktor tekhn.nauk; PODVIDZ, L.G., kand.tekhn.nauk; SIMONOV, A.F., inzh.; SMIRYAGIN, A.P., kand.tekhn.nauk; TOKMAKOV, G.A., kand.tekhn.nauk; FAYNZIL'BER, E.M., prof., doktor tekhn.nauk; KHALIZEV, G.P., kand. tekhn.nauk; CHESACHENKO, V.F., kand.tekhn.nauk; YAN'SHIN, B.I., kand.tekhn.nauk; ACHERKAN, N.S., prof., doktor tekhn.nauk, red.; KUDRYAVTSEV, V.N., prof., doktor tekhn.nauk, red.; PONOMAREV, S.D., prof., doktor tekhn.nauk, laureat Leninskoy premii, red.; SATEL', E.A., prof., doktor tekhn.nauk, red.; SERENSEN, S.V., akademik, red.; RESHETOV, D.N., prof., doktor tekhn.nauk, red.; KARGANOV, V.G., inzh., red.graficheskikh materialov; GIL'DENBERG, M.I., red.izd-va; SOKOLOVA, T.F., tekhn.red.

[Manual of a mechanical engineer in six volumes] Spravochnik mashinostroitelia v shesti tomakh. Red.sovet N.S.Acharkan i dr. Izd.3., ispr. i dop. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry. Vol.2. 1960. 740 p. (MIRA 14:1)

1. AN USSR (for Serensen).
(Mechanical engineering) (Machinery--Construction)

GUTTSAYT, Z.I.; KRAVCHENKO, V.A.; NIKITIN, N.S.; PANICHEVA, A.G. Prinimali uchastiye: GOL'DSHTEYN, R.I.; PANKRATOVA, O.M.; SAGAKSKAYA, V.G. KORYAGIN, I.D., kand.ekonom.nauk, red.

[Petroleum industry of the capitalist countries of Western Europe, the Near, Middle, and Far East, Canada, and Latin America] Neftianaia promyshlennost' kapitalisticheskikh stran Zapadnoi Evropy, Blizhnego i Srednego Vostoka, Dal'nego Vostoka, Kanady i Latinskoi Ameriki; kratkii obzor statisticheskikh dannykh. Pod red. I.D.Koriagina. Moskva, 1959. 302 p. (MIRA 13:11)

1. Moscow. Gosudarstvennyy nauchno-issledovatel'skiy institut nauchnoy i tekhnicheskoy informatsii.
(Petroleum industry)

PANICHKIN, I.A.

Solution of a partial differential equation. [Trudy] MVTU no.88:103-107 '58. (MIRA 12:4)
(Differential equations, Partial)

PANICHKIN, I-A.

10(2); 28(1); 29(1) PHASE I BOOK EXPLOITATION SOV/1603

Moscow. Vyssheye tekhnicheskoye uchilishche imeni Baumana

Nekotoryye voprosy mekhaniki; sbornik statey (Some Problems in Mechanics; Collection of Articles) Moscow, Oborongiz, 1958. 197 p. (Series: Its [Trudy] vyp. 88) Number of copies printed not given.

Ed. (Title page): V.I. Feodos'yev, Doctor of Technical Sciences, Professor; Ed. (Inside book): A.S. Ginevskiy, Candidate of Technical Sciences; Ed. of Publishing House: L. Ye Serebrennik; Tech. Ed.: L.A. Garnukhina; Managing Ed.: A.S. Zaymovskaya, Engineer.

PURPOSE: This collection is intended for scientific workers, Aspirants and students of advanced courses who are interested in problems of aero- and gas dynamics and in the theory of directional control of aircraft.

COVERAGE: The collection contains reports on various problems in applied mechanics. A large portion of the articles is

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devoted to aerodynamic and gas dynamic investigations. In the first article of the collection, the author, Professor K.P. Stanyukovich, considers the laws of motion of a gas-droplet medium— in particular, the laws of motion of a mechanical mixture of a liquid and a gas with liberation of energy. His conclusions are applicable to the investigation of the motion of a burning fluid jet. The two reports by N.F. Krasnov deal with the aerodynamics of bodies of revolution. In the first, he develops briefly the method of characteristics as applied to the calculation of nonsymmetrical flow about bodies of revolution. In his second report, which treats the base drag of bodies of revolution moving at both subsonic and supersonic speeds, he presents an approximate formula derived for the calculation of the base-drag coefficient in the case of turbulent flow about a body at supersonic speed. V. F. Mikhaylina presents in her report the approximate formulas she obtained for determining the distance between an isolated compression shock and the vertex of a blunt-nosed body of arbitrary form in supersonic flow, and also for determining the velocity and pressure near the critical point. Professor Panichkin presents in his report the partial and general solutions of the differential equation used in the investigation

of the flow about bodies of revolution at high subsonic speeds. Kovalev's article is concerned with the investigation of the damping moment associated with the banking of an aerodynamic surface in a supersonic gas flow. He proposes a method for calculating an arbitrary damping moment for wings of rectangular, triangular, and trapezoidal forms. Yesiyev's article is concerned with the damping moment produced by the gas flow from a jet engine nozzle opposing the rotation of the vehicle (if the axis of rotation is not parallel to the nozzle axis). Pobedonostsev and Stanyukovich investigate in their article the problem of optimum ratios of the stages of a multistage rocket. In another report, Stanyukovich generalizes Tsiolkovskiy's ratio in the relativistic sense. The last three articles of the collection are devoted to problems of directional control of aircraft and the theory of automatic control. Shumilov investigates an unsealed control mechanism with cam transmission. Samoylov considers another variety of a control mechanism based on the use of a so-called stream tube. In the last report,

Some Problems in Mechanics (Cont.) SOV/1603

Miroslavlev investigates the motion characteristics of one of the automatic control systems used, especially in aircraft and in ship's steering gears.

