"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PILOYAN, G.O.; YEVSEYEV, A.M.; GERASIMOV, Ya.I.

Thermodynamic properties of alloys of the system chromium - tantalum. Zhur. fiz. khim. 34 no.8:1768-1772 Ag '60. (MIRA 13:9)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Chromium-tantalum alloys)

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

26

B

**Mechanism of Oxidation of Allyl Alcohol to Acrolein.** (In Russian.) P. V. Zimakov and V. A. Pilroyskii. *Doklady Akademii Nauk SSSR* (Reports of the Academy of Sciences of the USSR), new ser., v. 63, Nov. 11, 1948, p. 143-145.

Data are tabulated

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

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SVIRLOVSKIY, E.I. [deceased]; LIYEPINYA, M.P.; PILPE, L.D.

Anatomical structure of the leaves of Scopolia carniolica Jacq. Trudy Len. khim.-farm. inst. 12:71-73 '61. (MIRA 15:3)

1. Kafedra farmakognozii farmatsevticheskogo fakul'teta Rizhskogo meditsinskogo instituta.

(LATVIA—SCOPOLIA)
(LEAVES—ANATOMY)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PILSETREKS, A.A.

Case of bronchoplasty with a muscle flap on a pedicle. Khirurgiia 35 no.8:111 Ag '59. (MIRA 13:12)
(BRONCHI—SURGERY)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

ZHARNITSKIY, Ye. P.; PIL'SHCHIK, G.

Construction of canals using hydraulic engineering machinery. Transp. stroi. 13 no.4:25-27 Ap '63. (MIRA 16:4)

1. Zamestitel' glavnogo mekhanika Vsesoyuznogo tresta po proyektirovaniyu zemlyanykh rabot i dobyche ballasta gidravlicheskim sposobom (for Zharnitskiy). 2. Nachal'nik stroitel'nogo upravleniya No. 474 Vsesoyuznogo tresta po proyektirovaniyu zemlyanykh rabot i dobyche ballasta gidravlicheskim sposobom (for Pil'shchik).

(Dredging) (Canals)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PIL'SHCHIK, M. G. PA 17/49T100

USSR/Medicine - Urology Mar 48
Medicine - Biography

"In Honor of Iosif Naumovich Shapiro," M. G. Pil'shchik, V. I. Rozhdestvenskiy, 1¼ pp

"Vest Khirurgii" Vol LXVIII, No 3

Summarizes career of Prof I. N. Shapiro, urologist.

PTA 17/49T100

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

BRESLER, V.M.; [illegible], Ia.M.; KON[illegible]

Tryptophan pyr[illegible]
TSitologiia 7 no.3:4[illegible] My-Ja '65. [illegible]

1. Laboratoriya mikroskopii Instituta [illegible] AN [illegible], Leningrad.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

[illegible]

Effect of [illegible]

[illegible]

[illegible]

[illegible]

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PIL'SHCHIK, Ye.M.; KUDRYAVTSEVA, M.V.

Changes in the ultraviolet and blue fluorescence in the hepatic cells in white rats in the early postnatal period. Arkh. anat. gist. i embr. 48 no.4:49-53 Ap '65. (MIRA 18:

1. Laboratoriya novykh metodov mikroskopii (zav. - prof. Ye.M. Kheysin) Instituta tsitologii AN SSSR, Leningrad.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

CHERNOGRYAMSKAYA, N. A.; [illegible], [illegible] M.; [illegible], V. M.; [illegible], [illegible] M.; [illegible], M.S.; KUPRYAVTSEVA, M. V.; [illegible], T. [illegible].

"[illegible]"

report [illegible]

[illegible]

[illegible]

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PIL'SHCHIK, Ye.M.; NIKOLAYEVA, M.V.

Ultraviolet fluorescence from liver cells in white rats during their embryonic development. Dokl. AN SSSR 148 no.1:199-201 Ja '63. (MIRA 16:2)

1. Institut tsitologii AN SSSR. Predstavleno akademikom V.N. Chernigovskim.

(FLUORESCENCE MICROSCOPY) (EMBRYOLOGY—MAMMALS) (CELLS)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

NIKOLAYEVA, M.V.; PI'SHCHIK, Ye.M.

Fluorescence microscopic st dy of living Paramecium caudatum dunder normal conditions and during starvation. Sbor. rab. Inst. tsit. no. 3:54-61 '63. (MIRA 17:2)

1. Laboratoriya mikroskopii Instituta tsitologii AN SSSR.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

[illegible], [illegible]., [illegible]YEV, [illegible], [illegible]SH[illegible], Ye.M.; [illegible]

Tryptophan pyrolase activity in the liver and in some transplantable hepatomas of mice $C_3HA$. Tsitologiia 7 no.5 [illegible] '65. [illegible]

[illegible] Laboratoriya [illegible] i laboratoriya biokhimicheskoi [illegible] reproduktsii kletki [illegible] Submitted January [illegible], [illegible]65.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PILSHCHIK, Ye. M. and NIKOLAYEVA, M. V.

"Ultraviolet Fluorescence of Liver Cells of White Rats at Different Stages of Embryogenesis." pp. 56

Institute of Cytology AS USSR Laboratory of Microscopy

II Nauchnaya Konferentsiya Instituta Tsitologii AN SSSR. Tezisy Dokladov (Second Scientific Conference of the Institute of Cytology of the Academy of Sciences USSR, Abstracts of Reports), Leningrad, 1962 88 pp.

JPRS 20,634

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PIL'SHCHIK, Ye.M.

Effect of ionizing radiations of various intensities on bone marrow regeneration. Biul.eksp.biol. i med. 48 no.7:90-95 Jl '59. (MIRA 12:10)

1. Iz kafedry gistologii i embriologii (zav. - prof.G.S.Strelin) I Leningradskogo meditsinskogo instituta imeni akademika I.P. Pavlova. Predstavlena deystvitel'nym chlenom AMN SSSR V.N. Chernigovskim.

(COBALT - radioactive)
(BONE MARROW - radiation effects)
(REGENERATION - radiation effects)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

CHERNOGRYADSKAYA, N. A.; FIL'SHCHIK Ye. M.; SHEDEL', M. [illegible]; KUPRYAVTSEVA, M. V.; ASTASHINA, T. P.

