MAKSIMOV, P.P., uchitel' (gorod Kanash Chuvashskoy ASSR)

Lessons on the honey bee. Biol. v shkole no.4:15-19 Jl-Ag '61.
(MIRA 14:7)

(Bees)

MAKSIMOV, Palladiy Petrovich; YEFIMOV, A.L., red.; YEMEL'YANOV, F.V., red.; TATURA, G.L., tekhn. red.

[Beekeeping]Pchelovodstvo; posobie dlia uchashchikhsia sel'skoi srednei shkoly. Moskva, Uchpedgiz, 1962. 183 p. (MIRA 16:1)

(Bee culture--Study and teaching)

MAKSIMOV, P.

Let us supply the industry with high-grade raw material. Mias.ind. SSSR 24 no.6:49-52 '53. (MLRA 6:12)

1. Nachal'nik Glavnogo upravleniya po zagotovkam skota.
(Animal industry)

MAKSIMOV,,P..

GINDLIN, I., inzhener; MAKSIMOV, P., inzhener.

An efficient ammonia system for refrigerators. Khol.tekh.31 no.2:22-27 Ap-Je '54. (MLRA 7:7)
(Refrigeration and refrigerating machinery)

MAKSIMOV, P., inzhener.

Some solutions of technical problems in France's cold storage plants. Khol.tekh.33 no.2:39-44 Ap-Je '56. (MIRA 9:9)
(France--Cold storage warehouses)

MAKSIMOV, P., inzh.

Standard plans of small cold storage plants. Khol.tekh. 33 no.4:41-44 O-D '56. (MIRA 12:1)
(Cold storage warehouses)

MAKSIMOV, P

USSR/General Problems. Methodology. History. Scientific Institutions and Conferences. Instruction. Questions Concerning Bibliography and Scientific Documentation A

Abs Jour : Ref Zhur-Khimiya, No 3, 1958, 6833

Author : P. Maksimov, I. Gindlin
Inst : State Institute for Planning Refrigerators and Dry Ice and Ice Cream Factories
Title : State Institute for Planning Refrigerators and Dry Ice and Ice Cream Factories

Orig Pub : Kholodil'naya tekhnika, 1957, No 3, 22-25

Abstract : To the 40th anniversary of the Great October Socialist Revolution. A review of the Institute activities since 1931.

Card 1/1

MAKSIMOV, P. S.

(State Insititute for Designing Enterprises of the Refrigerating Industry, Moscow): "Improved Schemes for the Circulation of Ammonia Without Pump System" /French - 5 pages/

report presented at the International Inst. of Refrigeration (IIR), Annual Meetings of Commissions 3,4, and 5, Moscow, 3-6 Sep 1958.

MAKSIMOV, P., inzh.

Standard designs for distributing cold storage warehouses [with summary in English]. Khol. tekh. 35 no.4:22-26 Jl-Ag '58. (MIRA 11:10)

1.Gosudarstvennyy institut institut po proyektirovaniyu predpriyatiy kholodil'noy, molochnoy, maslyanoy i syrodel'noy promyshlennosti.
(Cold storage warehouses)

MAKSIMOV, P.

PHASE I BOOK EXPLOITATION SOV/3747

International Congress of Refrigeration. Moscow, 1958

Sbornik dokladov ot SSSR (Collected Soviet Reports) Moscow, Gostorgizdat, 1959. 214 p. Errata slip inserted. 2,000 copies printed.

Ed. (Title page): Sh. N. Kobulashvili; Ed. (Inside book): N. V. Chichkov; Tech. Ed.: V. V. Babicheva.

PURPOSE: This collection of articles is intended for those interested in the problems of food refrigeration.

COVERAGE: The collection contains 26 reports which were submitted at the meeting of the 3rd, 4th, and 5th Committees of the International Institute of Refrigeration. The meeting was held in Moscow, September 3-6, 1958, and was attended by 265 Soviet specialists and 115 representatives from other countries. The 73 reports discussed at this meeting cover such broad areas as the automation of the cooling of refrigerating installations, the use of finned-tube type refrigerating devices, fast-freezing food freezers, the theory and technique of rapid cooling and freezing of meat and fish, the use of antibiotics in the cold storage of food, and the operation of refrigerators and cooling systems. A complete account of the proceedings of this meeting was published by the International Institute of Refrigeration in 1959. No personalities are mentioned. References follow several of the articles.

TABLE OF CONTENTS:

9

14(1) SOV/66-59-2-2/31

AUTHOR: Maksimov, P., Engineer

TITLE: Standard Designs of Small General Purpose Refrigeration Warehouses (Tipovyye proyekty nebol'shikh kholodil'nikov obshchego naznacheniya)

PERIODICAL: Kholodil'naya tekhnika, 1959, Nr 2, pp 5-8 (USSR)

ABSTRACT: Giprokholod has developed 4 standard designs of refrigeration warehouses of 12, 25, 50 and 100 tons capacity. They are intended for community centers, working mens quarters, sovkhoz and kolkhoz organizations, for temporary storage of fresh and frozen food products. Using standard building material and equipment, ensuring maximum efficiency at lowest possible cost, these standard types of refrigeration warehouses are designed for large-scale construction. The refrigeration compartments have an even temperature of -12° to -15°C as indicated in Table 1, giving also capacities of the 4 types equipped with automatically controlled ammonia refrigeration systems and operated by compressor condenser units. Characteristics of equipment and requirements of heat, cold and electric energy are shown in Table 3. With operation and temperature being automatically controlled, attendance is

Card 1/2

Standard Designs of Small General Purpose Refrigeration Warehouses

reduced to periodical inspection of the control devices and refrigeration equipment.
There are 2 sets of diagrams and 3 tables.

ASSOCIATION: Giprokholod

25(5) SOV/66-59-5-16/35

AUTHOR: Maksimov, P., Engineer

TITLE: Protection of Structures Against Damage by Transportation Mechanisms

PERIODICAL: Kholodil'naya tekhnika, 1959, Nr 5, pp 56-57 (USSR)

ABSTRACT: The article describes various ways and means of protecting exposed parts of buildings, such as pillars, corners, door ways, passages, entrances and exits from suffering damage by careless driving of trucks and wagons. The protection consists in most cases of wooden boards tied together by metal strips, of sheet metal or metal bars. The floors of elevators, exposed to extra heavy wear, should be provided with a removable top layer of wooden boards 50 mm thick.
There are 2 sets of diagrams.

Card 1/1

MAKSIMOV, P., inzh.

Standard one-story medium-size refrigerating plants. Mias. ind. SSSR 30 no.5:6-10 '59. (MIRA 13:1)

1.Gosudarstvennyy institut po proyektirovaniyu predpriyatiy kholodil'noy, molochnoy, maslyanoy i syrodel'noy promyshlennosti.
(Cold storage warehouses)

MAKSIMOV, P., inzh.

Refrigeration and refrigerating machinery in the Chinese People's Republic. Khol.tekh. 37 no.4:60-61 Jl-Ag '60. (MIRA 13:11)
(China--Refrigeration and refrigerating machinery)

L 16034-66

ACC NR: AP6004517 (A) SOURCE CODE: UR/0066/65/000/005/0014/0017

AUTHOR: Maksimov, P. S.; Yeremeyev, I. I. 14

ORG: [Maksimov] Council of National Economy SSSR (Sovet narodnogo khozyaystva SSSR); [Yeremeyev] Moscow Refrigerator No 14 (Moskovskiy kholodil'nik No 14) B

TITLE: New refrigerator in Moscow

SOURCE: Kholodil'naya tekhnika, no. 5, 1965, 14-17

TOPIC TAGS: refrigeration equipment, food technology

ABSTRACT: The paper is a description of the new No 14 refrigerator with a capacity of 17300 tons put into operation in Moscow (Ochakovo) in 1963. The construction of this refrigerator is part of a comprehensive project undertaken by the State Institute for the Design and Planning of Refrigerators, and of Ice Cream, Ice, Dry Ice and Liquid Carbon Dioxide Plants. The refrigerator complex consists of a main building, administration building with dining room, material warehouse, truck weighing station, buildings for storage of ammonium and lubricating materials and other servicing installations. The refrigerator is housed in a five-story building

UDC: 621.565(470-20)

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L 16034-66

ACC NR: AP6004517

with a basement. The unit is 94.5 m long and 40 m wide with a structural volume of 96607 m^3. An adjoining two-story building contains living quarters and engine room. The upper five stories of the refrigerator building contain 23 rooms for storage of frozen goods (-18°C) with a total capacity of 14280 tons. In the basement are five coolers (-3 - +4°C) with a total capacity of 3020 tons. In addition, there are three freezers on the ground floor with a transmitting capacity of 90 tons per day together with a room for storing frozen meat. A floor plan of the main building is shown and the technical specifications of the refrigeration equipment are given. Orig. art. has: 3 figures.