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RAKHMATULIN, Khalil Akhmedovich; SAGOMONYAN, Artur Yakovlevich; BUNIMOVICH, Abram Isaakovich; ZVEREV, Igor' Nikolayevich. PUTYATE, V.I., dots., retsenzent; PANICHKIN, I.A., prof., retsenzent; GINEVSKIY, A.S., kand. tekhn. nauk, red.

[Gas dynamics] Gazovaia dinamika. Moskva, Vysshaia shkola, 1965. 722 p. (MIRA 18:10)

UTKINA, N.; PANICHKIN, Yu.

Eclampsia in the first half of pregancy in partial hydatid mole.
Zdrav.Bel. 7 no.11:55-56 N '61. (MIRA 15:11)

1. Iz Pogost-Zagorodskoy uchastkovoy bol'nitsy (glavnyy vrach S.P.Loginov).
(PUERPERAL CONVULSIONS) (PREGNANCY, MOLAR)

SKOROKHOD, V.V.; PANICHKINA, V.V.

Electric conductivity of porous sintered materials made of copper fiber. Poroshk. met. 5 no.3:58-61 Mr '65.

(MIRA 18:5)

1. Institut problem materialovedeniya AN UkrSSR.

PANICHKIN, S.Ye.; IGNATOV, N.N.; BARANOV, T.M.

New developments in the processing of fine tableware. Stek.i ker. 13 no.6:24-25 Je '56. (MLRA 9:8)
(Grinding and polishing) (Pottery)

PANICHKINA, E. (Khar'kov)

Acetylene from a spark. Izobr. i rats. no.12:3 '63.
(MIRA 17:2)

1. Spetsial'nyy korrespondent zhurnala "Izobretatel' i ratsionalizator".

PANICHKINA, E. (Khar'kov)

Acetylene from a spark. Izobr. i rats. no.12:3 '63.
(MIRA 17:2)

1. Spetsial'nyy korrespondent zhurnala "Izobretatel' i ratsionalizator".

RAUTENSHTEYN, Ya.I.; KLEPIKOVA, F.S.; ZHUNAYEVA, V.V.; PANICHKINA, T.B.

Characteristics of the lysogenic culture of Actinomyces spheroides strain 35 producing novobiocin and its temperate actinophage. Mikrobiologiia 34 no.5:828-834 S-O '65. (MIRA 18:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov Ministerstva zdravookhraneniya SSSR, i Institut mikrobiologii AN SSSR.

PANICHKINA, V.V.; UVAROVA, I.V.

Determining the specific surface of finely dispersed nickel and tungsten powders. Porosh. met. 5 no.9:19-22 S '65. (MIRA 18:9)

1. Institut problem materialovedeniya AN UkrSSR.

ANDRIYEVSKIY, R.A., kand.tekhn.nauk; PANICHKINA, V.V., inzh.;
FEDORCHENKO, I.M., akademik

Sintering of ceramic metal iron in hydrogen with small additions of hydrogen chloride. Metalloved. i term. obr. met. no.7:48-52 Jl '61. (MIRA 14:6)

1. Institut metallokeramiki i spetsial'nykh splavov AN USSR.
2. AN USSR (for Fedorchenko).
(Sintering)
(Ceramic metals)

ACC NR: AP7008397 SOURCE CODE: UR/0226/67/000/002/0001/0005

AUTHOR: Panichkina, V. V.

ORG: Institute of the Problems of the Science of Materials (Institut problem materialovedeniya AN UkrSSR)

TITLE: On the activated sintering of tungsten with small additions of nickel

SOURCE: Poroshkovaya metallurgiya, no. 2, 1967, 1-5

TOPIC TAGS: powder metal, powder metal sintering, tungsten ~~sintering~~, ~~powder metallurgy~~ nickel alloy, ~~powder metallurgy~~ POWDER METAL COMPACTION

ABSTRACT: Compacted specimens of tungsten with small (up to 0.5%) additions of nickel, prepared by mechanical mixing of tungsten and nickel powders with sebsequent reduction of nickel with addition of 5 vol% ethyl alcohol, or by vacuum impregnation of presintered pure tungsten with an agueous solution of nickel nitrate and subsequent annealing in a hydrogen atmosphere at 600°C for 2 hr, were sintered in a hydrogen atmosphere at a temperature of up to 1200°C. Compacted specimens from mixed powders had a porosity of 40—41%, while the impregnated specimen's porosity was 38%. The porosity remained unchanged with sintering at temperatures below 900°C, but decreased

Card 1/2 UDC: none

ACC NR: AP7008397

with sintering at 950—1200°C. Sintered specimens with 0.25 and 0.5% Ni had a porosity of 13%, regardless of the method of preparing the compacts. However, the impregnated specimens exhibited a higher rate of shrinkage than the specimens from mixed powders. In all investigated specimens, the grain boundaries had a thin layer of a solid solution of tungsten in nickel with the highest tungsten content possible for solid solution. Thus, it can be concluded that at 1200°C, nickel energetically diffuses along the surface of tungsten particles and along grain boundaries, while tungsten penetrates into nickel. The combined process appears to result in the formation of the second phase, a saturated solid solution of tungsten in nickel. A significant decrease in the sintering temperature and a higher shrinkage rate in sintering tungsten with nickel can be ascribed to an increasing number of defects in the base-metal (tungsten) structure, possibly caused by preferencial diffusion of tungsten into nickel. In any case, the mechanism of activated sintering of tungsten cannot be explained by diffusion processes and requires further research. I. Ya. Dzykovic and G. N. Gordman (IES im. Ye. O. Paton) participated in the work. Orig. art. has: 5 figures.

[MS]

SUB CODE: 11/ SUBM DATE: 14Jul66

Card 2/2

L 1811-65 EWT(l)/EWT(m)/EWP(w)/EWA(s)/T/EWP(t)/EWP(b) IJP(c) JD

ACCESSION NR: AP5008273 S/0226/65/000/003/0058/0061

AUTHORS: Skorokhod, V. V.; Ivanichkina, V. V.

