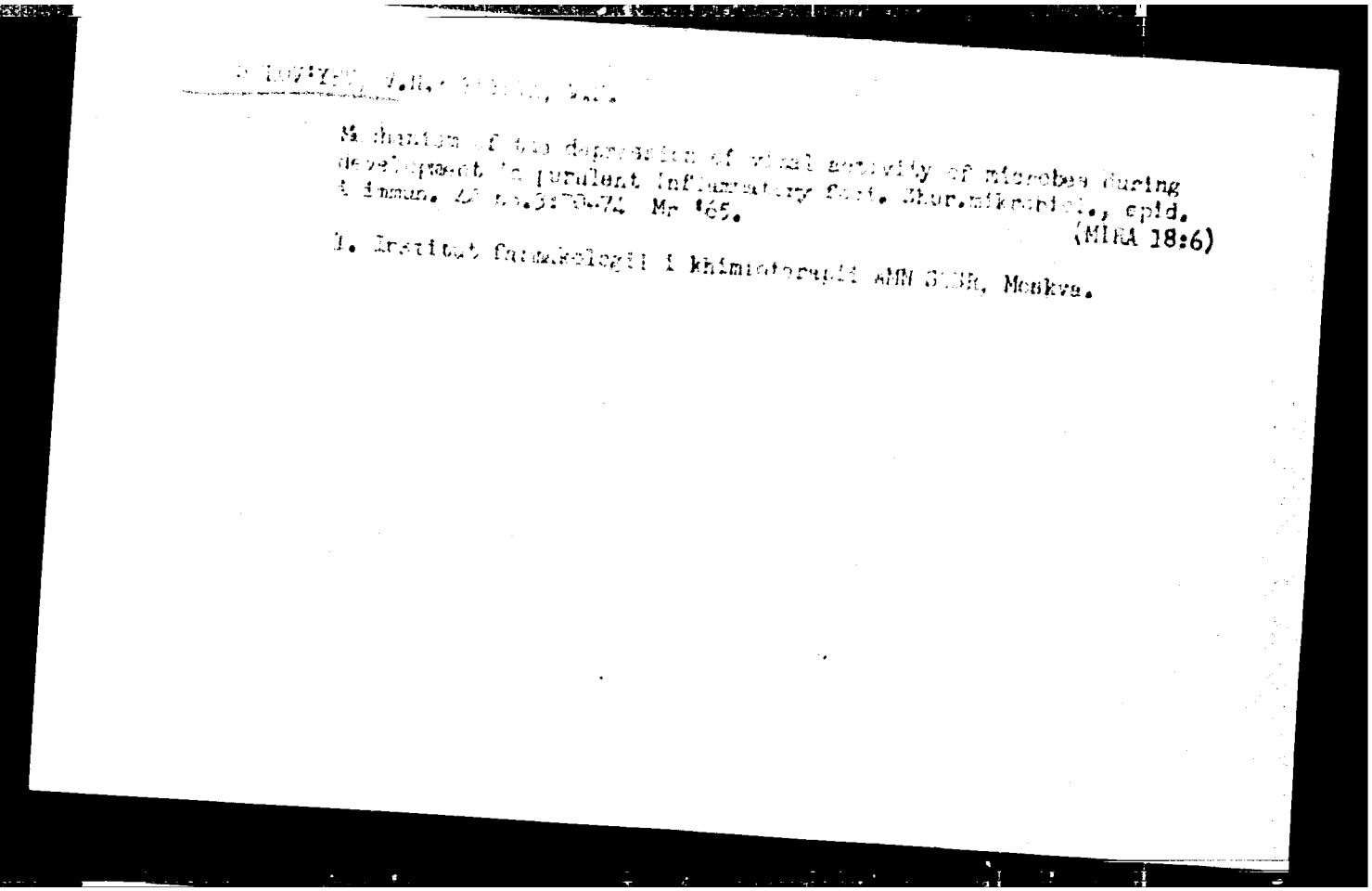
[illegible]

Changes in the sensitivity of Mycobacterium tuberculosis in animal organisms to chemotherapy. Probl. tub. no.7.[illegible]

(MIRA [illegible])

1. Laboratoriya mikrobiologii otdela khimioterapii (zav. prof. [illegible] Chernukh) Instituta farmakologii i khimioterapii (dir. - deystvitel'nyy chlen AMN SSSR prof. V.V. Zakusov) AMN SSSR, Moskva.



[illegible] V.N., [illegible], Yu.A.

Mechanism of the depression of viral activity of microbes during development of purulent inflammatory foci. Zhur.mikrobiol., epid. i immun. 42 no.3:70-74 Mr '65. (MIRA 18:6)

1. Institut farmakologii i khimioterapii AMN SSSR, Moskva.

SOLOV'YEV, V.N.; CHUMACHENKO, N.V.; SOKOLOVA, E.M.

Study of the nature of the basic bactericidal factors of purulent aseptic exudate in white rats. Zhur.mikrobiol., epid. i immun. 42 no.4:142-146 Ap '65. (MIRA 18:5)

1. Institut farmakologii i khimioterapii AMN SSSR.

ZUYEVA, V.S.; SELOVIYEV, V.N.

Comparative studies on physiological properties of microbes isolated from various inflammatory foci. Antibiotiki 10 no.5:443-447 My '65. (MIRA 18:6)

1. Laboratoriya mikrobiologii otdela khimioterapii (zav. - prof. A.M.Chernukh) Instituta farmakologii i khimioterapii AMN SSSR, Moskva.

SOLOV'EV, V.N.

Age related characteristics of the nervous apparatus of the thymus gland. Arkh. anat., gist. i embr. 48 no.2:45-50 F '65.

(MIRA 18:8)

1. Kafedra normal'noy anatomii (zav. - prof. V.N.Murat) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova (nauchnyy rukovoditel' - prof. V.M.Svetlinov).

[illegible], V.N.; KONYAYEV, G.A.; NOVIKOV, S.S.; [illegible], L.I.; NOVIKOVA, T.S.

Antimicrobial activity of nitrofurans with simple substituents. Farm. i toks. 29 no.3:316-320 My-Je '66. (MIRA 18:8)

1. Otdel khimioterapii (zav. - prof. A.M. Chernykh) i otdel po vyyavleniyu fiziologicheskikh aktivnykh veshchestv (zav. - kand. med. nauk Yu.I. Vikhlyayev) Instituta farmakologii i khimioterapii AMN SSSR i otdel organicheskogo sinteza (zav. - prof. S.S. Novikov) Instituta organicheskoy khimii im. N.D. Zelinskogo AN SSSR, Moskva.

SOLOV'YEV, V.N.

Photoelectric signaling device for strong earthquakes. Trudy Geofiz. inst. no.30:193-194 '55. (MIRA 9:6)
(Earthquakes--Observations)

AUTHOR: Solov'yev, V.N.

TITLE: The Organization of the Metrological Survey Under the Conditions of the Reorganized Industrial Administration (Organizatsiya izmeritel'nogo khozyaystva v usloviyakh perestroyki upravleniya promyshlennost'yu.)

SOV-115-58-3-4/41

PERIODICAL: Izmeritel'naya tekhnika, 1958, Nr 3, pp 17 - 18 (USSR)

ABSTRACT: The author tells of the work done by the Ivanovskaya GKL (Ivanovo GKL) (State Control Laboratory for Measuring Devices) after its organization by Komitet standartov, mer i izmeritel'nykh priborov (Committee of Standards, Measures and Measuring Devices), the functions and rights of the GKL, and the administrative connections of the GKL with the Ivanovo Administrative Rayon. The Sovnarkhoz has organized 3 base laboratories in its region: in the former "Promenergo" office - for electric and heat-measuring instruments; at the plant "Ivmashpribor" - for control instruments in textile industry; and at the plant "ZIP" - for instruments for mechanical tests of metals. These laboratories will serve the industry on a contract basis. The "Promenergo" laboratory has made contracts with 80 enterprises. It has a staff of 40, including 15 engineers and technicians. In addition

Card 1/2

to the 3 above mentioned laboratories, the rayon has an instrument-repair plant. Creation of a base laboratory and a repair-and-adjustment center for instruments of linear and angular measurements is being considered. Organization of an exchange in experience between the workers of the survey system and training of personnel, belongs in the work plan.

1. Industry--Standards 2. Measurement--Applications
3. Instruments--Development

S/049/61/000/005/004/013
D218/D306

AUTHORS: Arkhangel'skiy, V.T., Kirnos, D.P., Popov, I.I., and Solovyev, V.N.

TITLE: Preliminary observations of long-period seismic waves at the Simferopol' station

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya geofizicheskaya, no. 5, 1961, 670-675

TEXT: This paper was first read at a seminar on surface waves which was held in the Department of Seismology and Seismic Service on October 1 - 5, 1960, at Simferopol'. The authors briefly report on a prototype vertical seismograph which was designed for detecting seismic waves with periods between 20 and 300 sec. The instrument is a modification of a vertical seismograph designed in 1959 in the Department of Seismology of the Institute of Physics of the Earth AS USSR. The modification was carried out in accordance with the recommendations given by the first of the present authors (Ref. 6: Izv. AN SSSR, ser. geofiz., no. 10, 1960). The pendulum

Card 1/4

...guage publications read as

S/019/61/000/019/001/019
B059/B112

3,9300 (1019,1327)

AUTHORS: Yeh Shih-yüan, Kirnos, D.P., Solov'yev, V.N.

