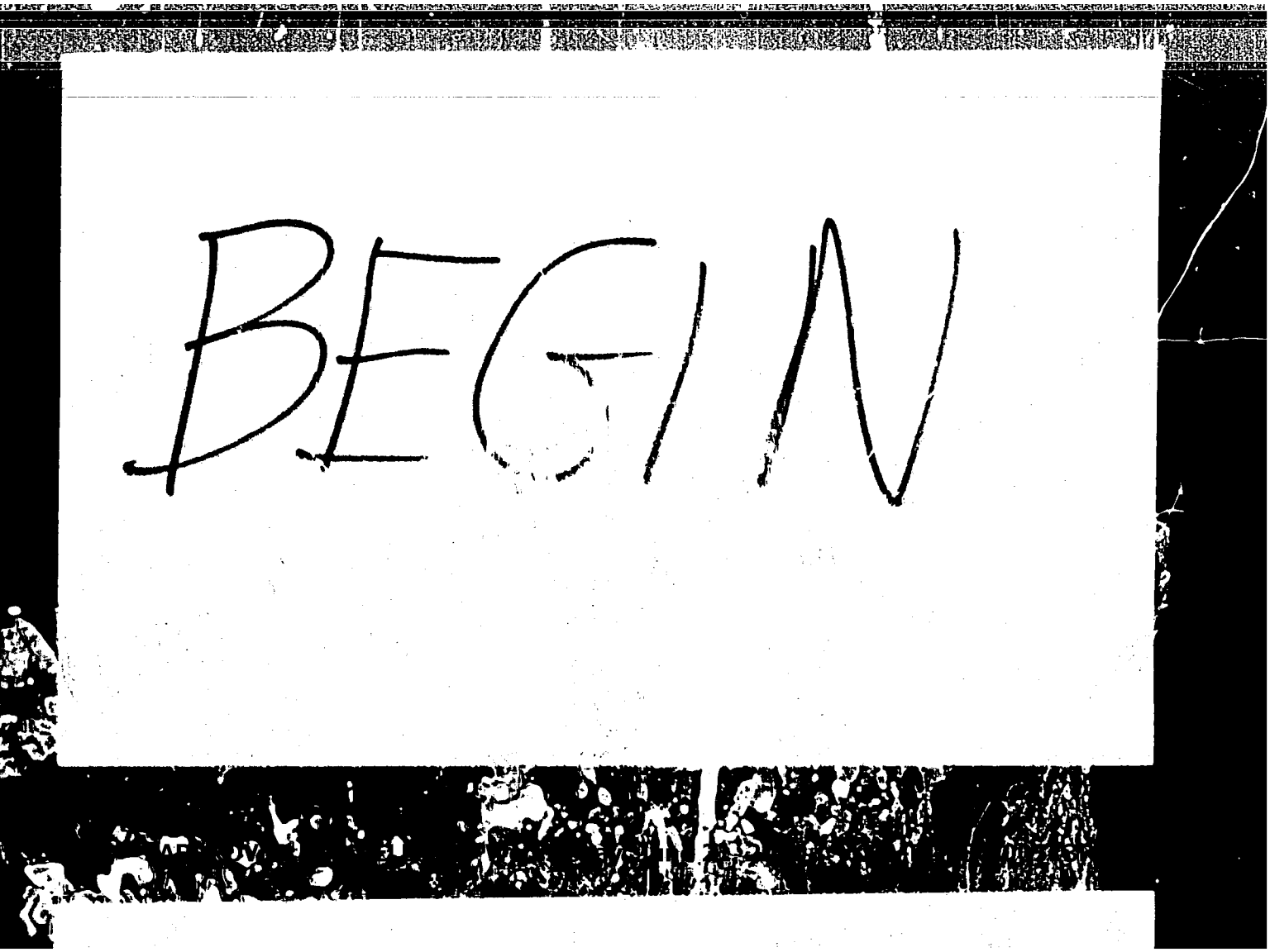

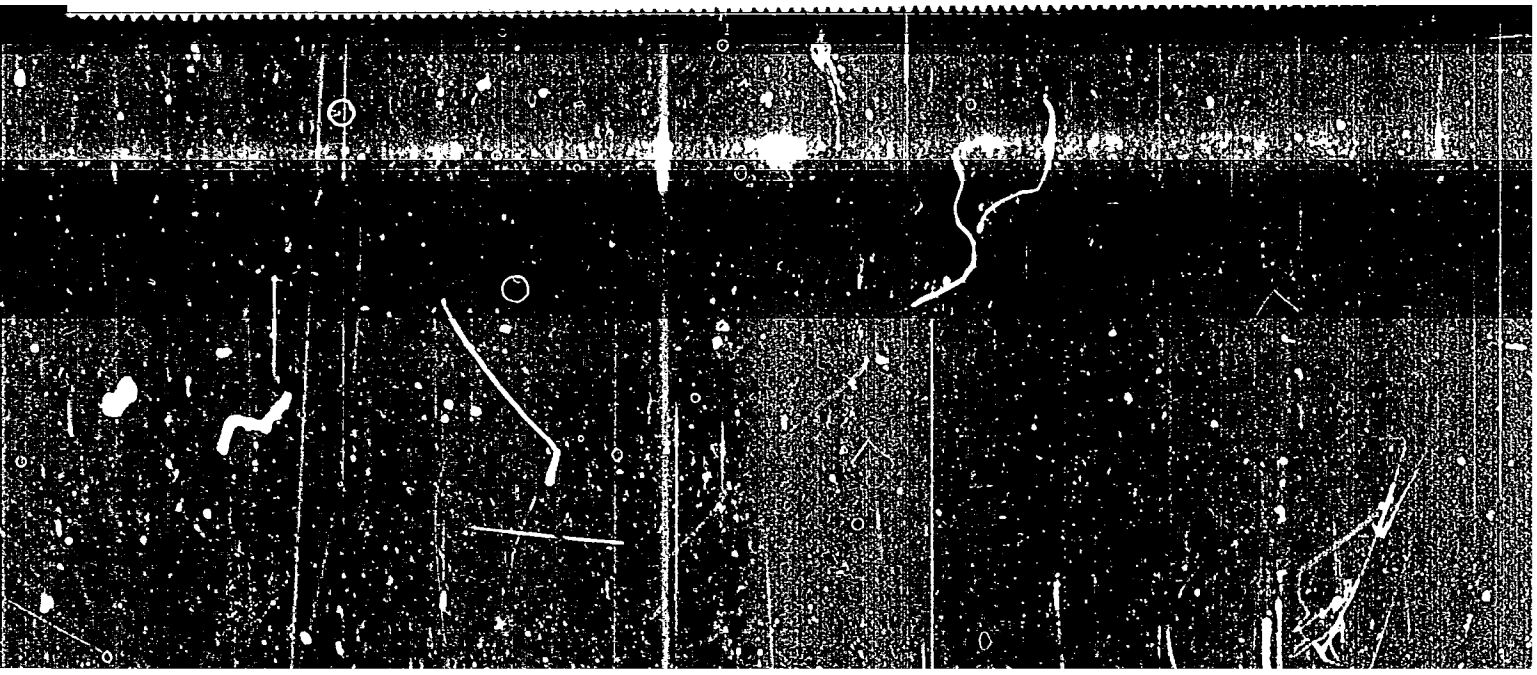

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

BALAKHMATOVA, V.T.

New data on the pelecypod fauna of the Paleocene of Fergana. Trudy VNIGRI no.73:171-205 '53. (MLRA 7:7)
(Fergana--Lamellibranchiata, Fossil) (Lamellibranchiata, Fossil--Fergana)

15-57-7-10037

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 7, p 191 (USSR)

AUTHORS: Balakhmatova, V. T., Lipman, R. Kh.

TITLE: Stratigraphic Subdivision of the Devonian, Upper Jurassic, Cretaceous, and Tertiary Rocks, on the Basis of Microfauna Study, in the Barabinsk Exploratory Drill Hole 1-R (Stratigraficheskoye raschleneniye devonskikh, verkhneyurskikh, melovykh i tretichnykh otlozheniy po Barabinskoy opornoy skvazhine 1-R na osonovanii izucheniya mikrofauny)

PERIODICAL: Materialy Vses. n.-i. geol. in-ta, 1955, Nr 9, pp 70-87

ABSTRACT: The Mesozoic and Tertiary deposits in the Barabinsk exploratory drill hole 1-R, occurring in the interval 2408.5 m to 37 m, have been divided into three formations and seven zones on the basis of study of the

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Stratigraphic Subdivision of the Devonian (Cont.)

microfauna. The lower formation (at a depth of 2408.5 m to 2269 m) contains a group of radiolarians of Devonian age. Above this formation occurs a Middle Jurassic coal-bearing sequence, about 130 m thick, which is overlain by fine-oolitic argillaceous limestones of Callovian age, containing Cristellaria hoplites Wisn., C. folium Wisn., Frondicularia nodulosa Furss, and the ammonites Quenstedticeras sp. At a depth of 1978 m abundant foraminifers of the Lower Volga series were encountered. These correspond to the Ammodiscus tenuissimus of other drill holes and make it possible to differentiate a characteristic microfossil zone. A second zone is differentiated only in the described drill hole, in the interval 1845 m to 1693 m, in Meocomian rocks, containing fresh-water ostracods and ooginii (?) characeous seaweed characteristic of Wealdian rocks. Microfaunas are not present in the deposits of the upper part of the Lower Cretaceous and of the lower part of the Upper Cretaceous (at depths of 1323.5 m to 785 m). The age of these rocks (Aptian-Albian, Albian-Cenomanian, and

Stratigraphic Subdivision of the Devonian (Cont.)

