AVAILABLE: Library of Congress

Card 5/5

VK/wrc/mas
9-13-61

3

Mathematical Reviews
Vol. 15 No. 4
Apr. 1954
Numerical and Graphical Methods

Antonowicz, K. An integrating apparatus for the Schrödinger equation. Acta Phys. Polonica 12, 163-169 (1953). (Russian summary)

8-24-07
LL

[illegible], [illegible]

An integrating apparatus for the Schrodinger equation. II. In English. p.385
ACTA PHYSICA POLONICA (Polska Akademia Nauk. Komitet Fizyki) Warszawa
Vol. 14, no. [illegible], 1955

So. East European Accessions List Vol. [illegible], No. [illegible] September 19[illegible]

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810014-5"

Antonowicz, K.

POLAND/Magnetism - Magnetic Resonance F-7

Abs Jour : Ref Zhur - Fizika, No 6, 1958, No 13371

Author : ~~Antonowicz K.~~
Inst : University of Nicolai Copernicus, Torun, Poland
Title : Nuclear Resonance Signals in Flowing Liquid

Orig Pub : Bull. Acad. polon. sci., 1957, cl. 3, 5, No 8, 813-818

Abstract : Signals of magnetic resonance of protons have been observed in distilled water flowing continuously through the transducer coil. A setup was used with an external generator and crossed coils. The signals were observed on an oscillograph screen. On the basis of the approximate solution of the Bloch equations, with allowance for the process of settling of the process of establishment of the magnetization upon flow of liquid in the magnetic field, the author has found the optimum value of the speed, corresponding to the maximum amplitude of the absorption signal at the specified radio-frequency field. At high speeds, the amplitude of the signal is proportional to the time of flow of the liquid through the transducer coil. The form of the signal for a flowing liquid differs from the form of the signal for a stationary liquid.

Card : 1/1

POLAND/Magnetism - Magnetic Resonance F-7

Abs Jour : Ref Zhur - Fizika, No 9, 1958, No 20598

field occurs when the condition $(\gamma H_{1max})^2 T_1 T_{2of} = 1$ is satisfied. Knowing the ratio H_{1max} for various T_0 and the values of T_0, it is possible to determine T_1 and T_2. The method has been verified experimentally for moving water, and the value of T_2 could be neglected as very small (in an inhomogeneous magnetic field). Measurements were made at values of T_0 from 0.1 to 1 second and gave a value of 2.3 seconds for T_1.

Card : 2/2

Abs Jour : Ref Zhur - Khimiya, No 3, 1959, No. 7261

Author : Antonowicz, Kazimierz
Inst : Not given
Title : Nuclear Magnetic Resonance and Its Utilization

Orig Pub : Postepy fiz., 1958, 9, No 3, 303-326

Abstract : A review. Bibliography 31 references.

Card 1/1

ANTONOWICZ, K.

Field homogenizing iron plates for nuclear spin resonance spectrometer. Bul Ac Pol mat 8 no.2:115-116 '60. (EEAI 9:12)

1. Department of Physics, Nicholas Copernicus University, Torun. Presented by A.Jablonski.
(Spectrometer)
(Nuclear spin)
(Magnetic resonance)
(Iron)

S/194/62/000/010/038/084
A063/A126

AUTHOR: Antonowicz, Kazimierz

TITLE: Quantum amplifiers

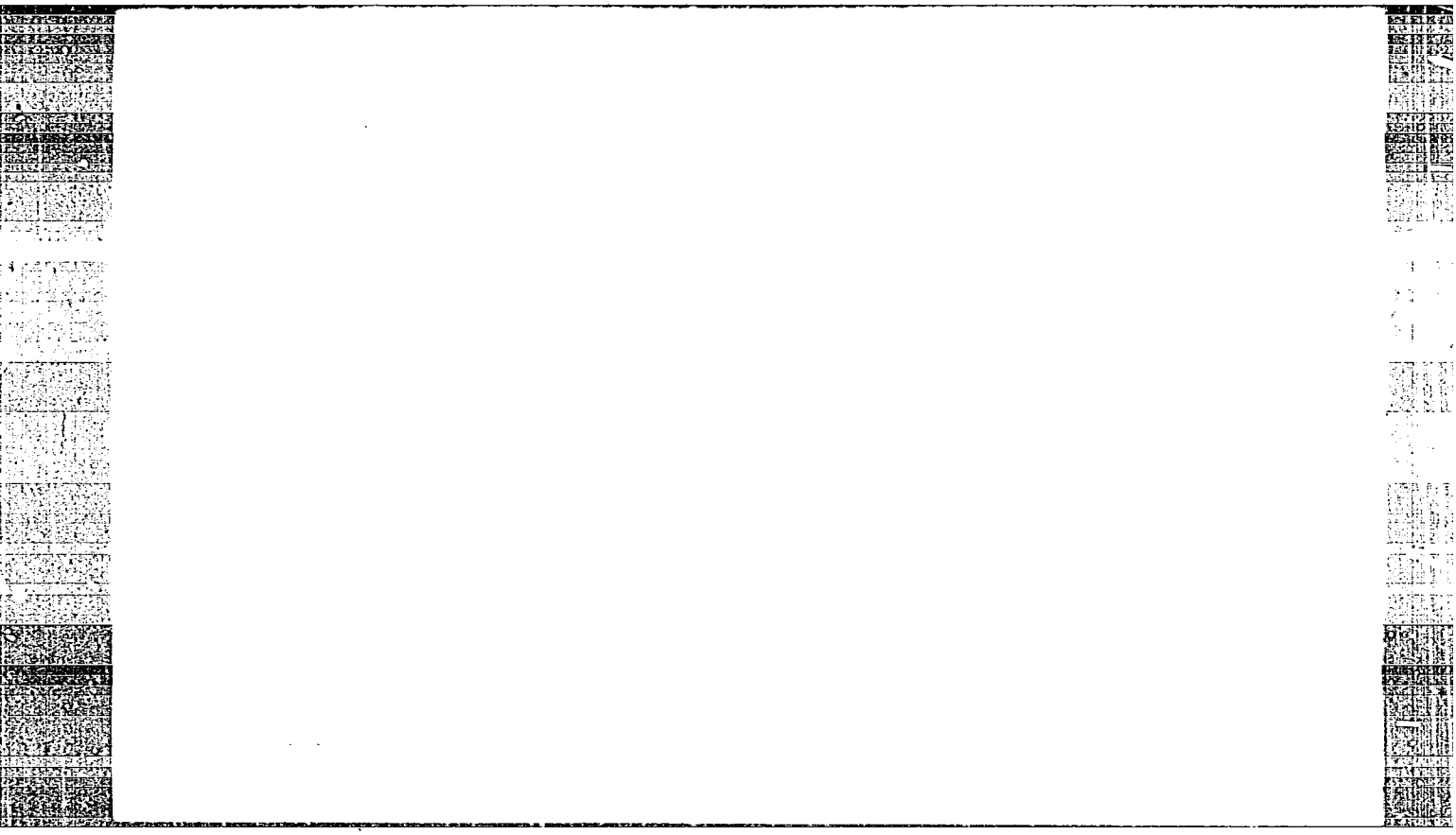
PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 10, 1962, 41, abstract 10-3-85ts (Prace przemysł. inst. elektroniki, 1961, v. 2, no. 1, 49 - 65; Polish; summaries in English, Russian)

TEXT: The basic problems of the theory of quantum amplifiers (masers) is presented without complicated mathematical treatment involving quantum radiophysics. The possibility of quantum amplification is discussed, using a thermodynamic approach to induced and spontaneous molecular radiation (Einstein method). The action of gas-like (ammoniac) and crystalline amplifiers is discussed in detail. The operational principle of such an amplifier is investigated using, as an example, a Blumbergen-type quantum amplifier (3-level system). Its description is available in published technical literature. There are 10 references.

[Abstracter's note: Complete translation] R.F.

Card 1/1

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810014-5"



APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810014-5"

POLAND/Chemical Technology. Chemical Products and Their Applications. Ceramics. Glass. Binding Materials. Concrete. H-13

Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 24128

Author : Antonowicz, W.
Inst :
Title : Production of Structural Materials from Coal Schists.

Orig Pub : Mater. Budowl., 1958, 13, No 8, 243-246

Abstract : No abstract.

Card : 1/1

H-57

BRUTUS, L., kand. ekon. nauk, glav. red.; ANTONS, E., red.; POLJANSKI, G., red.; KAGANOVITS, I., kand. ekon. nauk, red.; KUHI, E., kand. ekon. nauk, red.; MUREL, R., red.; RANNIK, E., red.; VINT, E., kand. ekon. nauk, red.; RIIKOJA, L., red.; KOHU, H., tekhn. red.

[Economic life of Soviet Estonia, 1940-1960] Noukogude Eesti majandus, 1940-1960. Tallinn, Eesti Riiklik Kirjastus, 1960. 478 p. (MIRA 16:6)

1. Eesti NSV Teaduste Akadeemia. Majanduse Instituut. 2. Chlen-korrespondent AN Estonskoy SSR (for Antons).
(Estonia--Economic conditions)

BRUTUS, L., otv. red.; ANTONS, R., akademik, red.; KADA, A., red.; RAUD, A., red. [deceased]; TULP, L., red.; KIVILA, H., red.; RIISENBERG, A., tekhn. red.

[Materials of the Republic Scientific Economic Conference] Vabariikliku majandusteaduslíku konverentsi materjalid. Tallinn, Eesti NSV Teaduste Akadeemia Majanduse Instituut, 1962. 171 p. (MIRA 17:1)

1. Vabariiklik majandusteaduslik konverents, Tallinn, 1960.
2. Eesti NSV Teaduste Akadeemia (for Antons).
(Estonia--Economics)

KIVIT, A.A., red.; ANTONS, B.L., red.; AARNA, A.Ya., prof., doktor tekhn.nauk, retsenzent; KULL', E.V., kand.ekon.nauk, retsenzent; RAZINA, O.M., vedushchiy red.; YASHCHURZHINSKAYA, A.B., tekhn.red.