Intrinsic ultraviolet fluorescence of mitochondria. Dokl. AN SSSR 156 no. 1:174-176 My '64. (MIRA [illegible])

1. Institut tsitologii AN SSSR. Predstavleno akademikom A. N. Tereninym.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PHASE I BOOK EXPLOITATION SOV/5435

Kiselev, P. N., Professor, G. A. Gusterin, and A. I. Strashinin, Eds.

Voprosy radiobiologii. t. III: Sbornik trudov, posvyashchennyy 60-letiyu so dnya rozhdeniya Professora M. N. Pobedinskogo (Problems in Radiation Biology. v. 3: A Collection of Works Dedicated to the Sixtieth Birthday of Professor M[ikhail] N[ikolayevich] Pobedinskiy [Doctor of Medicine]) Leningrad. Tsentr. n-issl. in-t med. radiologii M-va zdravookhraneniya SSSR, 1960. 422 p. 1,500 copies printed.

Tech. Ed.: P. S. Peleshuk.

PURPOSE: This collection of articles is intended for radiobiologists.

COVERAGE: The book contains 49 articles dealing with pathogenesis, prophylaxis, and therapy of radiation diseases. Individual articles describe investigations of the biological effects of radiation carried out by workers of the Central Scientific Research Institute for Medical Radiology of the Ministry of Public Health, USSR. [Tsentral'nyy nauchno-issledovatel'skiy institut meditsinskoy radiologii Ministerstva zdravookhraneniya SSSR] during 1958-59. The following

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topics are covered: various aspects of primary effects of radiation; the course of some metabolic processes in animals subjected to ionizing radiation; reactions in irradiated organisms; morphologic changes in radiation disease; and reparation and regeneration of tissues injured by irradiation. Some articles give attention to the effectiveness of experimental medical treatments. No personalities are mentioned. References accompany almost all of the articles.

TABLE OF CONTENTS:

Foreword 5

Gesterin, G. A., and A. I. Strashinin. Professor Mikhail Nikolayevich Pobedinskiy (Commemorating his Sixtieth Birthday) 5

Lebedinskiy, A. V. [Member, Academy of Medical Sciences USSR], E. I. Arlashchenko, and V. M. Mastryukova. On the Mechanism of Trophic Disturbances Due to Ionizing Radiation 11

Zedgenidze, G. A., [Member, Academy of Medical Sciences USSR], Ye. A. Zherbin, K. V. Ivanov, and P. R. Vaynshteyn. Hormonal Activity of the Adrenal Cortex in Acute Radiation Sickness and the Effect of Desoxycorticosterone Acetate on the Disease 17



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Strelin, G. S., and Ye. M. Polishchuk. On the Repression of Regenerative Processes in the Bone Under Various Conditions of Irradiation of Animals 198

Pushkaitsina, A. P. Reactive Changes in Rat Marrow in Radiation Sickness Complicated by Loss of Blood 203

Lazarev, F. L., A. I. Strashinin, G. S. Strelin, and I. V. Shiffer. Regeneration of Surgical Intestinal Wounds in Radiation Sickness 211

Shveleva, N. I. Effect of Ether Anesthesia on the Regeneration Process of Hematogenesis in Rats With Combined Injuries 222

Lyalin, Ye. A. Change in Some Aspects of the Activity of the Thyroid Glands Following Whole-Body Irradiation 231

Lyalin, Ye. A. Effect of Whole-Body Irradiation on the Proliferating Capability of Thyroid Tissue in White Mice 236

Kantin, A. V., and P. V. Sipovskiy. Formation of the Surgical Stump of Limb During Experimental Radiation Disease in Rabbits 241



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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PIL'SHCHIKOV, A.A.

Isolation of Brucella [illegible]
7 no. [illegible] 132 [illegible]

1. Kafedra gospital'noy [illegible] [illegible]
[illegible] pol'skogo med[illegible] [illegible]
infektsionnaya bol'nitsa [illegible]

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[illegible], A.A., assistent

Surgical indications in bru[illegible] [illegible] to materia[illegible] Stavropol Territory. [illegible] 219-[illegible] '63. [illegible]

1. Kafedra [illegible] khirurg[illegible] [illegible] Stavropol'skiy gosudarstvennogo [illegible].

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L 6119-66 EWT(m)/EWA(d)/EWP(t)/EWP(m)/EWP(b) IJP(c) JD

ACC NR: AP5027410 SOURCE CODE: UR/0181/65/007/011/3320/3325

AUTHOR: Pil'shchikov, A. I.; Lebedeva, Ye. V.

ORG: Moscow State University (Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova)

TITLE: Parametric excitation of spin waves in polycrystalline specimens of MgMn ferrites

SOURCE: Fizika tverdogo tela, v. 7, no. 11, 1965, 3320-3325

TOPIC TAGS: ferrite, polycrystal, spin wave, magnetic field

ABSTRACT: The authors study polycrystalline ferrites with regard to the effect of their structural and magnetic characteristics on the instability of spin waves. The method of parallel pumping was used for determining the relationship between the SHF threshold field and the steady magnetic field in studying parametric excitation of spin waves in specimens with various percent contents of MgO, MnO and $Fe_2O_3$. A number of specimens were studied with wide variations in grain size, magnetization and $\Delta H$. The measurements show that the threshold fields and spin-wave losses are

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independent of the structure of the polycrystal in specimens with close to stoichiometric composition in steady fields where the specimen can be magnetized to saturation. It is assumed that this is because the excited spin waves are shorter than the crystallite dimensions. Measurements in fields too low for saturation show that the domain structure in specimens with high magnetization causes a considerable reduction in the threshold fields. In conclusion, the authors thank A. A. Shilova for participation in the experiment, and also I. I. Sil'vestrovich and L. A. Rodnova for furnishing the specimens and data on their microstructure and static characteristics. Orig. art. has: 4 figures, 1 table.

SUB CODE: SS,EM/ SUBM DATE: 21Jan64/ ORIG REF: 011/ OTH REF: 001

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PIL'SHCHIKOV, A.I.

Determining the magnetic permeability of substances in ferromagnetic resonance fields. Vest. Mosk. un. 11 no.5:49-54 My '55. (MLRA 9:10)

1.Kafedra radiotekhniki.
(Ferromagnetism)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

USSR/Physics - Ferromagnetic resonance

Card 1/1 Pub. 146 - 9/44 FD-3250

Author : Pil'shchikov, A. I.