Turonian) is determined by flora, spore-pollen groups, and Inoceramus. Dark gray mudstones with fish remains and belemnite and ammonite (Rasenia sp.) fragments represent the Oxfordian and Kimmeridgian stages. The Gaudryana filiformis zone, until recently considered to be Albian, was recognized at depths of 754 m to 732 m. New data, discoveries of Baculites romanovskyi Arkh., demand that this layer be referred to the Turonian. It is the third characteristic zone of the Barabinsk exploratory drill hole that has regional significance for the Western Siberian lowland. The fourth zone is found in the interval 728.5 m to 724 m and contains small discorbids and anomalinids: Discorbis sibiricus Dain., Valvulineria westsibirica Dain., and Anomalina sibirica Dain. of Santonian age. Abundant radiolarians and arenaceous foraminifers are found in the interval 594.6 m to 542.4 m and they define a characteristic radiolarian formation. Above this formation, at depths from 541 m to 537 m, a transitional zone is distinguished, characterized by calcareous and arenaceous varieties of foraminifers. The rocks of this zone

Stratigraphic Subdivision of the Devonian (Cont.)

are referred to the Santonian, inasmuch as Pteria tenuicostata (Roem.) is found at a depth of 539.5 m. A zone of Campanian-Maestrichtian foraminifers, having regional distribution, is recognized in the interval 537 m to 469 m. The rocks at depths of 469 m are provisionally referred to the Ammobaculites incultus Ehr. zone of Danian age. They mark the seventh zone. Tertiary deposits appear at a depth of 461 m. The deposits between 461 m and 431 m are tentatively considered Paleocene. Between 431 m and 383.5 m an upper radiolarian formation is distinguished. It contains a massive accumulation of radiolarians, diatoms, sponge spicules and remains of fish skeletons of Eocene age. This Tertiary formation and its microfaunal content have a wide regional distribution. The rocks in the interval of 377 m to 285 m are distinguished as the supra-radiolarian formation of Oligocene age. A formation at depths of 285 m to 37 m is subdivided into six horizons on the basis of spore-pollen studies, and is Miocene in age. The authors provide a summary outline of the distribution

Stratigraphic Subdivision of the Devonian (Cont.)

of exploratory drill holes and a bibliography with 67 references.
G. V. Fomina

Card 5/5

BYKOVA, N.K.; BALAKHMATOVA, V.T.; VASILENKO, V.P.; VOLOSHINOVA, N.A.; GRIGELIS, A.; DAIN, L.G.; IVANOVA, L.V.; KUZINA, V.I.; KUZNETSOVA, Z.V.; KOZYREVA, V.F.; MOROZOVA, V.G.; MYATLYUK, Ye.V.; SUBBOTINA, N.N.

New genera and species of Foraminifera. Trudy VNIGRI no.115:5-106 '58. (MIRA 11:10)

(Foraminifera, Fossil)

BALAKHMATOVA, V.T.

New representatives of the Paleogene Textulariidae of the northern Turkmenia. Trudy VSEGEI 93:21-27 '64. (MIRA 18:7)

GLAZUNOVA, A.Ye.; BALAKHMATOVA, V.T.; LIPMAN, R.Kh.; ROMANOVA, V.I.; KHOKHLOVA, I.A.; YASHURZHINSKAYA, A.N., tekhn.red.

[Cretaceous stratigraphy and fauna of the West Siberian Plain] Stratigrafiia i fauna melovykh otlozhenii Zapadno-Sibirskoi nizmennosti. Leningrad, 1960. 346 p. (Leningrad. Vsesoiuznyi geologicheskii institut. Trudy, vol.29) (MIRA 13:6)
(West Siberian Plain--Geology, Stratigraphic)

BALAKHMATOVA, V.T.

New and typical species of Paleogene Foraminifera from northern Turkmenia. Inform.sbor.VSEGEI no.47:3-22 '61. (MIRA 15:4)
(Turkmenistan—Foraminifera, Fossil)

BALAKHNICHEV, Yu.S., tekhnik

Increase in the operational reliability of the accumulator valves of 46GM steam pumps. Energetik 11 no.10:18 O '63.
(MIRA 16:11)

FOKSHA, L.T.; BALAKHNICHEVA, T., red.; MANDEL'BAUM, M., tekhn.red.

[Trade of the Moldavian S.S.R. in the seven-year plan] Torgovlia Moldavskoi SSR v semiletke. Kishinev, Gos.izd-vo "Kartia Moldovenieske," 1959. 99 p. (MIRA 13:7)
(Moldavia--Retail trade)

MKZHELYARSKAYA, V.P.; CHEBOTAR', A.M.; CHAYKO, G.G., red.; BALAKHNICHEVA, T., red.; KAPITSA, V., tekhn.red.

[Public health in Moldavia; a statistical manual] Zdravookhranenie v Moldavskoi SSR; statisticheskii spravochnik. Kishinev, Gos.izd-vo Moldavii, 1958. 79 p. (MIRA 12:3)

1. Moldavian SSR. Ministerstvo zdravookhraneniya.
(MOLDAVIA--PUBLIC HEALTH--STATISTICS)

ZEKHTMAN, M.Ya., dotsent, zasluzhennyy vrach Moldavskoy SSR; BALAKHNICHEVA, T., red.; MANDEL'BAUM, M., tekhn.red.

[The 21st Congress of the Communist Party of the Soviet Union and prospects for the development of the public health system in the Moldavian S.S.R.] XXI s"ezd KPSS i perspektivy razvitiia zdravookhraneniia v Moldavskoi SSR. Kishinev, Gos.izd-vo "Karta Moldovenieske," 1959. 37 p. (MIRA 13:5)
(MOLDAVIA--PUBLIC HEALTH)

KOROVIN, A.A.; BALAKHNICHEVA, T., red.; MANDEL'BAUM, M., tekhn.red.

[Differential diagnosis of influenza] Differentsial'naia diagnostika grippa. Kishinev, Gos.izd-vo "Kartia Moldovenieske," 1959. 135 p. (MIRA 14:1)

(INFLUENZA)

SHARAPOV, B.I., prof.; BALASHNICHEVA, T., red.; POLEVAYA, Ye., tekhn.red.

[Essays on the clinical aspects and pathomorphological disorders of the reticular formation of the central nervous system] Ocherki kliniki i patomorfologicheskikh narushenii setevidnoi formatsii tsentral'noi nervnoi sistemy. Kishinev, Gos.izd-vo "Kartia Moldovenieske," 1959. 58 p. (MIRA 14:4)
(BRAIN--DISEASES)

OZHERELʹYEV, A.N.; SIROTA, A.Ye.; BALAKHNICHEVA, T., red.; KURMAYEVA, T., tekhn.red.

[Achievements of Moldavian leather-industry workers] Tvorcheskii trud kozhevnikov Moldavii; literaturnaia zapis' M.V.Kitsisa. Kishinev, Gos.izd-vo "Kartia moldoveniaske," 1960. 48 p. (MIRA 14:6)

(Moldavia--Leather industry)

SHROYT, I.G.; BALAKHNICHEVA, T., red.; KAPITSA, V., tekhn. red.

[Experimental measles; its pathomorphology and pathogenesis] Eksperimental'naia kor'; patomorfologiia i patogenez. Kishinev, Gos. izd-vo "Kartia moldoveniaske," 1961. 134 p. (MIRA 15:3)

(MEASLES)

GANETSKIY, M.G.; BALAKHNICHEVA, T., red.; BELOUSOVA, L., tekhn. red.

[Over three continents]Cherez tri kontinenta. Kishinev, Kartia moldoveniaske, 1961. 125 p. (MIRA 16:3)
(Shestakov, Semen Aleksandrovich, 1898-1963)

BALAKHNIN, I.A.

Some data on intraspecific differences of trout blood and the technique of their determination. Dokl. AN SSSR 141 no.2:500-501 N '61. (MIRA 14:11)

1. Predstavleno akademikom Ye.N.Pavlovskim.
(Trout) (Serum diagnosis)

BALAKHNIN, I.A.

Special chamber for carrying out the precipitation in gel reaction. Sud.-med.ekspert. 5 no.3:53-54 Jl-S '62. (MIRA 15:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii.
(ANTIGENS AND ANTIBODIES—ANALYSIS)

BAJAKHNIN, I.A.

Phagocytic capacity of erythrocytes. Pat. fiziol. i eksp. terap. 5 no.5:83-84 '61 (MIRA 17:4)

S/131/60/000/05/07/015
B015/B011

AUTHOR: Balakhnin, I. G.

TITLE: A Signaling-Protective Relay System for the Vacuum Bar Extruding Press

PERIODICAL: Ogneupory, 1960, No. 5, pp. 214-216

TEXT: To eliminate the production waste resulting from the abnormal operation of the press, the author worked out the above system at the Laboratoriya avtomatiki (Laboratory of Automation) of the Vostochnyy institut ogneuporov (Eastern Institute of Refractories). If the vacuum drops below the prescribed value, the luminous and acoustic signaling system is released automatically. The system (Fig. 1) includes the recording vacuometer VS-610, the connecting relay EP41/51-B, transformer 220/127/6 v of the type T-74. An electronic time relay and a contact vacuum primary element were worked out for this circuit under the participation of B. S. Krotov and N. A. Pakhtusova. The electronic time relay (Fig. 2) includes a 6N1P tube, a small-size TG1B thyratron, semiconductor diodes of types DGTs-24, DGTs-13, and

Card 1/2

A Signaling-Protective Relay System for the Vacuum Bar Extruding Press

S/131/60/000/05/05/016
B015/B011

DGTs-27, as well as electromagnetic relays of types MRTs-1 and MKU-48. The signaling-protective relay system was tested at the Bogdanovichskiy ogneupornyy zavod (Bogdanovichi Works of Refractories) under operational conditions and gave a perfect performance in the time from 40 seconds to 4.5 minutes, which is said to be sufficient for the practice. There are 2 figures.

ASSOCIATION: Vostochnyy institut ogneuporov (Eastern Institute of Refractories)

Card 2/2

IVANOV, I., kand.tekhn.nauk; BALAKHNIN, M., inzh.

Porous aggregates made from the ashes of a heat-and electric power plant. Na stroi. Ros. no.5:26 My '61. (MIRA 14:7)
(Novosibirsk—Aggregates (Building materials))
(Ashes (Technology))

BALAKHNIN, M.P.

Using twig nettings in protecting slopes. Transp.stroi. 10 no.3:15-16 Mr '60. (MIRA 13:6)

1. Glavnyy inzhener. SMP-299, peregon M.Ostrov Shablykino Omskoy dorogi.
(Railroads—Earthwork)

BALAKHNIN, M.P.

The cost of building second tracks has been lowered. Transp. stroi. 12 no.4:6 Ap '62. (MIRA 15:5)

1. Glavnyy inzh. stroitel'nogo uchastka No.14 tresta Omsktransstroy.

(Railroads--Construction)

BALAKHNIN, M.P.

Experiment in erecting a foundation for an apartment house on a pile foundation. Transp.stroi. 13 no.9:37-38 S '63. (MIRA 16:12)

1. Glavnyy inzh. stroitel'nogo uchastka No.14 tresta Omsktransstroy.

BALAKHNIN, M. V.

Cand Tech Sci - (diss) "Clay-ash agloporite made from several ashes of Kuzbass coals." Novosibirsk, 1961. 18 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Novosibirsk Construction Engineering Inst imeni V. V. Kuybyshev); 240 copies; price not given; (KL, 10-61 sup, 213)

BALAKHNIN, M.V.