[Technology and economic aspects of the industrial semicoking of oil shales] Voprosy tekhniki i ekonomiki promyshlennogo polukoksovaniia goriuchikh slantsev. Leningrad, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, Leningr.otd-nie. No.2. 1959. 429 p. (MIRA 12:10)

1. Kiviõli Põlevkivikeemia Kombinaat.
(Oil shales)

ROLOVS, B., dots.; ANTONS, Z., red.

[Nuclear physics] Kodolfizika. Riga, Latvijas Valsts izdba, 1964. 389 p. [In Latvian] (MIRA 18:7)

Antonsik E.

CZECHOSLOVAKIA / Solid State Physics - Solid State Theory E-2

Abs Jour : Ref Zhur - Fizika, No. 5, 1957 No. 11579.

Author : Antonsik Emil, Trlifaj Miroslav
Inst : -
Title : Concerning the Remark by J. Kouteoki.

Orig Pub : Ceskosl. casop. fys., 1956, 6, No.1, 99

Abstract : It is shown that in the solution proposed by J. Kouteoki (Referat Zhur Fizika, 1957, 9139), the second term should vanish, and the constant C_2 vanishes from physical considerations. It is also noted that the approximation that was used to solve the equation and which has caused the strong objections on the part of Kouteoki, is necessary only to construct the zero approximation, and later, in the subsequent approximations, all the previously discarded terms of the equation are taken into account.
It is indicated in the remark by the editor that

Card: 1/2

UVNES, B. [Uvnas, B], ANTONSON, Dzh. [Antonsson, Judith]

Triggering action of phosphatidase A and chymotrypsins on degranulation of mesenteric mast cells in rats. Uch.zap. Inst. farm. i khimioter. AMN SSSR 3:336-346'63. (MIRA 16:9)

1. Department of Pharmacology, Karolinska Institutet, Stockholm 60, Sweden.

(CHYMOTRYPSIN) (PHOSPHOLIPASE)

ANTONTSEV, P.F.

The MP washing machine. Biul.tekh.-ekon.inform. no.12:8-9 '59. (MIRA 13:4)

(Washing machines)

ANTONTSEVA, L., insh.

Air conditioning in overheated food-processing shops. Khol.tekh. 37 no.3:32-34 My-Je '60. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kholodil'noy promyshlennosti.
(Food industry) (Factories--Air conditioning)

ANTONTSEVA, L.A.

Self-contained air conditioner "Azerbaijan-2." Khol. tekh. 40 no.4:74-75 Jl-Ag '63. (MIRA 16:8)

(Azerbaijan--Air conditioning--Equipment and supplies)

ANTONTSEVA, L.A.

Mechanical OVV-1,4 dehumidifier. Khol. tekh. 40 no.4:75-76 Jl-Ag '63. (MIRA 16:8)

(Azerbaijan--Air conditioning--Equipment and supplies)

ANTONTSEVA, L.A.

Self-contained "Kharkov" air conditioner. Khol. tekh. 40 no.4:76-77 Jl-Ag '63. (MIRA 16:8)

(Kharkov--Air conditioning--Equipment and supplies)

SOV/113-59-2/20

AUTHOR: Antontseva, L.N., Bazanova, V.S., and Goncharenko, B.L., Candidate of Economic Sciences

TITLE: Supplementary Indices for Assessing Production Volume in Mass and Large-Scale Production (Dopolnitel'nyye pokazateli izmereniya ob"yema produktsii v massovom i krupnoseriynom proizvodstve)

PERIODICAL: Avtomobil'naya promyshlennost', 1959, Nr 2, pp 1-3 (USSR)

ABSTRACT: The paper examines the new project, which has been developed by the Economic Research of the USSR Gosplan, entitled "Basic Thesis in Preparing the State Plan for the Development of the National Economy" (Osnovnyye polozheniya k sostavleniyu gosudarstvennogo plana razvitiya narodnogo khozyaystva). This project gives the Sovnarkhozes the right to introduce supplementary indices for evaluating the production volume in the plants under their control. These indices are the values of gross and commodity outputs from which was deducted the value of all purchased prefabricated articles, assemblies and details, semi-products and essential materials. The authors propose the

Card 1/2

Supplementary Indices for Assessing Production Volume in Mass and Large-Scale Production

introduction of a uniform machining index in all motor-vehicle and spare parts plants under the general supervision of the USSR Gosplan, and discuss its advantage over other indices in assessing the production volume. In conclusion they state that the introduction of this index will secure accurate evaluation of the production volume and will make it possible to obtain comparable indices of the production conditions in different plants. There are six tables.

ASSOCIATION: Nauchno-issledovatel'skiy ekonomicheskiy institut Gosplana SSSR (The Economical Research Institute of the USSR Gosplan)

HUNGARY

ANTONY, Ferenc, Dr., Frederic Joliot-Curie National Research Institute for Radiation Biology and Radiation Hygiene (Orszagos 'Frederic Joliot-Curie' Sugarbiologiai es Sugaregeszsegugyi Kutato Intezet)[location not given](Director: VARTERESZ, Vilmos, Dr.); author's current affiliation: Department of Radiobiology at the International Atomic Energy Agency in Vienna, Austria.

"Application of Ionizing Radiation to the Sterilization of Drugs, Biological Products, and Therapeutical Instruments"

Budapest, Orvosi Hetilap, Vol 107, No 26, 26 Jun 1966, pp 1216-1218.

Abstract: The author reviews new data pertaining to the sterilization of drugs, biological products, and medical instruments with ionizing radiation on the basis of references in the literature. 46 references, including 2 German, 2 Hungarian, and 42 Western.

1/1

ANTONY, Gejza, ing.

Jaw crushers with hydraulic drive. Rudy 9 no.11:394-396 N '61.

(Crushing machinery)

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and Their Applications - Fermentation Industries. H.

Abs Jour : Ref Zhur - Khimiya, No 11, 1958, 37761

Author : Barta, J., Antony, K., Hrdy, M., Rosa, M.
Inst : -
Title : Elimination of the Scale from Evaporators of Alcohol-Molasses Plants.

Orig Pub : Kvasny Prumysl, 1957, 3, No 10, 223-224

Abstract : Elimination of scale from evaporators of alcohol-molasses plants by boiling with 3.5% lactic acid (from spent or technical grade 30-50% acid) for 1-3 hours is recommended. If the scale adheres it is necessary to rub it off immediately, before it hardens upon drying.

Card 1/1

CZECHOSLOVAKIA / Chemical Technology, Chemical Products and Their Application. Fermentation Industry. H-27

Abs Jour : Ref Zhur - Khimiya, No 5, 1959, No. 17208

Author : Rosa, M.; Antony, K.
Inst : Not given
Title : Determination of Residual Sugar in the Manufacture of Alcohol from Molasses

Orig Pub : Kvasny prumysl, 1958, 4, No 7, 152-155

Abstract : The chromatographic method (on paper) reveals that fructoses ferment at a slower rate than other sugars present in molasses. Glucose is analyzed from the residual sugar (RS) and the determination is possible when the latter is present in quantities > 0.7%. The rate of sucrose inversion is so rapid that in an aged brew, glucose normally is not present. Calculations indicate that for normal brews containing RS (0.3 - 0.4%) the latter

Card 1/2

GOTTSEGEN, Gyorgy, Dr.; ANTONY, Miklos, Dr.; SZAM, Istvan, Dr.

Marfan syndrome, pseudotruncus arteriosus and brain abscess. Orv. hetil. 99 no.48:1685-1688 30 Nov 58.

1. Az Orszagos Kardiologiai Intezet (igazgato: Gottsegen Gyorgy dr.) es a Fovarosi Istvan Korhaz Idegosztalyanak (foorvos: Lehoczky Tibor dr.) kozlemenye.

(ARACHNODACTYLY, case reports
with pseudotruncus arteriosus & brain abscess (Hun))
(BRAIN, abscess
with pseudotruncus arteriosus & arachnodactyly (Hun))
(CARDIOVASCULAR DEFECTS, CONGENITAL, case reports
pseudotruncus arteriosus with arachnodactyly & brain abscess (Hun))

ANTONYAK, A. I., insh.

Centering the VT-170-3000 turbine exciter with a hollow armature shaft on the rotor of the generator. Elek.sta. 31 no.2:89-90 F '60. (MIRA 13:5)
(Turbinogenerators)

[illegible] (& MAMIKONYAN, M. & MARKOSYAN, V.)

[illegible]luchnoya bolezn' loshadey i mery bor'by s ney (Breeding Disease of Horses and Measures to Combat It). Erevan, Armgiz, 1[illegible], [illegible] pages with illustrations. In the Armenian language.

U-4258, 30 Jul 1953, p 4

31073. ANTONYAN, A. A. AND MIRZOYAN, G. I.

Perifericheskiy paralich litsevogo nerva posle ukusa Kara-Kurta. Vracheb. delo, 1949, No. 10, stb. 947-48

MIRZOYAN, G. I.; ANTONYAN, A. A.

Venom - Physiological Effect.

Bite of Lathrodectus* tredecimguttatus Rossi. Sov. med. 16 No. 5, 1952.

[* black widow spider]

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

MIRZOYAN, G.I.; ANTONYAN, A.A.; TOROSYAN, S.A.; STEPANYAN, A.V.

On the problem of the pathology of vegetative function. Zhur.nevr. i psikh. 55 no.7:531-533 '55. (MLRA 8:10)

1. Poliklinika II Meditsinskogo ob"yedineniya Yerevana (glavnyy vrach-- A. A. Yesayan)
(AUTONOMIC NERVOUS SYSTEM, diseases)

MIRZOYAN, G.I.; NERSESYAN, A.S.; AKTONYAN, A.A.; TRORSYAN, S.A.; MURADYAN, G.T.