TITLE: A simplified recording unit for instrumental observations in epicentral zones of strong earthquakes

SOURCE: Akademiya nauk SSSR. Institut fiziki zemli. Trudy, no. 19 (186). Moscow, 1961, Seysmicheskiye pribory, 5-11

The authors describe an УАР (UAR) recording unit for making time recordings of various seismic processes in the epicentral zones of streng earthquakes. It is automatically started at the beginning of an earthquake and stops after one minute, the average period of a local earthquake. It consumes power only when recording, and is always ready for operation. It consists of the following units mounted on a single base: (1) three accelerometers, velocity meters, or seismometers of the same design as those used in the СР30 (SR30) device developed by the IFZ, AS USSR for recordings at Soviet seismic stations; (2) a special recorder with a film or photographic paper; (3) a starting seismoscope in the form of a vertical pendulum with two degrees of freedom. Calculation of the chart mechanism is given

Card 1/3

S/[illegible]/61/000/[illegible]/[illegible]
D059/D112

A simplified recording unit for [illegible]

Laboratory tests of a working model of the device showed that: (1) it is started by an earthquake of a predetermined intensity. If no earthquake of the given intensity takes place, the unit can remain ready for recordings for up to 1 year; (2) the uniform tape speed of about 10 mm/sec is reached 0.05 - 0.0[illegible] sec after the arrival of a seismic wave, while the luminaire lamp lights up even sooner; (3) seismic receivers with optical and galvanometric recording systems enable the unit to photographically record various elements of ground movements during earthquakes with an intensity of more than 5 points; (4) power is supplied from a [illegible] v and a 100-v dry battery and is consumed only during the recording process; (5) the unit is sufficiently simple, reliable and cheap, and can therefore be used in large-scale seismometric observations of strong earthquakes. The AVC (AVS) and CSM (SBM) seismoscope-type devices are mentioned as simple and cheap devices now used in seismic observations. There are 3 figures and 5 references: 2 Soviet-bloc and 3 non-Soviet-bloc. The three references to English-language publications read as follows: N.M. Heck, Civil Engin., 12, N 1, 1942, F.P. Ulrich Progress report

IX

Card 2/3

S/619/61/000/019/[illegible]
E039/E11-

A simplified recording unit for .....

of Seism., work by U.S. CGS western U.S. during 1943, Bull. Seism. Soc. of Am. 34, 1944; R. Takahasi, The SMAC strong motion accelerograph and other latest instruments for measuring earthquakes and building vibrations, Proc. of World Conference on Earthquake Engineering, June 1956.

X

Card 3/3

KIRNOS, D.P.; SOLOV'YEV, V.N.

Seismograph with optical recording for registering strong and destructive earthquakes. Trudy Inst. fiz. Zem. no.19:25-36 '61. (MIRA 15:3)

(Seismometers)

33515
S/019/61/000/019/003/019
B039/B112

3.9300 (1019,1327)

AUTHOR: Solov'yev, V.N.

TITLE: The AUZ-I automatic device for controlling the recording process in seismographs

SOURCE: Akademiya nauk SSSR. Institut fiziki Zemli. Trudy, no. 19 (186). Moscow, 1961, Seysmicheskiye pribory, 40-43

TEXT: The author describes the design and principles of operation of the АУЗ-I (AUZ-I) automatic instrument for controlling the recording process in seismographs. It automatically regulates the brilliance of the recording light points in accordance with the recording amplitude and features optical and acoustical indication of the start of an earthquake. The principle of operation of the AUZ-I is as follows: A beam of light from a special luminaire fitted with an "Индустар"-50 ("Industar-50") lense is focussed on to the mirror of the main galvanometer of a seismograph with galvanometric recording. The reflected light is then directed on to a screen located between two ФС-Д I (FS-DI) photoresistors which are connected in to the electrical circuit of the instrument. When the vibrations of the ground reach a certain limit, the beam of light falls on to one of the photo-

Card 1/2

33515

S/619/61/000/019/005/02[illegible]
D039/D112

The AUZ-I automatic device for ....

resistors and actuates relays which increase the brilliance of the main recording, switch in less sensitive galvanometers producing a recording on a 20 times reduced scale in the middle of the main recording, and switch on the optical and acoustical indicators. The device consumes 0.25 a under normal conditions and [illegible] during recording of an earthquake. It is used at stations equipped with devices for the recording of remote earthquakes as well as at stations which record near earthquakes. A photo of the AUZ-I and its circuit and optical diagrams are contained in the article. There are 4 figures.

Card 2/2

PHASE I BOOK EXPLOITATION SOV/6029

Arkhangel'skiy, V. T., D. P. Kirnos, A. G. Moskvina, V. N. Solov'yev, N. Ye. Fedoseyenko, V. M. Fremd, and N. V. Shebalin

Apparatura i metodika nablyudeniy na seysmicheskikh stantsiyakh SSSR (Apparatus and Observation Methods at Seismic Stations in the USSR) Moscow, Izd-vo AN SSSR, 1962. 166 p. Errata printed on inside back cover. 1500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Sovet po seysmologii.

Resp. Ed.: D. P. Kirnos, Doctor of Physics and Mathematics; Ed. of Publishing House: V. M. Fremd; Tech. Eds.: I. A. Makogonova and S. Golub'.

PURPOSE: This book is intended primarily for personnel of Soviet seismic stations.

COVERAGE: The book consists of three sections. Section I, written by V. T. Arkhangel'skiy, deals with the elementary theory of seismographs. A description of the basic types of seismographs already in use in the Soviet Union is

Card 1/5 -2

presented in Section II, which was compiled by D. P. Kirnos and A. G. Moskvina. Section III was written by A. G. Moskvina, V. M. Fremd, and N. V. Shebalin and deals with the methods and technique of seismic observation. In addition to the authors named above, the following persons, all members of the Institut fiziki Zemli im. O. Yu. Shmidta AN SSSR (Institute of Physics of the Earth, imeni O. Yu. Shmidt Academy of Sciences USSR), took part in the preparation and discussion of the manuscript: N. Ye. Fedoseyenko, V. N. Solov'yev, Z. I. Aronovich, I. L. Nersesov, I. I. Popov, and D. A. Kharin. There ar. 28 references, all Soviet.

TABLE OF CONTENTS:

ZIZEMSKIY, Yefim Il'ich; SOLOV'YEV, V.N., kand. tekhn. nauk, retsenzent; SHCHEDRINSKIY, L.S., inzh., retsenzent; MALIKOV, I.M., kand.tekhn. nauk, nauchn. red.; LESKOVA, L.R., red.; CHISTYAKOVA, R.K., tekhn.red.

[Reliability of radio and electronic apparatus] Nadezhnost' radioelektronnoi apparatury. Leningrad, Sudpromgiz, 1963. 101 p. (MIRA 16:7)
(Electronic industries--Quality control)

KOLESNIKOV, Yu.A.; LEVNER, B.N.; SOLOV'YEV, V.N.

Apparatus for rewriting of seismograms. Trudy Inst. fiz. Zem. no.26:16-24 '63. (MIRA 16:11)

L 00571-67 EWT(m)/EWA(d)/EWP(t) JD

ACC NR: AP6034098 (A) SOURCE CODE: UR/0089/66/021/004/0293/0293

AUTHOR: Broder, D. L.; Dubrovskiy, V. B.; Lavdanskiy, P. A.; Pospelov, V. P.; Solov'yev, V. N.

ORG: none

TITLE: Shielding property of heat resistant chromite and magnesite concretes

SOURCE: Atomnaya energiya, v. 21, no. 4, 1966, 293

TOPIC TAGS: nuclear shielding, nuclear reactor shield, neutron shielding, concrete

ABSTRACT: A comparative experimental study was made of the shielding property of ordinary concrete and of chromite-and magnesite-base concretes. Experiments were carried out in a VVR-Ts reactor of the Karpov Physicochemical Institute. The experimental relaxation distance data for gamma-radiation showed that heat-resistant chromite and magnesite concretes, even dehydrated, were good shielding materials and may be recommended for use in the thermal shield of the reactors at 800—1700C. Orig. art. has: 1 table.

SUB CODE: 11, 18/ SUBM DATE: 12May66/ ORIG REF: 001/ ATD PRESS: 5101

Card 1/1 UDC: 621.039.538.7

L 06980-67 EWT(m)/EWP(t)/ETI JD/WW/JG/JR

ACC NR: AP6018356 SOURCE CODE: UR/0089/66/020/005/0425/0426

AUTHOR: Dubrovskiy, V. B.; Shreyber, A. K.; Mironkov, A. F.; Solov'yev, V. N.

ORG: none

15

34
13

TITLE: Rock concrete shield against gamma radiation

19

SOURCE: Atomnaya energiya, v. 20, no. 5, 1966, 425-426

TOPIC TAGS: reactor shielding, concrete, gamma radiation

ABSTRACT: This is an abstract of article no. 80/3549, submitted to the editor and filed, but not published in full. It is proposed that rock concrete, which is made up of rocks embedded in a layer of a concrete mixture, has certain economic and technical advantages over ordinary concrete. To check on its properties, blocks were made of both concrete (specific weight 2250, 3300, and 4600 kg/m^3), and rock concrete, containing limestone and hematite ore rocks, and having a specific weight 2320, 3770 and 4600 kg/m^3. The experiments were made with gamma rays from a Co^{60} source (activity 500 gram equivalent of radium). The shielding properties of the rock concrete were calculated under the assumption that it is a homogeneous mixture of its chemical element, using the same calculation procedure