Title : Method for the determination of the parameters of ferromagnetic resonance from experimental data

Periodical : Zhur. eksp. i teor. fiz., 29, No 6(12), Dec 1955, 798-807

Abstract : Calculation of the conditions governing the extrema of magnetic permeability in the region of ferromagnetic resonance. On the basis of the results obtained the author derives formulas for determining the gyromagnetic ratio and the relaxation time from experimental data. In the proposed method the calculation of the parameters of ferromagnetic resonance is carried out in accordance with the values of the fields corresponding to the extrema of the magnetic permeabilities. By virtue of this there is no necessity for the calculation of the maximum value of the magnetic permeability $u_k$ (or p'), which is the source of the large error in the determination of the relaxation time (greater than 25%). It is shown that the method for the calculation of g and T in accordance with the fields of extrema is applicable to cases where it is impossible to calculate the maximum values of the permeabilities $u_k$ (or p'). The author thanks Professor S. D. Gvozdover for his guidance. Nineteen references.

Institution : Moscow State University

Submitted : June 23, 1954

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PIL'SHCHIKOV, A. I.

V/4081. METHOD OF DETERMINING MAGNETIC PERMEABILITIES OF A SUBSTANCE IN THE REGION OF FERROMAGNETIC RESONANCE. A.I. Pil'shchikov. Vestnik Moskov. Univ., No. 6, 49-54 (1956). In Russian.

Relationships are worked out which enable the magnetic susceptibility of a substance to be determined from experimental data in the region of ferromagnetic resonance. From these relations may also be determined the attenuation of a hollow resonator on account of losses in the ferromagnetic walls. A theoretical paper.

C.R.S.Manders

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

[illegible]

AUTHOR: Pilshchi[illegible]

TITLE: Effect of [illegible] Demagnetizing Fields on Ferromagnetic [illegible] rezonans.

PERIODICAL: Izvestiya Akademii Nauk, Vol XX, #11, [illegible] 1956, USSR, Seriya fizicheskaya

ABSTRACT: This article deals with studying the effect of non-homogeneous demagnetizing fields of ferromagnetic samples on the shape of curves of absorption and dispersion and on the values of gyromagnetic ratio ($\gamma$), splitting factor ($g$) and relaxation time ($\tau$). This effect was investigated on metal ferromagnetics having the shape of a [illegible] with a very thin wall.

Permalloys of the grade "[illegible]" ([illegible] Ni) and "50 H" ([illegible]-N) ([illegible] Ni) were used for measurements

Card 1/3

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

TITLE: Effect of Non-Homogenous Demagnetizing Fields on Ferromagnetic Resonance (Vliyaniye neodnorodnykh rasmagnichivayushchikh poley na ferromagnitnyy resonans)

The oscillographic method, based on the comparison of resonance curves of a measuring resonator with those of a resonator-wave meter, was used for the determination of the parameters of the hollow resonator.

The parameters of ferromagnetic resonance were computed from experimental oscillograms using the values of the constant magnetic field, which correspond to the extrema of effective magnetic permeabilities

The experimental data obtained and their comparison with theoretical curves led to the following conclusions:

1. The presence of non-homogeneous demagnetizing fields leads to a considerable distortion of the resonance absorption and dispersion curves. A characteristic feature of this distortion is mainly the widening of these curves towards strong fields.

Card 2/3

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

AUTHOR: Pil'shchikov, A.I., Trishin, [illegible], and [illegible]ev, T.A.

TITLE: Ferromagnetic Resonance under Non-[illegible] conditions (Ferromagnitnyy rezonans pri neodnorodnykh usloviyakh)

PERIODICAL: Izvestiya akademii Nauk, Vol XX, 11, pp 1299 - 1[illegible] 1956, USSR, Seriya fizicheskaya

ABSTRACT: This work is a continuation of [illegible] Pilshchikov (5,6). The goal of this investigation was to study in detail the effect of non-[illegible] demagnetizing fields on samples with equal properties, in order to establish the functional dependence of ferromagnetic resonance parameters on the demagnetizing factor and to trace the changes in the absorption and dispersion curves

Samples made of Permalloys of the "HXC-80" (NKhS-80) and "50-H" (50-N) types were used. The experimental results obtained with Permalloy "NKhS-80" and changes in the shape of experimental curves with the rise of demagnetizing factor, agree with the analogous results of the previous work (5).

Card 1/3

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

TITLE: Ferromagnetic Resonance under Non-Homogeneous Conditions (Ferromagnitnyy rezonans pri neodnorodnykh usloviyakh)

Samples #1 and #2 in the article show a [illegible] agreement of experimental points with theoretical curves, but the other 3 samples show considerable divergences. The data obtained from the chrome Permalloy samples permitted to establish the character of dependence of relaxation frequency on the value of the demagnetizing factor. This dependence is represented by Fig. 5. An essential conclusion can be drawn from the curve pictured in Fig 5: the presence of even comparatively weak demagnetizing fields affects very strongly the frequency of relaxation.

With samples of Permalloy "N-50", the effect of very strong demagnetising fields was studied, for they provide conditions for resonance in a sample which did not reach saturation magnetization. This condition was manifested in the character of deviations of the experimental data from the theoretical curves.

Card 2/3

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

TITLE: Ferromagnetic Resonance under Inhomogeneous Conditions (Ferromagnitnyy rezonans pri neodnorodnykh usloviyakh)

The bibliography lists 6 references, of which 2 are Slavic (Russian). The article contains 8 graphs and 4 tables.

INSTITUTION: The Faculty of Physics of the State University imeni M.V. Lomonosov in Moskva

PRESENTED BY:

SUBMITTED: No date

AVAILABLE: At the Library of Congress

Card 3/3

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

Pil'shchikov, A.I.

USSR/Magnetism - Magnetism Resonance

F-7

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 12059

Author : Pil'shchikov, A.I.

Inst :

Title : Method of Determining the Magnetic Permeability of a Substance in the Region of Ferromagnetic Resonance

Orig Pub : Vestn. Mosk. un-ta, 1956, No 5, 49-54

Abstract : Usually, in the investigation of ferromagnetic resonance, one determines the gyromagnetic ratio $\gamma$, the spectroscopic splitting factor g, and the transverse relaxation T. It is of interest to determine also the dependence of the complex magnetic permeability of a substance ($\mu$') on the permanent magnetic field in the region of ferromagnetic. Formulas were obtained that permit determination of $\mu$' from the experimental dependences of the Q factor and of the resonant frequency of a cavity resonator with a wall made of the investigated ferromagnet, on the permanent

Card 1/2

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

USSR/Magnetism - Magnetism Resonance F 7

Abs Jour : Ref Zhur Fizika, N [illegible], 1959, 12959

magnetic field. The calculations require also a knowledge of the saturation magnetization, of the demagnetizing factors along the three coordinate axes, and of the frequency of the alternating field.