SUB CODE: 13/ SUBM DATE: 00/ ORIG REF: 000/ OTH REF: 000

Card 2/2

MAKSIMOV, P.S.

New harbor cold storage warehouse in Vladivostok. Khol. tekh. 42 no.4:71-72 Jl-Ag '65. (MIRA 18:9)

MAKSIMOV, P.V., kapitan 1-go ranga zapasa

Tactical training of officers of small ships. Mor. sbor. 47 no.1:48-50 Ja '64. (MIRA 18:7)

MAKSIMOV, P.V., kapitan 1-go ranga zapasa

It is necessary to cultivate the commander's independence and initiative. Mor. sbor. 48 no.5:61-66 My '65.

(MIRA 18:6)

MAKSIMOV, Petr Yakovlevich; USPENSKIY, B.V., redaktor; MAL'KOVA, N.V., tekhnicheskiy redaktor

[Road surfacing with soil asphalt] Dorozhnaia odezhda iz grunt-asfal'ta. Moskva, Nauchno-tekhn. izd-vo avtotransp. lit-ry, 1956. 25 p. (MLRA 9:8)

(Pavements)

CHUDARS, Ya.[Cudars, J.]; SKVORTSOVA, N.; MAKSIMOV, R.

Comparison of the possibilities of determining the moisture content of building materials using neutron radiation and neutron backscattering methods. Izv. AN Latv. SSR no.10: 91-98 '62. (MIRA 16:1)

1. Institut fiziki AN Latviyskoy SSR.

(Building materials—Testing)
(Neutrons) (Moisture)

Maksimov, S. A.

MAKSIMOV, S. A.

Polet v slozhnykh meteorologicheskikh usloviiakh. (Meteorologiia i gidrologiia, Informatsionnyi sbornik, 1946, no. 5, p. 36-49, bibliography)

Title tr.: Flight under unfavorable meteorological conditions.

QC851.M27 1946, no. 5.

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

MAKSIMOV, S. A.

"Hydrograph and Thermograph of a Polar Model," No 4, pp 81-82.
(Meteorologiya i Gidrologiya, No 6 Nov/Dec 1947)

SO: U-3218, 3 Apr 1953

USSR/Meteorology - Pressure, Jul/Aug 48
Atmospheric
Meteorological Instruments

"Instruments for Measuring Atmospheric Pressure Having Prismatic Connection of Units," S. A. Maksimov

"Meteorol i Gidrol" No 4, p 86

Original designs for aneroid barometer and barograph by Engineers Maruylov and Maklakov of Moscow Hydrometeorol Instr Bldg Plant, in which cylindrical connections of mechanical elements

162T88

PA 162T88

USSR/Meteorology - Pressure Jul/Aug 48
Atmospheric (Contd)

are replaced by connections using sets having pointed prismatic knife and inner prismatic support. Submitted 11 Feb 47.

162T88

MAKSIMOV, S. A.

Levandovskiy, Kazimir Frantsevich, 1876-

Fiftieth anniversary of K.F. Levandovskiy's scientific work. Met. i gidrol No.5, 1947.

Monthly List of Russian Accessions. Library of Congress, October, 1952. UNCLASSIFIED.

MAKSIMOV, S.A., PETUNIN, I.M.

Meteorology, Agricultural

History of agricultural meteorology in the U.S.S.R.. Met. i gidrol. No. 5, 1952.

Monthly List of Russian Accessions, Library of Congress, October, 1952. UNCLASSIFIED.

MAKSIMOV, S. A.

geo (2)

Meteorological Abs t.
Vol. 4 No. 3
March 1953
General Meteorology

551.5:63:92(47)

4.3-20

Maksimov, S. V. P. I. Brounov—osnovopolozhnik sel'skokhoziaistvennoi meteorologii. [P. I. Brounov—the founder of agricultural meteorology.] Leningrad, Gidromet. Izdat., 1950. 43 p. 5 figs DLC—P. I. BROUNOV, born in 1852 in St. Petersburg, Russia, worked about fifty years in physical geography, oceanography, general meteorology and especially in agrometeorology. He has written about 120 papers and established in 1897 the first agrometeorological service in the world. A map of the agrometeorological stations and a map with the distribution of droughts in Russia are given. *Subject Headings:* 1. Biography 2. Brounov, P. I. 3. Agro-meteorological services 4. Drought 5. U.S.S.R.—I.A.

MAKSIMOV, S. A.

P. I. Brounov, founder of agricultural meteorology.
Leningrad, Gidrometeoizdat, 1952, 55 p., figs., bibl.

MAKSIMOV, S. A.

4

(3)

Meteorological Abst.
Vol. 5 No. 1
Jan. 1954
Part 1
Works of Special
Interest

5.1-20 551.5:63

Maksimov, S. A., **Meteorologiia i sel'skoe khoziaistvo.** [Meteorology and agriculture.] Leningrad, Gidrometizdat., 1952. 94 p. 25 figs., 15 tables. Price: 2 rubles. DLC—Includes short history of agricultural meteorology in Russia (beginning with LOMONOSOV, 1759) with considerable attention paid to the organization of agrometeorological service in the U.S.S.R. since the Revolution. The work at agrometeorological stations is described. The effects of radiation, soil and air temperatures, snow cover and its conservation, soil moisture, humidity and wind on crops are treated in separate chapters based on actual data from crop growth in U.S.S.R.: harmful meteorological conditions such as drought, hot winds, hail, frost, cloudbursts, glaze, and intense freezing; the means by which the agrometeorological service helps agriculture (forecast, warnings, studies, etc.) and, finally, on the transformation of nature in the U.S.S.R. according to the ideas of MICHURIN and LYSENKO (effect of shelter belts, etc.) are reviewed. *Subject Headings:* 1. Agricultural meteorology 2. U.S.S.R. —*M.R.*

MAKSIMOV, S. A.,

Meteorological Abstract
Vol. 4, No. 8
August, 1953
Part I
General Meteorology.

4.8-23 (5) Geo 551.5:63:92

Maksimov, S. A., Osnovatel' sel'skokhoziaĭstvennoĭ meteorologii Petr Ivanovich Brounov. [The founder of agricultural meteorology, Petr Ivanovich Brounov.] Meteorologiia i Gidrologiia, No. 7:51-53, 1952. DLC— Review of scientific works of P. I. BROUNOV (born December 21, 1852, died April 24, 1927). P. I. BROUNOV, after graduating from the Physical-Mathematical Faculty of Petersburg University in 1875, started to work at the Central Physical Observatory. Many original investigations by BROUNOV on weather analysis and study of directions of cyclone movements were carried out there. He was the first to introduce the so-called isobar method. In 1890 he was elected professor of Kiev University and continued his scientific activities by investigating the relation between climatic conditions and agriculture. BROUNOV formulated the problem of a new science--agricultural meteorology as a study of meteorological factors and their relation to soil and life of plants and animals. In 1897, at BROUNOV'S

suggestion, a special institution, "Meteorological Bureau," for the organization of a special network of agro-meteorological stations, investigation of influence of meteorological stations, investigation of influence of meteorological elements on growth of cultural plants, development of methods of agro-meteorological observations and for special study of atmospheric processes dangerous for agriculture was established. In 1904 BROUNOV founded "Trudy po Sel'skokhoziastvennoi Meteorologii" (Transactions in agricultural meteorology), a periodical well known inside and outside of Russia. Genetic system of climates and criterion of drought introduced by BROUNOV were used largely for agroclimatic regionalization.
Subject Headings: 1. P. I. Brounov 2. Agricultural meteorology 3. Biography.

N. T. Z.

EH

MAKSIMOV, S.A.