Disorders of the nervous system in trichinosis. Zhur.nevr. i psikh. Supplement:18-19 '57. (MIRA 11:1)

1. Klinika nervnykh bolezney (zav. - prof. G.I.Mirzoyan) II Meditsinskogo ob"yedineniya, Yerevan.
(NERVOUS SYSTEM--DISEASES)
(TRICHINA AND TRICHINOSIS)

KHODOROVA, Ye.I. [Khodorova, IE.L.]; VEREMEYENKO, K.N. [Veremiienko, K.M.]; ARTOMYAN, A.A.

Separation of serum trypsin inhibitors and the study of their influence on tryptic hydrolysis of various substrates. Ukr. biokhim. zhur. 36 no.5:643-653 '64. (MIRA 18:6)

1. Institut biokhimii AN UkrSSR i laboratoriya biokhimii Instituta otolaringologii Ministerstva zdravookhraneniya UkrSSR, Kiyev.

ANTONYAN, A.A.; KHODOROVA, Ye.L. [Khodorova, IE.L.]

Quantitative determination of trypsin inhibitors. Ukr. biokhim. zhur. 37 no.1:3-7 '65. (MIRA 18:5)

1. Institut biokhimii AN UkrSSR, Kiyev.

ANTONYAN, A.I., inzhener.

Burning out of stator winding tips due to faulty soldering of end connections. Elek.sta.27 no.12:52-53 D '56. (MLRA 10:1)
(Electric generators) (Solder and soldering)

ANTONIAN, A.I., inzh.

Damage of the VT-120-3000 turbogenerator exciter. Elek. sta. 30 no.3:94 Mr '59. (MIRA 12:5)
(Turbogenerators)

ANTONYAN, Aram Isaakovich; SHAKHMATOV, Maksim Amin'yevich; TITOV, V.V., kand. tekhn. nauk, retsenzent; KLEYMAN, L.I., inzh., red.; ZHITNIKOVA, O.S., tekhr. red.

[Installation of hydrogen-cooled turbogenerators] Montazh turbogeneratorov s vodorodnym okhlazhdeniem. Moskva, Gosenergoizdat, 1963. 207 p. (MIRA 17:3)

AVAKYAN, V.A.; ANTONYAN, A.S.; MINOGYAN, R.A.

Results of observations on patients having had typhoid fever and bacterial carriers at the Sumgait Chemical Plant (1954—1964). Zhur. mikrobiol., epid. i immun. 42 no.11:135-136 N '65. (MIRA 18:12)

1. Mediko-sanitarnaya chast' Sumgaitskogo khimicheskogo zavoda, Azerbaydzhanskaya SSR. Submitted March 9, 1965.

Name: ANTONYAN, Gurgen Gerasimovich

Dissertation: Literary Ties between Armenia and Azerbaydzhan in the 19th and 20th Centuries

Degree: Doc Philological Sci

Affiliation: Azerbaydzhan ~~State~~ Ped Inst imeni Lenin

Defense Date, Place: 26 May 55, Council of Yerevan State U imeni Molotov

Certification Date: 30 Jun 56

Source: BMVO 5/57

ANTONYAN, K.A.; ALEKSANDRYAN, M.A.

Preserved immune blood according to differential indices.
Probl. gemat.i perel krovi 6 no.1:47-49 '61. (MIRA 14:2)
(BRUCELLOSIS) (SERUM)

AKOPYAN, S.A.; BALASANYAN, M.I.; ANTONYAN, K.A.; PAPOYAN, S.A.; AVETYAN, S.G.; GASPARYAN, E.A.; PKHRIKYAN, Zh.A.; ARUTYUNYAN, T.G.

Immunobiological changes during septicopyemic processes in animals afflicted with radiation sickness. Izv. AN Arm. SSR. Biol. nauki 13 no.8:45-59 Ag '60. (MIRA 13:9)

1. Kafedra fiziologii cheloveka i zhivotnykh Yerevanskogo gosudarstvennogo universiteta, Nauchno-issledovatel'skiy institut perelivaniya krovi Ministerstva zdravookhraneniya Armyanskoy SSR i Nauchno-issledovatel'skiy institut rentgenologii i onkologii Akademii nauk Armyanskoy SSR.

(RADIATION SICKNESS) (SEPTICEMIA)
(LEUCOCYTES)

OGANESYAN, S.S.; ANTONYAN, S.G.

Effect of insulin on the conditioned reflex activity of the brain. Izv. AN Arm. SSR. Biol.nauki 12 no.8:3-13 Ag '59. (MIRA 12:12)

1. Institut fiziologii AN ArmSSR.
(INSULIN) (CONDITIONED RESPONSE)

ANTONYAN, S.G.

Effect of ionizing radiation on the heart. Izv. AN Arm. SSR. Biol. nauki 17 no.7:45-54 Jl '64. (MIRA 17:10)

1. Institut biofiziki Ministerstva zdravookhraneniya SSSR i Yerevanskiy institut kardiologii i serdechnoy khirurgii AMN SSSR.

AUTHOR: Antonyan, [illegible]

TITLE: Effect of ionizing radiation [illegible] heart

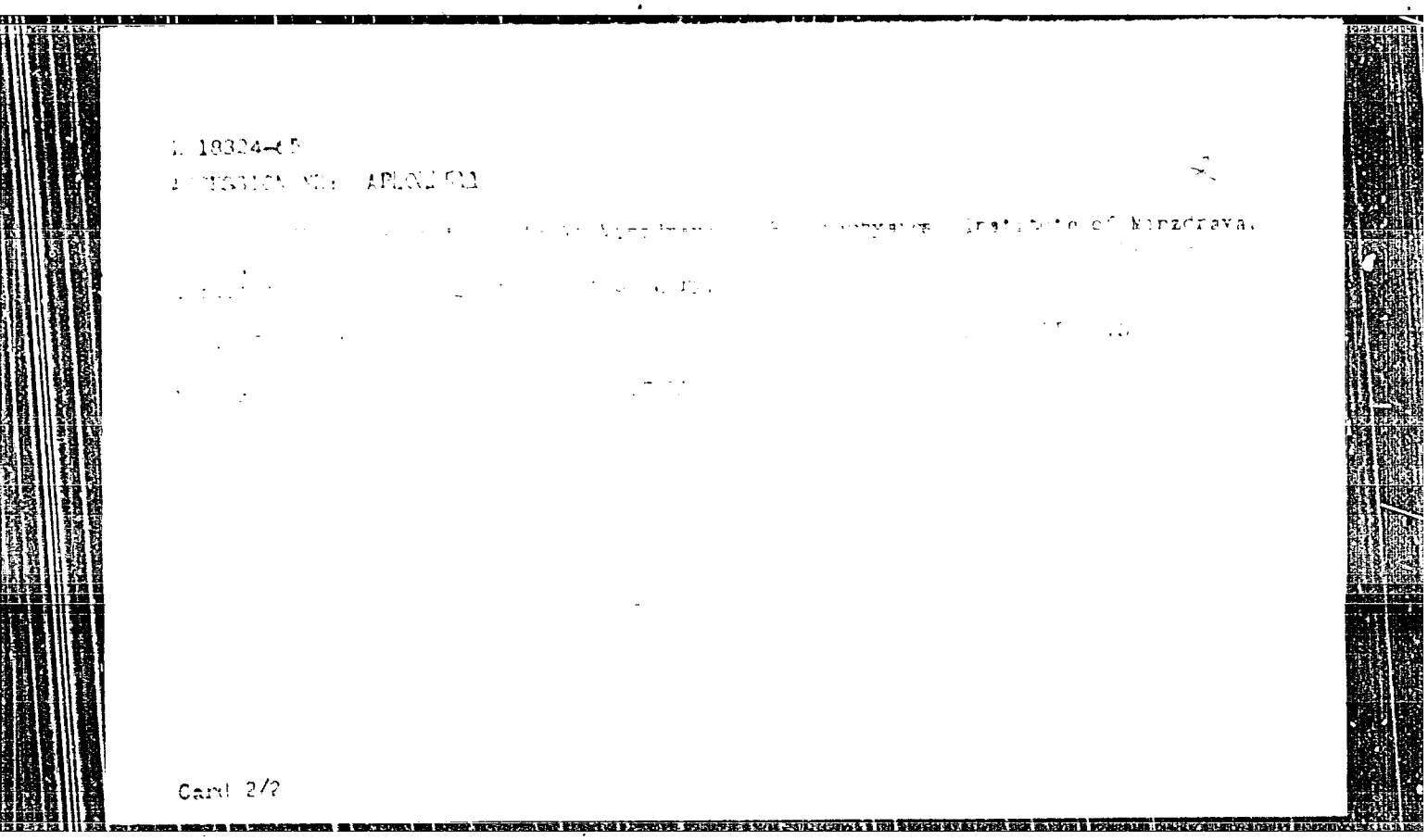
[illegible] Biologicheskikh nauk, v. 17, no. 7, 196[illegible]

TOPIC TAGS: heart, myocardium, radiation effect, radiation injury,

ABSTRACT: Some literature studies indicate that the heart is [illegible] resistant, and many studies show that the heart is subject to [illegible]

literature [illegible] under normal conditions and also discuss reactions when the heart has been [illegible] by drugs, [illegible], or other factors. [illegible] are [illegible].