Card 1/2 UDC: 621.039.538.7

L 06980-67

ACC NR: AP6018356

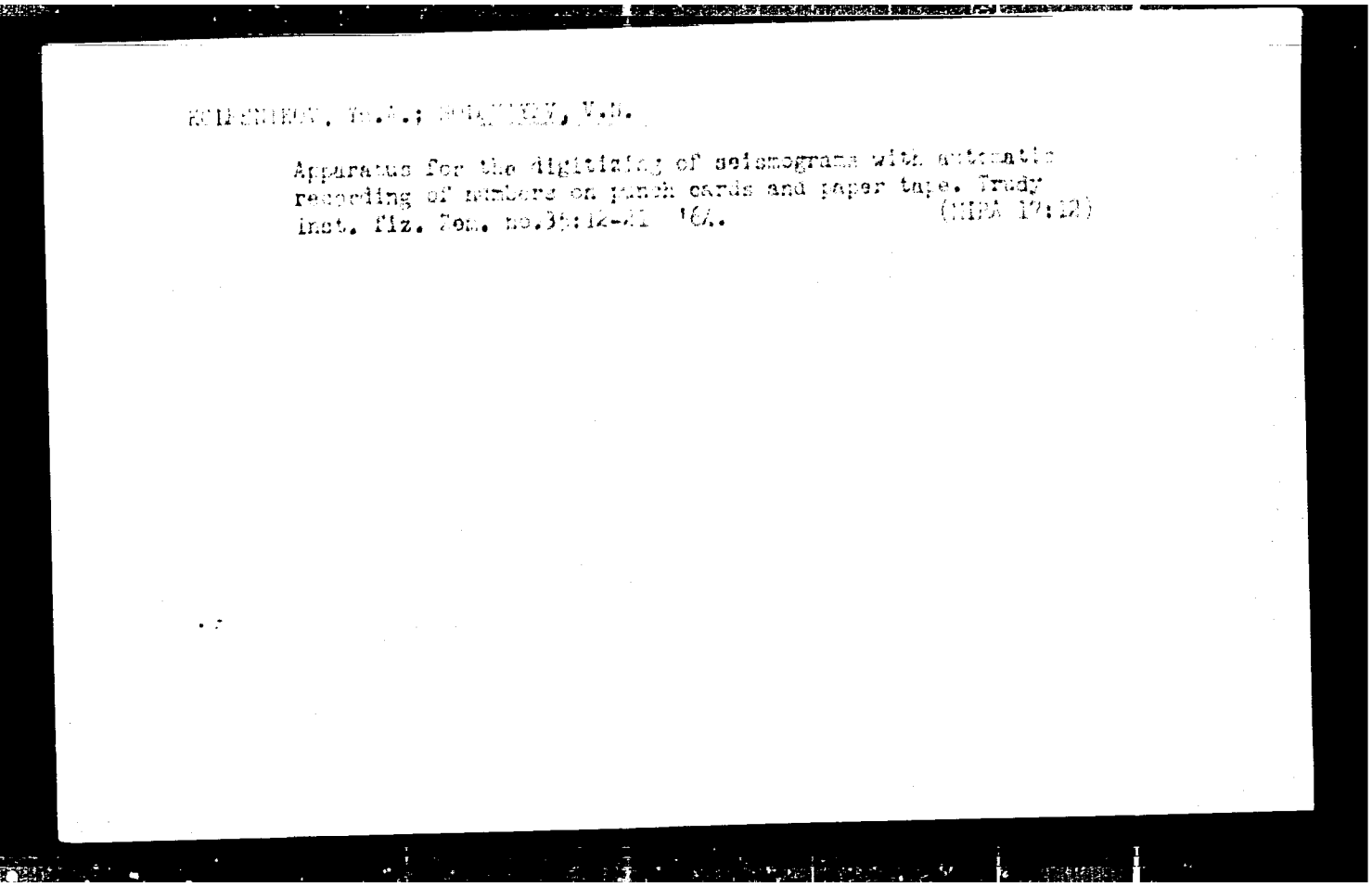
as for concrete (based on the chemical composition). The test results agreed with the calculations, and it is concluded that rock concrete shields can be designed in the same manner as concrete shields. Orig. art. has: 1 figure.

SUB CODE: 18 / SUBM DATE: 18Dec65/ ORIG REF: 006

Card 2/2

POMERCHIY, R.I., inzh.; SOLOV'YEV, V.N., inzh.

Study of circulational reliability of 42x5 mm. water walls of the TGM-94 boiler. Energomashinostroenie 11 no.9:12-14 S '65. (MIRA 18:10)



[redacted], V.I.; [redacted], V.D.

Apparatus for the digitizing of seismograms with automatic recording of numbers on punch cards and paper tape. Trudy inst. fiz. Zem. no.35:142-[illegible] '64. (MIRA 17:12)

..., V.I.; ..., V.S.; BALYN', I.B.; ..., N.V.; ..., V.V.; ..., V.F.; GUSEV, B.P.

Antibacterial activity of the synthetic derivatives of acridine (acridopyrone) and capillin. Antibiotiki 10 no.2:156-159 F '65. (MIRA 18:5)

1. Otdel khimioterapii (zav. - prof. A.M.Chernukh) Instituta farmakologii i khimioterapii AMN SSSR i laboratoriya tonkogo organicheskogo sinteza (zav. - prof. V.F.Kucherov) Instituta elementoorganicheskoy khimii AN SSSR, Moskva.

SOLOV'YEV, V.O.; SHARUDO, I.I.

Stratigraphic position of the Dostoevskaya Series. Dokl.AN SSSR 144 no.1:207-208 My '62. (MIRA 15:5)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR. Predstavleno akademikom D.V.Nalivkinym.
(Maritime Territory—Geology, Stratigraphic)

SOLOV'YEV, V.O.

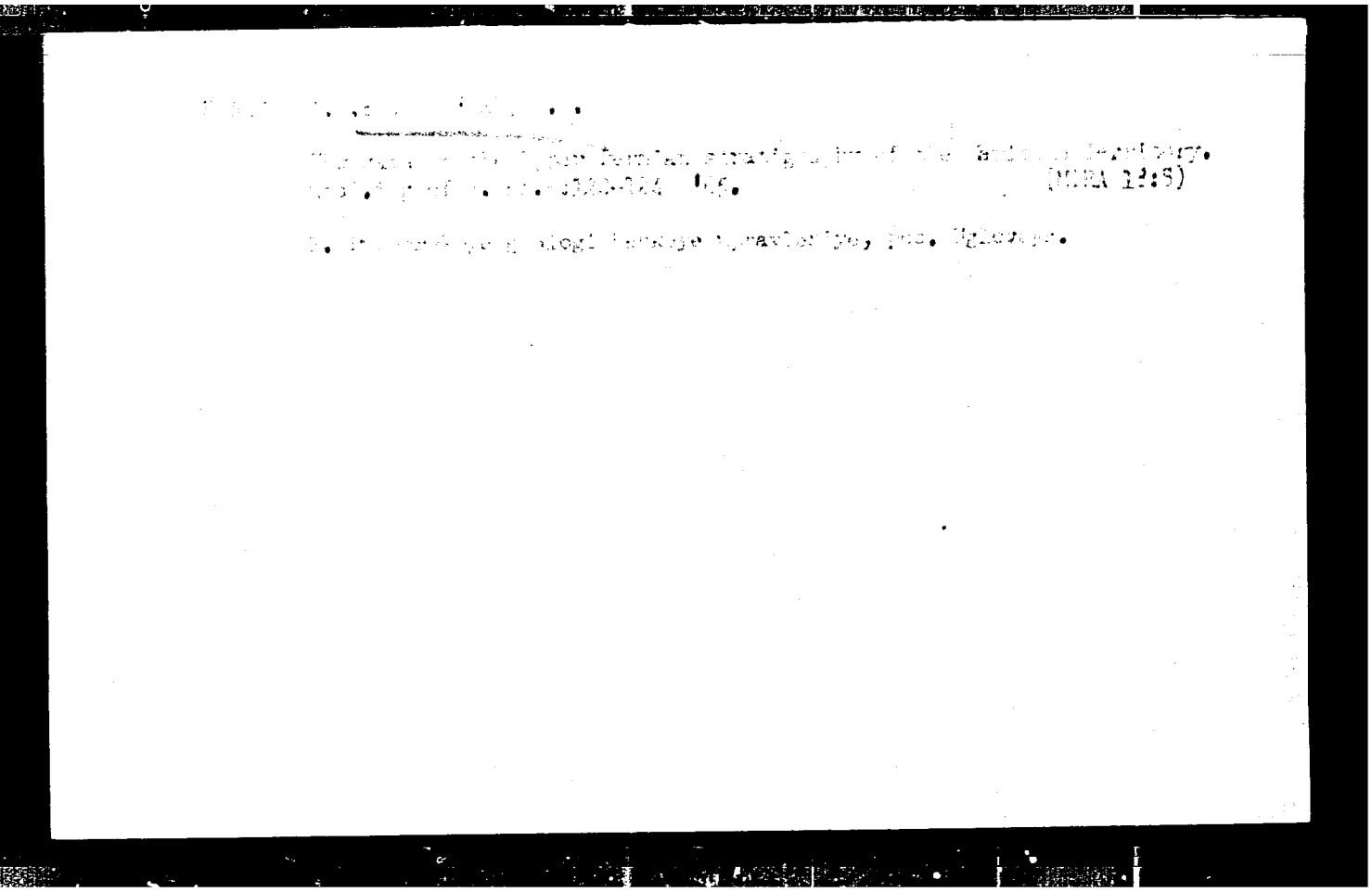
Rate and conditions of formation of a weathering crust. Dokl. AN SSSR 145 no.5:1116-1117 '62. (MIRA 15:8)

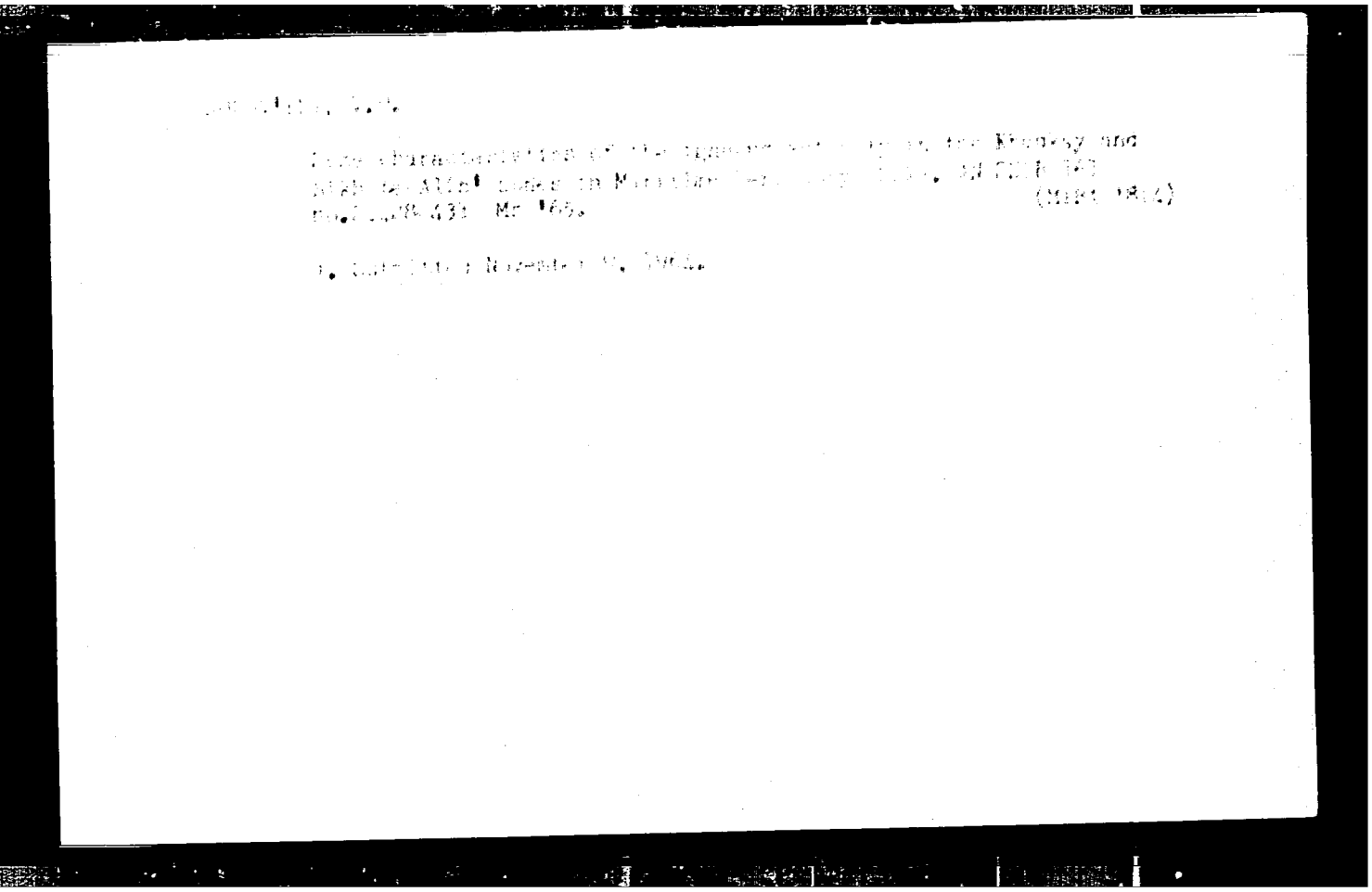
1. Primorskoye geologicheskoye upravleniye. Predstavleno akademikom N.M.Strakhovym.
(Maritime Territory--Weathering)

BURDE, A.I.; NEVOLIN, L.A.; SOLOV'IEV, V.O.