TITLE: Electric conductivity of porous materials sintered from copper wire

SOURCE: Poroshkovaya metallurgiya, no. 3, 1965, 58-61

TOPIC TAGS: copper, sintered metal, electric conductivity, resistivity / R316 bridge

ABSTRACT: The authors present a theoretical analysis of the electric conductivity of a porous material in relation to porosity and imperfections of contacts in general. The results of experiments performed on briquettes sintered from copper wire, showing the dependence of electric conductivity on the porosity and the time of the agglomeration are also presented. It was shown by V. V. Skorokhod (IFZh, 2, 52, 1959) that the conductivity of a porous body equals the conductivity of the same nonporous body, multiplied by one minus porosity, multiplied by the ratio of the mean field in the conducting phase and the mean field in the porous body. For a body made of short-length wires, it is assumed that the wires are arranged in all directions. The conclusion is reached that the value of the electric conductivity does not approach zero when the number

Card 1/2

L 43117-65

ACCESSION NR: AP5008273

of contacts between individual wires is reduced. In the experimental work, copper wire of 0.12-mm diameter was cut into pieces of 10 to 15 mm and pressed into test specimens 70 x 4.5 x 5 mm. All samples were sintered at a temperature of 1000C in a hydrogen atmosphere, with agglomeration times ranging from 0.25 to 8.0 hours. Two series of experiments were conducted with specimens of different porosity. The electric conductivity measurements and contact factor variations were plotted on charts. Some values are not yet accounted for, but most of the results are in accordance with the theoretical conclusions. Orig. art. has: 8 formulas and 3 charts.

ASSOCIATION: Institut problem materialovedeniya AN UkrSSR (Institute of Materials Science Problems, AN UkrSSR)

SUBMITTED: 03Dec63 ENCL: 00 SUB CODE: MM, IE

NO REF SOV: 004 OTHER: 003

Card 2/2

L 2380-66 EWP(e)/EWT(m)/EWP(t)/EWP(z)/EWP(b) IJP(c) MJW/JD/HM/JG
ACCESSION NR: AP5022541 EWP(k) UR/0226/65/000/009/0019/0022

AUTHOR: Panichkina, V.V.; Uvarova, I.V. 51 13

TITLE: Determination of the specific surface of finely dispersed nickel and tungsten powders

SOURCE: Poroshkovaya metallurgiya, no. 9, 1965, 19-22

TOPIC TAGS: powder metallurgy, tungsten, nickel

ABSTRACT: A procedure is developed for determining the specific surface of finely dispersed brand BA nickel and tungsten powders with respect to adsorption of dyes from an aqueous solution. Congo red was used as a dye. The results are in good agreement with other methods of measuring the specific surface. Indirect proof is given of the existence of a film on brand BA tungsten powder after reduction. Orig. art. has: 1 table and 2 graphs.

ASSOCIATION: Institut problem materialovedeniye AN UkrSSR (Institute of Problems in the Science of Materials)

Card 1/2

Card 2/2

18.1142

24198

S/129/61/000/007/013/016
E073/E535

AUTHORS: Andriyevskaya, R.A., Candidate of Technical Sciences, Panichkina, V.V., Engineer and Fedorochenko, I.M., Academician AS UkrSSR

TITLE: Sintering of Iron Powder in Hydrogen with Additions of Hydrogen Chloride

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, 1961, No.7, pp.48-52

TEXT: Data on the influence of various methods of activated sintering on the magnetic properties of sintered briquettes and also on their specific surface (s) and carbon content are quoted from earlier work of the authors (Ref.1: Metallovedeniye i termicheskaya obrabotka metallov No.12, 1960). It was found that introduction of hydrogen chloride into the sintering atmosphere has the most favourable influence on the magnetic properties of the sintered iron and this is attributed to smoothing the relief of the pores and refining the admixtures. The experiments were carried out with an iron powder of the following composition: 0.06% C, 0.3% Mn, 0.4% Si, 0.009% P,

Card 1/5

Sintering of Iron Powder in . . . S/129/61/000/007/013/016
E073/E535

97.7% $Fe_{tot.}$. The magnetic properties were measured by a ballistic method, the specific surface was measured by the permeability method. The change in the specific surface, the coercive force and the UTS as a function of the volume concentration of the hydrogen chloride in the hydrogen were measured using the same methods as were used in the earlier work (Ref.1). Fig.2 shows the change in the specific surface of the specimen, s, m^2/g, during sintering as a function of the volume concentration of HCl (porosity of the pressed specimens about 30%; specific surface of the non-sintered specimens 0.17 m^2/g, sintering at 1200°C for 15 min). Fig.3 shows the coercive force, H_c, Oe, of briquettes as a function of the volume concentration, %, of the HCl in the sintering atmosphere, sintering at 1200°C: curve 1 - 15 min, initial porosity 30%, curve 2 - 15 min, initial porosity 23%, curve 3 - 3-4 hours, initial porosity 10%. Fig.4 shows the change in the strength, σ, kg/mm^2, of rolled strip specimens (7 x 1 x 60 mm) as a function of the HCl concentration in the sintering atmosphere for an initial porosity of 30%, a sintering temperature of 1200°C and a sintering time of 30 min. The

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presence of hydrogen chloride in the sintering atmosphere leads to the formation of iron chlorides on the active sections of the pore surface (mounds) and to their evaporation. The pores are smoothened out, reducing the specific surface and also the coercive force, the magnitude of which depends not only on the quantity of inclusions (pores) but also on their shape. The strength increase due to a drop in the role of stress concentrators. Hydrogen chloride brings about more intensive refining of the iron specimens. Manganese and silicon form easily evaporating chlorides. The refining also improves the magnetic characteristics. The optimum concentration of hydrogen chloride during sintering in a continuous gas flow is 5-10 %. If the HCl concentration is higher recesses form on the surface of the specimen due to intensive erosion of the iron by hydrogen chloride vapours. Due to their high corrosive effect, the HCl vapours have to be removed by intensive blowing of hydrogen at the end of the sintering. If this is done for a duration of about 30 min (total duration of the sintering process 90 min), the specimens will have the same resistance to atmospheric corrosion as specimens sintered in hydrogen. Usually a single pressing and sintering