Newly designed laboratory sintering unit. Stroi. mat. 7 no.4: 35-36 Ap '61. (MIRA 14:5)
(Sintering)

BALAKHNIN, M.V., inzh.

Obtaining agloporite with fixed properties from ashes of bituminous coal from the Kuznetsk Basin. Sbor.trud.VNIINSM no.6:68-83 '62. (MIRA 15:12)

1. Novosibirskiy inzhenerno-stroitel'nyy institut imeni V.V. Kuybysheva.

(Kuznetsk Basin--Ash (Technology))
(Lightweight concrete)

'EYRIKH, A.A., inzh. IVANOV, I.A., kand. tekhn. nauk; BALAKHNIN, M.V., kand. tekhn. nauk; KROTOV, A.I., inzh.

Producing clay-ash aggregates in Western Siberia. Stroi. mat. 10 no.10:33-34 O '64. (MIRA 18:2)

BALAKHNIN, N.

Repair of the MAZ-200 transmission synchronizer. Avt. transp. 38 no. 5:53-54 My '60. (MIRA 14:2)
(Automobiles—Transmission devices)

1. KOVALEV, S. A., Eng.; BALAKHNIN, N. V.

2. USSR (600)

4. Sewer Gas

7. Use of sewer gas as fuel automobiles, Gor. khoz. Mosk., 26, No. 11, 1952.

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

TRAKHANOV, G.A., tekhnik; BALAKHNIN, S.A., tekhnik

Improved operation of sliver traps. Energetik 12 no.5:19-20 My '64. (MIRA 17:6)

ACC NR: AP6034758 (A,N) SOURCE CODE: UR/0020/66/170/005/1117/1120

AUTHOR: Balakhnin, V. P.; Kondrat'yev, V. N. (Academician); Nalbandyan, A. B. (Academician AN ArmSSR); Gershenzon, Yu. M.

ORG: Institute of Chemical Physics, Academy of Sciences, SSSR (Institut khimicheskoy fiziki Akademii nauk SSSR)

TITLE: Quantitative study of the hydrogen combustion mechanism in the vicinity of the lower limit of ignition

SOURCE: AN SSSR. Doklady, v. 170, no. 5, 1966, 1117-1120

TOPIC TAGS: hydrogen, ~~hydrogen~~ combustion, reaction kinetics, reaction mechanism, ignition

ABSTRACT: A calculation has been made of the rate constants of certain elementary reactions in the mechanism of hydrogen combustion at 900—1052K using absolute concentrations of active centers measured by EPR spectroscopy as a function of flow velocity. The amount of water formed was determined by freezing in a calibrated trap. The concentration of molecular oxygen was determined by direct EPR spectroscopic measurement at the exit of the reaction zone. The following rate constants were calculated at several temperatures in the range 900—1052K:

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ACC NR: AP6034758

k_1, k_2, k_3, and k_2^{wall} for the reactions,

0. $H_2 + O_2 \xrightarrow{k_0} HO_2 + H$ 0'. $H_2 + O_2 \xrightarrow{k_0'} 2OH$	Homogeneous chain initiation
1. $OH + H_2 \xrightarrow{k_1} H_2O + H$ 2. $H + O_2 \xrightarrow{k_2} OH + O$ 3. $O + H_2 \xrightarrow{k_3} OH + H$	Chain propagation and branding
$OH \xrightarrow{k_1^{wall}}$ Stable molecules $H \xrightarrow{k_2^{wall}}$ Stable molecules $O \xrightarrow{k_3^{wall}}$ Stable molecules	Heterogeneous chain breaking

The optimum values of these and some other constants were selected by varying them and comparing the results of an electronic-computer solution of the appropriate system of equations with the experimentally measured maximum active-center concentrations and degrees of combustion.

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ACC NR: AP6034758

It was shown that the maximum active-center concentration (in the region of greatest intensity of the combustion zone) are not affected by longitudinal diffusion. A similar result was obtained on varying the initiation rate constant. From the value of the induction period in best agreement with the experimental value of contact time, reaction (0') was selected as the most optimum process and its constant was

$$k_0' = 10^{12.4} e^{-39000/RT} \text{ cm}^3 \cdot \text{mol}^{-1} \cdot \text{sec}^{-1}.$$

Variation of values of the rate constants of reactions which are the reverse of chain branching and chain propagation (1, 2, and 3) showed that the best agreement of calculation and experiment is obtained when all three reverse reactions are taken into account, although

$$H + O_2 \leftarrow OH + O$$

has the greatest effect on maximum concentrations. The maximum concentrations of H, O, OH and the concentrations of O_2 and H_2O obtained by solving the system of equations were compared with experimental values.

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ACC NR: AP6034758

The best agreement was obtained for the following values of rate constants:

$$k_1 = 2 \cdot 10^{-10} \cdot e^{-3650/RT} \text{ cm}^3 \text{ mol}^{-1} \text{ sec}^{-1}$$
$$k_2 = 1{,}7 \cdot 10^{-10} \cdot e^{-10600/RT} \text{ cm}^3 \text{ mol}^{-1} \text{ sec}^{-1}$$
$$k_3 = 0{,}0 \cdot 10^{-10} \cdot e^{-11700/RT} \text{ cm}^3 \text{ mol}^{-1} \text{ sec}^{-1}$$

It was shown that variation of the values of the rate constant of reaction (1 wall) has no effect on the results of the solution; therefore, its rate constant cannot be determined by this method. The optimum values of probabilities of heterogeneous destruction of H and O atoms were

$$\varepsilon_H = (2{,}4 \pm 0{,}8) \cdot 10^{-3} \cdot e^{-3600/RT},$$
$$\varepsilon_O = (8{,}0 \pm 4{,}8) \cdot 10^{-3} \cdot e^{-1000/RT}.$$

[WA-68]

SUB CODE: 21, 07/ SUBM DATE: 05Apr66/ ORIG REF: 011/
OTH REF: 006

Card 4/4

ACC NR: AP6034758 (A,N) SOURCE CODE: UR/0020/66/170/005/1117/1120

AUTHOR: Balakhnin, V. P.; Kondrat'yev, V. N. (Academician); Nalbandyan, A. B. (Academician AN ArmSSR); Gershenzon, Yu. M.

ORG: Institute of Chemical Physics, Academy of Sciences, SSSR (Institut khimicheskoy fiziki Akademii nauk SSSR)

TITLE: Quantitative study of the hydrogen combustion mechanism in the vicinity of the lower limit of ignition

SOURCE: AN SSSR. Doklady, v. 170, no. 5, 1966, 1117-1120

TOPIC TAGS: hydrogen, ~~hydrogen~~ combustion, reaction kinetics, reaction mechanism, ignition

ABSTRACT: A calculation has been made of the rate constants of certain elementary reactions in the mechanism of hydrogen combustion at 900—1052K using absolute concentrations of active centers measured by EPR spectroscopy as a function of flow velocity. The amount of water formed was determined by freezing in a calibrated trap. The concentration of molecular oxygen was determined by direct EPR spectroscopic measurement at the exit of the reaction zone. The following rate constants were calculated at several temperatures in the range 900—1052K:

Card 1/4

ACC NR: AP6034758

k_1, k_2, k_3, and k_2^{wall} for the reactions,

0. $H_2 + O_2 \xrightarrow{k_0} HO_2 + H$ 0'. $H_2 + O_2 \xrightarrow{k_{0'}} 2OH$	Homogeneous chain initiation
1. $OH + H_2 \xrightarrow{k_1} H_2O + H$ 2. $H + O_2 \xrightarrow{k_2} OH + O$ 3. $O + H_2 \xrightarrow{k_3} OH + H$	Chain propagation and branding
$OH \xrightarrow{k_1^{wall}}$ Stable molecules $I \xrightarrow{k_2^{wall}}$ Stable molecules $O \xrightarrow{k_3^{wall}}$ Stable molecules	Heterogeneous chain breaking

The optimum values of these and some other constants were selected by varying them and comparing the results of an electronic-computer solution of the appropriate system of equations with the experimentally measured maximum active-center concentrations and degrees of combustion.

Card 2/4

ACC NR: AP6034758

It was shown that the maximum active-center concentration (in the region of greatest intensity of the combustion zone) are not affected by longitudinal diffusion. A similar result was obtained on varying the initiation rate constant. From the value of the induction period in best agreement with the experimental value of contact time, reaction (0') was selected as the most optimum process and its constant was

$$k_0' = 10^{12.4}\, e^{-39000/RT}\ cm^3 \cdot mol^{-1} \cdot sec^{-1}$$

Variation of values of the rate constants of reactions which are the reverse of chain branching and chain propagation (1, 2, and 3) showed that the best agreement of calculation and experiment is obtained when all three reverse reactions are taken into account, although

$$H + O_2 \leftarrow OH + O$$

has the greatest effect on maximum concentrations. The maximum concentrations of H, O, OH and the concentrations of O_2 and H_2O obtained by solving the system of equations were compared with experimental values.

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ACC NR: AP6034758

The best agreement was obtained for the following values of rate constants:

$$k_1 = 2 \cdot 10^{-10} \cdot e^{-0000/RT} \text{ cm}^3 \text{ mol}^{-1} \text{ sec}^{-1}$$
$$k_2 = 1{,}7 \cdot 10^{-10} \cdot e^{-1000/RT} \text{ cm}^3 \text{ mol}^{-1} \text{ sec}^{-1}$$
$$k_3 = 0{,}0 \cdot 10^{-10} \cdot e^{-1700/RT} \text{ cm}^3 \text{ mol}^{-1} \text{ sec}^{-1}$$

It was shown that variation of the values of the rate constant of reaction (1 wall) has no effect on the results of the solution; therefore, its rate constant cannot be determined by this method. The optimum values of probabilities of heterogeneous destruction of H and O atoms were

$$\gamma_H = (2{,}4 \pm 0{,}8) \cdot 10^{-3} \cdot e^{-0000/RT},$$
$$\gamma_O = (8{,}0 \pm 4{,}8) \cdot 10^{-3} \cdot e^{-0000/RT}.$$

[WA-68]

SUB CODE: 21, 07/ SUBM DATE: 05Apr66/ ORIG REF: 011/
OTH REF: 006

Card 4/4

BALAKHNIN, V.P.; GERSHENZON, Yu.M.; KONDRAT'YEV, V.N., akademik; NALBANDYAN, A.B.