Daubikhe fault. Sov. geol. 6 no.5:129-133 My '63. (MIRA 16:6)

1. Primorskoye geologicheskoye upravleniye.
(Maritime Territory—Faults(Geology))





KHATIL, M.G., doktor vet.nauk; LUK'YE, M.Z., kand.vet.nauk; KOLOMIYETS, Ya.I., vet.vrach (Zaraysky rayon); SOKOVIKH, V.P., vet.vrach (Voskresenskiy rayon, Moskovskoy oblasti)

Use of chlorophos in the control of warble fly infestations of cattle. Veterinariia 36 no.2:82-85 F '59. (MIRA 12:2)
(Phosphonic acid) (Warble flies)

3889. MORE ATTENTION SHOULD BE PAID TO DECREASING THE LABOUR REQUIREMENTS AND LOWERING THE COST OF HYDRO-PEAT. Solov'ev, V.P. (Torf. Prom. (Peat Ind., Moscow), 1956, vol. 33, (8), 9-12). During the 1956-60 plan period peat production in the U.S.S.R. will increase 46%, but the increase will be mainly in milled peat. The output of hydro-peat will decrease 12.1%; its cost is 2.3 times that of milled peat and the labour required is three times as much. A report is given of a conference held in July 1956 on making hydro-peat production more economical. (L).

S/182/62/000/006/001/004
D040/D113

1 3000

AUTHORS: Yevlanov, N.G., Solov'yev, V.P., and Volkov, S.S.

TITLE: Panels fabricated by successive sectionwise stamping

PERIODICAL: Kuznechno-shtampovochnoye proizvodstvo, no. 6, 1962, 4-8

TEXT: Wafer panels of B 95 (V95) aluminum alloy, 12 mm thick, 837 mm long, and 520 mm wide, with 5 mm thick and 22-29 mm high ribs, were stamped in experiments with a new die set on a 2600 t hydraulic press. The mechanical properties of panels exceeded the standard strength requirements, and the metal fiber orientation followed the outline of the ribs. A 13,000 t press would be required for stamping using conventional dies which shape the entire panel simultaneously. In the experimental die set, the bottom half is the same size as the entire panel and moves a step after each stroke of the narrow top half, thus forming 2 impressions; in this way, panels with 8 impressions in 2 rows were produced in 4 strokes. Detailed description of the die design and operation is illustrated and data on the heating temperature and required specific pressure

Card 1/2

S/182/62/000/006/001/004
D040/D113

Panels fabricated by successive sectionwise stamping

is included. Successive stamping in available presses can be used for fabricating wafer panels of over 3 m^2 size; such panels are presently milled from rolled plates. There are 10 figures.

4

Card 2/2

L 20081-65 EPR/EWP(k)/EWT(m)/EWP(b)/EWA(d)/EWP(t) Pf-4/Ps-4/ IJP(c)/
JD/HW

ACCESSION NR: AP4049119 S/0182/64/000/011/0019/0023

AUTHOR: Solov'yev, V. P.; Basyuk, S. T.; Kuleshov, M. Ya.

TITLE: Manufacture of seamless, thin-walled pipes and casings

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 11, 1964, 19-23

TOPIC TAGS: pipe rolling, cold milling, seamless pipe manufacture, seamless casings manufacture, rolling mill design, aluminum rolling

ABSTRACT: Cold milling of seamless pipes and casings with specially-prepared roller bearings instead of ordinary rollers decreases the area more efficiently and permits direct rolling, rather than reflex or back-and-forth rolling. This method is distinguished by the speed of rotation of the pieces, which is a function of the size of the pipe, its relation to the size of the roller bearings, and the rate of spin of the pipe; the rate of the feed, which is also a function of the rate of spin and size relationships; the size reduction of the pipewalls, which for aluminum is such that the tangential angle of the leading roller edge should be no more than 20-22°; and the pressure of the metal piece on the roller bearing, which is a function of the projected area of surface contact. Analysis of the rotation of the pieces shows that a rotation speed $\geq$ 100m/min produces slippage which adversely affects the internal surface of the pipe, increases friction loss, and has no effect on the rate of feed.

Card 1/5

L 20081-65
ACCESSION NR: AP4049119

The axial, radial, and tangential components of pressure were determined as functions of the size reduction of the walls and the feed (see Figs. 1, 2, and 3 of the Enclosure). Orig. art. has: 4 graphs, 6 drawings, and 14 equations.

ASSOCIATION: none

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

NO REF SOV: 000 OTHER: 000

Card 2/5

L 20081-65
ACCESSION NR: AP4049119

ENCLOSURE: 01

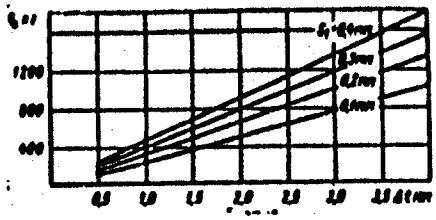


Fig. 1. Axial component of pressure of the metal on the roller bearing as a function of wall reduction and rate of feed (pressure in kg, all others in mm).

Card 3/5

L 20081-65

ACCESSION NR: AP4049119

ENCLOSURE: 02

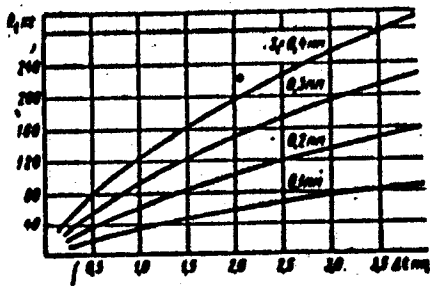


Fig. 2. Tangential component of pressure of the metal on the roller bearing as a function of wall reduction and rate of feed.

Card 4/5

L 20081-65

ACCESSION NR: AP4049119

ENCLOSURE: 03

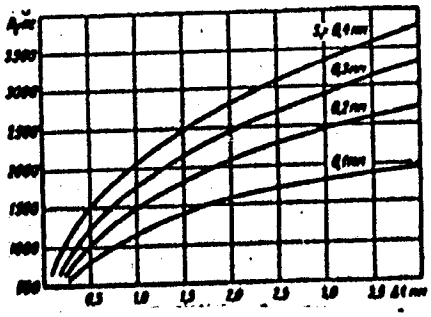


Fig. 3. Radial component of pressure of the metal on the roller bearing as a function of wall reduction and rate of feed.

Card 5/5

SOLOV'YEV, V.P., red.

[Regulations 2-56 governing the State and planned testing of measures and measuring instruments by the organs of the Committee of standards, measures and measuring instruments of the Soviet of Ministers of the U.S.S.R.] Pravila 2-56 provedeniia gosudarstvennykh i kontrol'nykh ispytanii mer i izmeritel'nykh priborov organami Komiteta standartov, mer i izmeritel'nykh priborov pri Sovete Ministrov SSSR. Izd.ofitsial'noe. Moskva, 1957. (MIRA 11:1)
11 p.

1. Russia (1923- U.S.S.R.) Komitet standartov, mer i izmeritel'nykh priborov.
(Measuring instruments) (Weights and measures)

SOLOV'YEV, Vasiliy Rodionovich; LAPATINA, Ye.B., kand. geogr. nauk, red.; RODIONOVA, F.A., red.; BORISKINA, V.I., red. kart; KOZLOVSKAYA, M.D., tekhn. red.

Leningrad . Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1961. 82 p. (MIRA 15:2)
(Leningrad—Description)

SOLOV'YEV, V.P., inzh.

Optimum speed of the belts of a potato grading machine.
Mekh. i elek. sots. sel'khoz. 20 no.3:42-43 '62. (MIRA 15:7)

1. Irkutskiy sel'skokhozyaystvennyy institut.
(Agricultural machinery)

SOLOV'YEV, V..., Lnch.