Card 2/2

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

ACC NR: AP6024466 SOURCE CODE: UR/0181/66/008/007/2182/2188

AUTHOR: Dudkin, V. I.; Pil'shchikov, A. I.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Ferromagnetic resonance in the presence of a domain structure

SOURCE: Fizika tverdogo tela, v. 8, no. 7, 1966, [illegible]

TOPIC TAGS: ferromagnetic resonance, magnetic domain structure, ferrite, [illegible] anisotropy

ABSTRACT: The authors consider the influence of the domain structure on [illegible] resonance in single-crystal ferrites with cubic structure and negative [illegible] stant. The external constant magnetic field H is applied along the [illegible] the crystal. The free energy density in the sample is expressed in the [illegible] sum of the anisotropy energy, the energy of interaction with the external [illegible] netic field, the energy of the magnetic dipoles of the sample, the [illegible] demagnetizing field of the magnetic charges in the domain walls, and the [illegible] interaction with the external alternating magnetic field. The resultant [illegible] the magnetization is then used to calculate the resonant frequency for [illegible] shapes (cylinder, sphere, and disc) as functions of the magnetic field. Experimental results are presented on two spherical samples of Mg-Mn ferrites with relative [illegible] ization M' = 1.61 and M' = 2.03. Measurements were made of the dependence of the fre-

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

ACC NR: AP6024486

quencies of perpendicular resonance on the constant magnetic field, using a series of resonators whose natural frequencies covered the range from 2500 to 4800 Mhz. The satisfactory agreement between the experimental and theoretical ferromagnetic resonance frequencies agrees with the proposed domain-structure model, wherein there are four types of domains corresponding to the four types of existing easy-magnetization axes. The dependence of the highest of the four ferromagnetic resonance frequencies on the magnetic field in the presence of a domain structure is also investigated. Orig. art. has: 5 figures and 15 formulas.

SUB CODE: 20/ SUBM DATE: 16Oct65/ ORIG REF: 005/ OTH REF: 003

Card 2/2 egk

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

ACC NR: AP6036958 (A, N) SOURCE CODE: UR/0181/66/008/011/3204/3207

AUTHOR: Lebedeva, Ye. V.; Pil'shchikov, A. I.; Sedletskaya, N. S.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Instability of spin waves in ferrites in the presence of domain structure

SOURCE: Fizika tverdogo tela, v. 8, no. 11, 1966, 3204-3207

TOPIC TAGS: spin wave, ferrite, magnetic domain structure

ABSTRACT: The effect of domain structure on the conditions of parametric excitation of spin waves was studied in polycrystalline samples of MgMn- and MgCr-ferrites and MgMn-ferrite single crystals. The instability threshold of spin waves was studied in the range of constant fields in the presence of which the domain structure exists. It is shown that the nature of the dependence of the threshold field $h_{thr}$ on the constant field H in the range of fields insufficient for saturation is determined by the magnitude of the magnetization and the frequency of the exciting field. It is postulated that in the range of weak fields, the course of the dependence of $h_{thr}$ on H is determined by the proximity of the frequency of the exciting field to the frequency of natural ferromagnetic resonance, and in the range of existence of lamellar domain structure, it is determined by the change in the orientation of the magnetization vector as H changes due to rotational processes. In conclusion, authors are deeply grate-

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ACC NR: AP6036958

ful to I. I. Sil'vestrovich and V. A. Krasnova for supplying the samples and also to O. K. Besedina and I. B. Krynetskaya for participating in the measurements. Orig. art. has: 4 figures.

SUB CODE: 20/ SUBM DATE: 11Mar66/ OTH REF: 002

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

ACC NR: AP7005855 SOURCE CODE: UR/0181/66/008/012/3626/3630

AUTHOR: Pil'shchikov, A. I.; Dudkin, V. I.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Ferromagnetic resonance in the presence of a domain structure

SOURCE: Fizika tverdogo tela, v. 8, no. 12, 1966, 3626-3630

TOPIC TAGS: ferromagnetic resonance, magnetic domain structure, ferrite, magnetic anisotropy

ABSTRACT: The authors report a theoretical and experimental investigation of the influence of the domain structure on ferromagnetic resonance in ferrite crystals with cubic structure and with negative anisotropic constants. The external constant magnetic field was applied along the [011] direction of the crystal. In the theoretical calculation, the domains are regarded as flat layers perpendicular to the (100) plane and making an arbitrary angle with the magnetic field direction. If this angle is not equal to zero of $\pi/2$, then oscillations can be excited by either a longitudinal or a transverse microwave field. The theoretical values of these resonant frequencies are determined as functions of the external constant magnetic field. The experimental data obtained for Mg-Mn ferrite crystals are in satisfactory agreement with the theoretically derived relation in a definite range of magnetic fields. The agreement confirms the assumed plate-like domain structure. The results also reveal the

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ACC NR: AP7005355

presence of coupled types of oscillations excited by both longitudinal and transverse fields, and the presence of certain resonances the nature of which calls for further study. It is concluded that the domain structure of ferrites is not as simple as proposed by J. O. Artman (Phys. Rev. v. 105, 62, 1957). Orig. art. has: 4 figures and 3 formulas.

SUB CODE: 20/ SUBM DATE: 22Jun66/ OTH REF: 002

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

ACC NR: AP6[illegible]046 (A) SOURCE CODE: UR/0188/66/000/00[illegible]/0069/0076

AUTHOR: P[illegible]'shchikov, A. I., [illegible]tskaya, N. S.