The 75th Anniversary of the Meteorological Observatory imeni V.A. Mikhel'son Meteorol. i gidrologiya, No 1, 1953, pp 44-45

[No abstract given.] (RZhGeol, No 5, 1954)

SO: Sum. No. 568, 6 Jul 55

, S.A.-

MAKSIMOV, Semen Andreyevich; GOL'TSBERG, I.A., redaktor; MOISEYEV, I.T., redaktor; SOLOVEYCHIK, A.A., tekhnicheskiy redaktor

[Meteorology in agriculture] Meteorologiia i sel'skoe khoziaistvo. Izd. 3-e, ispr. i dop. Leningrad, Gidrometeorologicheskoe izd-vo, 1955. 141 p. (MLRA 9:1)

(Meteorology, Agricultural)

MAKSIMOV, S. A

551.5:63(02)

Kol'tsov, M. M.; Maksimov, S. A. and Iaroshevskii, V. A., Praktische Agrarmeteorologie. [Practical agricultural meteorology.] Berlin, Deutscher Bauernverlag, 1955. 310 p. 47 figs., 85 tables, 24 refs., 22 eqs. DLC. Translation from original Russian of their Prakticheskaia agrometeorologiia, pub. Leningrad, Gidrometizdat., 1952.—This textbook and manual of applied agricultural meteorology is strictly practical in its approach to the study and application of agrometeorological principles and techniques to agricultural practice. It is provided with exercises and examples outlining the procedures in setting up experiments, in making observations and in the interpretation of the results obtained. The book consists of two parts: 1) Agrometeorological observations and 2) Agrometeorological service. The former includes: procedures for setting up experimental field plots, methods for determining soil moisture content and calculating amount of productive moisture, determination of the moisture characteristics of soils such as volume weight of soil, calculation of total porosity and maximum water capacity in percent of absolute dry soil, etc., observation and calculation of evaporation; and observation on growth, development and condition of agricultural crops, natural meadows and natural pastures. Pt. 2 deals with the composition of agrometeorological reports, phenological forecasts, forecasts on reserve of productive moisture at the beginning of the vegetation period, and on the reserve of productive moisture at the start of the vegetation periods in fields under crops, and night frost warning on the basis of local observations. The procedures are described in great detail with the aid of numerous diagrams and the various types of apparatus and instruments are illustrated; samples of data sheets, calculations and actual results obtained are presented. *Subject Headings:* 1. Agrometeorology textbooks. I. Freyse, K. (ed.)—*I.L.D.*

MAKSIMOV, S.A., kandidat geograficheskikh nauk.

Return of cold weather. Priroda 45 no.6:127 Je '56. (MLRA 9:8)

1. Moskvoskaya sel'skokhozyaystvennaya akademiya imeni K.A. Timiryazeva.

(Spring)

MAKSIMOV, S.A., kandidat geograficheskikh nauk; KALYUZHNYY, A.S.

Sleet. Priroda 45 no.12:127-128 D '56. (MLRA 10:2)

1. Moskovskaya sel'skokhozyaystvennaya akademiya imeni K.A.Timiryazeva (for Maksimov). 2.Rostovskoye byuro pogody (for Kalyuzhnyy).
(Ice)

BROYNOV, Petr Ivanovich; MAKSIMOV, S.A., kand.geograf.nauk, red.; SIMEL'SHCHIKOV, V.V., otvetstvennyy red.; GROSMAN, R.V., red.; FLAUM, M.Ya., tekhn.red.

[Selected works] Izbrannye sochineniia. Leningrad, Gidrometeor. izd-vo. Vol.2. [Agricultural meteorology] Sel'skokhoziaistvennaia meteorologiia. 1957. 337 p. (MIRA 11:2)
(Meteorology, Agricultural)

MAKSIMOV, S.A., kandidat geograficheskikh nauk.

Cold weather in winter. Priroda 46 no.1:125 Ja '57. (MLRA 10:2)

1. Moskovskaya sel'skokhozyastvennaya akademiya im.K.A.Timiryazeva.
(Frost)

MAKSIMOV, S.A., dotsent, kand.geograficheskikh nauk

Nature of forest fires and the prediction of general hydrometerological conditions of weather. Izv.TSKhA no.6:233-238 '59. (MIRA 13:6)
(Forest fires)

MAKSIMOV, S.A., kand.geograficheskikh nauk, dotsent

Hundred years from the birth of V. A. Mikhel'son. Izv. TSKhA no.3:237-239 '60. (MIRA 14:4)
(Mikhel'son, Vladimir Aleksandrovich, 1860-1927)

MAKSIMOV, S.A.

Vladimir Aleksandrovich Mikhel'son; 1860-1960. Meteor.i gidrol. no.7:45-48 Jl '60. (MIRA 13:7)
(Mikhel'son, Vladimir Aleksandrovich, 1860-1960)

MAKSIMOV, S.A.

Harvest time. Priroda 49 no.7:127 Jl '60.
(MIRA 13:7)

1. Moskovskaya sel'skokhozyaystvennaya akademiya imeni K.A.Timiryazeva.
(Summer)

MAKSIMOV, Semen Andreyevich; KULIK, M.S., otv. red.; SAGATOVSKIY, N.V., red.; ALEKSEYEV, A.G., tekhn. red.

[Weather and agriculture] Pogoda i sel'skoe khoziaistvo. Leningrad, Gidrometeoizdat, 1963. 201 p. (MIRA 16:11)
(Meteorology, Agricultural)

DAVYDOVA, Yu.S., kand.tekhn.nauk; LAGUNOV, L.L., kand.tekhn.nauk;
MAKSIMOV, S.I., inzh.-tekhnolog.

Obtaining a vitamin A concentrate by molecular distillation.
Trudy VNIRO 35:272-282 '58. (MIRA 11:11)

1. Laboratoriya novoy tekhnologii Vsesoyuznogo nauchno-issledovatel'skogo instituta morskogo rybnogo khozyaystva i okeanografii i Vitaminnyy tsekh Mosrybkombinata.
(Vitamins--A) (Distillation, Molecular)

S/194/61/000/002/006/039
D216/D302

AUTHORS: Yakobi, Yu.A., Maksimov, S.I. and Zagorenko, G.M.

TITLE: Photoelectric installations for work in the ultraviolet region of the spectrum

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 2, 1961, 34, abstract 2 A265 (V Sb. spektr. analiz v tsvetn. metallurgii. M., Metallurgizdat, 1960, 79-86)

TEXT: The design of a photoelectric attachment for spectral analysis is given. The design is based on a quartz spectroscope ИСП - 22 (ISP-22). The attachment is inserted instead of the cassette into the camera part of the spectroscope. It has one output slot which can be moved in the plane of the spectrum by a micrometer screw. The photorecorder which registers the spectral lines intensities is attached to the slot carriage together with its light screen. To adjust the slot for the required analytical line a spectrogram is used, obtained with the spectroscope. The spectro-

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gram is analyzed by a pointer with a highly tied magnifying glass. The fine adjustment of the slot position with respect to the analytical line is achieved by means of an optical adjustment indicator type 6E5C (6E5S), to the input of which is applied the output voltage of the photo-recorder. A second photorecording is made in the comparison circuit which registers the light dissipated in the spectrograph. The trials of the installation have been made using two different systems of measuring the photocurrents of the analysis channel and the comparison circuit, stored at the respective integrating circuits. These systems have been described earlier (see Carpenter, Bois, Sterner, "JOSA", 1947, 37, 707; Hasler, Lindhurst, Kemp, 1948, 38, 789). A constant light source (a filament bulb) was used. The error of measurements 0.5 - 0.6%. No positive results could be obtained with an arc light source. 4 figures. 2 references.

Card 2/2

MAKSIMOV, S.I., inzh.-tekhnolog

Molecular distillation of vitamin A from marine animals. Trudy VNIIRO 45:88-95 '62. (MIRA 16:5)
(Distillation, Molecular) (Marine animal oils) (Vitamins--A)

24(7), 9(7)

AUTHORS: Yakobi, Yu. A., Maksimov, S. I.

SOV/48-23-9-23/57

TITLE: A Photoelectric Apparatus Based on the Spectrograph ISP-22. A New Method of Automatic Spectral Analysis of an Electrolyte

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 9, pp 1103 - 1105 (USSR)

ABSTRACT: The photoelectrical apparatus described consists of a photoelectrical headpiece and two different recording instruments. The headpiece makes it possible, by means of an outlet gap, to isolate any kind of spectral line within the investigated range, because it may be adjusted by means of a micrometer screw. It operates with the photomultiplier of the type FEU-18. For the superposition of the gap and of the desired spectral line, a spectrogram produced on this device is used, which is located on the outside of the headpiece. An optical indicator is used to indicate the exact position. Correspondence between the gap and the indicator is checked either visually or by means of an Hg-tube and an ultraviolet

Card 1/2

indicator. In one of the two recording instruments a direct current amplifier is used, which has an instrumental error of 0.?%. The second recording instrument has an error of 0.8% (Refs 1 and 2). In the following, experiments concerning the automatic spectral analysis of electrolytes are described, in which electrolytically separated metal is used as carrier electrode. In this way the accuracy of the analysis is increased, and, at the same time, amperage is reduced. Moreover, the electrolytical purification of the carrier electrode material makes it possible to eliminate the influence of the preceding experiment without having to employ mechanical methods or chemical reactions. There are 1 figure and 2 references.

STEPANOV, V.P.; MAKSIMOV, S.I.; GAVRILOV, M.N.; SEYDEL, L.R.

Electronic instrument for measuring the interface level of raffinate and extract solutions. Mash. i neft. obor. no.3:22-25 '64. (MIRA 17:5)

1. Nauchno-issledovatel'skiy i proyektnyy institut po kompleksnoy avtomatizatsii proizvodstvennykh protsessov v neftyanoy i khimicheskoy promyshlennosti.