Electron paramagnetic resonance method for measuring the concentration of atomic oxygen and hydrogen in a rarefied hydrogen flame. Dokl. AN SSSR 154 no.4:883-885 F '64.
(MIRA 17:3)

1. Institut khimicheskoy fiziki AN SSSR.

BALAKHNIN, V.P.; GERSHENZON, Yu.M.; KONDRAT'YEV, V.N., akademik; NALBANDYAN, A.B.

Detection of free hydroxyl in a rarefied hydrogen flame by the method of electron paramagnetic resonance. Dokl. AN SSSR 154 no.5:1142-1144 F'64. (MIRA 17:2)

1. Institut khimicheskoy fiziki AN SSSR.

ACCESSION NR: AP4016511 S/0020/64/154/005/1142/1144

AUTHORS: Balakhnin, V.P.; Gershenzon, Yu. M.; Kondrat'yev, V.N. (Academician); Nalbandyan, A.B.

TITLE: Discovering a free hydroxyl in a rarefied hydrogen flame by the electron paramagnetic resonance method

SOURCE: AN SSSR. Doklady*, v. 154, no. 5, 1964, 1142-1144

TOPIC TAGS: hydrogen flame, rarefied flame, microwave spectrum, hydroxyl, free hydroxyl, dipole, dipole transition, hydroxyl absorption, resonator, linear velocity, OH spectrum, OH absorption, atomic oxygen, molecular oxygen

ABSTRACT: Studies made by Dousmanis, Radford and other researchers revealed that the microwave spectrum of OH absorption is dependent on electric dipole transitions, the intensity of which is considerably greater than that of the ordinary electron paramagnetic resonance lines brought about by the magnetic dipole transitions. It

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ACCESSION NR: AP4016511

follows that when the pressure in the flame of H_2 with O_2 is low, it is possible to detect the signals of paramagnetic absorption of a free hydroxyl; the discovery of OH is possible only when the particles are placed in the loop of an ultra-high frequency electric field. The reactor made for investigation purposes (from quartz) was designed in such a way that the absorbing cell filled the entire resonator and this made it possible to observe the spectrum determined by the electric and magnetic dipole transitions. It was found that the OH sign gradually rises with the increasing H_2 content and reaches a maximum when the latter amounts to 60%, while the H sign shows a sharper increase and reaches its maximum value at 70% H_2. No signal of atomic oxygen was observed in our experiment as it was completely suppressed by the signal of molecular oxygen, the amplitude of which at a low temperature of the absorbing cells is considerably greater than the O signal. However, the O concentrations previously observed in H_2-poor mixtures have been considerably greater (60-80 times) than the concentrations of atomic hydrogen.

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ACCESSION NR: AP4016511

Orig. art. has: 2 figures and 3 formulas.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences SSSR)

SUBMITTED: 050ct63 DATE ACQ: 12Mar64 ENCL: 00

SUB CODE: PH NO REF SOV: 003 OTHER: 004

Card 3/3

STEPUKHOVICH, A.D.; EL'TERMAN, L.I.; BALAKHNIN, V.P.

Initiated cracking of propane-butane mixtures. Neftekhimiia 3 no.4:531-540 Jl-Ag '63. (MIRA 16:11)

1. Saratovskiy gosudarstvennyy universitet imeni N.G. Chernyshevskogo, kafedra khimicheskoy fiziki.

ACCESSION NR: AP4012972 S/0020/64/154/004/0883/0885

AUTHORS: Balakhnin, V.P.; Gershenzon, Yu. M.; Kondrat'yev, V.N. (Academician); Nalbandyan, A.B.

TITLE: Measuring the concentrations of atomic oxygen and hydrogen in a rarefied hydrogen flame by the method of electron paramagnetic

SOURCE: AN SSSR. Doklady*, v. 154, no. 4, 1964, 883-885

TOPIC TAGS: elementary reaction, successive reaction, stoichiometry, stoichiometric mixture, resonator, atom concentration, atomic oxygen, atomic hydrogen, rarefied flame, magnetic moment

ABSTRACT: This project relates to the finding of atomic oxygen and the measurements of the concentration of O and H atoms in a rarefied hydrogen flame by the spectra of the electron paramagnetic resonance. The jet-type reactor used in the experiment was placed inside the resonator which made it possible to determine the O and H atom concentrations in the combustion area. The project began with a study

Card 1/2

ACCESSION NR: AP4012972

of a rarefied flame of a mixture containing 5% H_2 and 95% O_2. Large quantities of atomic oxygen (up to 6 x 10^{15} particles) were recorded in the flame of that mixture. The concentration of atomic hydrogen in this case lies within the sensitivity range of the instrument (1-2 x 10^{14} particles). The area of preferential formation of atomic hydrogen is found in mixtures containing 15% and less hydrogen. The area of preferential formation of atomic hydrogen lies in the mixtures containing over 70% molecular hydrogen. It should be pointed out that in the determination of the absolute concentration of hydrogen and oxygen atoms, the difference in their magnetic moments was not taken into account, and the resulting concentrations of atomic oxygen were therefore 4.5 times as large. Orig. art. has 2 figures and 1 formula.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences SSSR)

Card 2/2

L 34042-66 EWT(m)/EWP(j)/T WW/JW/JWD/WB/RM

ACC NR: AP6019532 SOURCE CODE: UR/0020/66/168/004/0851/0853

AUTHOR: Gershenzon, Yu. M.; Glebova, O. N.; Azatyan, V. V.; Balakhnin, V. P.; Nalbandyan, A. B. (Academician AN ArmSSR)

ORG: Institute of Chemical Physics, Academy of Sciences SSSR (Institut khimicheskoy fiziki Akademii nauk SSSR)

TITLE: Detection of the OH radical by the EPR method in the rarefied flame of carbon monoxide in the presence of small amounts of hydrogen

SOURCE: AN SSSR. Doklady, v. 168, no. 4, 1966, 851-853

TOPIC TAGS: carbon monoxide combustion, carbon monoxide flame, hydrogen donor, hydroxyl radical, EPR method

ABSTRACT: The basic processes of the propagation and branching of combustion of CO in the presence of a small amount of H_2 are the following:

$$CO + OH \rightarrow CO_2 + H; \quad (I)$$
$$H + O_2 \rightarrow OH + O; \quad (II)$$
$$O + H_2 \rightarrow OH + H. \quad (III)$$

Card 1/4 UDC: 543.422

For small amounts of H_2, reaction (III) is rate determining. Earlier, the EPR method was applied to detect noticeable concentrations of oxygen and hydrogen atoms in the rarified CO flame in the presence of hydrogen donors such as H_2, CH_4, C_2H_4, H_2O, etc. For direct detection and determination of all three active species, i.e., hydrogen and oxygen atoms and the OH radical, the absorption cell was specially made to fit completely into the space in the resonator and was placed in close proximity to the reaction furnace. Measurement of the absolute concentrations of OH radicals was made with respect to molecular oxygen according to the formula:

$$N_{OH} = N_{O_2} \frac{Q_{OH}}{Q_{O_2}} \frac{f_+}{l_+},$$

where N is the concentration; Q is the numerical coefficient varying with the absorption bands, e.g., ranging from 40 to 200 for oxygen; and f_+ and l_+ are the space factors for the magnetic and the electric fields, respectively. The results of the measurements are given in the form of two graphs which indicate the dependence of the concentrations of active centers on the time of contact and the amount of added H_2.

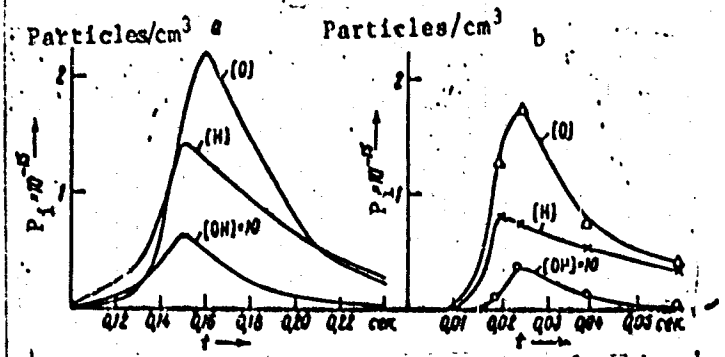


Fig. 1. Dependence of concentration of active centers on the contact time (T = 923 K, P = 3 mm Hg; H_2 = 6%)

a - Calculated; b - experimental.

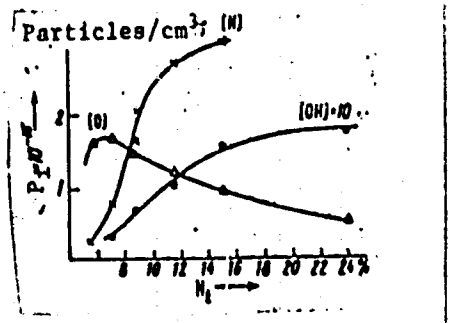


Figure 2. Dependence of the maximum concentration of active centers on the addition of hydrogen (T = 923 K, P = 3 mm Hg, W = 30 to 40 cm^3/min.

Figure 2 indicates that the oxygen concentration passes through a maximum, contrary to the monotonically increasing concentration of H and OH. This is explained by the assumption that in the case of small amounts of added H_2, reaction (III) is the rate determining step, and in the case of high H_2 concentration, reaction (II) is the rate

L 34042-66

ACC NR: AP6019532

determining step. The OH concentration is the smallest because the rate constant of reaction (I) is the largest. Orig. art. has: 2 figures. [BN]

SUB CODE: 21, 07 SUBM DATE: 30Aug65/ ORIG REF: 009/ OTH REF: 008/
ATD PRESS: 5014

Card 4/4

BALAKHNINA, A.F.

Cytological diagnosis in certain tumors of the female genitalia.
Sov.med. 23 no.1:80-83 Ja '59. (MIRA 12:2)

1. Iz kafedry akusherstva i ginekologii No.1 (zav. - prof. N.Ye. Sidorov) Kazanskogo instituta usovershenstvovaniya vrachey imeni V.I. Lenina.
(UTERUS NEOPLASMS, diag.
cytodiag. (Rus))

L 20042-66

ACC NR: AP6018181 SOURCE CODE: UR/0239/65/051/006/0762/0767

AUTHOR: Bulygin, I. A.; Balakhnina, E. I.