ORG: Department of [illegible] State University [illegible]

TITLE: Influence of natural ferromagnetic resonance on nonlinear losses in ferrites

SOURCE: Moscow. Universitet. Vestnik. Seriya III. Fizika, astronomiya, no. 2, 1966, 69-76

TOPIC TAGS: ferrite, ferromagnetic resonance, waveguide loss, phase shifter, magnetic domain structure

ABSTRACT: The authors investigated the nonlinear losses in a ferrite phase shifter of the Reggia-Spencer type operating at high power level, as a function of the closeness of the operating frequency to the frequency of the natural ferromagnetic resonance. The reason for the investigation was the complicated behavior of this phase shifter, due to the fact that some of its parts are under the influence of high frequency fields of unequal intensity or orientation, and that it operates usually in weak constant magnetic fields, when the domain structure plays an important role. The tests were made at 10 cm wavelength, using a pulsed magnetron as the generator. The pulse duration was 1 μsec and the repetition frequency was 10 to 3 cps to eliminate the influence of thermal effects. The loss defined as the difference between the in-

Card 1/2

UDC: 621.372.852.22.01

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cident and transmitted power. The ferrite rod was of rectangular cross section, and was placed in the center of a rectangular waveguide, filling it completely in height. The longitudinal magnetic field ranged from 0 to 30 Oe. The tests were made with MgCr ferrites of five different compositions. The results show that the nonlinear losses, as well as the linear properties, depend essentially on the closeness of the operating frequency to the frequency of ferromagnetic resonance in the presence of a domain structure. When the ferromagnetic resonance frequency is far from the operating frequency, the nonlinear phenomena are weak. On approaching resonance, the threshold power decreases and the nonlinear losses increase. Comparison of the results with measurements made on small spheres having different domain structures show that for compositions with small magnetization and fine grain the domain structure has no effect on the threshold, whereas in samples with large magnetization and large grain the threshold is lowered in fields smaller than saturation. The nonlinearity loss is also influenced by the increase of the magnetic permeability when resonance is approached. To determine the true mechanism of variation of nonlinear phenomena near ferromagnetic resonance in an unsaturated sample it is necessary to investigate the nonlinear phenomena in the same composition under the magnetostatic approximation conditions. The authors thank V. N. Bokov for participating with the measurements and I. I. Sil'vestrovich, and V. A. Krasnova for supplying all the samples and the list of their characteristics. Orig. art. has: 6 figures and 1 table.

SUB CODE: 20/ SUBM DATE: 09Nov64/ ORIG REF: 001/ OTH REF: 005

Card 2/2

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

KRIVCHENKOV, V.D., PIL'SHCHIKOV, A.I.

Magnetostatic types of precession in an anisotropic sphere. Zhur. eksp. i teor. fiz. 43 no.2:573-580 Ag '62. (MIRA 16:8)

1. Moskovskiy gosudarstvennyy universitet.
(Crystallography, Mathematical) (Magnetic fields)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PIL'SHCHIKOV, A.I.; DUNAYEV, N.M.; SEDLETSKAYA, N.S.

Magnetostatic fluctuations of magnetization in a hollow ferrite cylinder. Radiotekh. i elektron 7 no.7:1123-1129 '62. (MIRA 15:6)

1. Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta imeni Lomonosova, kafedra radiotekhniki.
(Cores (Electricity)) (Ferrates)
(Microwaves)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PIL'SHCHIKOV, A.I.; SLOVOKHOTOVA, Z.D.; BAZARON, U.B.

Dependence of the resonance field in ferrite single crystals on the temperature and dimensions of the sample. Fiz. tver. tela 4 no.3: 629-633 '62. (MIRA 15:4)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Ferrite crystals) (Ferromagnetic resonance and relaxation)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

S/109/62/007/007/009/018
D271/D308

AUTHORS: Pil'shchikov, A. I., Dunayev, N. M. and Sedletskaya, N. S.

TITLE: Magnetostatic oscillations of the magnetization in a hollow cylindrical ferrite rod

PERIODICAL: Radiotekhnika i elektronika, v. 7, no. 7, 1962, 1123-1129

TEXT: The spectrum of magnetostatic modes is analyzed for a hollow ferrite rod with conducting planes at its ends. Resonance starting with magnetostatic equations for the magnetization and field strength, differential potential equations are written out, inside and outside ferrite, and solved in Bessel functions. The results of computations are shown in graphs, for rods having the ratio of diameters of 0.5 and the ratio of length to outer diameter of 3. Instantaneous distribution of magnetization over the cross-section of the rod is shown for various modes; if the HF magnetization distribution is known, the field configuration can

Card 1/2

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be chosen which excites a required oscillation mode. Theoretical results were checked experimentally using a specimen prepared from single-crystal manganese ferrite, at wavelengths of 3 and 6 cm, with ratios of diameters of 0.5 and 0.7, and with ratios of length to outer diameters of 3 and 5; oscillograms are given. Some absorption maxima are noticeable in the oscillograms which are not explicable by the method of analysis adopted. There are 8 figures.

ASSOCIATION: Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova, Kafedra radiotekhniki (Department of Radioengineering, Faculty of Physics of Moscow State University im. M. V. Lomonosov)

SUBMITTED: October 24, 1961



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39490

24. [illegible]

AUTHORS: Krivonenkov, V. D., [illegible]

TITLE: [illegible]

PERIODICAL: [illegible]

[illegible] field, the [illegible] potential $\psi$ [illegible] given by

$$\left\{1 - \frac{\Omega_1}{\Omega_1^2 - \Omega^2 - \delta^2}\right\} \frac{\partial^2 \psi}{\partial x^2} + \frac{\partial^2 \psi}{\partial y^2} + \frac{\partial^2 \psi}{\partial z^2} - \frac{\delta}{\Omega_1^2 - \Omega^2 - \delta^2} \left(\frac{\partial^2 \psi}{\partial x^2} - \frac{\partial^2 \psi}{\partial y^2}\right)$$

Card 1/3

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The magnetostatic prece[illegible] types. [illegible]

$\Delta\psi^{(e)} = 0$ outside the sphere. [illegible]

$$\left[\frac{\partial}{\partial r} + \frac{\Omega}{\Omega_1^2 - \Omega^2 - \delta^2}\left(\frac{\partial}{r\,\partial x} + \frac{\partial}{r\,\partial y}\right) - \frac{\Omega}{\Omega_1^2 - \Omega^2 - \delta^2}\left(\frac{\partial}{r\,\partial y} - \frac{\partial}{r\,\partial x}\right)\right.$$

$$\left. - \frac{\Omega}{\Omega_1^2 - \Omega^2 - \delta^2}\left(\frac{\partial}{r\,\partial x} - \frac{\partial}{r\,\partial y}\right)\right]\psi^{(e)} = 0$$

It is shown that [illegible] fields, and that the [illegible] resonance fields of the magnetostatic [illegible] orientation of the permanent magnetization relative to the [illegible] axes. This dependence is different for [illegible] sphere is magnetized in the direction of [illegible] direction of difficult magnetizability, [illegible] with those of an isotropic specimen. [illegible] orientations differ from those of an anisotropic specimen [illegible] amount for all precession types. The temperature [illegible] coupling of the precession types depends on that of the anisotropy [illegible] and magnetization. There is [illegible] figure.