KOZHIN, N.I., prof., glav. red.; ABAKUMOV, V.A., zam. glav. red.; BLINOVA, Ye.N., red.; BYKOV, V.P., red.; MAKSIMOV, S.I., red.; OKALOVSKIY, S.G., red.; POLULYAK, S.I., red.; VELICHKO, Ye.M., red.

[Papers of young scholars] Trudy molodykh uchenykh. Moskva, Pishchevaia promyshlennost', 1964. 261 p. (MIRA 18:1)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii, Moskva (for Abakumov, Blinova, Bykov).

ALEKSANDRIYSKIY, M.V.; BELYAYEVA, A.G.; MAKSIMOV, S.I.

Clinical statistical analysis of the treatment of fractures of the large tubular bones for five years. Trudy Ver. med. inst. 52:227-231 '63.

Late results of a compound treatment of fresh fractures of the large tubular bones. Ibid.:233-236

(MIRA 18:3)

124-58-6-7189

Translation from Referativnyy zhurnal, Mekhanika, 1958, Nr 6, p 123 (USSR)

AUTHOR: Maksimov, S. K.

TITLE The Plasticity of Copper (Plastichnost krasnoy medi)

PERIODICAL V sb.: Prochnost' metallov Moscow, AN SSSR, 1956, pp 139-143

ABSTRACT The author believes that the new creep criterion of a "plastic resource" (see Ivanova, V.S., Zavodsk. laboratoriya, 1955, Vol 21, Nr 2, pp 212-216; also RzhMekh, 1955, Nr 10, abstract 5817) can be applied to copper under high-temperature conditions For highly ductile materials which exhibit great strains at the initial moment of loading the "plastic resource" was observed as a reduction in the further elongation At high temperatures the copper became brittle

From the resumé

1. Copper--Plasticity

Card 1/1

SKAKOV, Yu.A., kand.tekhn.nauk; MAKSIMOV, S.K., inzh.; SHARSHATKINA, A.V., inzh.

Structural changes during the aging of commercial iron. Metalloved. i term. obr. met. no.3:20-24 Mr '62. (MIRA 15:2)

1. Moskovskiy institut stali.
(Iron--Metallography)

MAKSIMOV, S.K.; SKAKOV, Yu.A.; ZHETVIN, N.P.; PAISOV, A.I.

Role of phase composition of precipitates in the magnetic aging of mild steel. Izv. vys. ucheb. zav.; chern. met. 5 no.3:122-124 '62. (MIRA 15:5)

1. Moskovskiy institut stali i zavod "Serp i molot".
(Steel--Hardening) (Case hardening)

KRISHTAL, M.A.; FIRSANOV, I.A.; VAYNER, Yu.I.; GOLOVIN, S.A.; MAKSIMOV, S.K.

Mechanical properties of statically and dynamically deformed alloys. Fiz. met. i metalloved. 15 No.2:305-309 F '63. (MIRA 16:4)

1. Tul'skiy mekhanicheskiy institut.
(Alloys—Testing)

L 13986-65 EWT(m)/EWP(w)/EWA(d)/EWP(t)/EWP(b) ASD(m)-3/SSD/AFWL/AFTC(p)
MJW/JD/MLK
ACCESSION NR: AT4048128 S/0000/63/000/000/0128/0133

AUTHOR: Krishtal, M. A., Golovin, S. A., Maksimov, S. K., Vayner, Yu. I., Baranova, V. I., Pudoveyeva, V. P.

TITLE: Internal friction, structure and mechanical properties of alloys deformed under static and impulse loads

SOURCE: Vsesoyuznaya konferentsiya po relaksatsionnym yavleniyam v metallakh i splavakh. 3d, Voronezh, 1962. Relaksatsionnyye yavleniya v metallakh i splavakh (Relaxation phenomena in metals and alloys); trudy konferentsii. Moscow, Metallurgizdat, 1963, 128-133

TOPIC TAGS: low carbon steel, austenitic steel, aluminum alloy, internal friction, alloy structure, cold working

ABSTRACT: The authors investigated the mechanical properties of low carbon steel (0.90% C), austenitic steel grade 1Kh18N9T and OT-4 and AMg5VM alloys based on titanium and aluminum, respectively, under static and impulse loads. The phase condition of the metals was determined by X-ray under initial and deformed conditions. Initially, the OT-4 alloy is a solid solution of alpha-titanium with 3-5% beta phase containing Ti and Mn. In the other alloys, no noticeable changes were

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ACCESSION NR: A[illegible]4048128

observed. Cold working of the samples was done under tension and in some cases by compression. The ultimate strength was determined on the M/91 machine (East Germany) at a strain rate of 6 mm/min. The flat samples were 120 mm long with a test length of 5 mm. The temperature dependence of the internal friction and rigidity modulus of wire samples (160 mm long and 0.8 mm in diameter) of low carbon steel, 1Kh18N9T steel and the aluminum alloy was determined on the RKF MIS vacuum torque pendulum at 1 cycle/second. Special attention should be paid to 1Kh18N9T steel, which was initially annealed at 1050C and had a single-phase structure. Under cold working, 1Kh18N9T steel reached an ultimate strength of 90 kg/mm^2 at a deformation of 4%, accompanied by an increased yield point, a sharp drop in elongation and a general lowering of the rigidity modulus. Internal friction was determined by the resonance method on a device designed by the Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys) with flat samples 80 mm long, 6 mm wide and about 1 mm thick at 100 cps. The tests indicate that at low distances the material becomes brittle and sometimes fails due to passage of the critical strain rate for the given material. Brittleness at longer distances is connected with interference interaction of primary and reflected impact waves

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ACCESSION NR: AT4048128

leading to multiple deformation of the product. The increase in friction between the billet and die is of considerable importance. Plate samples 170 mm long, 11 mm wide and 2 mm thick were used to find the amplitude relationship of internal friction. It was found that surpassing some optimal loading rate may lead to hardening of the material and to simultaneous increase in brittleness due to formation of microcracks. Two competitive mechanisms (strengthening and weakening) appear at the same time under impulse loads. Orig. art. has: 5 figures and 2 tables.

ASSOCIATION: Tul'skiy mekhanicheskiy institut (Tula Institute of Mechanics)

SUBMITTED: 10Nov63 ENCL: 00 SUB CODE: MM

NO REF SOV: 004 OTHER: 001

Card 3/3

L 57584-65 EWT(l)/EWT(m)/T/EWP(t)/EEC(b)-2/EWP(b)/EWA(c) P1-4 IJP(c)
JD/GG
ACCESSION NR: AP5013713 UR/0070/65/010/003/0317/0323
548.4

40
39
B

AUTHOR: Maksimov, S. K.; Skakov, Yu. A.

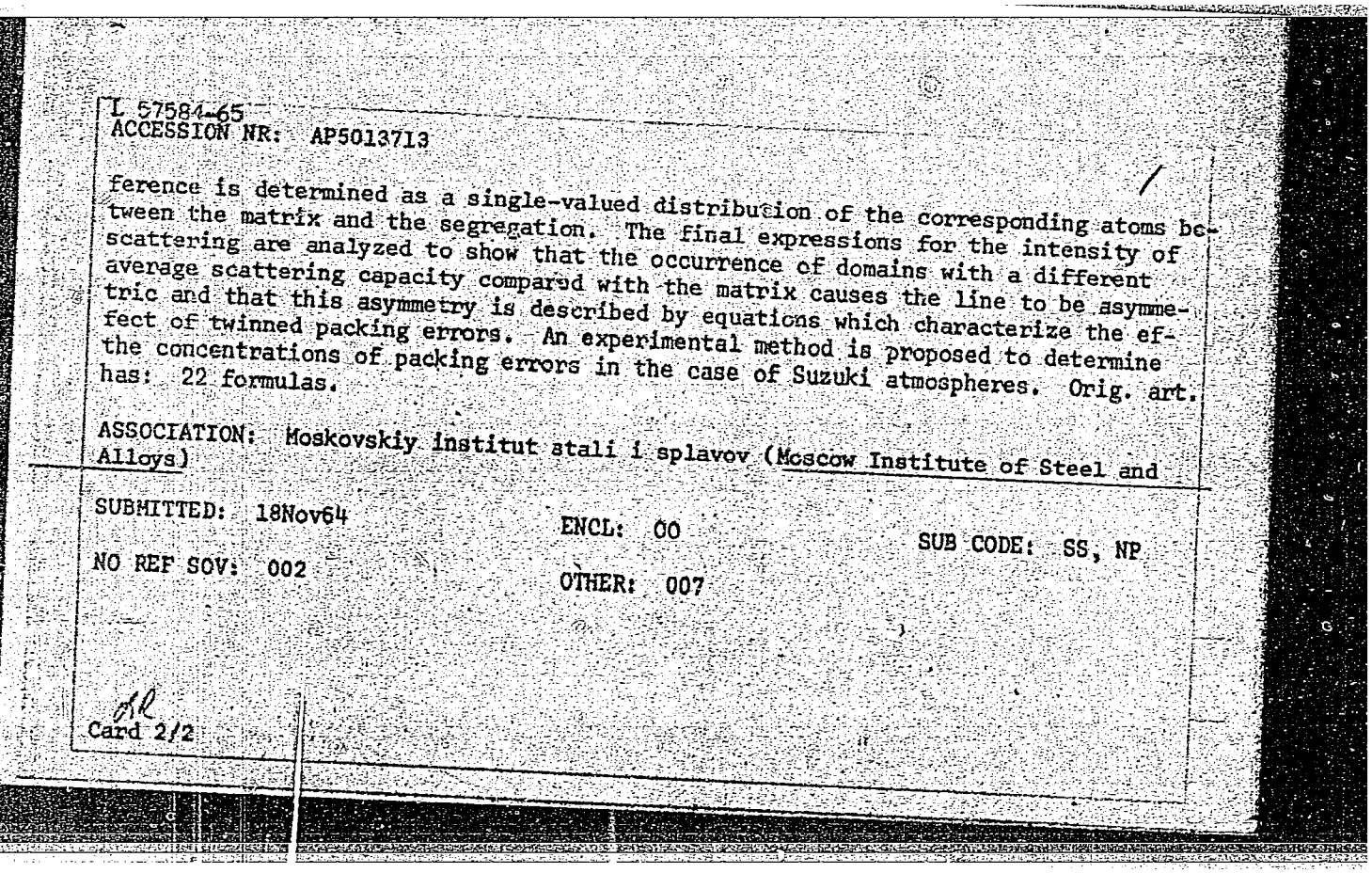
TITLE: The combined effect of packing errors and Suzuki atmospheres on the position and profile of the x-ray line in the face-centered cubic lattice