ORG: Laboratory of General Physiology, Institute of Physiology, AN BSSR, Minsk (Laboratoriya obshchey fiziologii Instituta fiziologii AN BSSR)

TITLE: Chain neurohumoral interoceptive reflex reactions

SOURCE: Fiziologicheskiy zhurnal, v. 51, no. 6, 1965, 762-767

TOPIC TAGS: reflex activity, hormone, blood pressure, biologic respiration, dog, animal physiology

ABSTRACT: Distension of the small intestine, stomach, or urinary bladder of dogs irritated the interoceptors of the organs involved and by reflex action released hormones into the blood that affected the respiration and blood pressure of the animals. Stimulation, inhibition, or a phasic change of respiration was observed with equal frequency, while the effect on the blood pressure in the carotid artery was either of the depressor or phasic change type. By crossing the blood circulation of a donor dog in which one of the internal organs was distended with that of recipient dog in such a manner that the arterial or venous blood of the donor dog circulated through the sinocarotid zone of the recipi-

Card 1/2

UDC: 612.833+612.821.8

L 28042-66
ACC NR: AP6018181

ent dog, the same effects on the respiration and blood pressure were produced in the recipient dog. These effects were also produced by injecting the blood of donor dogs into the sinocarotid zone of recipient dogs. The donor blood was effective for a period up to 20 min after distension of the internal organ. During the period of its activity, the donor blood has a raised content of adrenaline and noradrenaline. Anesthesia of the synocarotid zone of recipients prevented the action of donor blood on recipient dogs. Correlation of data obtained in research by the authors on the subject of chain neurohumoral interoceptive reflex reactions of the type observed in this investigation indicates that one should distinguish between three groups of reactions of this type: 1) multichain reactions; 2) multilevel reactions; 3) multichain-multilevel reactions. Orig. art. has: 5 figures. [JPRS]

SUB CODE: 06/ SUBM DATE: 01Aug62/ ORIG REF: 008

Card 2/2 CC

BULYGIN, I.A.; BALAKHNINA, E.I.; KUL'VANOVSKIY, M.P.

Ganglionic mediation and its role in forming viscero-visceral reflexes. Fiziol. zhur. 47 no.9:1096-1104 S '61. (MIRA 14:9)

1. From the Institute of Physiology, B.S.S.R. Academy of Sciences, Minsk.

(REFLEXES)

BALAKHNINA, T.A.

"The clinical evaluation of penicillin in suppurative surgical conditions." Biologicheskiye Antiseptiki, pp 177-182, 1950.

Translation-M-85, 19 Jan 1955.

SMIRNOV, A.V., prof., zasluzhennyy deyatel' nauki; BALAKHNINA, T.A.

Cholelithiasis in young women. Khirurgiia 35 no.3:23-26 Mr '59. (MIRA 12:8)

1. Iz gospital'noy khirurgicheskoy kliniki Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.
(CHOLELITHIASIS, surg.
in young women (Rus))

SMIRNOV, A.V., prof.; EL'BERG, G.A., doktor med.nauk; BALAKHNINA, T.A.; MISHKINA, V.I.; GRUBINA, S.A.

Aleksandr Ivanovich Ermolenko; obituary. Vest.khir. 82 no.4:159 Ap '59. (MIRA 12:6)
(ERMOLENKO, ALEKSANDR IVANOVICH, 1891-1958)

SMIRNOV, A.V., zasluzhennyy deyatel' nauki; KLIMENKINA, Z.A.

Clinical aspects in the imposition of hepatogastric (or intestinal) anastomoses in obstruction of intrahepatic bile ducts. Trudy IGOMI 74:165-171 '62. (MIRA 17:10)

SOSNIN, A.Ye.; BALAKHONKINA, G.V.

Increasing benzene solvent action. Gidrolis. i lesokhim.prom. 12 no.1:20-21 '59. (MIRA 12:2)

1. Arkhangel'skiy lesotekhnicheskiy institut.
(Benzene) (Gums and resins)

LAVRENT'YEV, V.I. Prinimali uchastiye: POL'SHINSKIY, V.V., starshiy nauchnyy sotrudnik; AKOPOVA, A.A., starshiy nauchnyy sotrudnik; SHAYKHUTDINOVA, L.K.; inzh.; SHAGEYEVA, L.A.; inzh.; TUMANOVA, A.M., preparator; STAROSTIN, P.A., inzh.; BALAKHONOV, A.P., motorist; ARTEM'YEV, V.G., motorist.

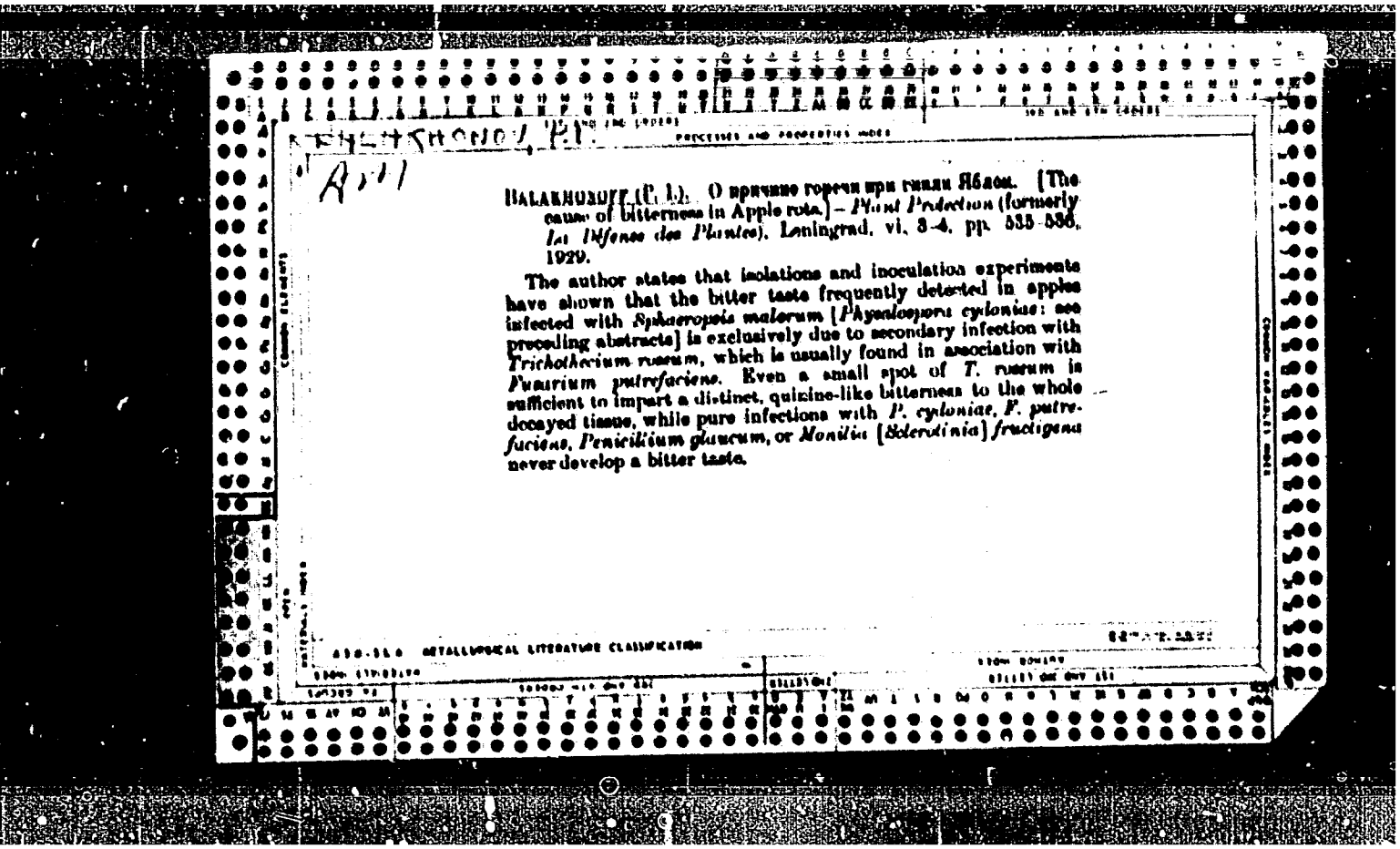
Using the heavy residual fractions of Tatar sour crude as a fuel for gas turbines. Neftepererab. i neftekhim. no.4:27-34 '63 (MIRA 17:7)

1. Tatarskiy neftyanoy nauchno-issledovatel'skiy institut.

BALAKHONOV, A.S.; SAMGIN, Yu.S., otv. red.

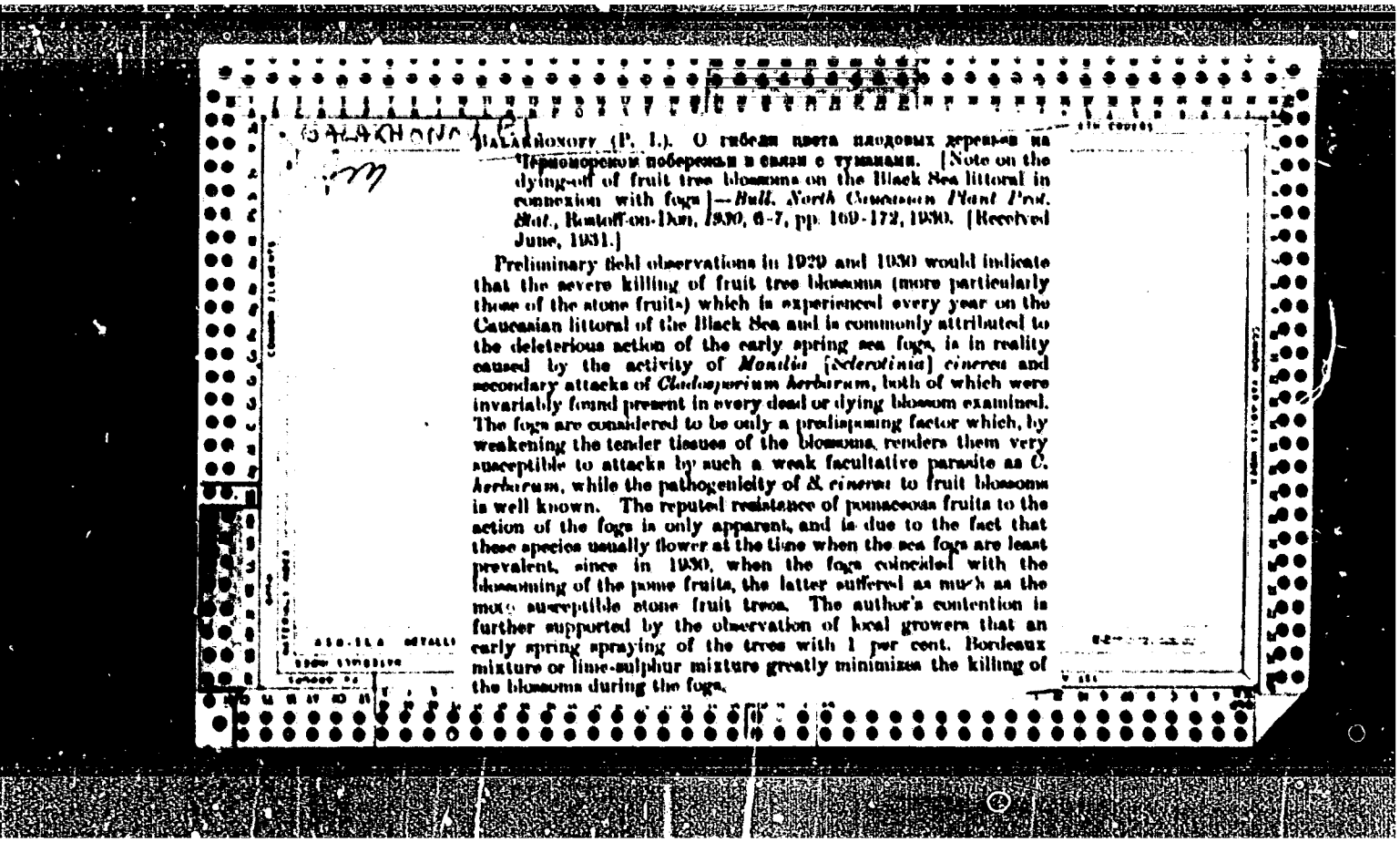
[Collection of inventions for geological prospecting] Sbornik izobretenii po geologorazvedochnym rabotam. Moskva, Nedra, Pt.1. 1965. 309 p. (MIRA 18:8)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy geologicheskiy komitet.