Card [illegible]

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

The magnetostatic precession types...

ASSOCIATION: [illegible] University

SUBMITTED: March 2, [illegible]

Card [illegible]

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

24.7900

S/181/62/004/003/009/045
B102/B104

AUTHORS: Pil'shchikov, A. I., Slovokhotova, Z. D., and Bizaron, U. B.

TITLE: Dependence of the resonance field in ferrite single crystals on temperature and sample dimensions

PERIODICAL: Fizika tverdogo tela, v. 4, no. 3, 1962, 629 - 633

TEXT: The resonance field strength

$$H_{res.} = \frac{\omega}{\gamma} + \alpha \frac{|k_1|}{M} + \frac{4\pi^2}{90} \cdot 4\pi M(\alpha + 5)\left(\frac{d}{\lambda}\right)^2. \quad (3)$$

in an anisotropic spherical single crystal (manganese ferrite) was measured as dependent on temperature and crystal orientation with respect to the external magnetic field. $\omega/\gamma$ is the resonance field for an isotropic sphere, $\gamma$ - gyromagnetic ratio, $k_1$ - first anisotropy constant, M - saturation magnetization; $\alpha$ depends on the crystallographic orientation ([100] : $\alpha = 2$, [111] : $\alpha = -4/3$, [110] : $\alpha = -1/2$). $d/\lambda \ll 1$, d - sample diameter, $\lambda$ - vacuum wave length. The measurements were carried out in a waveguide ($\lambda \simeq 3$ cm) in which the sample was placed at a distance of $\lambda/2$ from the closed end and directed with the face $(1\bar{1}0) \parallel H_{ext}$. A rotator, a heating coil, and a

Card 1/3

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thermocouple were included in the arrangement. Measurements were made with single crystal specimens, cut into spheres of different diameters, as well as with one specimen whose diameter was successively reduced. The results of both experiments are similar. For $H \parallel [100]$, $H_{res}$ decreases with increasing temperature, for $H \parallel [111]$, $H_{res}$ has a maximum. In all cases $H_{res}$ grows with the sample diameter. With $H \parallel [100]$ the $H_{res}(t)$ curves have a point of inflection, with $H \parallel [110]$ they decrease monotonically with increasing t. The measurements were made in the range $0 < t < 250°C$. The course of the curves can be explained by assuming that up to ~80°C, $H_{res}(t)$ is mainly determined by $K_1(t)$, but at higher temperatures by $M(t)$ or perhaps by $\lambda(t)$. The field of propagation is a linear function of $(d/\lambda)^2$ within the limits of error. There are 5 figures and 4 references: 2 Soviet and 2 non-Soviet. The two references to English-language publications read as follows: R. A. Hurd. Canadian J. Phys. 36, 1072, 1958; J. E. Mercerean. Journ. Appl. Phys. Suppl. 30, No. 4, 184, 1959.



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24937

S/188/61/000/004/001/003
E111/E209

24.2200

AUTHORS: Pil'shchikov, A. I., Solov'yev, V. I

TITLE: Measurement of the magnetic permeability tensor of ferrites

PERIODICAL: Moskovskiy Universitet. Vestnik. Seriya III. Fizika, astronomiya, no. 4, 1961, 53-58

TEXT: The dependence of the components of the magnetic permeability tensor of ferrites on the strength of a magnetic field has been studied. The variation of the imaginary parts of permeability was found to be anomalous in strong fields. It is shown that it is necessary to alter the coupling constant between measuring resonator and channel. The measurements of permeability were made at magnetic field strengths that are far from the range of ferromagnetic resonance. The technique used by the authors is described by V. N. Vasil'yev in Ref. 1 (Radiotekhnika i elektronika, 1, 11, 1444, 1956). The formulas were obtained from an approximative solution as described in Ref. 4 (Mikayelyan, A. L., Pistol'kors, A. A., Radiotekhnika, 10, no. 1, 14, 19 ). This approximative solution can be obtained on the following assumptions: 1) $\mu'' \ll \mu'$, $\mu''_\perp \ll \mu'_\perp$, $\varepsilon'' \ll \varepsilon'$, i.e. at low electric

Card 1/6

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B111/B209

Measurement of the magnetic ...

and magnetic loss, 2) using a thin ferrite plate ($\lambda \approx$ [illegible] cm) one should observe that $t_1 \leq 1$ mm and $\frac{\varepsilon'\mu'_\perp}{\varepsilon_0\mu_0} \leq 10$, 3) low gyrotropicity $\left|\frac{k'}{\mu'}\right| < 0.1$, where $\varepsilon'$, $\mu'$, $k'$, $\mu'_\perp$ denote the real portions, $\varepsilon''$, $\mu''$, $k''$, $\mu''_\perp$ the imaginary portions, $\mu_\perp = \frac{\mu^2 - k^2}{\mu}$, $\mu = \mu_{xx} = \mu_{yy}$, and $ik = \mu_{yx} = -\mu_{xy}$. The real and the imaginary portions are determined from the frequency and Q of the measuring resonators. The FM oscillations had a wavelength of about [illegible] cm, the Q of the ferrite resonator was never below 1000 and was determined with a margin of error of 1 - 2%. In their investigations, the authors used resonators $H_{104}$ and $H_{105}$ modes and a Q of 5000. Figs. 2 and [illegible] illustrate the dependence of $\mu'$ and $\mu''$ on the field strength. Pistol'kors, A. A. and Marshak, M. B. (Ref. 8: Izv. vysshikh uch. zaved. radiotekhnika, 1, [illegible]; 6, 731, 19[illegible]) showed in their study of the propagation of electromagnetic waves in a waveguide with a ferrite plate that higher modes may be disregarded when $\left|\frac{k'}{\mu'}\right| < 0.4$. V. N. Vasil'yev's method was found to be applicable for fields stronger than the resonance field when the low gyrotropicity

Card 2/6

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Measurement of the magnetic ... S/188/61/000/004/003/003
B111/B209

($\frac{|k'|}{\mu'} < 0.4$) is violated in strong fields, the imaginary portions ($\mu''$) are found to vary anomalously, which is probably caused by the influence of higher modes. It is further shown that the coupling constants between resonator and channel vary with the constant magnetic field. Within the accuracy of measurement, $\varepsilon$ was assumed to be constant at $H = 0$ and at $h_{max} = 13500$ oersteds, with the exception of ferrite specimen no. 4. There are 4 figures, 1 table, and 8 references: 5 Soviet-bloc and 3 non-Soviet-bloc.