Card 1/2



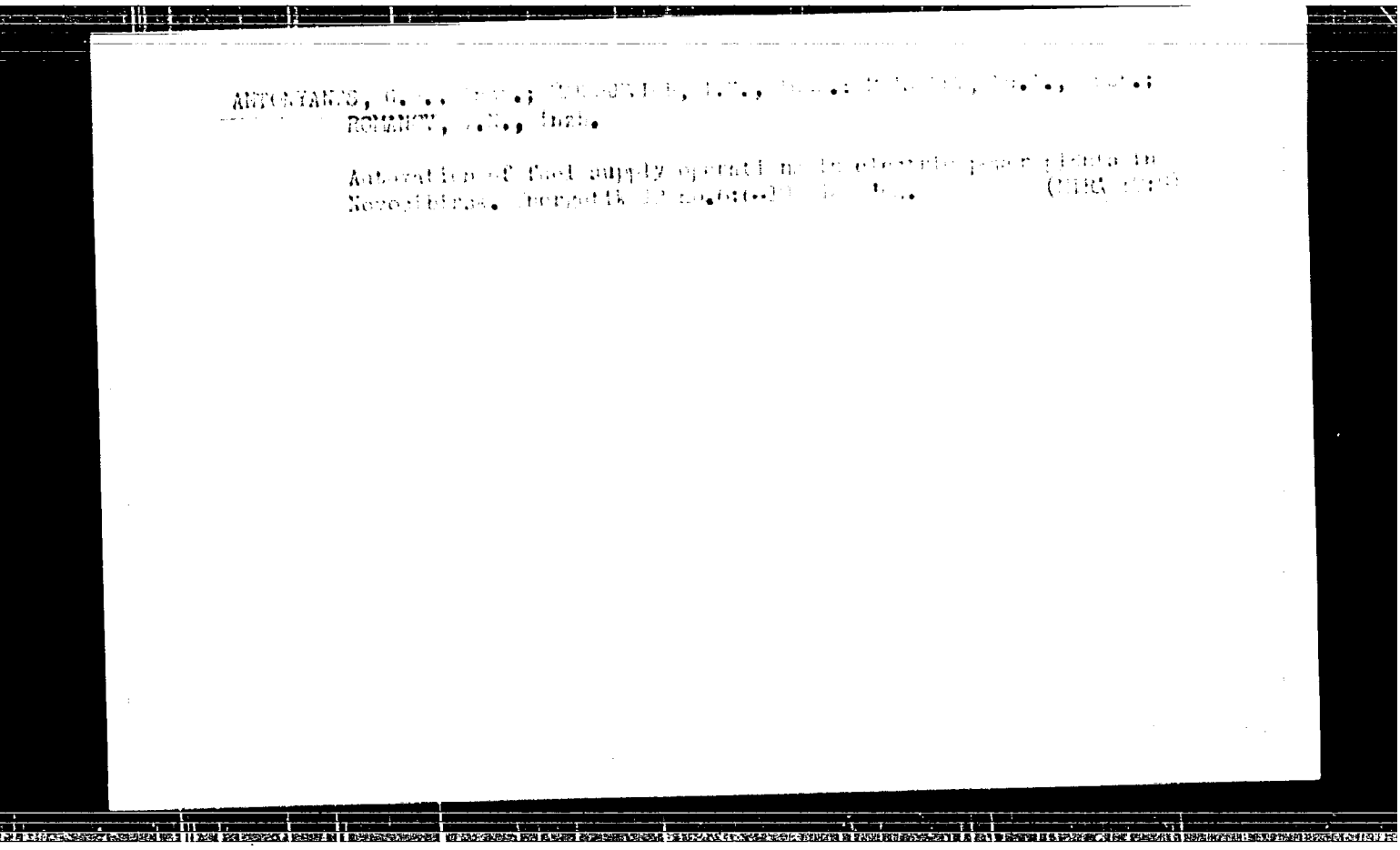
Card 2/2

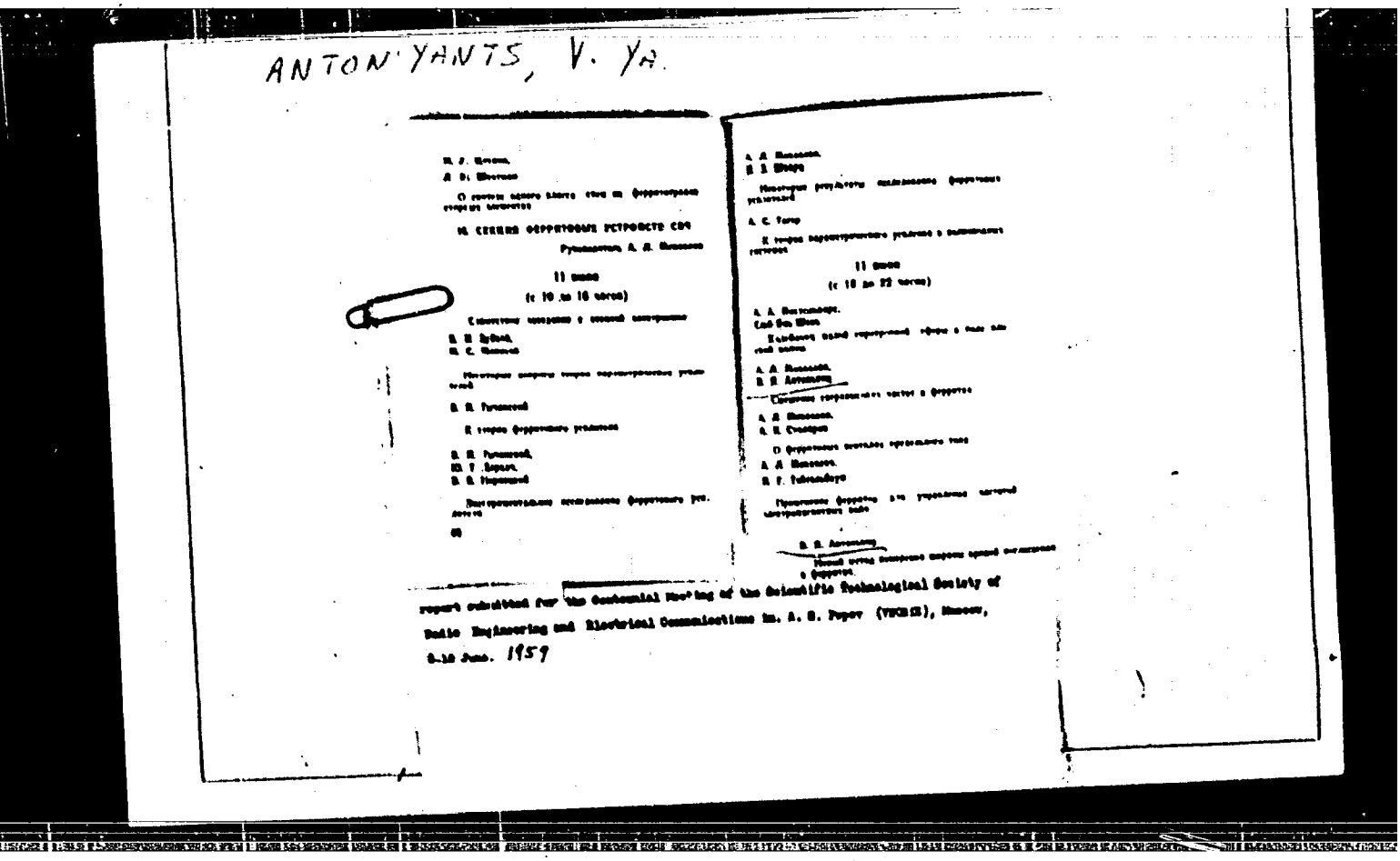
ANTONYAN, T.S.; ROYTMAN, R.N.

The KZDSh-58 pyrotechnic relay. Bezop. truda v prom. 5 no. 2:25-26 F '61. (MIRA 14:2)

1. Proizvodstvenno-eksperimental'noye upravleniye tresta Soyuzvzryvprom.

(Detonators)





ANTON'YANTS, V. YA.

report submitted for the Centennial Meeting of the Scientific Technological Society of Radio Engineering and Electrical Communications im. A. S. Popov (VNIIRE), Moscow, 8-10 June. 1959

24,5700

77195
SOV/109-5-1-8/20

AUTHORS: Mikaelyan, A. L., Anton'yants, V. Ya.

TITLE: Mixing of Super-High Frequencies by Means of Ferrites

PERIODICAL: Radiotekhnika i elektronika, 1960, Vol 5, Nr 1, pp 90-104 (USSR)

ABSTRACT: In the study the effect of electromagnetic oscillations of two nearby frequencies on small-size magnetized ferrite samples is discussed. Introduction. The fundamental considerations on behavior of a small magnetized ferrite sample placed within the field of two nearby frequencies are explained. The application of this phenomenon to technical purposes is mentioned. Results obtained by the Soviet and U.S. scientists are discussed. (1) Basic Computing Correlations. The equation for the motion of the magnetic moment with losses accounted for is given in the form:

$$\frac{d\vec{M}}{dt} = -\mu_0\gamma[\vec{M}, \vec{H}] + \frac{\alpha}{M}\left[\vec{M}, \frac{d\vec{M}}{dt}\right]. \qquad (5)$$

Card 1/5

where $\vec{H}^{1}$ is the resultant internal field in the ferrite; and α defines the magnetic losses and is connected with the absorption curve ΔH of half-width. A spherical ferrite sample is taken. Its internal field may be determined by demagnetizing factors. Signals of two nearby frequencies acting on the ferrite sample are given in the form of circularly polarized waves. The reception of power of oscillations of the difference between the frequencies is accomplished by a coil mounted on the ferrite and connected to the resonance circuit. The resultant expression for amplitude of voltage U of the difference of frequencies is given in the form:

$$U = \frac{Q\eta S(\omega_1 - \omega_2)\sqrt{P_1 P_2}}{cV\omega_1\omega_2\Delta H}(1 - N_1). \qquad (17)$$

Card 2/3:

where Q is the quality factor of the circuit; n is the number of turns on the ferrite; S is the area of a turn; P_1 and P_2 are powers absorbed by the ferrite at frequencies ω_1 and ω_2; and ΔH is one-half of the width of the resonance curve. N_z is the demagnetizing factor. All quantities of Eq. (17) may be obtained experimentally. (2) Description of the Measuring Arrangement. Figure 1 shows the diagram of the experimental arrangement. By means of this arrangement the absorption of SHF-oscillations in the ferrite and voltage or difference of frequencies may be measured. The SHF-oscillations of frequencies ω_1 and ω_2 from Klystrons 1 and 2 enter the channel with the short-circuited section 11 at its end. The ferrite sample 12 is placed at a distance $\lambda/2$ from the short circuit, i.e., in the loop of the magnetic field. The power reflected from section 11, through coupler 3 with a high direction (40 db) enter the microammeter 10, after being detected. In this case the microammeter 10 serves