BALAKHONOV, P. I. O причине горечи при гнили Яблок. [The cause of bitterness in Apple rots.] – *Plant Protection* (formerly *La Défense des Plantes*). Leningrad. vi. 3-4. pp. 535-556. 1929.

The author states that isolations and inoculation experiments have shown that the bitter taste frequently detected in apples infected with *Sphaeropsis malorum* [*Physalospora cydoniae*: see preceding abstracts] is exclusively due to secondary infection with *Trichothecium roseum*, which is usually found in association with *Fusarium putrefaciens*. Even a small spot of *T. roseum* is sufficient to impart a distinct, quinine-like bitterness to the whole decayed tissue, while pure infections with *P. cydoniae*, *F. putrefaciens*, *Penicillium glaucum*, or *Monilia* [*Sclerotinia*] *fructigena* never develop a bitter taste.



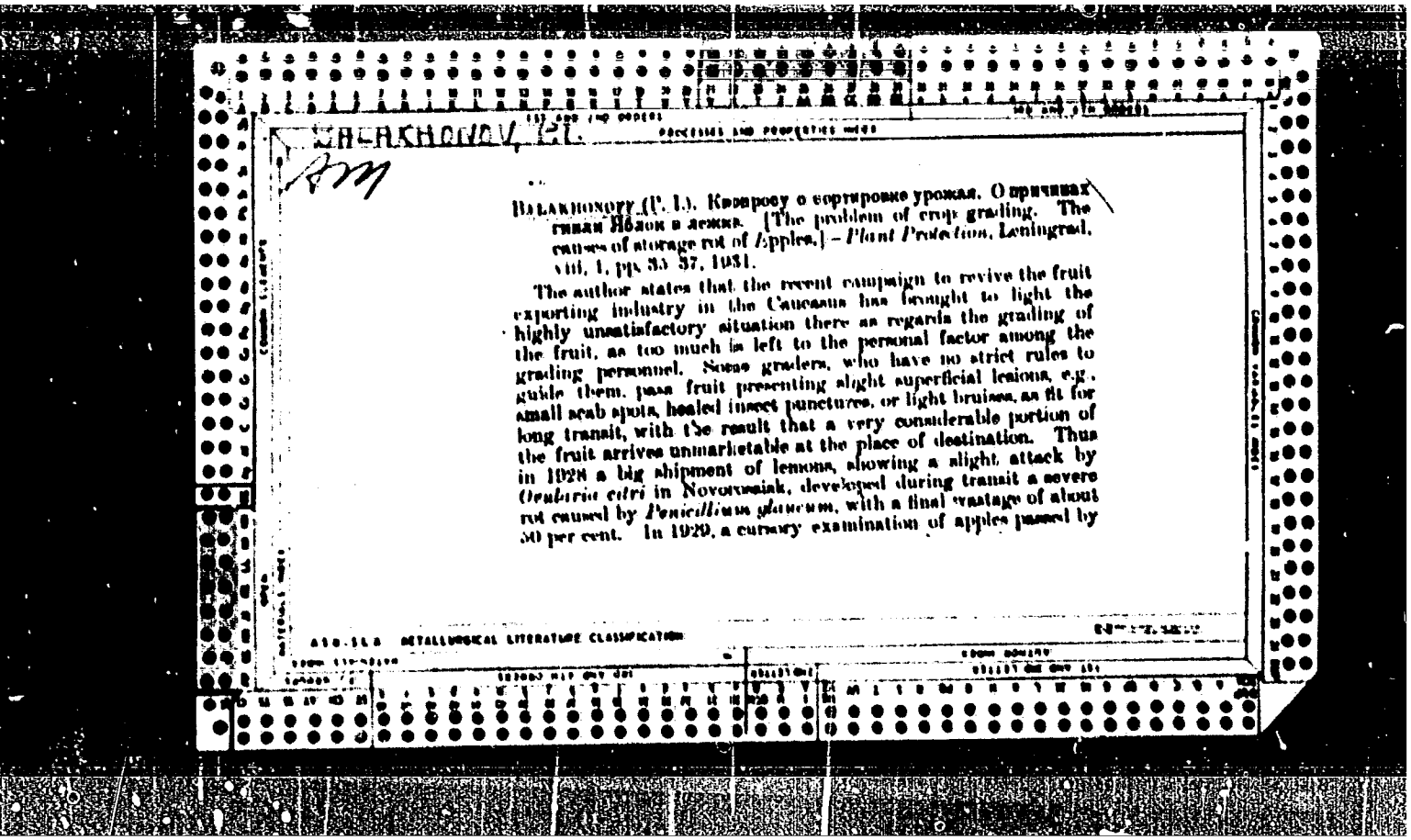
BALAKHONOV (P. I.). О гибели цвета плодовых деревьев на Черноморском побережьи в связи с туманами. [Note on the dying-off of fruit tree blossoms on the Black Sea littoral in connexion with fogs.]—*Bull. North Caucasian Plant Prot. Stat.*, Rostoff-on-Don, 1930, 6-7, pp. 169-172, 1930. [Received June, 1931.]

Preliminary field observations in 1929 and 1930 would indicate that the severe killing of fruit tree blossoms (more particularly those of the stone fruits) which is experienced every year on the Caucasian littoral of the Black Sea and is commonly attributed to the deleterious action of the early spring sea fogs, is in reality caused by the activity of *Monilia* [*Sclerotinia*] *cinerea* and secondary attacks of *Cladosporium herbarum*, both of which were invariably found present in every dead or dying blossom examined. The fogs are considered to be only a predisposing factor which, by weakening the tender tissues of the blossoms, renders them very susceptible to attacks by such a weak facultative parasite as *C. herbarum*, while the pathogenicity of *S. cinerea* to fruit blossoms is well known. The reputed resistance of pomaceous fruits to the action of the fogs is only apparent, and is due to the fact that these species usually flower at the time when the sea fogs are least prevalent, since in 1930, when the fogs coincided with the blossoming of the pome fruits, the latter suffered as much as the most susceptible stone fruit trees. The author's contention is further supported by the observation of local growers that an early spring spraying of the trees with 1 per cent. Bordeaux mixture or lime-sulphur mixture greatly minimizes the killing of the blossoms during the fogs.

BALAKH NOV, P. I.

BALAKHONOV, P. I. "Blossom Wilt of Fruit Trees at the Black Sea Littoral Zone in Connection with Fogs," Zashchita Rastenii ot Vreditelei, vol. 7, no. 4-6, 1930, pp. 345-348. 421 D36

SO: SIRA, SI 90-53, 15 Dec. 1953

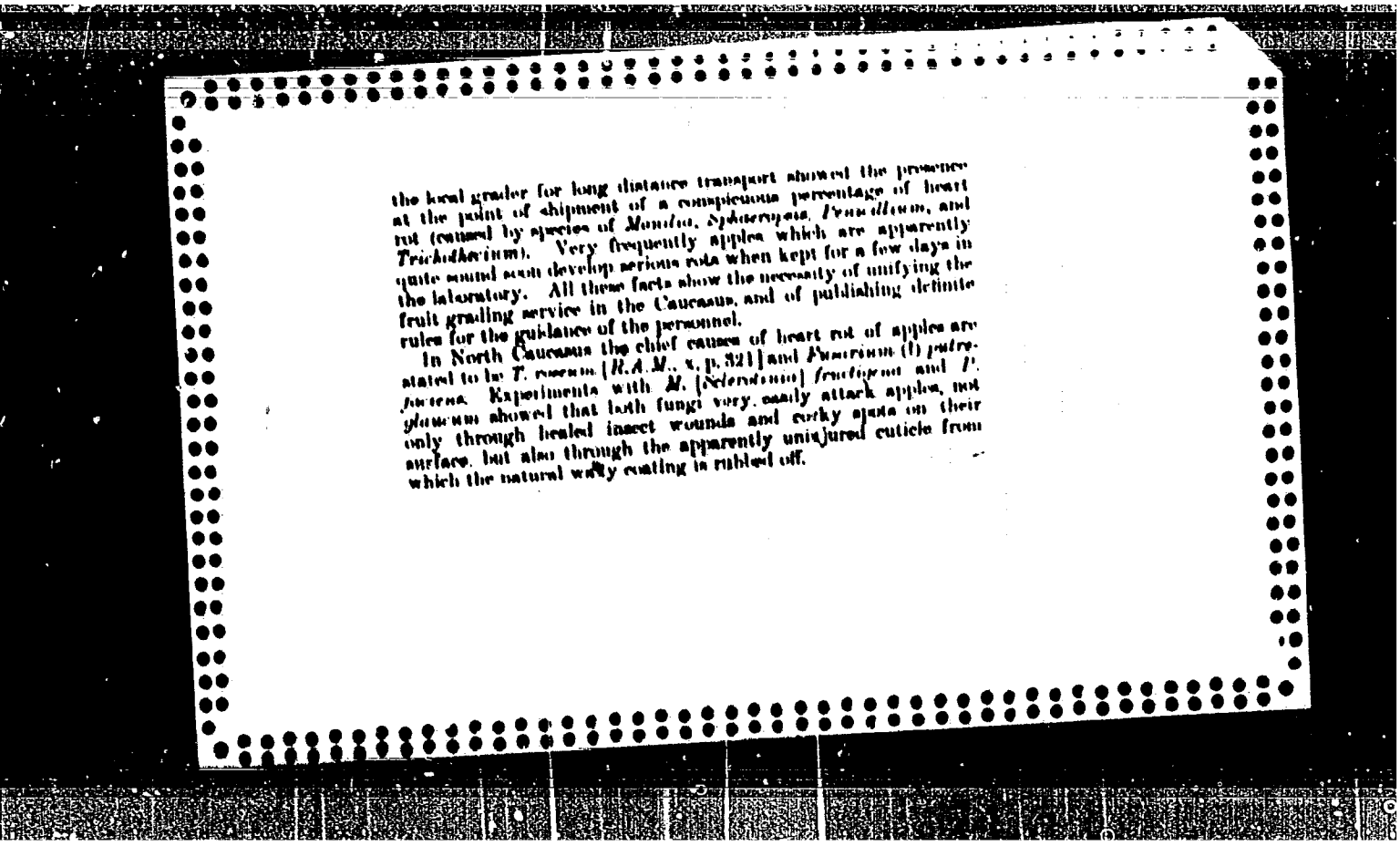


BALAKHONOV, P. I.