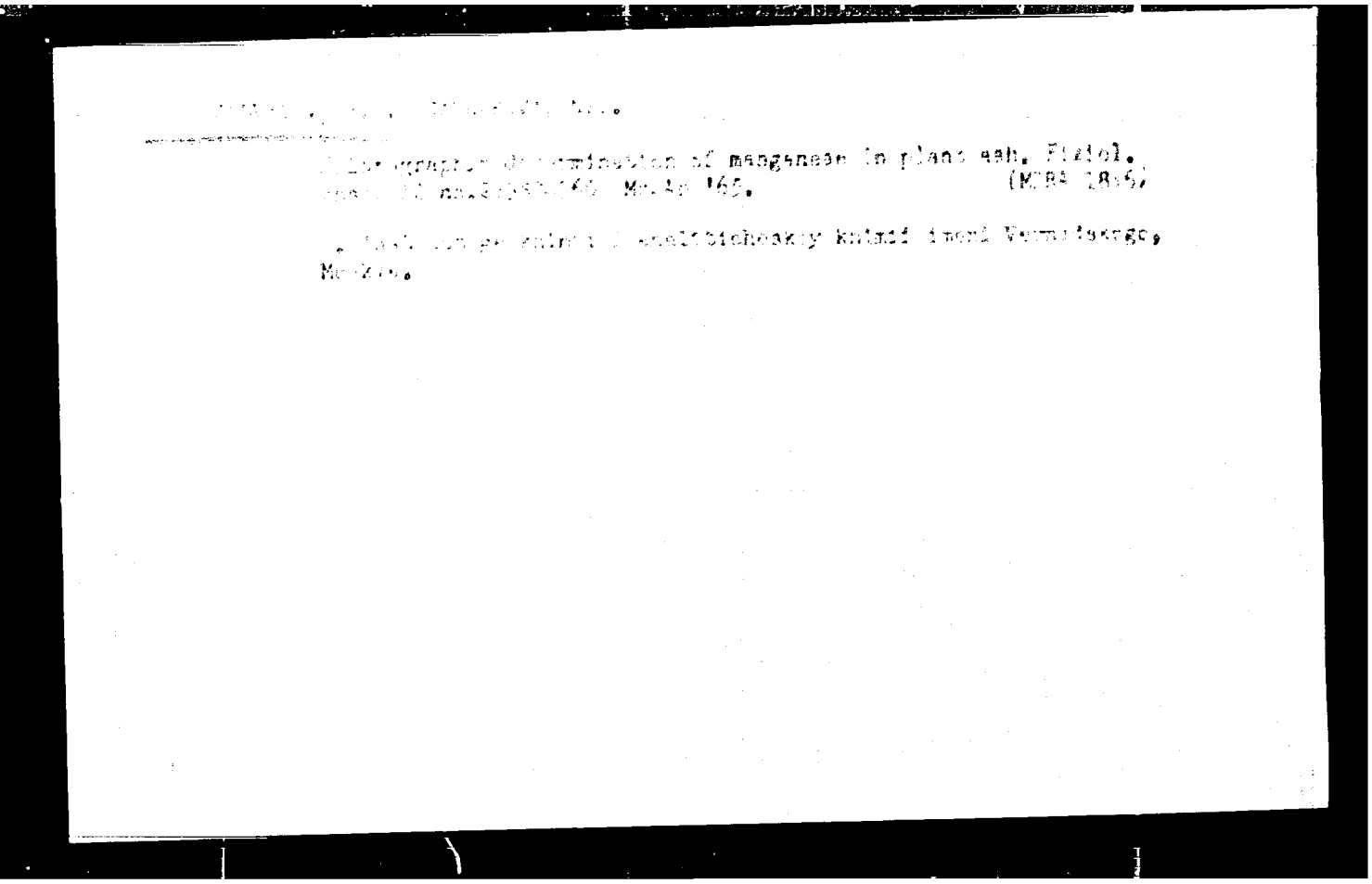
Practices in the construction of the railbed for the Ivdel'-Ob' railroad line. Transp. stroi. 13 no.1:8-11 Ja '63
(MIRA 16:2)

SOLOV'YEV, V.P., inzh.

Characteristics of the construction of a roadbed under conditions encountered in the north. Transp. stroi. 16 no.1:40-41 Ja '66. (MIRA 19:1)

NOROZOV, Georgiy Andreyevich; SOLOV'YEV, V.P., nauchn. red.; NEVEL'SHTEYN, V.I., ved. red.

[Use of fuels and oils in diesel engines] Primenenie topliv i masel v dizeliakh. Leningrad, Izd-vo "Nedra," 1964. 329 p. (MIRA 17:6)



YENILEYEV, Kh.Kh.; SOLOV'YEV, V.P.

Effect of temperature on germination in the ontogenesis of the cotton plant. Uzb.biol.zhur. no.6:25-31 '58. (MIRA 12:1)

1. Tashkentskiy sel'skokhozyaystvennyy institut.
(Plants, Effect of temperature on) (Germination)
(Cotton growing)

SOLOV'YEV, V.P.

Heterogeneity of cottonseed. Uzb. biol. zhur. no.3:16-22 '60.
(MIRA 13:7)

1. Institut genetiki i fiziologii rasteniy Akademii nauk UzSSR.
(COTTONSEED)

YENILEYEV, Kh.Kh.: SOLOV'YEV, V.P.

Studying the causes of different types of germination of cottonseed. Fiziol.rast. 7 no.1:27-33 '60. (MIRA 13:5)

1. Department of Plant Physiology, Tashkent Agricultural Institute.
(Cottonseed) (Germination)

SOLOV'YEV, V.P.

Effect of the moistening degree on the germination of cottonseed. Fiziol. rast. 8 no.2:244-246 '61. (MIRA 14:3)

1. Institute of Genetics and Plant Physiology, Uzbek S.S.R., Academy of Sciences, Tashkent.
(Cottonseed) (Germination)

SOLOV'YEV, V.R.

Controlling and testing the knowledge of geography in the schools for young workers. Geog. v shkole 21 no.5:33-38 S-O '58. (MIRA 11:10)

(Geography--Study and teaching)

SOLOV'YEV, V.S.

After the health resort. Zdorov'e 5 no.10:31-32 O '59.
(MIRA 13:2)

1. Glavnyy vrach Nauchno-issledovatel'skogo instituta kurortologii i fizioterapii Ministerstva zdravookhraneniya RSFSR.
(HYGIENE)

SOLOV'YEV, V.S.

Dynamic zero surface in the western part of the Pacific Ocean.
Trudy Inst.okean. 40:152-161 '60. (MIRA 14:8)
(Pacific Ocean--Ocean currents)

S/077/62/007/006/002/002
D036/D114

AUTHORS: Odintsov, V.A., and Solov'yev, V.S.

TITLE: The use of a channelled air-shock wave for brightening in high-speed photographic recording

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, v. 7, no. 6, 1962, 454-455

TEXT: A method is described for obtaining a prolonged stable brightening flash in high-speed photography, using an explosive charge. It consists in placing the brightening charge inside a tube which lies along the optical axis of the photographic recorder. Illumination takes place while the detonation wave passes along the tube. With this method a brightening flash of 130 μsec was obtained with a 600-m-long tube and a 9.2-g-charge of phlegmatized hexogene, and a flash of 250 μsec with a 1000-m-long tube and a 6.5-g-charge of trotyl. There are 3 figures and 1 table.

ASSOCIATION: Moskovskoye vysshaye tekhnicheskoye uchilishche im. I.E. Baumana (Moscow Higher Technical School im. I.E. Bauman)

SUBMITTED: September 25, 1961

Card 1/1

L 02365-67 EWT(1)/EEC(k)-2/T/EWP(k) IJP(c) WG
ACC NR: AP6032005 SOURCE CODE: UR/0115/66/000/009/0028/0030

AUTHOR: Leykin, A. Ya.; Samoylovich, A. I.; Solov'yev, V. S. 51 B

ORG: none

TITLE: A stable cw gas laser 25

SOURCE: Izmeritel'naya tekhnika, no. 9, 1966, 28-30

TOPIC TAGS: cw laser, gas laser, metrology

ABSTRACT: A stable, single-frequency, dc-excited He-Ne laser has been developed by the Kharkov Institute of Measures and Measuring Instruments for use in metrology. Because of the required single-frequency characteristic, the amplifying medium is designed to damp both higher-order oscillations and extraneous longitudinal modes; emission is confined to the TEM_{q00} type of oscillations. This provides for a minimum of 4—5 axial modes being generated simultaneously within the Doppler width of the $3s_2$—$2p_4$ line. The damping of all the longitudinal modes except those at line center is accomplished by specifying losses which are introduced into the resonator cavity by various elements. The resonator cavity (Fig. 1) contains a small-diameter capillary (1.5 mm) for the

Card 1/3 UDC: 621.375.9

given cavity configuration which insures losses ten times higher for transverse than for basic oscillations. The 300-mm discharge gap

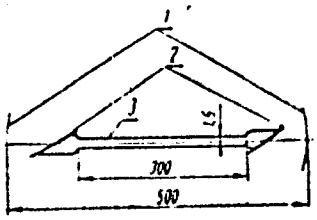


Fig. 1. Resonator cavity configuration

1 - Mirrors; 2 - Brewster windows; 3 - capillary.

insures emission conditions for only one longitudinal type of oscillations at the given gain of 12%—13% and a pumping level only slightly exceeding threshold. The resonator cavity is formed by spherical mirrors with dimensions $R_1 = R_2 = 580$ mm. A stable output power of

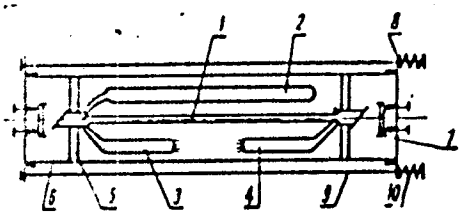


Fig. 2. Laser configuration

1 - Discharge tube; 2 - reserve tube; 3 and 4 - cathode and anode tubes; 5 - holders; 6 - quartz tube; 7 - mirror holders; 8 - end flanges; 9 - steel couplers; 10 - springs

L 02365-67
ACC NR: AP6032005

0.3—0.5 mm in several modes or 0,05—0.1 mm in a single oscillating mode was obtained. Study of the laser emission spectrum with a Fabry-Perot interferometer with scanning mirrors, and with a 150 mm Fabry-Perot standard revealed that four oscillating modes can be generated simultaneously; by lowering the pumping power level, the number of modes can be reduced to two. The laser emission can be brought down to a single mode by reducing both pumping power and mirror rotation. Orig. art. has: 3 figures. [JR]

SUB CODE: 20/4/ SUBM DATE: none/ OTH REF: 002

Card 3/3 vmb

ODINTSOV, V.A.; SOLOV'YEV, V.S.; FEDOTOV, I.D.

Experimental determination of the exponent of the polytropic curve for the detonation products of certain liquid explosives. Izv. vys. ucheb. zav.; fiz. no.5:86-88 '62. (MIRA 15:12)

1. Moskovskoye vysshaye tekhnicheskoye uchilishche imeni Baumana.

(Explosives)

1. [illegible], I. S., [illegible]

2. USSR (MC)

4. Micro-Organisms; Medicine - Soviet Books

7. Medical Microbiology. Reviewed by I. S. Grynzburg, V. D. Solovyev. Feld'd Shrub No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, UNCLASSIFIED.

SOLOV'YEV, V.S.

Russian scientists were first to study the epidemiology of typhus. Zhur. mikrobiol.epid. i immun. no.4:83-84 Ap '53. (MLRA 6:6)
(Typhus fever) (Epidemics)

KIRSHENBLAT, Ya.D.; SOLOV'YEV, V.S.