ASSOCIATION: Kafedra radiotekhniki (Department of Radio Engineering)

SUBMITTED: October 18, 1960

Card 3/6

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B111/B209

Measurement of the magnetic ...

Fig. 2: Experimental curves for the real and the imaginary portions of permeability in the region of weak fields (Me- n, ferrite no. 4).

Legend: 1) oersteds.

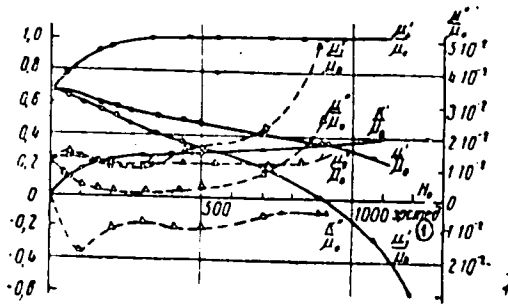


Fig 2

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B111/B209

Measurement of the magnetic ...

Fig. 3: Experimental curves for the real and the imaginary portions of permeability in the region of strong fields (M[illegible]-[illegible]n, ferrite no. 4).

Legend: 1) oersteds.

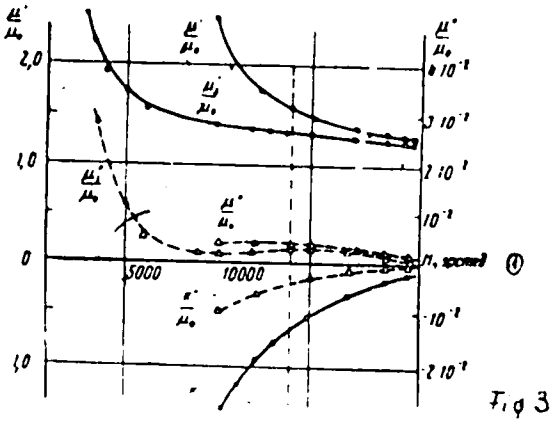


Fig 3

Card 5/6

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Measurement of the magnetic ...

Legend to the Table: 1), 2), 3), 4) - ferrites no. 1, 2, 3, 4. 5) $H_{max}$ = 13500 oersteds.

| | 1 Феррит № 1 | | 2 Феррит № 2 | | 3 Феррит № 3 | | 4 Феррит № 4 | |
|---|---|---|---|---|---|---|---|---|
| | $H=0$ | $H=H_{max}$ 5 | $H=0$ | $H=H_{max}$ | $H=0$ | $H=H_{max}$ | $H=0$ | $H=H_{max}$ |
| $\mu'_{\perp}$ | 0.89 | 1.13 | 0.87 | 1.16 | 0.86 | 1.17 | 0.63 | 1.18 |
| $\mu''_{\perp}$ | $1\cdot10^{-3}$ | $4.3\cdot10^{-3}$ | $3.2\cdot10^{-3}$ | $3.2\cdot10^{-3}$ | $3.8\cdot10^{-3}$ | $1.3\cdot10^{-3}$ | $9.7\cdot10^{-3}$ | $1.8\cdot10^{-3}$ |
| $\varepsilon'$ | 10.3 | 9.7 | 11.0 | 11.5 | 11.7 | 12.2 | 9.0 | 9.4 |
| $\varepsilon''$ | $10.6\cdot10^{-3}$ | $10.1\cdot10^{-3}$ | $5.3\cdot10^{-3}$ | $6.2\cdot10^{-3}$ | $2.1\cdot10^{-3}$ | $2.8\cdot10^{-3}$ | $1.3\cdot10^{-3}$ | $9\cdot10^{-3}$ |

Card 6/6

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

BATENKO, V.F., inzh.; GVOLDEV, V.F., [illegible]; [illegible] V.A., inzh.; [illegible] V.F., inzh.; [illegible], inzh.; [illegible], inzh.; [illegible], inzh.

Ion-exchange filter with compound operation in power [illegible] 300 Mw. ratings. Elek. sta. 36 no.10:8-15 [illegible] '65.

[illegible]

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

MALAKHOV, A.A., prof.; PR'SHCHIKOV, P.I., inzh.; ZASYPKIN, V.Ye., starshiy prepodavatel'

Study of regional fractures, [illegible] Izv. [illegible] gor. zhur. no.11:10-14 '61. (Mine [illegible])

1. Sverdlovskiy gornyy institut imeni V.V.Vakhrusheva [illegible] kafedroy bosbchey geologii.
(Ural Mountains--Joints (Geology))

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PIL'SHCHIKOV, B., obshchestvennyy instructor.

Individual training of sharpshooters. Voen.znan. 29 no.12:16-17 D '53.
(MLRA 7:1)
(Shooting, Military)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PIL'SHCHIKOV, M. (Minsk)

Music schools for children. Prom.koop. 13 no.12:31 D '59. (MIRA 13:4)

(Music—Instruction and study)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

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PIL'SHCHIKOV, Matvey Pavlovich; KUZ'MICHEV, F.I., kand. tekhn. nauk, retsenzent; KHVOSTOVA, A.I., inzh., retsenzent; GOSPODARSKAYA, T.N., red.; KRASKIN, N.T., tekhn. red.