SOURCE: Kristallografiya, v. 10, no. 3, 1965, 317-323

TOPIC TAGS: atomic physics, crystallography, atomic packing, Suzuki atmosphere

ABSTRACT: The effect of Suzuki atmospheres on the parameters of the x-ray line was considered analytically for small concentrations of packing defects. For simplicity the effect associated with the difference in the scattering capacity and the average atomic radius of the Suzuki atmospheres and of the matrix are considered to be independent and are examined separately. In the case considered the principal contribution is due to the difference in the average atomic scattering capacities of the Suzuki atmospheres and of the matrix. By assuming that the alloy consists of two types of atoms, an expression is derived for this difference. It follows from this expression that for a definite concentration of packing errors this dif-

Card 1/2



L 57584-65
ACCESSION NR: AP5013713

ference is determined as a single-valued distribution of the corresponding atoms between the matrix and the segregation. The final expressions for the intensity of scattering are analyzed to show that the occurrence of domains with a different average scattering capacity compared with the matrix causes the line to be asymmetric and that this asymmetry is described by equations which characterize the effect of twinned packing errors. An experimental method is proposed to determine the concentrations of packing errors in the case of Suzuki atmospheres. Orig. art. has: 22 formulas.

ASSOCIATION: Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys)

SUBMITTED: 18Nov64 ENCL: 00 SUB CODE: SS, NP

NO REF SOV: 002 OTHER: 007

Card 2/2

MAKSIMOV, S.K.; SKAKOV, Yu.A.

Combined effect of packing errors and Suzuki atmospheres on the location and profile of an X-ray line in a face-centered cubic crystal. Kristallografiia 10 no.3:316-323 My-Je '65.
(MIRA 18:7)

1. Moskovskiy institut stali i splavov.

L 64542-65 EWT(m)/T/EWP(t)/EWP(b)/EWA(c) JD

ACCESSION NR: AP5018713 UR/0070/65/010/004/0466/0470

AUTHORS: Maksimov, S.K.; Shakov, Yu.A.

TITLE: Influence of the "size factor" in Suzuki atmospheres on the position and profile of an x-ray line in the face-centered cubic case

SOURCE: Kristallografiya, v. 10, no. 4, 1965, 466-470

TOPIC TAGS: alloy system, crystal imperfection, x ray crystallography, x ray spectrum, line splitting

ABSTRACT: The case is considered when in an alloy consisting of two types of atoms the difference in the mean atomic radii of the Suzuki atmospheres and the matrix is appreciable. It is found that for small concentrations of stacking faults the appearance of Suzuki atmospheres leads to a shift of the reflection depending on the stacking fault concentration and the difference of the mean

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L 64542-65

ACCESSION NR: AP5018713

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atomic radii of the Suzuki atmospheres and the matrix. Lines whose components all have the same sum of Miller indices are only shifted, while lines whose components have different sums of indices are in addition split, the splitting showing up in the form of broadening or asymmetry. Information concerning the Suzuki atmospheres can be obtained from a comparison of the profiles and widths of the [200] and [111] lines. "The authors express their gratitude to A. G. Khachaturyan for valuable advice in carrying out this investigation." Orig. art. has: 10 formulas and 1 table.

ASSOCIATION: Moskovskiy institut stali (Moscow Institute for Steel)

SUBMITTED: 190ct64 ENCL: 00 SUB CODE: OP, SS

NR REF SOV: 002 OTHER: 001

Card 2/3

85182
S/065/60/000/011/009/009
E194/E484

26.3150
26.1120
11.1210

AUTHORS: Tereshchenko, Ye.P., Zaloga, B.D. and Maksimov, S.M.

TITLE: Evaluation of the Combustion Characteristics of Aviation Gas Turbine Fuels on a Small-Sized Single-Combustion-Chamber Rig

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1960, No.11, pp.64-70

TEXT: The rig employed a single combustion chamber 376 mm long, of maximum diameter 178 mm with f[illegible] tube 294 mm long, diameter 148 mm and volume 0.0045 [illegible]. Air was delivered through a receiver and electric heater. Fuel was delivered through pumps and filters. A magneto and sparking plug were provided for ignition. The principal characteristics of an aviation gas turbine that depend on the quality of the fuel are: starting, limits of stable combustion, completeness of combustion and deposit formation in the combustion chamber. These properties were accordingly tested. The properties were assessed by comparison with a reference fuel, grade T-1 being chosen. Starting properties were assessed with an air flow through the chamber of 0.1 kg/sec at an inlet temperature of 60°C, the criterion of

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S/065/60/000/011/009/009
E194/E484

Evaluation of the Combustion Characteristics of Aviation Gas Turbine Fuels on a Small-Sized Single-Combustion-Chamber Rig

starting properties being the optimum fuel/air ratio, the weaker the mixture at which ignition occurs the better the starting properties. Combustion stability tests were made at an air flow rate of 0.25 kg/sec and an inlet temperature of 60°C, the stability limit was flame extinction with weak mixture and appearance of flames beyond the chamber with rich mixtures. Completeness of combustion was assessed by relating the amount of heat evolved to the composition of the fuel-air mixture. The formula used to assess the completeness of combustion is given and a typical characteristic for the reference fuel T-1 is shown in Fig.2. The tendency to deposit formation was assessed by the weight of deposit formed in the combustion chamber in one hour with an air flow rate of 0.25 kg/sec, an inlet temperature of 60°C and a fuel/air ratio of 4. The physical and chemical properties of fuels tested are given in Table 1 and data are given on starting properties. The fuels differ considerably in starting properties. the lighter the fractional composition, the greater the vapour pressure and the lower the viscosity the better the starting

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E194/E484

Evaluation of the Combustion Characteristics of Aviation Gas Turbine Fuels on a Small-Sized Single-Combustion-Chamber Rig

properties. Fig.3 shows a graph of the starting characteristics of fuels T-2 and T-1 obtained on a full-scale combustion chamber with an inlet air temperature of -35°C. Fuel T-2 was shown to have better starting characteristics than fuel T-1. In this respect the small and full-size combustion chambers give results that are in good agreement. Stable combustion under all operating conditions is a fundamental requirement of aviation gas turbines, and maximum and minimum fuel air ratios for a number of fuels are quoted. Gasoline grade B-70 (B-70) and the wide distillation-range fuel grade T-2 have wider limits of stable combustion than heavy fuels of the kerosene types TC-1 (TS-1) and T-1. This is also true for full-scale combustion chambers. Fig.4 gives completeness-of-combustion data for various fuels in the small-scale combustion chamber, the properties that give good starting characteristics also give complete combustion. Fig.5 shows graphs of completeness of combustion of aviation gasoline grade B-70 and fuel T-2 in a full size combustion chamber under altitude conditions. Fig.6 shows graphs of completeness of

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S/065/60/000/011/009/009
E194/E484