Mixing of Super-High Frequencies by Means of Ferrites

77195
SOV/109-5-1-8/20

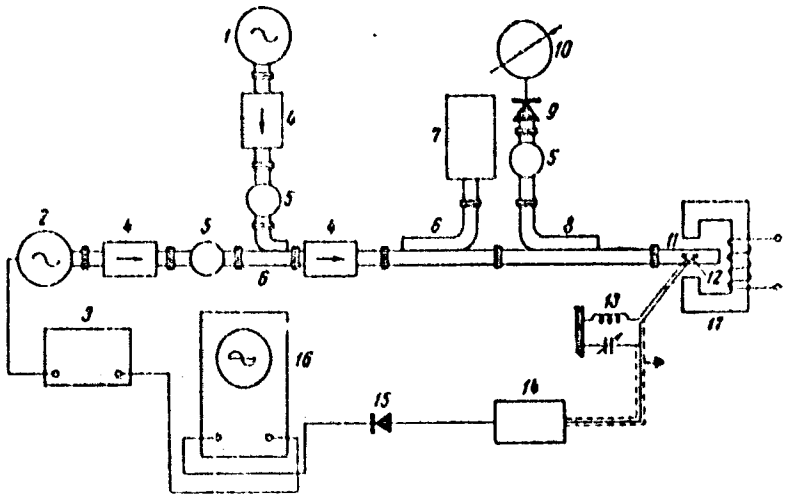


Fig. 1
(Caption on next card)

Card 4/8

Fig. 1. Diagram of the experimental arrangement. (1,2) Klystrons; (3) modulator; (4) ferrite decoupling; (5) attenuator type 67-I; (6,8) directional coupler; (7) power meter of type 34-IM; (9) detector section; (10) microammeter of IM-type; (11) short-circuited section; (12) ferrite sample; (13) contour; (14) intermediate frequency amplifier for 30 mc; (15) detector; (16) oscilloscope of type EO-7; (17) electromagnet.

Caption for Fig. 1.

as an indicator of the power reflected from section 11. Power in the input to section 11 is measured by meter 7. The ferrite sample 12 is under the force of a constant magnetic field created by the electromagnet 17. As the magnetic field changes in intensity so changes also the absorption by the ferrite. The resonance magnetic loss may be determined by measuring the ratio of the power reflected from section 11 in fields which correspond to minimum and maximum values of absorption in ferrite.

Since the input power is known, the losses in the ferrite are obtained from the equation:

$$P_{Fe} = P_{in}\left(1 - \frac{P_{min}}{P_{max}}\right). \quad (18)$$

To measure the signal of the difference in frequencies two turns of wire $\varnothing$ 0.1 mm are wound on ferrite. The ends of this wire are connected to circuit 13 tuned to this frequency. The signal enters oscilloscope 16. The experiments were conducted with samples of various diameters. Samples were made of monocrystal and polycrystal ferrites of various trademarks. The results are given in the form of tables where the values of absorbed power by ferrite under resonance are given, as well as measured and calculated signal magnitudes. The measured and calculated results for the monocrystalline ferrites coincide. For the polycrystalline ferrites these results differ. This difference is

Mixing of Super-High Frequencies by Means of Ferrites

[illegible]
SOV/[illegible]-1-3/20

caused by the different magnetic properties of crystals of polycrystalline ferrite. A brief discussion of this phenomenon is given and an equation for the magnetization of the polycrystalline ferrite is obtained. Other experiments were made with samples of greater dimensions. There are given curves of signal magnitudes and of the absorption by ferrite as a function of a constant magnetizing field for various diameters of ferrite rods. A brief discussion is given on the balance mixer. On the basis of the results obtained in this study it follows that for a mixer it is best to have a balance diagram. In such an arrangement full power of signal and of the heterodyne are used, and the heterodyne noises can be compensated when the arms of the mixer are made highly identical. There are 9 figures; and 10 references, 4 Soviet, 1 French, 5 U.S. The U.S. references are: W. P. Ayres, P. H. Vartanian, J. L. Melchor, J. Appl. Phys., 1956, 27, 2, 188; J. L. Melchor, W. P. Ayres, P. H. Vartanian, Proc. I.R.E., Part I 1957, 45, 5, 643; D. Jaffe, I. C. Cacheris, N. Karayianis, I.R.E. Convent Rec., Part I 1957, March, 18-21, 242-249; E. N. Skomal, M. A. Medina, J. Appl. Phys., 1958, 29, 3, 423;

Card 7/8

Mixing of Super-High Frequencies by Means of Ferrites

7719
SOV/109-5-1-8/20

J. E. Pippin, Proc. I.R.E., 1956, 44, 8, 1054.

PRESENTED: At the Conference on Electronic Devices, in Mexico, June 23, 1959

SUBMITTED: May 30, 1959

Card 8/8

24.2200, 24.7900

77202
SOV/109-5-1-15/20

AUTHOR: Anton'yants, B. Ya.

TITLE: New Method for Measuring Width of Absorption Curve in Ferrites. Short Communication

PERIODICAL: Radiotekhnika i elektronika, 1960, Vol 5, Nr 1, pp 167-169 (USSR)

ABSTRACT: The existing methods for measurement of the width $2\Delta H$ of the absorption curve in ferrites are based on the measurement of changes in the magnetic field. This measurement represents certain difficulties when the width of the curve is small. The paper suggests a method for measurement based on the fact that in the region of ferromagnetic resonance the relationship, at constant frequency, between absorption in ferrite and the magnitude of magnetizing field has approximately the same character as the relationship at constant magnetizing field between the absorption and the frequency. Changes in the frequency may be

Card 1/1

obtained by frequency modulation of the generator (Klystron). These changes may be measured by means of an echo-resonator. The suggested method is illustrated by Figs. 1 and 2.

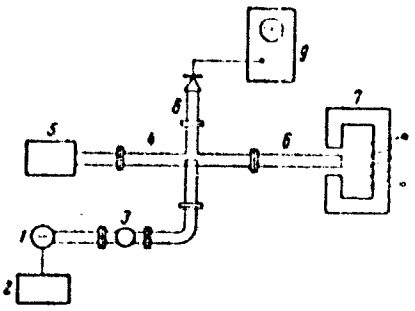


Fig. 1. Schematic setup for measurement of narrow absorption curves in ferrite. (1) Generator; (2) modulator; (3) attenuator; (4) double T-joint; (5) echo-resonator; (6) waveguide section with the ferrite measured; (7) electromagnet; (8) detector; (9) oscillograph.

New Method for Measuring Width of Absorption Curve in Ferrites. Short Communication

77202
SOV/109-5-1-15/20

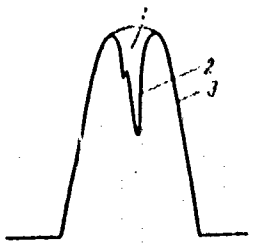


Fig. 2. Absorption curve in ferrite at the Klystron frequency modulation: (1) Mark of the echo-resonator; (2) absorption curve in ferrite; (3) zone of Klystron generation.

Card 3/4

24877
S/109/61/006/007/017/020
D262/D306

9.2571 (1163, 1147)

AUTHORS: Mikaelyan, A.L., Anton'yants, V.Ya., and Turkov, Yu.G.

TITLE: Effects of coupling between the resonator and the ferrite

PERIODICAL: Radiotekhnika i elektronika, v. 6, no. 7, 1961, 1164 - 1193

TEXT: Systems which can be represented as resonators with magnetized ferrites inside them are often used in microwave technique. Such systems can be used as ferrite amplifiers, for the magnetic tuning of resonators, for measuring the ferrite parameters, etc. In the analysis and design of such systems it is usually assumed that the action of the ferrite is restricted to that of varying the resonant frequency and Q of the resonator. This assumption is valid only for cases when the frequency of ferromagnetic resonance differs considerably from the resonant frequency of the cavity itself and when the ferrite exhibits the property of heavy magnetic

Card 1/7

resses. If the above is not the case such system exhibits properties of great practical interest since then the resonator containing the ferrite acts as a system of coupled circuit, one of which is the ferrite and the other the resonant cavity itself. A similar effect can be observed in an acoustical resonant system (ref. 1: P.M. Morse, G. Feshbakh, Metody teoreticheskoy fiziki, II p. 442, IL, 1960). The authors present in the present article the results of theoretical and experimental analysis of the behavior of a resonator containing magnetized ferrite. It is shown that the resonator and a small ferrite sample placed inside it behave like a coupled circuit with two resonant frequencies - frequencies of coupling. One degree of coupling is determined primarily by the ratio of volumes of ferrite and of resonator

$$\omega_{1,2} = \frac{1}{2}\left\{\omega_r + \omega_f \pm \sqrt{(\omega_r - \omega_f)^2 + 2\omega_r\omega_M \frac{I_f}{I_r}}\right\}. \qquad (9)$$

In it ω_r - resonant frequency of resonator alone, ω_f - frequency of ferromagnetic resonance; $\omega_M = \mu_0 \gamma M_0$ where M_0 the external mag-

Card 2/7,

netizing field [Abstractor's note: Not defined], I_f and I_r are determined by

$$I_f = \int_{V_f} \mu_0 [/H_{rx}/^2 + /E_{ry}/^2 + j(H_{ry}H^*_{rx} - H_{rx}H_{ry})]\, dv;$$

$$I_r = \int_{V_r} (\mu_0 \vec{H}\, \vec{H}^*_r + \epsilon_0 \vec{E}\, \vec{E}^*_r) dv \qquad (7)$$

since the resonator has many resonant frequencies ω_{rn}, the above phenomenon will be observed near any of these frequencies, the degree of coupling between the ferrite and the resonator being determined by the field structure, corresponding to the frequency and type of the wave. Not only the homogeneous precession, but also other types of magneto-static oscillations are shown to be related to the resonant frequencies of resonator. This is shown