Sintering of Iron Powder in ... S/129/61/000/007/013/010
E073/E535

is not sufficient to obtain sintered iron components with properties approaching the properties of compact components and, therefore, the specimens are usually twice pressed and sintered. The influence of preliminary sintering on the properties of the components after pressing and sintering was investigated and the results are tabulated. An improvement in the properties on sintering in H_2 + (1) HCl atmosphere was observed only after sintering times exceeding 10 to 15 min, since shorter times are not sufficient for the reaction to proceed to any appreciable degree. An improvement in the properties by 25 to 40% can be achieved. The properties of the final product will be the better the higher the properties of the specimens after the first sintering. By using an atmosphere of H_2 + 10% HCl in the preliminary sintering (15-90 min at 1100°C to 1250°C), properties equalling those of cast electrical steel Э (E) can be achieved after final pressing to a density of 7.7-7.8 and sintering at 1200°C for 4 hours. There are 4 figures, 2 tables and 6 references: 3 Soviet and 3 non-Soviet. The English-language reference reads as follows: Steinitz, R., Journal Appl. Phys., v. 20, 1949).

Card 4/5

PANICHKINA, Z. V.

Panichkina, Z. V. "The connection between visibility distance and dust and condensation centers", Trudy Tashk. geofiz. observatorii, Issue w, 1949, p. 62-65.

SO: U-4392, 19 August 53, (Letopis 'Zhurnal 'nykh Statey, No 21, 1949).

PANICS, M.

GERGELY, K.; KASSAY, D.; PANICS, M.

Timely treatment of atelectasis in the premature. Gyermekgyogyaszat 4 no.9:263-269 Sept 1953. (CIML 25:5)

1. Doctors.

VAYSER, V.L.; RYABOV, V.D.; PANIDI, I.S.

Ammonolysis of 1,1-di(chlorophenyl)-ethane. Dokl. AN SSSR 140 no.1:118-121 S-O '61. (MIRA 14:9)

1. Institut neftekhimicheskoy i gazovoy promyshlennosti im. I.M. Gubkina. Predstavleno akademikom A.V.Topchiyevym.
(Ethane) (Ammonolysis)

ACCESSION NR: AT4008697 S/2982/63/000/044/0033/0038

AUTHOR: Paushkin, Ya. M.; Panidi, I. S.

TITLE: Synthesis of boron-nitrogen-containing compounds from boric acid

SOURCE: Moscow. Institut neftekhimicheskoy i gazovoy promy*shlennosti. Trudy*, no. 44, 1963. Neftekhimiya, pererabotka nefti i gaza, 33-38

TOPIC TAGS: nitrogen containing organoboron compound, boric acid, boric acid. nitrogen derivative, boric acid derivative, boric acid.arylamino derivative, boric acid. alkylamino derivative, boronic acid.anilino-.polymer with urea

ABSTRACT: A new class of compounds containing the boron-nitrogen bond, the arylamino-boric acids, has been synthesized by direct condensation of boric acid with arylamines. The course of this reaction was found to depend primarily on the temperature at which zinc chloride is added to the mixture of boric acid and amine, as well as on the quantity of the condensation agent (aniline, p-toluidine, o-toluidine, or p-anisidine). Temperatures ranging from 130-170C were tested to determine which particular arylamino-boric acid would result and whether the end-product would be an adhesive resin. Aliphatic amines did not react, but alkylamino-boric acids could be obtained by an exchange reaction with an arylamino-boric acid. This reaction is very exothermic and, with methylamine, takes

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ACCESSION NR: AT4008697

place at the relatively low temperature of -15C. The experiment was also conducted with urea and the aliphatic diamines ethylenediamine and hexamethylenediamine. The polymers of the boric acid derivatives were fractionated by treatment with acetone and the resultant high-molecular components were found to be soluble while the low-molecular ones were not. These findings are significant because of the need for materials which can withstand high temperatures and organic solvents. Orig. art. has: 3 tables, 2 figures, and 5 chemical formulas.

ASSOCIATION: Institut neftekhimicheskoy i gazovoy promy*shlennosti, Moscow (Institute of Petroleum Chemistry and the Gas Industry)

SUBMITTED: 00 DATE ACQ: 16Jan64 ENCL: 00

SUB CODE: CH NO REF SOV: 000 OTHER: 004

PAUSHKIN, Ya.M.; PANIDI, I.S.

Synthesis of boron-nitrogen containing compounds on a base of boric acid. Trudy MINKHiGP no.44:33-39 '63.

(MIRA 18:5)

MALYSHEVA, N.G.; STARCHIK, L.P.; PANIDI, I.S.; PAUSHKIN, Ya.M.

Application of the method of neutron absorptiometry for determining the boron content of organoboron compounds. Zhur. anal. khim. 18 no.11:1367-1369 N '63. (MIRA 17:1)

1. Institut neftekhmicheskoy i gazovoy promyshlennosti imeni I.M. Gubkina, Moskva.

L 26830-65 /EWT(m)/EWT(c)/EPR/EWP(j) Pc-4/Pr-4/Ps-4 RPL RM/WW

ACCESSION NR: AP4041924 S/0020/64/159/003/0612/0614

AUTHOR: Paushkin, Ya. M.; Panidi, I. S.; Platonova, L. A.; Nesmeyanov, A.N. (Academician)