Evaluation of the Combustion Characteristics of Aviation Gas Turbine Fuels on a Small-Sized Single-Combustion-Chamber Rig

combustion of fuels T-1 and T-2 in an engine type SK-1 (VK-1). taken during flight at altitude. Comparison of the data given in Figs.4,5 and 6 shows that assessment of completeness of combustion on the small single chamber installation is in qualitative agreement with the assessment in full-scale combustion chambers under high flying conditions. Data on the tendency to deposit formation of various fuels in a small-size chamber are given in Table 2 and it will be seen that paraffinic fuel gives least deposit and aromatic fuel the greatest. Of the fuels tested the lighter the fractional composition the less the tendency to deposit formation. A formula is given which expresses the tendency to deposit formation in terms of the carbon hydrogen ratio, the hydrocarbon composition, the fractional composition and the rosin content of the fuel, see Eq.(1). Table 2 gives comparative data of the deposit forming tendency of various fuels determined by tests in the small chamber and calculated by Eq.(1) and it will be seen that there is reasonably good agreement. Eq.(1) relates to deposit formation for a particular combustion

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85182
S/065/60/000/011/009/009
E194/E484

Evaluation of the Combustion Characteristics of Aviation Gas Turbine Fuels on a Small-Sized Single-Combustion-Chamber Rig

chamber under given test conditions, the tendency to deposit formation in other chambers and under other conditions can be expressed by the more general Eq.(2). Table 3 gives data on the deposit-forming tendency of fuels T-2, TS-1 and T-1 tested in engines types VK-1 and РД (RD). Comparison of the data given in Tables 2 and 3 shows that the deposit forming tendencies as assessed by the single-chamber rig are in qualitative agreement with the engine test results. There are 6 figures, 3 tables and 3 references: 1 Soviet and 2 English.

ASSOCIATION: TsIAM im. Baranova

Card 5/5

L 11834-65 EWT(l)/EWP(m)/EWG(s)-2/EWG(v)/EPR/FCS(k)/EWA(l) Pd-1/Pe-5/Ps-4/
Pi-4/Pw-4 WW
ACCESSION NR: AP5010934 UR/0286/65/000/007/0120/0120

AUTHOR: Kuleshov, V. I.; Lyshchinskiy, V. V.; Maksimov, S. M.; Solodkin, V. K.

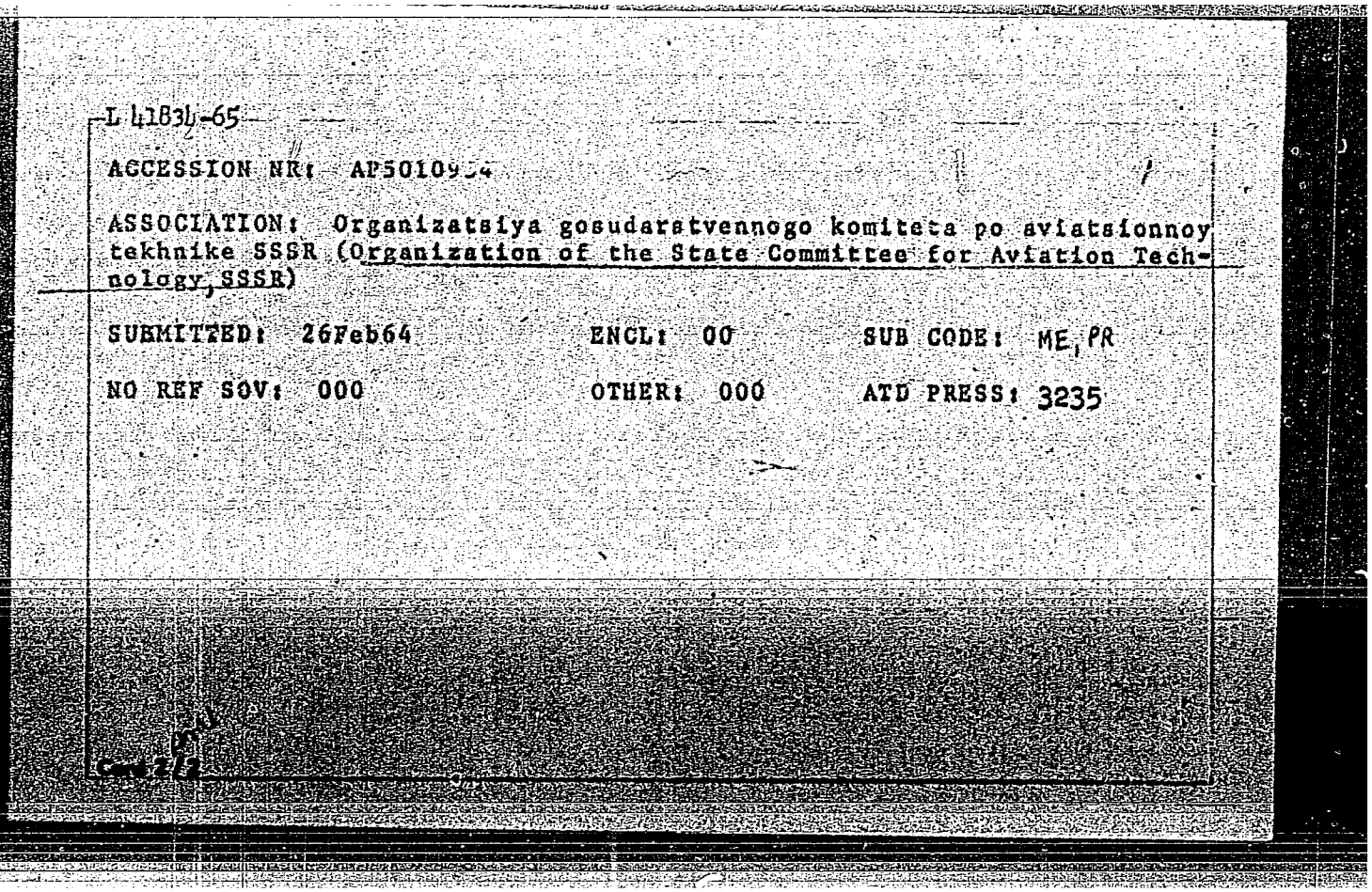
TITLE: Regulated nozzle for wind tunnels. Class 42, No. 169841

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 7, 1965, 120

TOPIC TAGS: wind tunnel, regulated nozzle, nozzle

ABSTRACT: This Author Certificate introduces a regulated nozzle for wind tunnels with a rigid intake section and a flexible outlet section. In the flexible section a rigid plate has been mounted to form a rectilinear zone in the flexible wall and its support. The arrangement secures a more uniform Mach number field including the correction for the boundary layer thickness. [AC]

Card 1/2



L 41834-65

ACCESSION NR: AP5010954

ASSOCIATION: Organizatsiya gosudarstvennogo komiteta po aviatsionnoy tekhnike SSSR (Organization of the State Committee for Aviation Technology, SSSR)

SUBMITTED: 26Feb64 ENCL: 00 SUB CODE: ME, PR

NO REF SOV: 000 OTHER: 000 ATD PRESS: 3235

Card 1/2

L 02304-67 EWT(m)/EWP(f)/T-2 FDN/WW/WE/GD

ACC NR: AT6015190 (A,N) SOURCE CODE: UR/0000/66/000/000/0005/0017

AUTHOR: Tereshchenko, Ye. R.; Zaloga, B. D.; Maksimov, S. M.

ORG: none

TITLE: Method of evaluating reactive fuels" on a small turbojet engine combustion chamber

SOURCE: Metody otsenki ekspl. atatsionnykh svoystv reaktivnykh topliv i smazochnykh materialov (Methods for the performance evaluation of jet propellants and lubricants). Moscow, Izd-vo Mashinostroyeniye, 1966, 5-17

TOPIC TAGS: petroleum fuel, combustion characteristic, combustion chamber test, turbojet engine test

ABSTRACT: The possibility of evaluating fuels on small single combustion chamber laboratory equipment (see figs. 1 and 2) was investigated. Tests were run on B-70 aviation gas," on diesel, T-2," TS-1" and T-1 fuels" and kerosene for fuel start-up characteristics, limits of stable combustion, completeness of combustion and carbon deposition. The laboratory method is sufficiently accurate for practical purposes. Test values are in agreement with those obtained on full size turbojet engine combustion chambers. The laboratory method is recommended for evaluating new fuels

Card 1/3 UDC: 662.753.22:629.13.001.4

L 02304-67

ACC NR: AT6015190

and also for testing standard fuels prepared from new crudes or by changed technology. Orig. art. has: 7 tables, 8 figures and 3 equations.