Card 5/[illegible]

in Fig. 7, in which the resonator frequency is related to one of the higher modes of oscillations of ferrite. The analysis of this phenomenon may be done using

$$\frac{\omega - \omega_r}{\omega_r} = - \frac{\int_{V_f} \mu_0 \vec{M} \vec{H}_r^* dv \cdot \int_{V_f} (\varepsilon - \varepsilon_0) \vec{E} \vec{E}_r^* dv}{\int_{V_r} (\mu_0 \vec{H} \vec{H}_r^* + \varepsilon_0 \vec{E} \vec{E}_r^*) dv}, \qquad (1)$$

where $\vec{H}_r$, $\vec{E}_r$ - magnetic and electric fields respectively in empty resonator; $\vec{H}$ and $\vec{E}$ - the respective fields in the resonator excited by ferrite; M - magnetization of ferrite, ε - specific inductive capacitance of ferrite; V_f and V_r - the volume of ferrite and of resonator respectively. For a ferrite sample in the shape of an ellipsoid with the symmetry axis, the transverse components of magnetization $\vec{M}$ are related with the external alternating field components H_r by

Card 4/7

Effects of coupling ...

$$M_x = \frac{\chi^e}{u_o} H_{rx} - j \frac{k^e}{u_o} H_{ry}, \qquad M_y = j \frac{k^e}{u_o} H_{rx} + \frac{\chi^e}{u_o} H_{ry}, \qquad (2)$$

where χ^e and k^e are the components of the tensor of "external" susceptibility of ferrite. In using Eq. (1) instead of Eq. (2) formulae of P.C. Fletcher and R.O. Bell (Ref. 2: Ferromagnetic resonance modes in spheres, J. Appl. Phys. 1959, 30s, 687) should rather be used, relating the magnetization and the field for a given type of oscillation in the ferrite. The resonance curve of the system ferrite resonator in terms of the magnetic field values may differ considerably from that of ferrite in free space. Its width $2\delta H$ depends not only on magnetic losses of ferrite, but also on other parameters of the system. This fact leads to the need for working at frequencies remote from the resonant frequency of the resonator. The evaluation of coupled systems of the ferrite resonator can be also carried out using the method of A.L. Mikaelyan (Ref. 3: Nelineynaya teoriya ferritovykh generatorov, Radiotekhnika

Card 5/7

S/109/61/006/007/017/02[illegible]
D262/D306

Effects of coupling ...

i elektronika, 1960, 5, 1, 46). Besides the interaction between the sample and resonator, the interaction between two (or more) ferrite samples is possible, which can be determined [illegible]ental-ly. The phenomenon observed in the present experiment can be used for setting up various microwave systems. It may be seen that the dependence of frequency on magnetizing field is most pronounced close to the region where the frequency of ferromagnetic resonance is near that of the resonator itself, so that considerable tuning range is possible with only small changes of the magnetizing field. A coupling resonator ferrite system can also be used as a tuned filter, with the frequency band depending on the number of ferrite samples within the resonator. Such a system can also be used as a fast acting switch. The authors acknowledge the help of A.A. Pistol'kors. There are 7 figures and 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: P.C. Fletcher, R.O. Bell, Ferromagnetic resonance modes in spheres, J. Appl. Phys., 1959, 30, 5, 687.

SUBMITTED: July 26, 1960

Card 6/6

S/109/62/007/004/005/018
D230/D302

9,2571

AUTHORS: Mikaelyan, A.L., and Anton'yants, V.Ya.

TITLE: Mutual coupling phenomena in a system of magnetized ferrite samples

PERIODICAL: Radiotekhnika i elektronika, v. 7, no. 4, 1962, 623 - 630

TEXT: This is a discussion of the coupling effect and of the characteristics of ferrite samples under the action of an external microwave field and in a radiated field from the neighboring samples. To determine the resonant frequencies of the coupled system two cases of the coupling effect were examined, in which the arrangement consisted of two samples each having the form of an ellipsoid of rotation and placed in free space: 1) The samples lie in plane z = = 0, perpendicular to the direction of the constant magnetic field. In this plane all positions of the second sample become correspondingly the same, hence this sample is placed at points x = a, y = 0. Formulae for the resonant frequencies are deduced for samples of finite volumes and finite separations. The losses in the system can

Card 1/2

L 58924-65 EWA(k)/FBD/EWG(r)/EWT(l)/EWT(m)/EEC(k) [illegible]

AUTHOR: Chaelyak, [illegible]; Anton'yants, [illegible]

SOURCE: [illegible]

TOPIC TAGS: passive element, laser output, [illegible]

ABSTRACT: An expression was derived for the peak [illegible] pulse obtained from a laser with passive shuttering. The [illegible]

L 58924-65

ACCESSION NR: AP5017676

[illegible] For a pumping

Card [illegible]

L 37665-66 EWT(m)/EWP(e) WW/GD

ACC NR: AT6022263 SOURCE CODE: UR/0000/66/000/000/0004/0008

38
B+1

AUTHOR: Antonʹyants, V. Ya; Dolgiy, V. A.

ORG: none

TITLE: Calculation and experimental studies of the optimal operation of a Q-switched ruby laser

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966. Sektsiya kvantovoy elektroniki. Doklady. Moscow, 1966, 4-8

TOPIC TAGS: solid state laser, ruby laser, Q switching, passive switching

ABSTRACT: Optimal conditions are calculated on the basis of the theoretical considerations set forth by A. L. Mikaelyan et al. (Rad. i elektronika, no. 7, 1965). Ruby parameters: $n_0 = 0.4$ per cm; $\rho = 0.03$ per cm; phthalocyanine modulator. Maximum-efficiency plots of mirror transmissivity $1 - r$, passive modulator transmissivity τ, and energy yield u_ℓ vs. ruby length are shown. As the manufactured ruby sizes are standardized, another set of plots is supplied to enable one to select the near-optimal ruby size; experimental plots (for ruby length 12 cm) of $1 - r$, τ, and efficiency vs. u_ℓ are shown. In designing a laser, first, the optimal operating conditions for a specified radiation energy should be determined, and then the pulse duration can be selected by joggling the resonator length. Orig. art. has: 4 figures and 1 formula. [03]

SUB CODE: 20 / SUBM DATE: 11Apr66

Card 1/1

L 44360-66 EWT(1)/FCS-2 AD

ACC NR: AT6022272 SOURCE CODE: UR/0000/66/000/000/0033/0040

AUTHOR: Pirshin, I. V.; Koblova, M. M.; Khlystov, V. I.; Anton'yants, Ye. V.

ORG: none

TITLE: Investigation and development of optical modulators

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966. Sektsiya kvantovoy elektroniki. Doklady. Moscow, 1966, 33-40

TOPIC TAGS: optic modulator, interferometer, laser communication, laser

ABSTRACT: Since existing optical modulators have electrooptical crystals that require high voltages, a device using a symmetrical Michaelson interferometer with double refracting diagonally cut crystals in the arms was developed. The latter are controlled by a field at right angles to the direction of propagation. The power required to control the modulator can be lowered by increasing the length of the crystal and decreasing its cross section. The power required by the modulator depends on the operating modulation frequency band; when a subcarrier is used, the voltage can be fed to the modulator by a resonance circuit. Curves are plotted for values of power as a function of the modulation band. Optimum adjustments of mirror position are given for maximum uniformity of light intensity over the beam cross section. The arms of the modulator must be identical and temperature must be controlled for best operation since the

Card 1/2

modulator is rather sensitive to temperature variations. Details on the thermal expansion of various parts and materials are given and the effects of expansion on modulator operation are described. Invar is suggested as the best structural material. The maximum modulation frequency is 500 to 700 Mc. A model of the device, 15 × 15 × × 6 cm and weighing 3.6 kg, was constructed of superinvar. Details of the optics are given, including the technique for adjusting the mirrors. The modulator was tested between 0 and 100 Mc with a control voltage of 150 v. The model was tested in an experimental transmission of a television picture with the aid of a laser beam. Calculations were made of waveguide size for given wavelengths and the power required for the crystals in the waveguide. The tests of the modulator based on a Michaelson interferometer proved its applicability for high and superhigh frequencies. Orig. art. has: 5 figures.

SUB CODE: 20,17/ SUBM DATE: 11Apr66/ ORIG REF: 001

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810014-5"

ANTON'YEV, A. A.

Exfoliative syphilitic roseola. Vest. vener., Moskva no.4:42-43 July-Aug 1951. (CLML 21:1)

1. Department Physician. 2. Of the Department of Skin and Venereal Diseases, First Moscow Order of Lenin Medical Institute (Director — Prof. V. A. Rakhmanov).

ANTON'YEV, A. A.

Data on the problem of recurrent syphilis. Vest. ven. i derm. No. 2, 1952.

SO: MLRA. August 1952.

[redacted], A. A.

Skin - Diseases

Clinical aspects and histopathology of follicular and parafollicular hyperkeratosis which infiltrates into the skin. Vest. ven. i derm. No. 1, 1953.

Monthly List of Russian Accessions, Library of Congress
June 1953. UNCL.

ANTON'YEVA, A. A.

USSR/Medicine - Embikhin Jul/Aug 53

"Results of Treatment With Embikhin of Patients Afflicted With Mycosis Fungoides," A. F. Nikitina and A. A. Anton'yeva, Dermatological Clinic, Central Dermato-Venereological Inst, Min Health, USSR

Vest Vener i Derm, No 4, pp 54-56

Results of attempts to treat patients who were afflicted with mycosis fungoides by intravenous injection of 10-20cc of a physiological soln of embikhin twice a week for a period of 5-10 weeks, indicated the effectiveness of this drug. An initial dose of 2-3 mg of embikhin is recommended. If that dose is well tolerated, it should be increased by 1 mg up to the max dose of 5-6 mg. After 10-20 injections, itching disappeared in two three patients; nodes completely resolved in two patients. Due to the fact that some nodes still remained in 2 cases, after a course of treatment with embikhin, roentgenotherapy was subsequently resorted to with good results.