TITLE: Synthesis of semisymmetrical tris-amides of boric acid

SOURCE: AN SSSR. Doklady*, v. 159, no. 3, 1964, 612-614

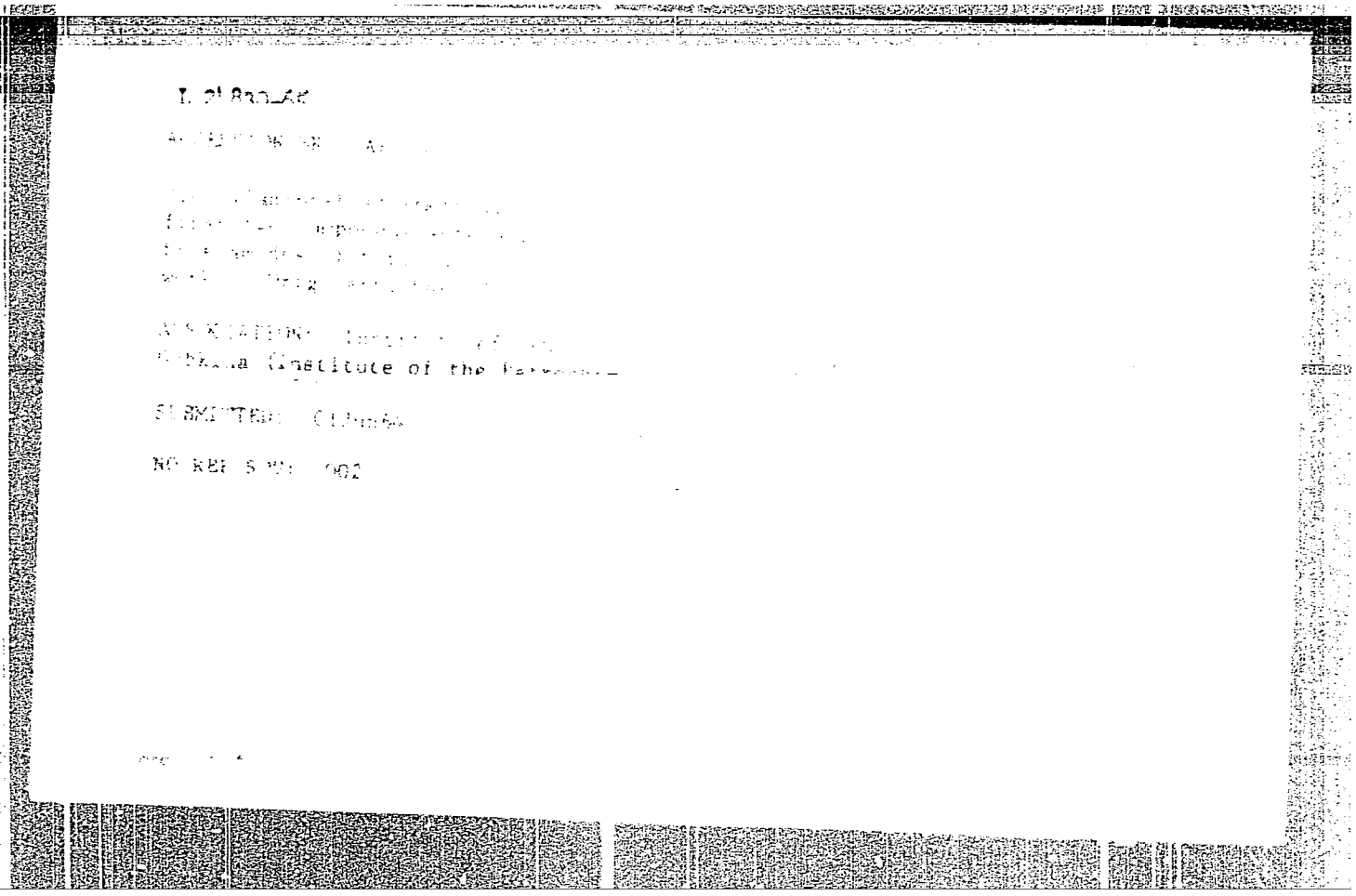
TOPIC TAGS: boric acid, boroorganic compound, boric acid amide

ABSTRACT: The authors give the name "semisymmetrical" tris-amides of boric acid to compounds of the type $R_2N>B-NR'_2$, in which one of the amino groups differs from the two others (accordingly, tris-amides in which all the amino groups are different may be called unsymmetrical tris-amides of boric acid). The authors used the reaction

$$B(NR_2)_3 + H_2NR' \rightarrow R'NHB(NR_2)_2 + R_2NH,$$

to synthesize semisymmetrical tris-amides of boric acid, and tabulated their physicochemical properties. Data from the elementary analysis are also tabulated. The relatively low yields of semisymmetrical tris-amides of boric acid are explained by the formation of products of double displacement and of polymers remaining after the vacuum distillation. The procedures used in the preparation of n-propylamino-bis(diethylamino)borine, phenylamino-bis(diethylamino)borine, and

Card 1/2



PANIDI, I. S.

L 8890-65 EPA(s)-2/EWT(m)/EPF(c)/EPF(n)-2/EPR/EWP(j)/T/EWP(q)/EWP(b)
Pc-4/Pr-4/Ps-4/Pt-10/Pu-4 AFWL/ASD(a)-5/ESD(t)/ESD(dp)/RAEM(t) JD/
JG/AT/RH/WH
ACCESSION NR: AP4045016 S/0191/64/000/009/0003/0005

AUTHOR: Paushkin, Ya. M.; Bocharov, B. V.; Smirnov, A. P.; Vishnyakova, T. P.; Machus, P. F.; Panidi, I. S.