Hormonal therapy of disorders of the menstrual cycle. Akush.i gin. no.2:27-32 Mr-Ap '54. (MLRA 7:6)

1. Iz Instituta akusherstva i ginekologii (direktor - deystvitel'nyy chlen Akademii meditsinskikh nauk professor A.P.Nikolayev) Akademii meditsinskikh nauk SSSR. (Menstruation) (Hormones)

SOLOV'YEV, V.S.

Trip to a health resort. Zdorov'e 3 no.6:28-29 Je '57. (MLRA 10:7)
(HEALTH RESORTS, WATERING PLACES, ETC.)

[illegible], V. A.

Automobiles - Design and Construction

Introduction of a standard for the surface finish of parts at the Molotov Auto Plant in Moscow. Avt. trakt. prom. No. 8, 1952

9. Monthly List of Russian Accessions, Library of Congress, November 1952 Uncl.

SOLOV'YEV, V.S.; POPOV, B.N.

Automatic transmission of the M-21 "Volga" automobile.
Avt.i trakt.prom. no.3:1-8 Mr '57. (MLRA 10:5)

1. Gor'kovskiy avtozavod imeni Molotova.
(Automobiles--Transmission devices, Automatic)

NEVZOROV, Aleksandr Mikhaylovich; SOLOV'YEV, Vladimir Sergeyevich; BORISOV, N.I., glavnyy inzhener, otv.red.; KNYAZEV, V.V., red.; BRULIKOVSKAYA, R.G., tekhn.red.

["Volga" automobile; construction and operation] Avtomobil' "Volga"; ustroistvo i ekspluatatsiia. Gor'kii, Gor'kovskoe knizhnoe izd-vo, 1959. 165 p. (MIRA 12:9)

1. Gor'kovskiy avtozavod (for Borisov).
(Automobiles)

ZISLIN, S.G.; MOZOKHIN, N.G.; PELYUSHENKO, O.I.; SOLOV'YEV, V.S.; CHERNOMASHENTSEV, A.I.; YAKUBOVICH, I.Ye.; BORISOV, N.I., red.; KNYAZEV, V.V., red.; BRULIKOVSKAYA, R.G., tekhn.red.

[The GAZ-69, GAZ-69A, and M-72 high-roadability automobiles; construction and operation] Avtomobili vysokoi prokhodimosti GAZ-69, GAZ-69A i M-72; ustroistvo i ekspluatatsiia. Pod red. N.I.Borisova. Gor'kii, Gor'kovskoe knizhnoe izd-vo, 1959. 363 p. (MIRA 13:5)

1. Glavnyy inzhener Gor'kovskogo avtozavoda (for Borisov).
(Automobiles)

SOLOV'YEV, V.S.; POSPELOV, B.S.

Automatic transmission of the "Chaika" automobile. Avt. prom. no.2:7-10 F '61. (MIRA 14:3)

1. Gor'kovskiy avtozavod.
(Automobiles--Transmission devices, Automatic)

NEVZOROV, Aleksandr Mikhaylovich; SOLOV'YEV, Vladimir Sergeyevich; KNYAZEV, V.V., red.; YUNISOVA, M.I., tekhn. red.

[The "Volga" automobile]Avtomobil' "Volga." 2., perer. i dop. izd. Gor'kii, Gor'kovskoe knizhnoe izd-vo, 1962. 326 p. (MIRA 15:8)

(Automobiles)

BORISOV, V.I.; GOR, A.I.; NEVZOROV, A.M.; RYBINSKIY, D.A.; SOLOV'YEV, V.S.; EVART, G.V.; PROSVIRNIN, A.D., red.; VASIL'YEVA, I.A., red.; UVAROVA, A.F., tekhn. red.

[The M-21 "Volga" automobile; construction and maintenance] Avtomobil' M-21 "Volga"; konstruktsiia i tekhnicheskoe obsluzhivanie. [By] V.I.Borisov i dr. Pod red. A.D.Prosvirnina. Moskva, Mashgiz, 1962. 447 p. (MIRA 15:3)

1. Glavnyy konstruktor Gor'kovskogo avtomobil'nogo zavoda (for Prosvirnin).

(Automobiles)

ACC NR: AP7000039 SOURCE CODE: UR/0414/66/000/003/0031/0035

AUTHOR: Solov'yev, V. S. (Moscow); Letyagin, V. A. (Moscow)

ORG: none

TITLE: Detonation attenuation in liquid explosive mixtures of tetranitromethane and ethyl iodide

SOURCE: Fizika goreniya i vzryva, no. 3, 1966, 31-35

TOPIC TAGS: tetranitromethane, ethyl iodide, liquid explosive, rocket propellant, [illegible], detonation, detonation stability, flame photometry, detonation wave, liquid propellant

ABSTRACT: A flame photographic study has been made of the detonation attenuation in liquid explosive mixtures of tetranitromethane and ethyl iodide which occurs on a sharp change in the direction of propagation of the detonation front. Flat plexiglass vessels (Fig. 1) with a 2 mm deep rectangular recessed channel and a front and back wall thickness of 5 mm were used. The charge was flat and of constant depth; only the channel width (unspecified) was varied. Initiation was accomplished with electric detonators. The number of detonators was selected depending upon the channel width so as to ensure a flat detonation front at the onset. The tetranitromethane/ethyl iodide (oxidizer/fuel) volume ratio was varied from 27/73 to 30/70. At component ratios above

UDC: 534.222.2

Card 1/4

30/70 no abnormal phenomena were observed in the development of the detonation, except for the very fact of detonation at such high fuel concentrations. Deviations from normal detonation development occurred only at component ratios below 30/70. The following experimental facts were observed: 1) detonation wave attenuation in the narrow channel prior to exit into the wide vessel (at component ratio 27/73); 2) detonation wave attenuation on exit from the narrow channel into the wide vessel (28/72); 3) detonation wave attenuation on exit from the narrow channel into the wide vessel, subsequent amplification and development of the detonation after reflection of the detonation wave from the upper edge of the vessel (29/71); 4) slight attenuation of the detonation from the sides on exit into the wide vessel and subsequent normal development of the detonation (30/70). In the analysis of the results, the successive positions of the front boundary of the detonation were plotted for cases 1—4. Cases 2 and 3, which are of greatest interest, are shown in Fig. 2 and are discussed in the original article. Based on the investigation, the following conclusions were reached: 1) liquid tetranitromethane—ethyl iodide explosive mixtures exhibit a very high detonability at high fuel concentrations (over 70%) on initiation by a weak detonator with 0.4 g of explosive in small-diameter charges; this was not observed for other mixtures of tetranitromethane. 2) At fuel concentrations over 70%, detonation in charges of the given diameter becomes unstable and, under certain conditions, is attenuated.

ACC NR: AP7000639

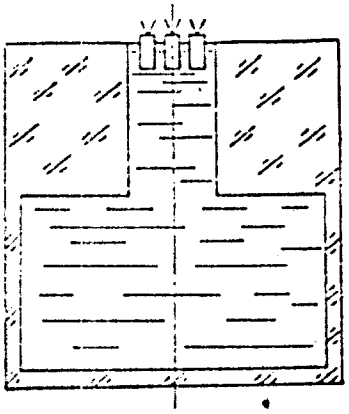


Fig. 1. Experimental vessel with recessed channel

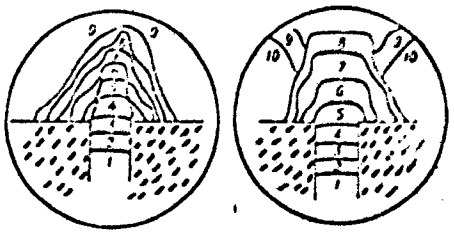


Fig. 2. Successive positions of the detonation wave front for cases 2 and 3 (time between front positions, 1.775 microsec)

Card 3/4

ACC NR: AP7000639

3) The most marked attenuation occurs on exit of the detonation from the narrow channel into the wide vessel. 4) In the absence of attenuation the flat detonation front retains its parameters on propagation in the wide vessel and spreads gradually. 5) Detonation attenuation sets in after transverse perturbations "erode" the flat detonation front. 6) Once detonation attenuation has set in, it can be counteracted by creating conditions which will increase the shock wave parameters, e.g., by reflecting the decaying front from a rigid barrier. Orig. art. has: 7 figures. [W. A. 68] [SM]

SUB CODE: 19, 21/ SUBM DATE: 22Mar66/ ORIG REF: 003

Card 4/4

MANDEL'TSVEYG, V.B.; SOLOV'YEV, V.V.

Effect of the mass difference of π-mesons on the ratios for the existing probabilities of Kπ3-decay. Zhur. eksp. i teor. fiz. 41 no.5:1606-1608 N '61. (MIRA 14:12)

(Mesons--Decay)

SOLOVYEV, V. V. and TSUKERMAN, I. S.

"The Formation of Charged Bector Boson (X - Meson) by Leptons in Nuclei Coulomb Field"

report presented at the Intl. Conference on High Energy Physics, Geneva, 4-11 July 1962

Institute of Theoretical and Experimental Physics, Moscow, USSR (SOLOVYEV)
Scientific-Technical Information Institute, Moscow, USSR (TSUKERMAN)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652320014-7"

ACCESSION NR: AR4014418 S/0124/64/000/001/B095/B095

SOURCE: RZh. Mekhanika, Abs. 1B614

AUTHOR: Solov'yev, V. V.

TITLE: The use of oscillations for the intensification of combustion processes

CITED SOURCE: Tr. 1-y Vses. nauchno-tekhn. konferentsii po probl. vibratsion. i pul'satsion. goreniya. M., 1962, 77-84

TOPIC TAGS: combustion, vibrational combustion

TRANSLATION: The problems related to the intensification of combustion processes during vibrational combustion in combustion chambers of boilers and ovens has been investigated.

Experiments were carried out in 3.0 m long ceramic tubes 150 mm in diameter and in 1.0 m long quartz tubes 20 mm in diameter. Natural gas served as fuel.

The author determined by visual observation that at the onset of vibrational combustion the visible zone of combustion shortens suddenly, while the heat currents within the walls of the chamber become much stronger. He observed volume heat liberations up to $40 \cdot 10^6$ kcal/m^3·h and some ozone production which is usually not found

Card 1/3

ACCESSION NR: AR4014418

in ordinary jet fuel combustion, and this, in turn, intensified the combustion process.