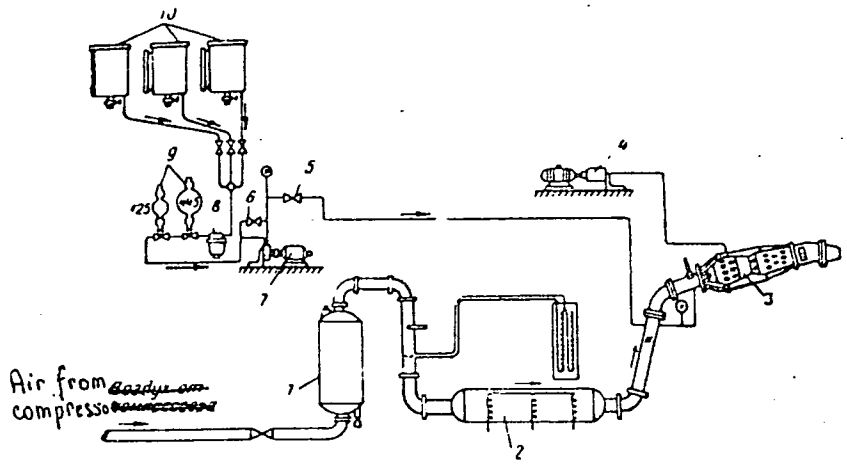


Fig. 1. Schematic diagram of small single chamber installation: 1--receiver, 2--electric air preheater, 3--small combustion chamber, 4--induction coil, 5--stopcock, 6--fuel valve, 7-- fuel pump, 8-- filter, 9-- gages, 10--fuel tanks.

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L 02304-67
ACC NR: AT6015190

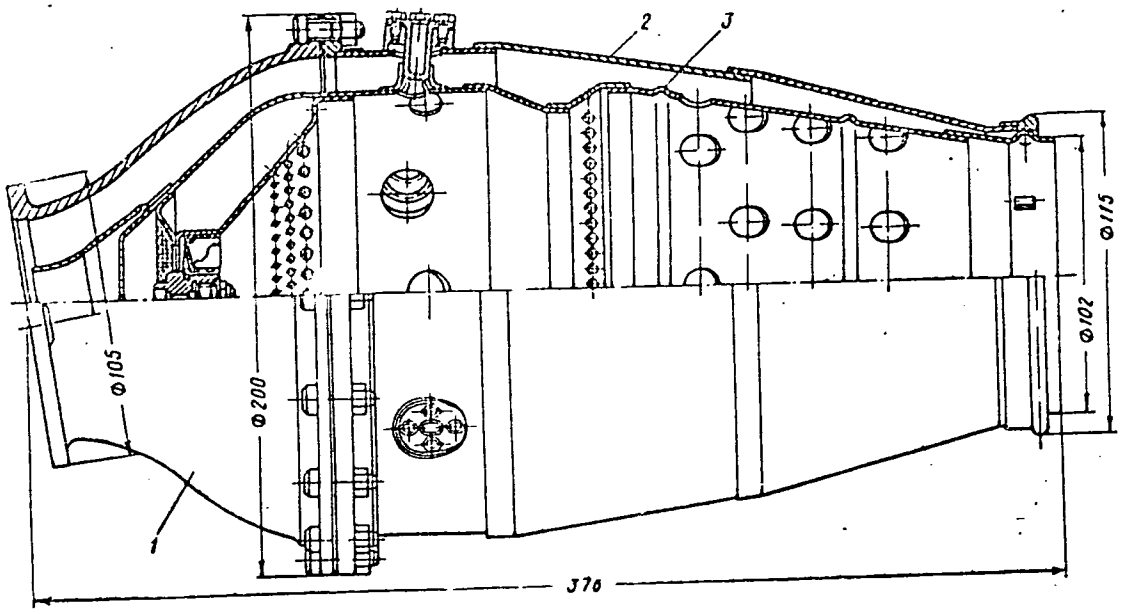

Fig. 2. Diagram of small combustion chamber:
1--diffuser, 2--housing, 3--fire tube.

Card 3/3 SUB CODE: 21,14/ SUBM DATE: 10Dec65/ ORIG REF: 003/ OTH REF: 001

RUBINSHTEYN, A.L., professor; KIRILLOV, A.A., dotsent; AREF'YEVA, T.I., assistent; MAKSIMOV, S.N., inzhener.

Method of forecasting the deformation of loess soil under hydrotechnical structures. Gidr.i mel. 5 no.9:3-13 S '53. (MLRA 6:9)
(Soil mechanics)

ZURABOV, K.G., inshener; MAKSIMOV, S.N., inshener.

Depositing gravel in the body of an earth dam. Gidr.stroi. 22 no.11:16-17 N-D '53. (MLRA 6:11) (Dams)

MAKSIMOV, S.N., inzhener.

Example of examining the displacement resistance of carbonate clay. Gidr.stroi. 23 no.4:42-43 '54. (MLRA 7:7)
(Clay--Testing)

MAKSIMOV, S. N.

MAKSIMOV, S. N.--"The Effect of Changes in Moisture Content on the Compressibility of Loess Soils." Moscow Geological Prospecting Inst imeni S. Ordzhonikidze. Moscow, 1955. (Dissertation for the Degree of Candidate in Geologicomineralogical Science)

SO Knizhnay letopis'
No 2, 1956

MAKSIMOV, S.N., kandidat geologo-mineralogicheskikh nauk.

Evaluating the construction properties of loess rocks. Gidr.stroi. 25 no.10:52-54 N '56. (MLRA 9:12)
(Loess) (Soil mechanics)

CHAPOVSKIY, Yevgeniy Grigor'yevich; MAKSIMOV, S.N., kand.geol.-miner.nauk, red.; ENTIN, M.L., red.izd-va; PITERTSEVA, N.I., tekhn.red.

[Laboratory work in soil science and soil mechanics; practical manual] Laboratornye raboty po gruntovedeniiu i mekhanike gruntov; prakticheskoe rukovodstvo. Izd.2., perer. i dop. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po geol. i okhrane nedr, 1958. 271 p. (MIRA 12:4)
(Soil physics)

MAKSIMOV, S. K.

Effect of the nature of rocks on the shear resistance test. Nauch. dokl.vys.shkoly; geol.-nauki no.4:177-181 '58.(MIRA 12:6)

1. Moskovskiy universitet, geologicheskiy fakul'tet, kafedra gruntovedeniya i inzhenernoy geologii.
(Rocks, Testing)

SOV/98-58-11-11/15

AUTHORS: Maksimov, S.N. Candidate of Geological-Mineralogical Sciences, and Molokov, L.A., Geological Engineer

TITLE: The Disruption of the Natural Density of Sands During the Digging of the Foundation Pit (Narusheniye yestestvennoy plotnosti peskov pri vskrytii kotlovanov)

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1958, Nr 11, pp 54-56 (USSR)

ABSTRACT: During the last years several hydrotechnical constructions have been erected on sandy foundations. The authors stress the importance of preserving the natural density of these sandy layers. The untimely pumping out of the surface water from the foundation pit (before the layer of coarse-grained sands was reached) creates an excessive pressure in these layers, and this pressure again creates the suspension state which disrupts the density of the overlying

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The Disruption of the Natural Density of Sands During the Digging of the Foundation Pit SOV/98-58-11-11/15

fine-grained sands. As a result large scale slides along the side slopes of the pit occurred. The builders were obliged to install filters on the whole perimeter of the pit. By these measures the filtering waters were intercepted, and the fine-grained sands again became dense. The authors mention that the surface water must be pumped out at the same time as the subsoil water. This way, the sand layers retain their initial density. There are 3 profiles.

1. Construction--USSR 2. Sands--Control 3. Water---Control

Card 2/2

NIKIFOROVA, T.I. [translator]; ZOLOTAREV, G.S., red.; MAKSIMOV, S.N., red.; KARASEV, A.D., red.; POTAPENKOVA, Ye.S., tekhn. red.; REZOUKHOVA, A.G., tekhn. red.

[Problems of engineering geology; collected studies. Translated from the English and French] Problemy inzhenernoi geologii; sbornik statei. Pod red.i s pred. G.S.Zolotareva i S.N.Maksimova. Moskva, Izd-vo inostr. lit-ry. No. 2. 1960. 382 p. (MIRA 14:5)

(Engineering geology)

SERGEYEV, Ye.M.; MAKSIMOV, S.N.

Impressions of Norway. Vest.Mosk.un.Ser. 4: Geol. 15 no.2:70-75 Mr-Ap '60. (MIRA 14:4)

(Norway--Geology)

MAKSIMOV, S.N.

Some experiments with optical model tests in solving engineering geological problems. Biul. MOIP. Otd. geol. 35 no. 3:168 My-Je '60. (MIRA 14:2)

(Soil mechanics)

MAKSIMOV, S.