TITLE: Preparation of polyvinylene compounds by the reaction of calcium carbide with carbonyl compounds

SOURCE: Plasticheskiye massy*, no. 9, 1964, 3-5

TOPIC TAGS: organic semiconductor, semiconducting polymer, polyvinylene, carbonyl compound, calcium carbide

ABSTRACT: A new route has been found for the preparation of conjugated polymers: the reaction of carbonyl compounds with calcium carbide. In addition to its simplicity, an advantage of this method is that one of the reactants is carbide dust, a waste product of calcium carbide production. The method is based upon the principle that calcium carbide removes water from carbonyl compounds, and is thereby hydrolyzed and liberates acetylene; acetylene can then react with the carbonyl compounds or intermediates to form

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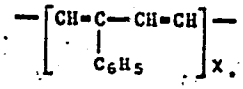
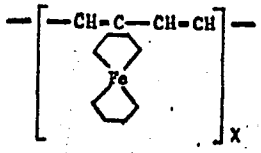
L 8890-65

ACCESSION NR: AP4045016

conjugated polymers. The carbonyl compounds—acetone, acetophenone, acetaldehyde, and acetylferrocene—reacted with calcium carbide in molar ratios of 1/0.5 to 1/1 at 150—200C. The polymers produced were only partly soluble in organic solvents. The soluble fraction, whose yield was 13.3—38%, was studied by cryoscopic molecular weight determination and by elemental analysis. All of the polymers were also studied by EPR and IR spectroscopy. The polymer structures were assumed to be of the type



A polymer of the type



Card 2/3

L 8890-65

ACCESSION NR: AP4045016

was synthesized for the first time. Most of the soluble polymers were black or orange powders, except for the polymer from acetone, which was a viscous resin. Melting points varied from 50 to 500C. The acetylferrocene polymer melted at 500C and had a molecular weight of 2405; its yield was 38%. Solutions of all the polymers formed strong films with high adhesion to metal, wood, or porcelain substrates. Orig. art. has: 2 tables, 1 figure, and 4 formulas.

ASSOCIATION: none

SUBMITTED: 00 ATD PRESS: 3109 ENCL: 00

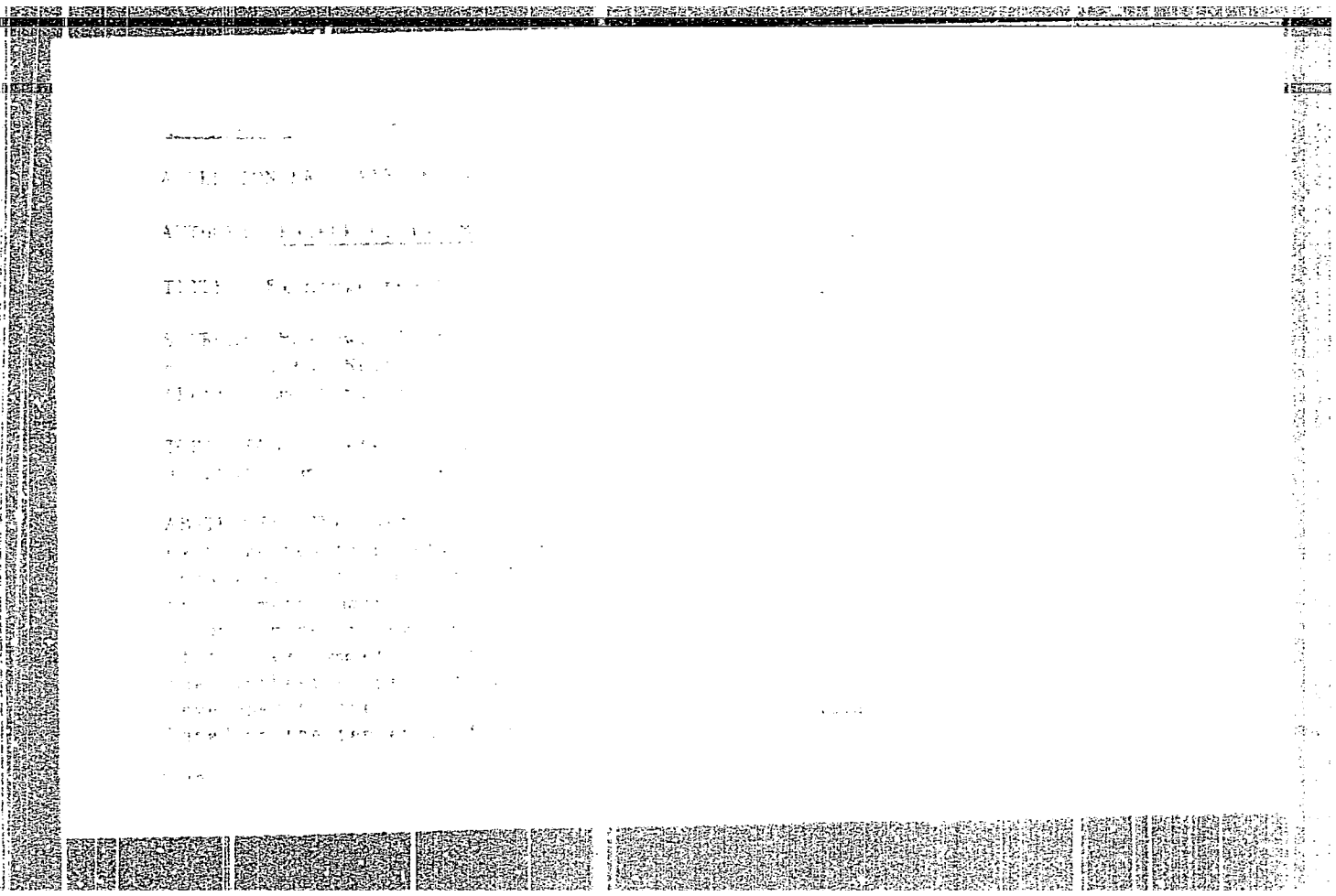
SUB CODE: MT NO REF SOV: 002 OTHER: 003

Card 3/3

PAUSHKIN, Ya.M.; PANIDI, I.S.; PLATONOVA, L.A.