Balakhonov, (P. I.). Вопросу о сортировке урожая. О причинах гнили яблок в лежке. [The problem of crop grading. The causes of storage rot of Apples.] – *Plant Protection*, Leningrad, viii, 1, pp. 35–37, 1931.

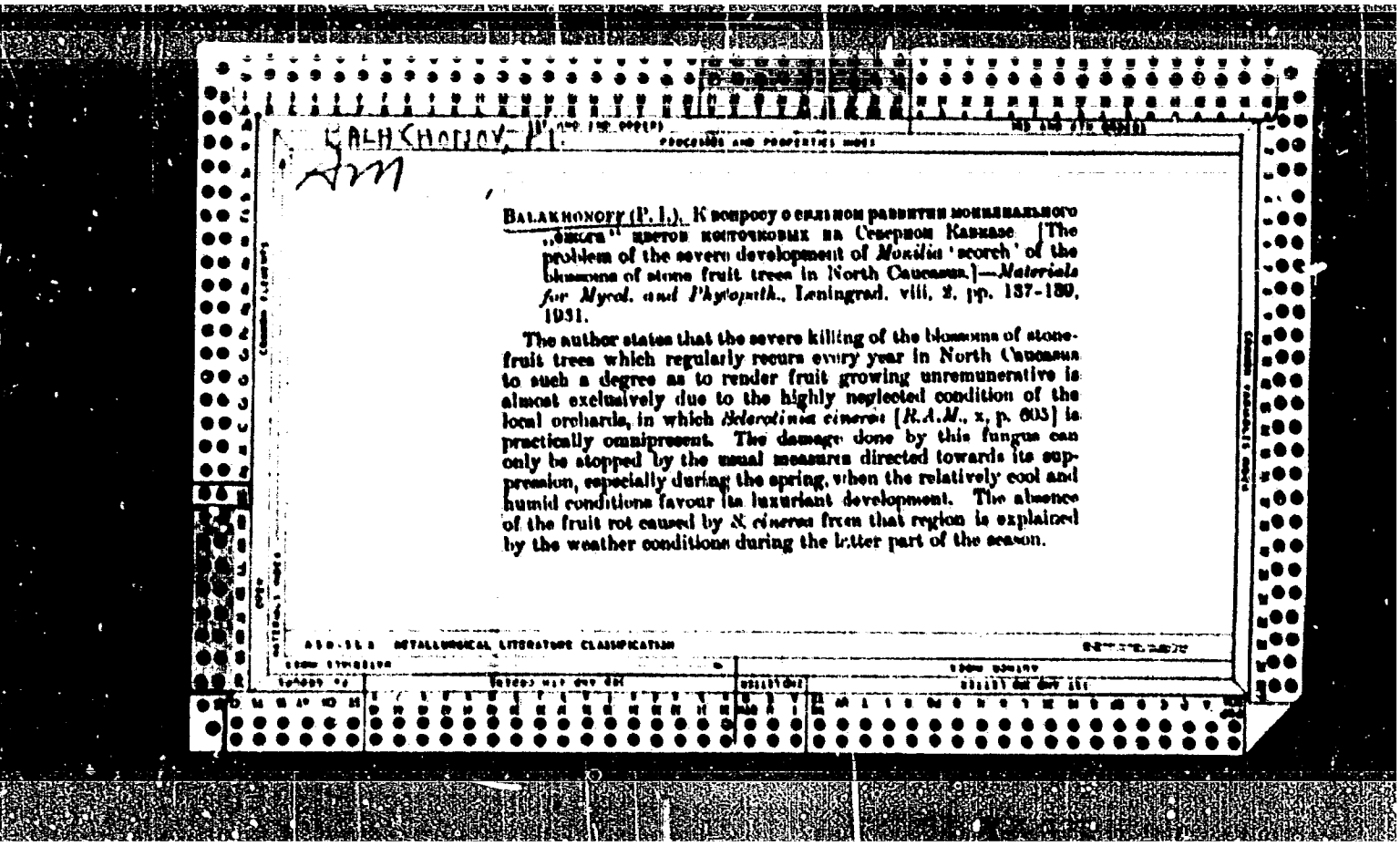
The author states that the recent campaign to revive the fruit exporting industry in the Caucasus has brought to light the highly unsatisfactory situation there as regards the grading of the fruit, as too much is left to the personal factor among the grading personnel. Some graders, who have no strict rules to guide them, pass fruit presenting slight superficial lesions, e.g., small scab spots, healed insect punctures, or light bruises, as fit for long transit, with the result that a very considerable portion of the fruit arrives unmarketable at the place of destination. Thus in 1928 a big shipment of lemons, showing a slight attack by *Oedaria citri* in Novorossiisk, developed during transit a severe rot caused by *Penicillium glaucum*, with a final wastage of about 50 per cent. In 1929, a cursory examination of apples passed by

A10.1L8 METALLURGICAL LITERATURE CLASSIFICATION



the local grader for long distance transport showed the presence at the point of shipment of a conspicuous percentage of heart rot (caused by species of *Monilia*, *Sphaeropsis*, *Penicillium*, and *Trichothecium*). Very frequently apples which are apparently quite sound soon develop serious rots when kept for a few days in the laboratory. All these facts show the necessity of unifying the fruit grading service in the Caucasus, and of publishing definite rules for the guidance of the personnel.

In North Caucasus the chief causes of heart rot of apples are stated to be *T. roseum* [*R.A.M.*, v, p. 321] and *Fusarium* (1) *putrefaciens*. Experiments with *M.* [*Sclerotinia*] *fructigena* and *P. glaucum* showed that both fungi very easily attack apples, not only through healed insect wounds and corky spots on their surface, but also through the apparently uninjured cuticle from which the natural waxy coating is rubbed off.



BALAKHONOFF (P. I.). К вопросу о сезонном развитии монилиального „ожога" цветов косточковых на Северном Кавказе. [The problem of the severe development of *Monilia* 'scorch' of the blossoms of stone fruit trees in North Caucasus.]—*Materials for Mycol. and Phytopath.*, Leningrad, viii, 2, pp. 137-180, 1931.

The author states that the severe killing of the blossoms of stone-fruit trees which regularly recurs every year in North Caucasus to such a degree as to render fruit growing unremunerative is almost exclusively due to the highly neglected condition of the local orchards, in which *Sclerotinia cinerea* [*R.A.M.*, x, p. 605] is practically omnipresent. The damage done by this fungus can only be stopped by the usual measures directed towards its suppression, especially during the spring, when the relatively cool and humid conditions favour its luxuriant development. The absence of the fruit rot caused by *S. cinerea* from that region is explained by the weather conditions during the latter part of the season.

BALA[illegible]CV, P. I.

Black Canker of Fruit Trees

SO - SIRA SI 90-53, 15 December 1953

Trudy Severnogo Kavkazskogo Instituta Spetsialnykh i Tekhnicheskikh Kultur, vol. 1, no 3, 1932, pp. 155-175. 77.9 Sel

SO- SIRA SI 90-53, 15 December 1953

BALAKHOV, P. I.