The theoretical estimate of the possible relative velocities between particles from various fractions and the gaseous current are also given, and the results of the analysis are compared with the experimental results.

The experimental determination of the relative velocities of particles from various fractions was carried out in a 4 m long tube with one end closed whose diameter was 500 mm and the maximum observed pressure amplitude read 1 atm. During the experiments the particle moved in a flow which was subjected to superposed oscillations of the standing wave type.

The solution of the system of equations, carried out using the method of finite differences, showed under the given conditions that particles larger than 1 mm were not carried along by the oscillating flow. With the decrease in particle diameters one may expect a decrease in the magnitude of relative velocities and a lagging of the oscillations of the velocity relative to the velocity of the flow.

The author concludes that during the vibrational combustion the heat transfer within tubes does not increase proportionally to the increase of the volume space generation. Consequently, the simple intensification of the combustion process does not reduce significantly the size of the heat-producing unit. For that purpose one must try to increase also simultaneously the intensity of the heat transfer. There

Card 2/3

S/056/62/042/005/018/050
B102/B104

AUTHORS: Solov'yev, V. V., Tsukerman, I. S.

TITLE: Generation of a charged vectorial boson (X-meson) by leptons in the nuclear Coulomb field

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 5, 1962, 1252-1259

TEXT: The authors calculate the lowest approximation of the cross-sections of the reactions $\gamma + \nu \longrightarrow X^+ + \mu^-$ and $\gamma + \mu^+ \longrightarrow X^+ + \bar{\nu}$. In the case of energies notably exceeding the threshold the mass of the particle assumed to be greater than that of the K-meson is represented by $\varkappa^2 \ll s^2$ and the following asymptotic formula then applies: $\sigma_{\gamma+\nu} = \frac{\alpha G}{2\sqrt{2}}\left\{(\varepsilon-2)^2 \ln(s^2/\varkappa^2) + \left[\frac{1}{4}(\varepsilon-2)^2/2 + 8(\varepsilon-1)\right]\right\}$ and $\sigma_{\gamma+\nu}(s^2) = 2\sigma_{\gamma+\mu}(s'^2)$ with $\varkappa^2 \ll s'^2$ for the $\gamma+\mu$ reaction; G is the Fermi interaction constant, $\alpha = e^2/4\pi$. The results so obtained are used to calculate the total cross-sections for reactions

Card 1/3

S/056/62/042/005/018/050
B102/B104

Generation of a charged ...

generating X-mesons $\nu + z^{M^A} \longrightarrow z^{M^A} + X^+ + \mu^-$ and $\mu^+ + z^{M^A} \longrightarrow z^{M^A} + X^+ + \bar{\nu}$ by the Weizsäcker-Williams method (ZhETF, 41, 1939, 1961). Formulas

$$\sigma_\nu = \frac{Z^2\alpha^3 G}{6\pi\sqrt{2}}\left\{(g-2)^2\ln^3\xi + \left[-\frac{3}{4}(g-2)^2 + 24(g-1)\right]\ln^2\xi + O(\ln\xi)\right\}, \quad \text{and}$$

$$\xi = 2E_\nu K/\varkappa^2, \quad \ln\xi \gg 1.$$

$$\sigma_\mu = \frac{Z^2\alpha^3 G}{12\pi\sqrt{2}}\left\{(g-2)^2\ln^3\eta + \left[-\frac{3}{4}(g-2)^2 + 24(g-1)\right]\ln^2\eta + R(\eta)\right\},$$

$$R(\eta) = -\frac{12}{\eta^3}\ln^2\eta - \ln\eta\left\{\left[\frac{15}{2}(g-2)^2 + 132(g-1) + \frac{28}{3}\right] + \right.$$

$$+\frac{12}{\eta}\left[(g-2)^2 + 12(g-1) + 4\right] + \frac{3}{\eta^2}\left[-\frac{1}{4}(g-2)^2 + 4(g-1)\right] - \frac{32}{3\eta^3}\Big\} +$$

$$+\left\{\left[\frac{147}{8}(g-2)^2 + 240(g-1) + \frac{266}{9}\right] + \frac{6}{\eta}\left[-3(g-2)^2 - 32(g-1) + 4\right] + \right.$$

$$\left. + \frac{3}{\eta^2}\left[-\frac{1}{8}(g-2)^2 - 16(g-1) - 30\right] + \frac{328}{9\eta^3}\right\}, \qquad \eta = \frac{2E_\mu K}{\varkappa^2}.$$

are obtained, where $K = \sqrt{12}/R$, R is the rms nuclear radius and

Card 2/3

S/056/62/043/001/037/056
B102/B108

AUTHORS: Zhizhin, Ye. D., Solov'yev, V. V.

TITLE: New possibilities of investigating electromagnetic properties of electron and muon

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 1(7), 1962, 268-276

TEXT: Electrons and muons should interact differently with other particles owing to their different masses. Still, such a difference has not been found as yet. Therefore, the authors studied the short-range electromagnetic properties of e and μ. For this investigation the conversion decays of strongly interacting vector mesons ω^o (m = 787 Mev, I = 0), η^o (550 Mev, 0) and ϱ (750 Mev, 1) as well as of the hypothetical pseudoscalar σ^o-mesons are used: $V \to l^+ + l^-$, $V \to \pi^o + l^+ + l^-$, $\sigma^o \to \gamma + l^+ + l^-$; l = e or μ, V = ω^o, η^o or ϱ^o. Results of probability calculation are:

Card 1/4

New possibilities of investigating ...

$$W(\omega^0 \to e^+ + e^-) \approx W(\omega^0 \to \mu^+ + \mu^-) = 0{,}043 \text{ MeV},$$
$$W(\eta^0 \to e^+ + e^-) \approx W(\eta^0 \to \mu^+ + \mu^-) = 0{,}011 \text{ MeV},$$
$$W(\rho^0 \to e^+ + e^-) \approx W(\rho^0 \to \mu^+ + \mu^-) = 0{,}025 \text{ MeV}.$$

$$W(\omega^0 \to 3\pi) \approx W(\omega^0 \to \pi + \gamma) \approx 0{,}5 \text{ MeV},$$

$$W(\eta^0 \to \pi^0 + \gamma) = 0{,}8 \text{ MeV}$$

Card 2/4

S/056/62/043/001/037/056
B102/B108

New possibilities of investigating ...

$$W(\omega^0 \to \pi^0 + e^+ + e^-) = 2{,}6 \cdot 10^{-3} \text{ MeV},$$
$$W(\omega^0 \to \pi^0 + \mu^+ + \mu^-) = 1{,}4 \cdot 10^{-4} \text{ MeV},$$
$$W(\eta^0 \to \pi^0 + e^+ + e^-) = 6 \cdot 10^{-4} \text{ MeV},$$
$$W(\eta^0 \to \pi^0 + \mu^+ + \mu^-) = 1{,}3 \cdot 10^{-6} \text{ MeV},$$
$$W(\rho \to \pi + e^+ + e^-) = 10^{-3} \text{ MeV},$$
$$W(\rho \to \pi + \mu^+ + \mu^-) = 5{,}6 \cdot 10^{-6} \text{ MeV}.$$

$W(\sigma^0 \to \gamma + e^+ + e^-)/W(\sigma^0 \to \gamma + \mu^+ + \mu^-) = 15$; (110).

Card 3/4

SOLOV'YEV, V.V.; AKIMOV, Yu.I.; ORLOV, L.L.; YURASOV, V.S.

Diagnosis of tricuspid stenosis. Kardiologiia 5 no.2:35-43 '63 (MIRA 17:2)

1. Iz gospital'noy terapevticheskoy kliniki (dir. - chlen-korrespondent AMN SSSR prof. P.Ye. Lukomskiy) II Moskovskogo meditsinskogo instituta imeni N.I.Pirogova.

L 30092-65 EPA/EPA(s)-2/EWT(m)/EPF(c)/EWP(f), EPR Pab-4/Pr-4/Pn-4/Pt-10
WW/JW/JWD/GS

ACCESSION NR: AT5004085 S/0000/62/000/000/0035/0044

45
B+i

AUTHOR: Solov'yev, V. V.

TITLE: One of the mechanisms for the excitation of combustion oscillations

SOURCE: Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po probleme vibratsionnogo i pul'satsionnogo goreniya. 1st, 1961, Trudy. Moscow, Sektor nauchno-tekhn. inform. GIAP, 1962, 35-44

TOPIC TAGS: combustion, pulsed combustion, combustion oscillation, combustion component mixing, combustion burner, oscillation excitation, standing wave

ABSTRACT: The process of vibrating combustion observed in various industrial and experimental devices occurs mainly in combustion chambers which may be considered as pipes open at one end and closed at the other. Consequently, the authors studied oscillation excitation in a device consisting of a combustion chamber, a follow-up chamber which produced the above-mentioned acoustically-open end, at the exit of the combustion chamber, a cooling chamber, and an air warmer. They investigated various burners and studied the ignition process of various mixtures by means of an ionization gauge. Experimental results showed that the optimum excitation may be

Card 1/2

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ACCESSION NR: AT5004085

obtained with a combustion mixture after preliminary mixing of a near-stoichiometric composition of components. The excitation mechanism seems to be due to creation of whirls at the edges of the burners; the process of component mixing seems to play an important role. The resulting oscillations are closely connected with the generation of acoustical standing waves. Orig. art. has: 1 formula and 8 figures.

ASSOCIATION: None

SUBMITTED: 29Dec62 ENCL: 00 SUB CODE: FP

NO REF SOV: 000 OTHER: 000

Card 2/2

L 30089-65 EPA/EWP(f)/EPR Paa-4/Ps-4 GS

ACCESSION NR: AT5004090 S/0000/62/000/000/0077/0084

24
B+1

AUTHOR: Solov'yev, V.V.