271T32

ANTON'YEV, A.A.

ANTON'YEV, A.A.--"Evaluation of Certain Organizational Measures for Combating Dermatomicosis."*(Dissertation for Degrees in Science and Engineering Defended at USSR Higher Educational Institutions.) Republic Sci Res Dermatological-Venereal Inst of the Min of Heal Protection RSFSR, Rostov-on Don State Medical Inst, Rostov-on-Don State Medical Inst, Rostov-on-Don, 1955

SO: Knizhnaya Letopis' No. 25 18 Jun 55

* For Degree of Candidate in Medical Sciences

ANTON'YEV, A.A., assistent

New qualitative indexes in the control of dermatomycosis. Vest.ven. i derm. 30 no.2:18-21 Mr-Ap '56. (MLRA 9:7)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zav.-prof. N.A. Torusev) Rostovskogo-na-Donu Gosudarstvennogo meditsinskogo instituta.
(SKIN, dis.
fungus dis., prev. & control)
(FUNGUS DISEASES
dkin, prev. and control)

TORSUYEV, N.; ANTON'YEV, A.

"Communicable diseases of man." Reviewed by N. Torsuev, A.Anton'ev.
Vest.derm. i ven. 31 no.2:49-50 Mr-Ap '57. (MIRA 12:12)
(COMMUNICABLE DISEASES)

ANTON'IEV, Anatoliy Anatol'yevich

[Control of trichophyton, microsporia, and favus] Organizatsiia bor'by s trikhofitiei, mikrosporiei i favusom. Moskva, Medgiz, 1958. 95 p. (MIRA 12:4)

(MEDICAL MYCOLOGY)

ABDUSAMETOV, R.Kh. (Semipalatinsk), ANTON'YEV, A.A., kand.med.nauk. (Rostov-na-Donu), BRZHESKIY, V.Ch. (Tikhvin, Leningradskaya oblast')
ORZHEHIN, Z.N., prof. (Chernovitsy), IVANOV, N.A., prof. (Leningrad)
KAZAKOV, V.I., dots. (Stavropol' na Kavkaze), SLADKOVICH, S.Ye. (Moskva), TORUYKV, N.A., prof. (Rostov-na-Donu), MAKSIMOVA, A.A. dots. (Rostov-na-Donu), YAYN, A.B., kand.med.nauk (Saratov) KHRISTIN, L.J. prof. (Stanislav), YAKUBSON, A.K., prof. (Novosibirsk), LESNIKOV, Ye.P., assistent (Novosibirsk)

Problems of teaching dermatovenerology in medical institutes. Vest. derm. i ven. 32 no.3:60-69 '58 (MIRA 11:7)
(DERMATOLOGY, educ.
in Russia (Rus))
(SYPHILOLOGY, educ.
in Russia (Rus))

TORSUYEV, N.A., prof.; ANTON'YEV, A.A., otv.red.

[Bibliographic index of works of Russian writers on leprosy through 1957] Bibliograficheskii ukazatel' rabot otechestvennykh avtorov po lepre; do 1957 goda vkliuchitel'no. Rostov-na-Donu, Rostovskii eksperimental'no-klinicheskii leprozorii M-va zdravookhraneniia RSFSR, 1959. 222 p. (MIRA 12:12)
(BIBLIOGRAPHY--LEPROSY)

ANTON'YEV, A.A., kand.med.nauk

Epidemiology and control of fungous diseases of the skin. Med. sestra 18 no.6:34-39 Je '59. (MIRA 12:8)

1. Iz kafedry kozhnykh i venericheskikh bolezney Rostovskogo gosudarstvennogo meditsinskogo instituta.
(DERMATOMYCOSIS)

DOLGOV, A.P.; BRUYEVICH, T.S.; ANTON'YEV, A.A. (Moskva)

First All-Union Symposium on Urgent Problems concerning Occupational Dermatology. Gig. truda i prof. zab. 7 no.1:56-58 Ja'63 (MIRA 16:12)

DOLGOV, A.F., prof., red.; RABEN , A.S., doktor med. nauk, red.; ANTON'YEV, A.A., dots., red.; BRUYEVICH, T.S., kand. med. nauk, red.; LETAVET, A.A., prof., red.; RAKHMANOV, V.A., prof., red.; STUDNITSIN, A.A., prof., red.

[Current problems of occupational dermatology] Aktual'nye voprosy professional'noi dermatologii. Moskva, Meditsina, 1965. 246 p. (MIRA 18:4)

1. Deystvitel'nyy chlen AMN SSSR (for Letavet). 2. Chlen-korrespondent AMN SSSR (for Rakhmanov). 3. Dermatologicheskoye otdeleniye Instituta gigiyeny truda i profzabolevaniy AMN SSSR (for Dolgov, Anton'yev, Bruyevich, Raben).

ANTON'YEV, A.A.; ORLOV, V.M.; RABEN, A.S. (Moskva)

Occupational diseases of the skin caused by chinese lacquer. Vest. derm. i ven. 38 no.3:30-31 Mr '64.

(MIRA 18:4)

1. Dermatologicheskoye otdeleniye (zav. - prof. A.P.Dolgov) Instituta gigiyeny truda i professional'nykh zabolevaniy (dir. - deystvitel'nyy chlen AMN SSSR prof. A.A.Letavet) AMN SSSR.

ANTON'YEV, A.A.; LOPUKHOVA, K.A.; RABEN, A.S.

Cases from practice and therapeutic notes concerning the nevoid nature of the superciliary cicatricial erythema. Vest. derm. i ven. 38 no.9:76-77 S '64. (MIRA 18:4)

1. Dermatologicheskoye otdeleniye (zav. - prof. A.P.Dolgov) Instituta gigiyeny truda i professional'nykh zabolevaniy (dir. - deystvitel'nyy chlen AMN SSSR prof. A.A.Letavet) AMN SSSR, Moskva.

ANTON'YEV, A.A., dotsent

Quality indices in the control of occupational dermatoses. Vest. derm. i ven. no.3:69-70 '65. (MIRA 18:11)

1. Dermatologicheskoye otdeleniye (zav. - prof. A.P. Dolgov) Instituta gigiyeny truda i professional'nykh zabolevaniy (direktor - deystvitel'nyy chlen AMN SSSR prof. A.A. Letavet) AMN SSSR, Moskva.

LETAVET, A.A., prof., red.; ANTON'IEV, A.A., dots., red.; IROGICHINA, E.A., prof., red.; KONCHALOVSKAYA, N.M., prof., red.; PAVLOVA, I.V., doktor med. nauk, red.; POPOVA, T.B., kand. med. nauk, red.; RABEN, A.S., doktor med. nauk, red.; RABEN, A.S., doktor med. nauk, red.; RASHEVSKAYA, A.M., prof., red.; SHATALOV, N.N., kand. med. nauk, red.

[Occupational diseases in the chemical industry] Professional'nye zabolevaniia v khimicheskoi promyshlennosti. Moskva, Meditsina, 1965. 322 p. (MIRA 18:12)

1. Deystvitel'nyy chlen AMN SSSR (for Letavet).

ANTONYAN, A.A.

Effect of inhibitor I on stabilization of trypsin and on the dependence of its activity on pH. Ukr. biokhim. zhur. 37 no.4: 493-500 '65. (MIRA 18:9)

1. Institut biokhimii AN Armyanskoy SSR, Yerevan.

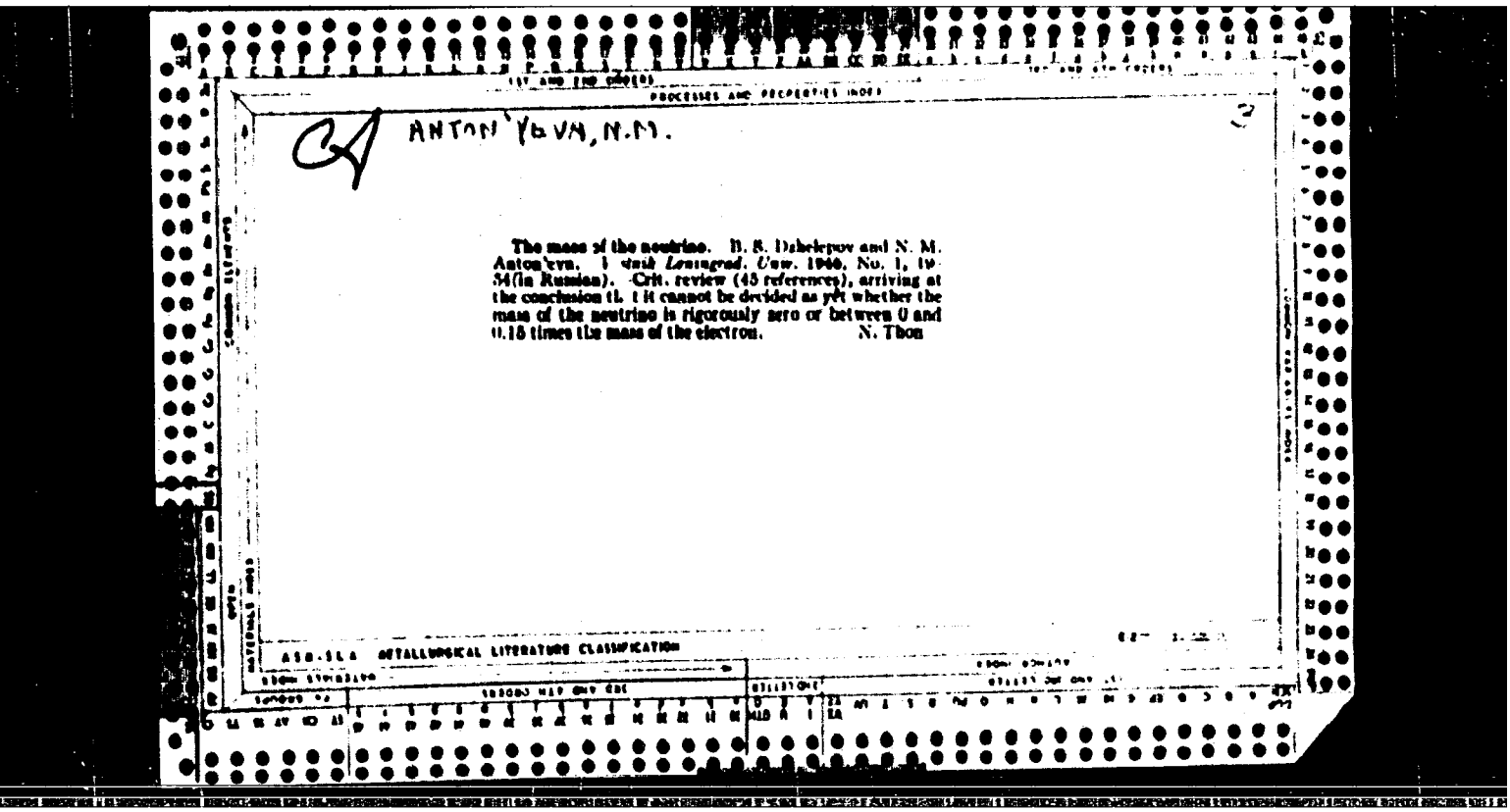
ANTONIYEV, A.A., dotsent (Moskva)