At the Ministry of Geology and Conservation of Mineral Resources of the U.S.S.R. Geol.nefti i gaza 6 no.5:62,3 of cover My '62. (MIRA 15:5)

(Geologists--Education and training)

MAKSIMOV, [illegible]

Experiment on the efficient direction of study of physicotechnical properties of rocks in formation beds. Vest. Mosk. un. Ser. 4: Geol. 19 no.4:51-58 Jl-Ag [illegible] (MIRA 17:11)

1. Kafedra gruntov [illegible] i inzhenernoy geologii Moskovskogo universiteta.

BABKOV, Valeriy Fedorovich, prof., doktor tekhn. nauk; [illegible]-GEYBOVICH, Andrey Vladimirovich, dots., kand. tekhn. nauk; DENISOV, N.Ya., prof., doktor geol.-miner. nauk, retsenzent; MAKSIMOV, S.N., nauchn. red.

[Principles of soil science and soil mechanics] Osnovy gruntovedeniia i mekhaniki gruntov. Izd.2. Moskva, Vysshaia shkola, 1964. 365 p. (MIRA [illegible])

L 19168-63 EPF(c)/EWT(m)/BDS AFFTC/APGC Pr-4 DJ
S/0285/63/000/007/0005/0005

ACCESSION NR: AR3005462

60

SOURCE: RZh. Turbostroyeniye, Abs. 7.49.28

AUTHOR: Maksimov, S. P.

TITLE: Determination of periodic motion of a rigid rotor under the action of the lubricant layer in a sliding bearing

CITED SOURCE: Nauchno-tekhn. inform. byul. Leningr. politekhn. in-ta no. 3, 1962, 61-65

TOPIC TAGS: turbine rotor, bearing lubrication, hydrodynamics, rigid rotor, sliding bearing

TRANSLATION: The author attempts to construct periodic solutions for rigid rotors and thereby to establish that expression for hydrodynamic forces obtained on the basis of conventional bearing lubrication theory reflect in sufficient degree the mechanism of self-excitation of rotor oscillations. He considers a rigid symmetrical ideally balanced rotor on two similar cylindrical sliding

Card 1/2

L 19168-63
ACCESSION NR: AR3005462

bearings. The study showed that these oscillations are stable. Three illustrations. Bibliography with six titles.

DATE ACQ: 2 Aug 62 SUB CODE: FL ENCL: 00

Card 2/2

MAKSIMOV, S.P. (Leningrad)

Natural vibrations of a flexible shaft in a near equilibrium state supported by sliding bearings. Izv.AN SSSR. Mekh i mashinostr. no.4:10-17 Jl-Ag '63. (MIRA 17:4)

MAKSIMOV, S.P.

Finding periodic motion of a rigid symmetric shaft rotating in sliding bearings near the state of equilibrium. Trudy LPI no.226:18-29 '63. (MIRA 16:9)

(Shafting)

ACCESSION NR: AP4043896 S/0179/64/000/004/0133/0139

AUTHOR: Maksimov, S. P. (Leningrad)

TITLE: Experimental study of the autooscillations of a rotor in slide bearings

SOURCE: AN SSSR. Mekhanika i mashinostroyeniye, no. 4, 1964, 133-139

TOPIC TAGS: bearing, slide bearing, shaft oscillation, rotor oscillation, self-excited oscillation, auto-oscillation, compressor rotor

ABSTRACT: The phenomenon of self-excited shaft oscillations caused by hydrodynamic forces in the oil film of slide bearings sometimes results in dangerous oscillations. This danger is usually eliminated by empirical means, on the basis of model tests, but the problem is best solved mathematically. The author performed tests at the Nevskiy Mashinostroitel'ny*y Zavod imeni Lenina(Neva Machine-Tool Plant) to investigate the dynamic properties of high-speed compressor rotors in slide bearings. Two 59 and 106 kg ("light" and "heavy") rotors were used with a center-to-center bearing spacing of 1195 mm, diameter of $35^{-0.1}_{-0.12}$, and natural frequency (calculated) as follows: "light", f_1=647/sec and f_2=2330/sec; "heavy", f_1=542/sec and f_2=1970/sec. The rotors were set

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ACCESSION NR: AP4043896

either in cylindrical or out-of-round slide bearings, and the oscillations were measured by a sensitive element and telemetric instruments. The amplitude and frequency were accurately reflected depending on the speed range. Every 300-500 rpm, beginning with 2500-3000 rpm, rotor oscillations were registered vertically and horizontally at an oil temperature of 18-20 and oil feed pressure of 0.5 kg per sq cm. The time of appearance and disappearance of self-excited oscillations was also noted. The oil feed pressure was then changed and the test was repeated. The effect of oil viscosity was studied by changing the temperature of the supplied oil. In all tests, the shaft oscillations were shown by oscillograms. The effect of imbalance was investigated by adding a screw with a certain weight to the shaft. The rotor frequency amplitudes registered by induction elements are shown in Fig. 1 of the Enclosure, as well as the self-excited oscillation frequency. An increase in angular velocity led to a higher self-excited oscillation amplitude, reaching a maximum at 14,500 rpm with a ratio of oscillation frequency to rotational velocity of 1:3. A further increase in velocity lowered the amplitude. Fig. 2 in the Enclosure shows data for out-of-round bearings. In some tests, selfexcited oscillations were not observed for cylindrical and out-of-round bearings. Im balance up to 80 g-cm affected the rotor oscillation resonance amplitude only slightly for all types of

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bearings. Only an imbalance of 100 and 150 g-cm affected the oscillations when the bearing play was low. Oil feed pressure variation did not affect self-excited oscillations either. The lower limit of self-excited oscillations droped significantly, however, when the oil temperature rose. As a result of the tests, it was found that self-excited oscillations appear at double critical velocities and at higher velocities. The frequency varies depending on the bearing clearance. For self-excited oscillations of the rotor at high amplitudes, the rotor journal amplitude is approximately equal to the bearing clearance. The most dangerous self-excited oscillations were observed when the synchronous oscillations were set with a ratio of 1:3 between the natural and forced frequencies. Lowering of the bearing clearance resulted in disappearance of self-excited oscillations. The results of tests with the "heavy" rotor did not show whether the cause of the oscillation was load variation or natural frequency variation. It was found, however, that the natural frequency of the rotor significantly affects rotor stability in slide bearings. In conclusion, it is noted that the mathematical solution of the problem of rotor oscillations in slide bearings should assume a self-exciting system under the influence of an intermittent external force. "The author expresses his thanks to A. M. Stepanov and B. V. Andreyev, who took part in the experiments, and to G. A. Rayer for his attention to the problem". Orig. art. has: 7 figures.

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ASSOCIATION: none

SUBMITTED: 12Oct63 ENCL: 02

SUB CODE: IE NO REF SOV: 003 OTHER: 001

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ENCLOSURE: 01

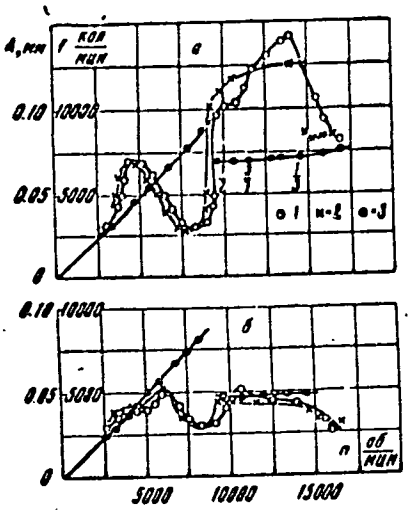

Fig. 1. Horizontal oscillations (a); vertical oscillations (b); point 1 - at increased rotational velocity; 2 - at decreased rotational velocity; 3 - oscillation frequency; fractions show the ratio of the oscillation frequency to velocity of rotation.

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ENCLOSURE: 02

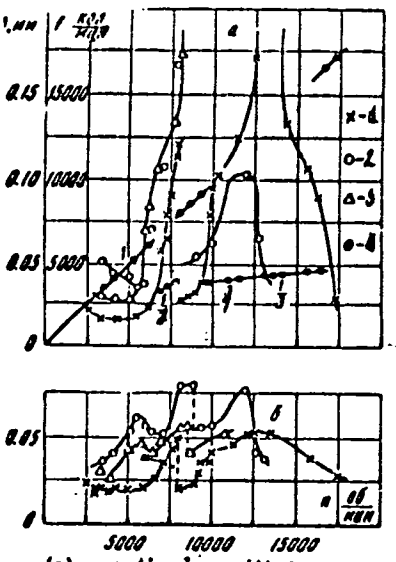

Fig. 2. Horizontal oscillations (a); vertical oscillations (б); point 1 - under normal working conditions; 2 - operation with 150 g-cm imbalance; 3 - with 105 g-cm imbalance; 4 - rotor oscillation frequency; fractions show the ratio of the oscillation frequency to velocity of rotation.

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