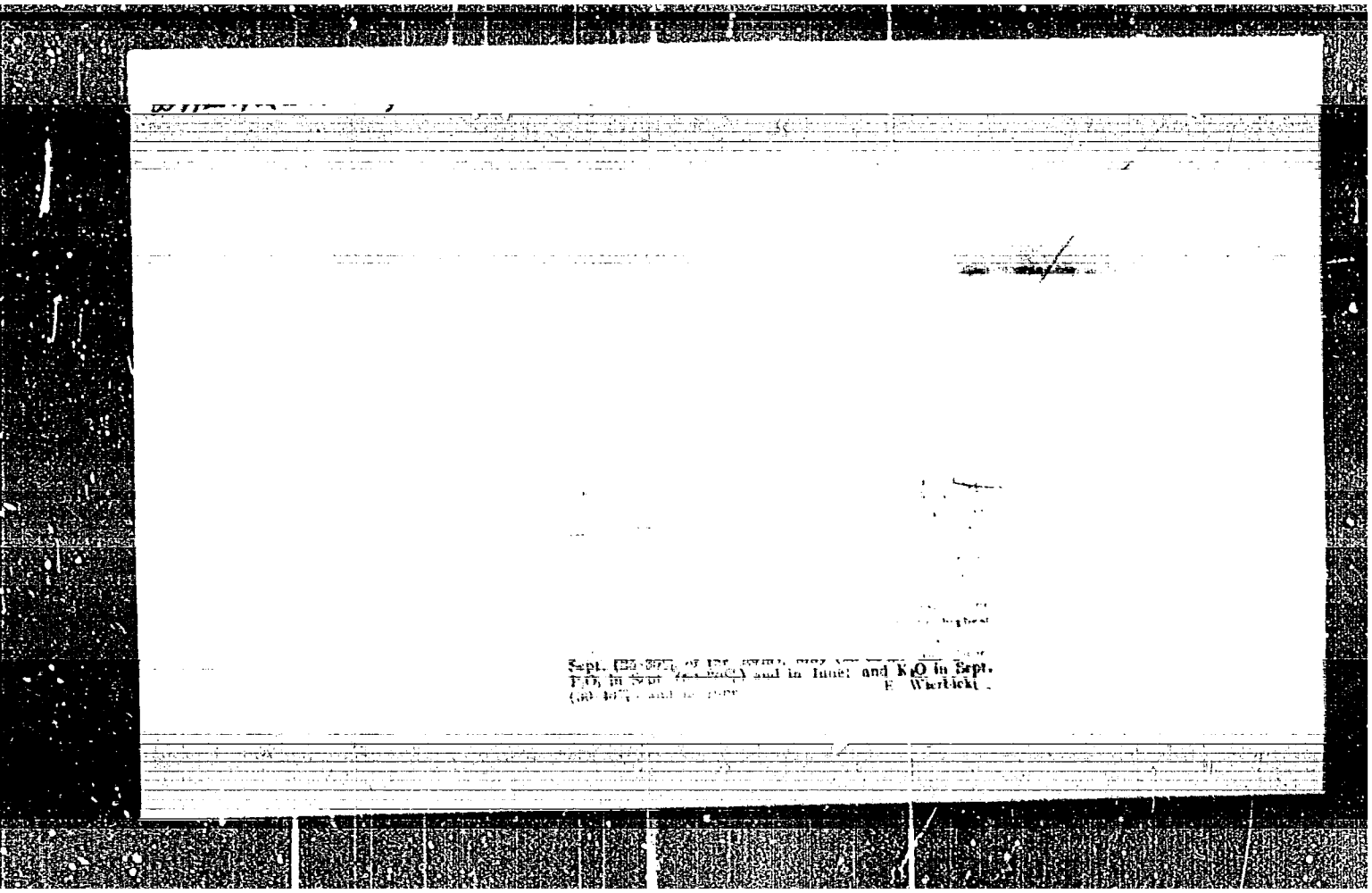
Black Canker of Fruit Trees, Physalospora [illegible] (Ann.) -- Sphaeropsis [illegible] Fock. Sbornik Vsesoiuznogo Instituta Zashchity Rastenii, vol 5, no. 1, 1932, pp 3-30. 421 P6I2

SO - SIRA SI 90-53, 15 December 1953

BALAKHONOV, P. I.

Balakhonov, P. I.: "Deficit symptoms of certain food elements in citrus fruit", Byulleten' Vsesoyuz. nauch.-issled. in-ta chaya i subtrop. kul'tur, 194[illegible], No. 4, p. 165-69.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 10, 1949).



BALAKHONOV S. I.

M.

USSR/Cultivated Plants - Fodder.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15712

Author : V.I. Shempel', S.I. Dolakhonov

Inst : The Institute for Socialist Agriculture of the Academy of Sciences, Belorussian SSR.

Title : The Action of Various Forms of Potassium Fertilizers on the Corn Green Stuff Yield.
(Deystviye razlichnykh form kaliynykh udobreniy na urozhay zelenoy massy kukuruzy).

Orig Pub : V sb.: Kukuruza v BSSR, Minsk, AN BSSR, 1957, 160-163.

Abstract : At the "Ust'ye" Experimental Station of the Institute for Socialist Agriculture of the Academy of Sciences, Belorussian SSR, in Vitebskaya Oblast' one studied the effect of various forms of potassium fertilizers on the corn green stuff yield under the conditions of strongly

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USSR/Cultivated Plants - Fodder. M.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15712

podzolic acid soil and after early preceding crops. The addition to the yield was 22.3% for K_x, 16% for potassium magnesium, and 12.4% for kainite. Pine wood ash yielded the least results.

Card 2/2

BALAKHONOV, S.I.; HAL', S.S.

Ammonium sulfate obtained from peat-tar water and its use in the national economy. Trudy Inst. torf. AN BSSR 9:211-215 '60.
(MIRA 14:2)

(Peat) (Ammonium sulfate)

SHEMPEL', V. I.; BALAKHONOV, S.I., kand.sel'skokhoz.nauk

How various fertilizers affect winter rye yields on loamy turf-Podzolic soils. Zemledelie 23 no.6:37-42 Je '61. (MIRA 14:6)

1. Deystvitel'nyy chlen Akademii nauk BSSR i Akademii Sel'skokhozyaystvennykh nauk BSSR.

(Rye--Fertilizers and manures)

SHEMPEL', V.I., akademik; BALAKHONOV, S.I., kand.sel'skokhozyaystvennykh nauk

Use of manure-soil composts in White Russia. Agrobiologiia no.4:595-600 Jl-Ag '62. (MIRA 15:9)

1. Institut zemledeliya, Minsk. 2. Akademiya nauk BSSR (for Shempel').
(WHITE RUSSIA--COMPOST)

BALAKHONOV, V.N., inzh.; SUKHANOV, B.V., inzh.

Telephone communications during the sinking of shafts excluding the reception and transmission of outside noises. Trudy KuzNII-shakhtostroia no.1:31-40 '63. (MIRA 17:8)

BALAKHONOV, V.P.; BOCHIN, N.A.; GUTERMAN, I.G.; ZAKHAROV, V.N.; ZMIYEV, A.B.; KARMANOV, V.D.; KEKUKH, A.M.; MARGOLIN, L.M.; TOPAL, I.D.

Brief news. Meteor.i gidrol no.2:61-64 F '63. (MIRA 16:2)
(Meteorology)

FILATOVA, V.S.; BALAKHONOVA, L.I.; GRONZBERG, Ye.Sh. (Gor'kiy)

Hygienic aspects of vinyl chloride production. Gig. truda i prof. zab. 2 no.1:6-9 Ja-F '58. (MIRA 11:3)

1. Institut gigiyeny truda i profbolezney.
(PLASTIC INDUSTRY--HYGIENIC ASPECTS)
(ETHYLENE--TOXICOLOGY)

[redacted], A. A., [redacted], V. S., [redacted], T. M.

"Problems of labor hygiene in the production of artificial resins on the basis of vinyl chloride."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists, 1959.

FILATOVA, V.S.; GRONSBERG, Ya.Sh.; BALKHONOVA, L.I.; FAYERMAN, I.[illegible].

Sanitary and hygienic characteristics of the production of benzyl chloride and benzaldehyde. Trudy GIGT no.9:13-20 '62. (MIRA 17:9)

1. BALAKHONOVA, L. N.

2. USSR (600)

4. Siberia-Carp

7. Acclimatization of the bream (Abramis brama) in Siberia. Ryb. khoz. 28, No. 9, 1952.

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

BALAKHONOVA, L.M.; BARSUKOV, V.V.

Run of the whitefish Coregonus muksun Pallas in the Ob' River and its distribution in the Ob' River. Vop.ikht. 1 no.2:262-274 '61.
(MIRA 14:6)

1. Zoologicheskiy institut AN SSSR, Leningrad.
(Ob' River—Whitefishes)

BALAKHONOVA, L.M.; BARSUKOV, V.V.

Downstream migration of the young of the sturgeon Acipenser baeri Br. from the Irtysh River. Vop. ikht. 2 no.2:309-315 '62. (MIRA 15:11)

1. Zoologicheskiy institut AN SSSR, Leningrad.
(Irtysh River—Sturgeons) (Fishes—Migration)

ACCESSION NR: AT4037652 S/2981/64/000/003/0105/0119

AUTHOR: Rutman, M. M.; Savin, F. I.; Balakhontsev, G. A.; Cherepok, G. V.; Zinov'yev, V. K.

TITLE: Properties of V92 alloy ingots

SOURCE: Alyuminiyevy*ye splavy*, no. 3, 1964. Deformiruyemy*ye splavy* (Malleable alloys), 105-119

TOPIC TAGS: aluminum magnesium zinc alloy, V92 alloy, continuous alloy casting, alloy heat treatment, alloy property

ABSTRACT: A technique for production-scale melting and continuous casting of V92, an aluminum-base alloy (3.75% Mg, 2.75% Zn, 0.8% Mn, 0.2% Ti) is described. Round (225—1100 mm in diameter) and flat (250 x 1400 mm) ingots were cast. The high Mg content of the alloy required addition of about 0.001% Be. No difficulties were encountered in casting round ingots. The pouring rates used corresponded to the lower limit of those used for AMg6 alloy. For ingots less

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ACCESSION NR: AT4037652

than 500 mm in diameter, a factor K = VD = 1.1 m^2/hr (where V is pouring rate and D — input diameter) should be used. In casting flat ingots special precautions had to be used to prevent formation of cracks, hot (at high pouring rates) or cold (at low pouring rates). When proper conditions are maintained strictly, sound ingots with a clean surface are obtained. Flat 250 x 1400 mm ingots were cast at a rate of 53—58 mm/min at a metal temperature of 680—700C. Immediately after casting, the ingots are homogenized to prevent cracking. All ingots had comparatively homogeneous microstructure. No appreciable segregation of Mn, Si, and Fe and no unusual segregation of Zn and Mg was observed. The density of the metal varied from 2.72 to 2.735 g/cm^3. When homogenized at 415—435C for 24 hrs, V92 alloy has a yield strength of 15—21 kg/mm^2, a tensile strength of 23—29 kg/mm^2, and an elongation of 3—6%. When solution heat treated at 450 ± 5C for 3 hrs and naturally aged for 7 days the alloy has yield strength and tensile strength to 23—28 and 28—32 kg/mm^2, respectively, with only an insignificant decrease in elongation. Orig. art. has: 15 figures and 1 table.

Card 2/3

L 1321-66 EWT(d)/EWT(m)/EWP(w)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(l)
ACCESSION NR: AP5022177 JD UR/0032/65/031/009/1138/1140
620.172.254:1.05

AUTHOR: Balakhontsev, Ya. I.; Paramzin, Yu. P.

TITLE: Rotary machine for high-speed breaking of test specimens

SOURCE: Zavodskaya laboratoriya, v. 31, no. 9, 1965, 1138-1140

TOPIC TAGS: test instrumentation, rupture strength

ABSTRACT: Special equipment is required to determine the characteristics of materials at high loading rates and short periods of load action (10^{-4}—10^{-2} sec). The present article describes a rotary machine which insures a constant strain rate during the rupture of test pieces. A sketch of the machine and a circuit diagram of the electronic part of the measuring apparatus are given. The machine is designed for studying the properties of materials under loads applied at rates from 100 to 2000 mm/sec in one range and from 2000 to 16,000 mm/sec in another. The strain rate in the course of the stress application remains practically constant. The maximum tension applied is 10,000 kg, the minimum is 1000 kg. Orig. art. has: 2 figures and 1 formula.

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16 March 49
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