Synthesis of semisymmetrical tris-amides of boric acid.
Dokl. AN SSSR 159 no.3:612-614 N '64 (MIRA 18:1)

1. Institut neftekhimicheskoy i gazovoy promyshlennosti imeni I.M. Gubkina. Predstavleno akademikom A.N. Nesmeyanovym .



L 36242-65
ACCESSION NR: AT5006934

attenuate the primary flux of thermal neutrons passing through the sample. A diagram of the device used for the determination of boron is given. Six tris-amides belonging to a new class of semisymmetrical trisamides of boric acid were obtained. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Institut neftekhimicheskoy i gazovoy promyshlennosti, Moscow (Petrochemical and gas industry institute)

SUBMITTED: 00 ENCL: 00 SUB CODE: OC

NO REF SOV: 002 OTHER: 002

Card 2/2

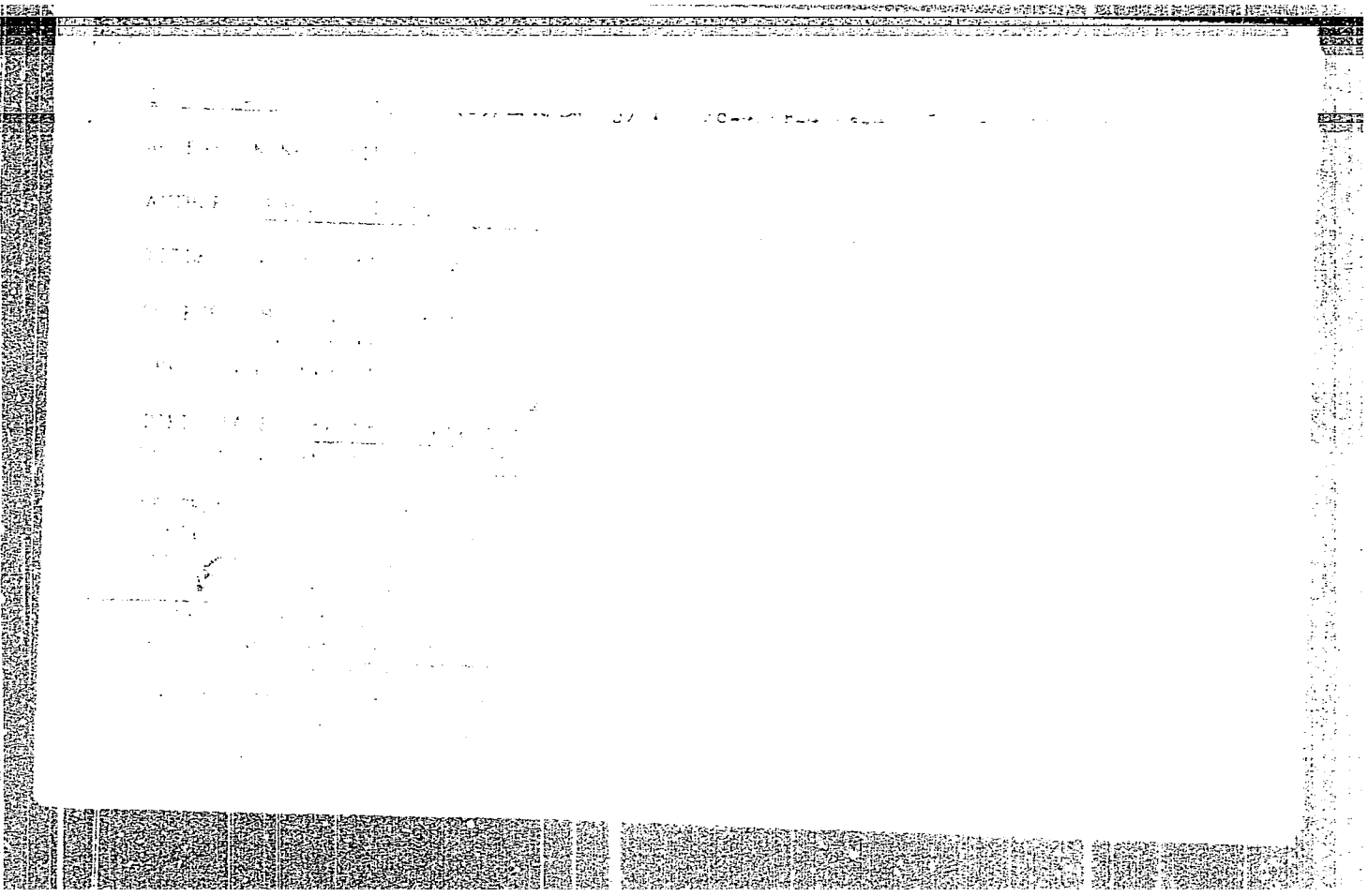
PANIDI, I.S.; PAUSHKIN, Ya.M.