TITLE: Use of oscillations for intensification of combustion chamber processes

SOURCE: Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po probleme vibratsionnogo i pul'satsionnogo goreniya. 1st, 1961. Trudy. Moscow, Sektor nauchno-tekhn. inform. GIAP, 1962, 77-84

TOPIC TAGS: combustion, pulsed combustion, combustion intensification, combustion heat transfer, combustion power

ABSTRACT: The development of Soviet power engineering aims at increasing the power of the power-producing units. The reduction in size of powerful boiler aggregates hinges on an increase in the heat generated per unit volume and the intensification of the transfer of the generated heat to the working substance. One of the possible approaches consists of utilizing vibrating combustion in the creation of heat exchange within an oscillating medium. Only limited results were obtained during tests at the VTI in 1956 due to the inability of the workers at that time to maintain continuous oscillations. Later tests on special equipment and larger chambers yielded results which are discussed in considerable length in conjunction with the results of other authors. The article covers the modes of oscillation

Card 1/2

L 30089-65

ACCESSION NR: AT5004090

production, various vibration mechanisms, and the influence of vibrations on combustion and heat transfer. On the basis of his discussion and the formulas derived in the article, the author concludes that one could utilize vibrating combustion and pulsatile tube flows for the design of small-size boiler aggregates. Orig. art. has: 10 formulas and 1 figure.

ASSOCIATION: none

SUBMITTED: 29Dec62 ENCL: 00 SUB CODE: FP

NO REF SOV: 007 OTHER: 002

Card 2/2

SOLOV, A.V.; OKUN', L.B.; POMERANCHUK, I.Ya.; SOLOV'YEV, V.V.

Electromagnetic differences of baryon masses, and the SU6-symmetry. (MIRA 18:5)
IAd. fiz. 1 no.4:730-732 Ap '65.

1. Institut teoreticheskoy i eksperimental'noy fiziki Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR.

L 60940-65 EWT(m)/T/EWA(m)-2

ACCESSION NR: AP5014320 UR/0367/65/001/005/0860/0866

AUTHORS: Dolgov, A. D.; Solov'yev, V. V.

TITLE: Intermediate meson production by colliding beams

SOURCE: Yadernaya fizika, v. 1, no. 5, 1965, 860-866

TOPIC TAGS: colliding beam, meson production, high energy electron collision, intermediate boson production, weak interaction

ABSTRACT: The authors consider the 'semi weak' interaction of W mesons with leptons in the process $e^+ + e^- \rightarrow W^+ + W^-$, in view of the possibility of realization of such a reaction in presently-planned colliding beam experiments. It is shown that in this reaction both the W mesons and the charged leptons resulting from the W decay have an asymmetrical angular distribution about the direction of the e^+e^- collision. This makes it possible to observe the effect of the 'semi weak' interaction of the W meson in this process and to determine the form factor of this interaction. The differential and cross sections

Card 1/2

L 60940-65

ACCESSION NR: AP5014320 2

of the reaction are calculated, and the asymmetries of the angular distributions are evaluated. When the velocity of the electron is not too small (~0.1 of the speed of light) the asymmetry may be several per cent and thus observable experimentally. The study shows that the weak interaction is a fairly large participant in the production of intermediate bosons by colliding beams, and if W mesons exist this boson production could be observed experimentally. 'The authors thank L. B. Okun' for suggesting this research and for continuous interest.' Orig. art. has: 4 figures and 14 formulas

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki GKAE (Institute of Theoretical and Experimental Physics, GKAE)

SUBMITTED: 13Nov64 ENCL: 00 SUB CODE: NP

NR REF SOV: 002 OTHER: 008

dvm

Card 2/2

L 2755-66 EWT(m) DIAAP
ACCESSION NR: AP5024342

UR/0367/65/002/002/0277/0286

27
22
B

AUTHOR: Solov'yev, V. V.

TITLE: Bremsstrahlung and resonance lifetimes

SOURCE: Yadernaya fizika, v. 2, no. 2, 1965, 277-286

TOPIC TAGS: radioactive decay, bremsstrahlung, particle physics, quantum resonance phenomenon, differential cross section

ABSTRACT: The author considers bremsstrahlung which arises in a reaction with production and subsequent decay of some resonance X of the form

$$1+2\to\{A\}+X\to\{A\}+\{B\},$$

where $\{A\}$ is the set of particles produced together with the resonance, and $\{B\}$ is the set of particles produced by the resonance decay (see fig. 1 of the Enclosure). A formula is derived for the cross section of the bremsstrahlung which accompanies this reaction. It is shown that the differential cross section for the bremsstrahlung is resonant at

$$\omega=\Gamma\sqrt{1-\beta^2}/(1-n\beta),$$

Card 1/3

L 2755-66
ACCESSION NR: AP5024342

5

where Γ is the width of resonance X, n is the direction of the radiation, and $\beta = v/c$, where v is the speed of resonance X produced in the reaction

$$1 + 2 \to X + (A)$$

The author discusses the possibility of using the results to measure the width of the π^0-meson. "The author is sincerely grateful to L. B. Okun' for proposing the problem and for constant interest in the work, and to I. Ya. Pomeranchuk, I. Yu. Kobzarev and Ye. D. Zhizhin for useful consultation." Orig. art. has: 3 figures, 36 formulas.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki GKIAE (Institute of Theoretical and Experimental Physics, GKIAE)

SUBMITTED: 06Mar65 ENCL: 01 SUB CODE: NP

NO REF SOV: 001 OTHER: 007

Card 2/3

L 2755-66
ACCESSION NR: AP5024342

ENCLOSURE: 01

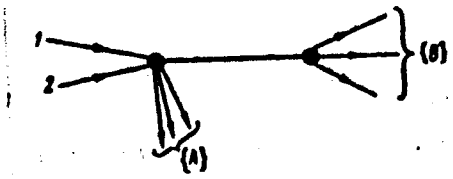

Fig. 1.

Card 3/3

L 807-66 EWT(m)/T/EWA(m)-2

ACC NR: AP5027998 SOURCE CODE: UR/0386/65/002/007/0336/0340

AUTHOR: Solov'yev, V. V.; Terent'yev, M. V. 95

ORG: none

TITLE: Charge asymmetry in radiative decays of K- and ρ-mesons upon violation of CP-invariance

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. (Prilozheniye), v. 2, no. 7, 1965, 336-340

TOPIC TAGS: parity principle, bremsstrahlung, K meson, pion, photon emission

ABSTRACT: The authors show that no large charge asymmetry will arise under any violation of CP-invariance in meson $\pi^+\pi^-\gamma$ decays if a decay to $\pi^+\pi^-$ without emission of a photon is allowed, and present several quantitative estimates in connection with this statement. It is shown first that in the process $K_1^0 \to \pi^+\pi^-\gamma$ the charge asymmetry is very small even for strong violation of CP invariance in weak, strong, or electromagnetic interactions. A large asymmetry would mean an unexpectedly large radius of the interaction region, and therefore an experimental investigation of the decay $K_1^0 \to \pi^+\pi^-\gamma$ is of particular interest. The decays $K^\pm \to \pi^\pm\pi^0\gamma$ are also discussed briefly. If CP-invariance is violated, the probabilities of these decays, and also the spectra of the positive and negative pions, may differ. The asymmetry should be of the order of $\delta M_d/M_b$, where δ is a parameter characterizing the degree of CP-parity nonconservation, M_b is the bremsstrahlung amplitude, and M_d is the CP-odd part of the direct photon emission amplitude. Analogous remarks apply also to the decays $K^{\pm} \to$

Card 1/2

L 9807-66
ACC NR: AP5027998 O

$\pi^{\pm}K^{0}(\overline{K}^{0})\gamma$ and $K^{*\pm} \rightarrow K^{\pm}\pi^{0}\gamma$. However, the difference in the form of the spectrum of the particles and antiparticles is large in the case of $K^{\pm}$ mesons, since M_0 for $K^{\pm} \rightarrow \pi^{\pm}\pi^{0}\gamma$ has an additional degree of smallness, due to the rule $\Delta T = 1/2$. Authors are deeply grateful to L. B. Okun' for many valuable remarks. Orig. art. has: 12 formulas.

SUB CODE: 20/ SUBM DATE: 02Aug65/ ORIG REF: 001/ OTH REF: 003

Card 2/2

DOLGOV, A.D.; [illegible], V.V.

Predictions of unitary symmetry for reactions of hadron photoproduction. Ind. fiz. 2 no.5[illegible] N '65.

1. Institut teoreticheskoy i eksperimental'noy fiziki Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR.

SOLOV'YEV, V.V.; TERENT'YEV, M.V.

Charge asymmetry in radiation decay of K and Q mesons due to disturbance of CP-invariance. Pis'. v red. Zhur. eksper. i teoret. fiz. 2 no. 7:336-340 O '65. (MIRA 18:12)

1. Submitted Aug. 2, 1965.

L 20390-66 EWT(m)/T
ACC NR: AT6002497 SOURCE CODE: UR/3138/65/000/333/0001/0100

AUTHOR: Dolgov, A. D.; Solov'yev, V. V.

ORG: Institute of Theoretical and Experimental Physics of the State Committee on the Use of Atomic Energy SSSR (Institut teoreticheskoy i eksperimental'noy fiziki Goskomiteta po ispol'zovaniyu atomnoy energii SSSR)

TITLE: Check on the consequences of unitary symmetry in hadron production reactions (review)

SOURCE: SSSR. Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii. Institut teoreticheskoy i eksperimental'noy fiziki. Doklady, no. 333, 1965. Proverka sledstviy unitarnoy simmetrii v reaktsiyakh obrazovaniya adronov, 1-100

TOPIC TAGS: strong nuclear interaction, elementary particle, baryon, meson, vector meson, photoproduction, particle cross section

ABSTRACT: The authors point out in the introduction that although the SU(3) symmetry predicts many properties of elementary particles, the experimental data make it possible in most cases only to analyze the total cross sections, and many of the unitary relations between the amplitudes of the different reaction channels may not agree with experiment for various reasons. It is furthermore pointed out that the predictions of unitary symmetry in reactions of strongly interacting

Card 1/3

particles can be verified only in a small number of cases, in view of the limited amount of experimental data and their low accuracy. In reviewing the possible checks on the results of unitary symmetry the authors first discuss briefly some premises of unitary symmetry and methods of constructing unitary-invariant amplitudes. This is followed by a discussion of meson-baryon reactions accompanied by formation of the baryon octet and baryon-resonance decuplet, respectively, of the type

$$M + p \to M(V) + B$$

$$M + p \to M(V) + B^*$$

where M and V are the pseudoscalar and vector mesons. An analysis is then presented of the proton-antiproton annihilation reactions

$$p\bar{p} \to B\bar{B};\quad B^*\bar{B}^*,\ MM,\ MV,\ VV,$$

as well as a study of the predictions of SU(3) symmetry for baryon-variant scattering in S State

$$B + p \to B + B,$$

of the relations between reactions with formation of an f^0 meson under the assumption that the latter is a singlet with respect to SU(3), and of a large number of