Some controversial problems of the terminology, nomenclature, and classification of occupational dermatoses. Vest. derm. i ven. 39 no.4:44-48 Ap '65. (MIRA 19:2)

1. Submitted Oct. 29, 1964.

KASHKAY, M.A.; ANTON'YEVA, I.L.

Geological conditions and hydrochemistry of mineral waters in Kedabek District of the Azerbaijan S.S.R. Trudy Inst. geol. AN Azerb. SSR 23:131-145 '64. (MIRA 18:7)



ANTON'YEVA, N.M.

The mass of the neutrino. B. S. Dzhelepov and N. M. Anton'eva. *Vestnik Leningrad. Univ.* 1946, No. 1, 19-34 (in Russian). Crit. review (45 references), arriving at the conclusion that it cannot be decided as yet whether the mass of the neutrino is rigorously zero or between 0 and 0.15 times the mass of the electron. N. Theo

PROCESSES AND PROPERTIES INDEX

N

800 β^+ and β^- Decay of Br^{80}. B. S. Dzhelepov, N. M. Anton'eva, and S. A. Shestopalova. Doklady Akad. Nauk, S.S.S.R. 64, 309-12(1949)(in Russian).

A magnetic spectrometer is described in which the electron's trajectory is a spiral, the focusing taking place twice, after 1/2 and 3/2 loops, at which points two counters, working in coincidence, are placed one below the other. The counters' walls are of 20 μ cellophane; the whole instrument has a celluloid envelope, the pressure being 9 cm Hg within the envelope and the counters. Using this instrument, the β^+ - β^- decay of Br^{80} was investigated. The positron-spectrum end point is 1.0 ± 0.1 Mev, that of the electron spectrum agrees with the values found by other workers (Snell, Phys. Rev. 52, 1007(1937)); the ratio β^+/β^- = (1.0 ± 0.2)%. The half-life period of the $\beta\pm$ decay is 5.0 ± 0.5 hr. Although this value is close to the period of Br^{80} (4.4 hr), it is probable that the positrons are connected, as are the electrons, with the ground state (τ = 18 min) of Br^{80}, rather than with the metastable level τ = 4.4 hr. The probability of a K capture was calculated by using the formulas of Konopinski (Revs. Modern Phys. 15, 209(1943)). The following scheme of the decay of Br^{80} is obtained: a γ transition (4.4 hr), then (1) 1.2% K capture, (2) 1% β^+ decay, (1.0 Mev), both (1) and (2) resulting in Se^{80}, or (3) 97.8% β^- decay (18 min), (2.2 Mev), resulting in Kr^{80}.

Sci Res Phys Inst
Leningrad State U.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

Radiation of gold[illegible], holmium[illegible], and lutetium[illegible]. N. M. Antum'eva, A. A. Bashilov, B. S. Dzhelepov, and A. V. Zolotavin (A. A. Zhdanov State Univ. Leningrad). *Izvest. Akad. Nauk S.S.S.R., Ser. Fiz.* 14, 299-318 (1950). — All measurements were made with the ketron (cf. preceding abstr.). The continuous β-spectrum of Au[illegible] corresponds exactly to the Fermi formula for allowed transitions, the limit is 985 ± 10 kv. Measurement of the conversion lines of K, L, and M electrons from 411.2-e.kv. γ-rays gave for N_K/N_L 2.6, 1.2, and 0.3, resp., corresponding to quadrupole radiation. From these measurements the transition from Au[illegible] to Pt[illegible] and Hg[illegible] was indicated. The β-spectrum of Ho[illegible] is continuous with a limit at about 1840 e.kv. and an intense group of soft radiation below 100 e.kv. The analysis of the continuous spectrum indicates its complex character and the presence of forbidden transitions. A γ-line of 81 e.kv. has a weak K but strong L, M conversion. γ-Rays of 1300 e.kv. were also detected and a scheme of transition to Er[illegible] was worked out. The continuous spectrum of Lu[illegible] has a limit at 475 ± 5 e.kv. and 4 conversion lines. The transitions are of the forbidden type. The lines of conversion electrons correspond to γ-rays of 112 ± 1 and 208.5 ± 2.0 e.kv. The transition scheme to Hf[illegible] is indicated. A table of calcd. functions F(K,Z) for the β-elements is given.

S. Pakswer

ANTON'YEVA, N. M.

158T80

USSR/Nuclear Physics - Beta-Spectrum Jan 50
Isotope

"Beta-Spectrum of Ho^{166}," N. M. Anton'yeva, A. A. Bashilov, B. S. Dzhelipov, A. V. Zolotavin, Phys Inst, Leningrad State U imeni A. A. Zhdanov, 4 pp

"Dok Ak Nauk SSSR" Vol LXX, No 3

Used magnetic spectrometer with improved focusing to study beta-spectrum of Ho^{166}. Thin layer of Ho_2O_3, irradiated by neutrons and deposited on strip of cigarette paper, was electron source. Electron radiation of Ho^{166} consists of continuous beta-spectrum with limit of about 1,840 kev and intense group of slow electrons less than 100 kev. Submitted 21 Sep 49 by Acad P. I. Lukirskiy.

158T80

ANTON'YEVA, N. N.

USSR/Nuclear Physics - Radium 11 Feb 50
Gamma Rays

"Structure of the Gamma-Lines of RaC," A. A. Bashilov, N. M. Anton'yeva, A. V. Zolotavin, Phys Inst, Leningrad State U imeni A. A. Zhdanov

"Dok Ak Nauk SSSR" Vol LXX, No 5, pp 793-796

Latyshev and co-workers' previous studies of beta-spectrum of RaC had established that gamma-ray lines of conversion electrons were considerably wider than had been expected from instrumental data and that there were a number of very narrow peaks, in some cases 6 kev apart and in others 2.5 kev apart, on base line. This was interpreted as a fine structure of gamma-lines by Latyshev and his co-workers. In view of fundamental importance of this hypothesis, authors herein studied structure of these lines under conditions which eliminated distortion of lines by walls of glass ampoule and with a betaspectrometer having improved focusing. Fine structure in form observed by Latyshev and co-workers was not discovered. Submitted 13 Dec 49 by Acad S. I. Vavilov.

PA 165T47

ANTON'EVA, N.M.

CA

3A

The β spectrum of silver[110]. N. M. Anton'eva, A. A. Bashilov, and B. S. Dzhelepov (A. A. Zhdanov State Univ., Leningrad). *Doklady Akad. Nauk S.S.S.R.* 77, 41 (1951). — The β spectrum of Ag^{110} was studied by means of a Ketron (C.A. 45, 4Mg). Three sources used to study the different parts of the spectrum had the same width (0.8 mm.) but each had a different surface d., 0.6, 6, and 44 mg./sq. cm. The registration of electrons was carried out by means of a single counter as well as by the method of coincidence. The spectrum consists of many components which differ greatly in rigidity and intensity. In the background of these spectra, 23 conversion lines differing greatly in height were measured. The parts of the spectra which are of the greatest interest are presented graphically. A table of 14 γ lines is presented. Of these 10 have already appeared in the literature. The 4 new lines have energies of $h\nu$ = 447, 618, 740, and 1490 e.kv. J. R. Leach

USSR/Nuclear Physics - Beta-Spectrum of Ir May/Jun 52

"The Beta-Spectrum of Ir^{192}," A. A. Bashilov, M. M. Anton'yeva, B. S. Dzhelepov

"Iz Ak Nauk SSSR, Ser Fiz" Vol 16, No 3, pp 264-305

The expti data in this report was heard 14 Feb 51 in the Acad Sci USSR. Discusses the general knowledge concerning the radioactive isotope Ir^{192}; the spectrometer used and the conditions governing the measurements; general

232T92

ANTON'YEVA, M. M.

appearance of the beta-spectrum of Ir^{192}; comparison of the results of the measurements of the beta-spectrum of Ir^{192} with the data of various authors mostly foreign; the spectrum of the electrons of internal conversion of Ir^{192}, and their conversion lines and energy lines; the spectrum of electrons of conversion of gamma-rays of Ir^{192} according various authors; the gamma-radiation of Ir^{192} according to the data of various authors; positrons and the capture of atomic electrons; the scheme describing the decay of Ir^{192}. Acknowledges the assistance of Ye. G. Kuznetsov.

232T92