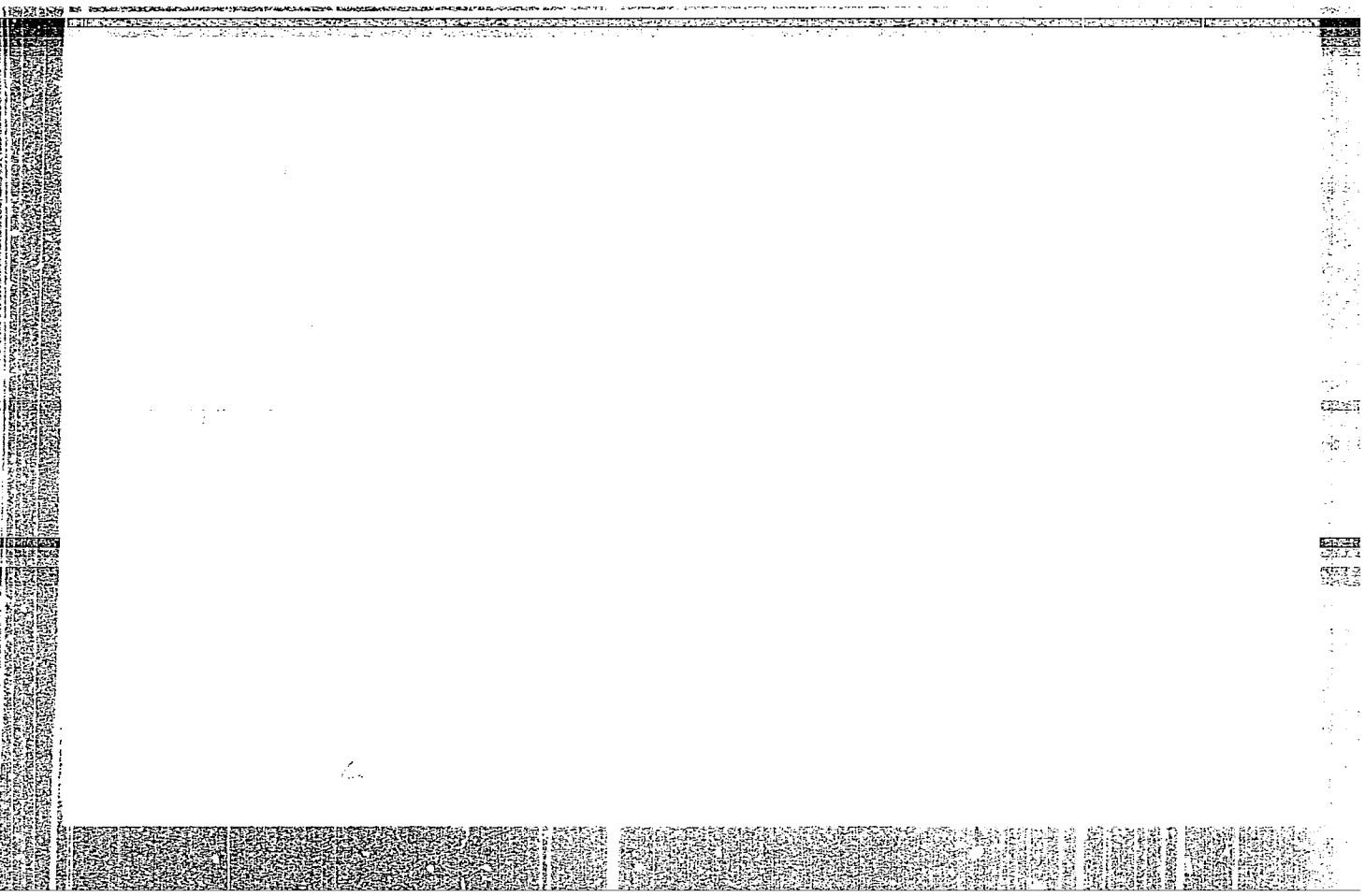
Simple method of preparing bis (diethylamino) boron chloride and syntheses based on it. Dokl. AN Arm. SSR 41 no. 4:226-229 '65 (MIRA 19:1)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni Gubkina.

PAUSHKIN, Ya.M.; BOCHAROV, B.V.; SMIRNOV, A.P.; VISHNYAKOVA, T.P.; MACHUS, F.F.; PANIDI, I.S.

Production of polyvinyl compounds by means of the reaction of calcium carbide with carbonyl compounds. Plast.massy no.[illegible]:3-5 '64. (MIRA 17:10)





PANIDI, Ye.V.

Alkylation of phenol ethers with isobutylene on a KU-2 cationite.
Trudy MINKHiGP no.37:137-141 '62.
(MIRA 17:3)

ISAGULYANTS, V.I.; PANIDI, Ye.V.

Alkylation of phenol with isobutyl alcohol in the presence of a cation exchange resin (new method of preparing tertiary butylphenol). Zhur.prikl.khim. 34 no.8:1849-1852 Ag '61. (MIRA 14:8)

(Phenol) (Isobutyl alcohol)

PANIFEDOV, A.A. (Idritsa).

Combination track sign. Put' i put. khoz. no.5:28 My '57.
(MLRA 10:6)

1. Zamestitel' nachal'nika Idritskoy distantsii puti Kalininskoy dorogi.

(Railroads--Signaling)

PANIGIANTS

RUMANIA/Cultivated Plants - General Problems. L-1

Abs Jour : Ref Zhur - Biologiya, No 16, 25 Aug 1957, 69186

Author : Panigiants
Inst :
Title : Water Plants-- and Important Source of Industrial Raw Material.

Orig Pub : Nature (Romin.), 1956, 8, No 1, 108-112

Abstract : No abstract.

Card 1/1

ISAGULYANTS, V.I.; PANIDI, Ye.V.

Alkylation of phenolic ethers with olefins in the presence of cation exchange resins as catalysts. Zhur.prikl.khim. 34 no.7:1578-1582 Jl '61. (MIRA 14:7)

(Ethers) (Olefins)

21(1), 24(7)

AUTHORS: Glasko, V.B., Maslov, V.P., Panikar, V.I. and Sokolov, N.D.

SOV/51-6-5-25/34

TITLE: On the Type of Correlation Function for the Helium Atom (O vide korrelyatsionnoy funktsii dlya atoma geliya)

PERIODICAL: Optika i Spektroskopiya, 1959, Vol 6, Nr 5, pp 698-700 (USSR)

ABSTRACT: In molecular calculations correlation in the motion of electrons is allowed for by introducing into the wave-function an additional factor dependent on inter-electron distance r_{ij} (Ref. 1).
In analogy with the first approximation in the helium atom calculations, carried out by Hylleraas (Ref 2), this multiplier can be written for a two-electron system in the form

$$f(r_{12}) = 1 + \alpha r_{12} \qquad (1)$$

where α is a variational parameter. In the general case the correlation function should depend on three correlation variables and f can be then represented as a series in powers of these variables (Refs 2, 3). When only one correlation variable is used the choice of the function $f(r_{12})$ in the form given by Eq (1) is an arbitrary one. The question arises as to whether this choice is the best possible one. This question is answered by determining the correlation function $f(r_{12})$ for the helium

Card 1/2