[Technology of feltwork and the manufacture of felt goods] Tekhnologiia valial'no-voilochnogo proizvodstva. Moskva, Izd-vo nauchno-tekhn. lit-ry RSFSR, 1960. 570 p. (MIRA 14:5)
(Feltwork)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

STAROSEL'SKAYA-NIKITINA, O.A.; KRASNOUKHOVA, O.V.; MAKAROVA, V.I.; KAMINER, L.V.; PIL'SHCHIKOVA, P.V.; GRIGOR'YAN, A.T., redaktor; IVANOV, D.D., redaktor; FIGUROVSKIY, N.A., redaktor; ANTONYUK, L.D., redaktor; SOKOLOVA, T.F., tekhnicheskiy redaktor

[History of the natural sciences; literature published in the U.S.S.R. (1948-1950)] Istoriia estestvoznaniia; literatura, opublikovannaia v SSSR (1948-1950). Otvetstvennye redaktory: A.T.Grigor'ian, D.D.Ivanov, N.A.Figurovskii. Moskva, Izd-vo Akademii nauk SSSR, 1955. 395 p. (MLRA 8:7)

(Bibliography--Science--History)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

MANGALIN, E.G.; Prinimal uchastiyel [illegible], R.M.

Transfer of hot [illegible]. [illegible] Ap '64. [illegible]

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

1. EIDUKS, J.: VAIVARS, A.: [illegible]

2. USSR (600)

4. Latvia - Clay

7. Absorption [illegible] Latvian S.S.R. Latv. PSR Zin. Akad. Vestis 2, [illegible].

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

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

KNUNYANTS, I. L.; PIL'SKAYA, V. Ya.

New method for the preparation of primary and secodnary arsenic organic compounds. Izv. AN SSSR. Otd. khim. nauk. no. 3:472-479 My-Je '55. (MLRA 8:9)

(Arsenic organic compounds)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PIL'SKIY, I.Ya., kand.tekhn.nauk

Review of B.V.Berezin's book "Maintenance and repair of the coke industry equipment." Koks i khim. no.9:61-62 '63. (MIRA 16:9)
(Coke industry--Equipment and supplies) (Berezin, B.V.)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

KARAVAYEV, N.M.; PIL'SKIY, I.Ya.; LYTKIN, I.A.

Coking coal-tar pitch in a fluidized bed of coke. Koks i khim. no.10: 29-33 '58. (MIRA 11:11)

1. Moskovskiy institut khimicheskogo mashinostroyeniya.
(Pitch) (Fluidization)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

USSR/Chemical Technology - Chemical Products and Their Application. Treatment of Solid Mineral Fuels I-

Abs Jour : Ref Zhur - Khimiya, No [illegible], 1958, [illegible]

Author : Pil'skiy, A.Ya.

Inst :

Title : Rating of Coke Discharging Mechanism.

Orig Pub : Koks - Khimiya, [illegible], No [illegible]

Abstract : In rating the mechanism of the bar (B) of a coke drawer it is necessary to consider the force required to move the coke cake and the B; the greater portion of power needed to discharge the coke is expended to move the B. Energy consumption can be lowered by transfer of slider or a rotary support (without considerable increase of pressure per unit of hearth bottom area). In rating the B one should consider not the brief duration stress at the moment of coke cake stripping, but a value smaller by [illegible] times. In rating the B it must be taken into account that it is heated up to [illegible] in the coking oven.

Card 1/1

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PIL'SKIY, I.Ye.; BLAGOV[illegible]NYY, Ya.[illegible].

Materials on the study of the [illegible]iology of swamp fever in the foothills of the Trans[illegible]li Ala[illegible]. [illegible]v. AN Kazakh. [illegible]. Ser. med. i fiziol. no. [illegible] (MIRA 13:10)
(ALMA-ATA PROVINCE--INFE[illegible] [illegible]A)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PIL'SKIY, I.Ye.; FAYNSHMIDT, S.S.

Materials on a study of the epidemiology and prevention of diphtheria in Alma-Ata Province. Zdrav. Kazakh. 21 no. 3:6-10 '61. (MIRA 14:4)

1. Iz Alma-Atinskoy oblastnoy sanitarno-epidemiologicheskoy stantsii.
(ALMA-ATA PROVINCE—DIPHTHERIA)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PIL'SKIY, I.Ya., kand.tekhn.nauk

Review of the book "Coke machines, their design and calculation" by I.L.Nepomniashchii. Koks i khim. no.10:62-63 '57 (MIRA [illegible])

1. Moskovskiy institut khimicheskogo mashinostroyeniya
(Coke industry--Equipment and supplies)
(Nepomniashchii, I.L.)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PIL'SKIY, I. Ya.

KARAVAYEV, Nikolay Mikhaylovich, professor; PIL'SKIY, Iosif Yakovlevich; SHEPELEV, Ivan Georgiyevich; LAZAREV, N.N., redaktor; SUSHKIN, I.N., redaktor; ATTOPOVICH, M.K., tekhnicheskiy redaktor.

[Machines and apparatus used in the production of coke] Mashiny i apparaty koksokhimicheskogo proizvodstva. Pod obshchei red. N.M.Karavayeva. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii. Vol. 1. 1955. 299 p. (MLRA 9:6)

1.Chlen-korrespondent AN SSSR (for Karavayev).
(Coke industry--Equipment and supplies)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PIL'SKIY, I.Ya., kandidat tekhnicheskikh nauk.

Fluid for hydraulic drives of coke-oven machinery. Koks i khim. no.3:58-59 '56. (MLRA 9:8)

1. Moskovskiy institut khimicheskogo mashinostroyeniya.
(Hydraulic transmission)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

AUTHOR: Pil'skiv, I.Ya., Cand. Tech. Sc. (Moscow Institute of Machine Building for the Chemical Industry). 169

TITLE: On the designing of a coke pushing machine. (K raschetu mekhanizma vydachi koksa).

PERIODICAL: "Koks i Khimiya" (Coke and Chemistry), 1957, No.3, pp.52-54 (U.S.S.R.)

ABSTRACT: Stresses involved in the operation of the coke pushing machine are discussed (Fig.1). Stresses involved in the movement of the pushing arm and the coke charge should be considered as a basis for calculations. In pushing coke, the main part of the force required is used for the movement of the pushing arm, therefore, it would be advantageous to introduce a rotating support, but without increasing specific pressure on the oven's sole. The possibility of heating the pushing arm to 600°C should be considered in the design. There is one diagram.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7



PERIODICAL: "Koks i Khimiya", (Coke and Chemistry), 1957, No.7, pp.55-59 (U.S.S.R.) 169

Methods of dewatering coal fines. By K. Lemke. (Abstracted from Glückauf, 1955, 17/18) p.55.

W. Herbert. Rectizol method of purification of gases under pressure. (Abstracted from Erdol and Kohle, 1956, Feb. Vol.9, No.2, p.677-81) p.57.

Rectification column of a new design. (Abstracted from Chemical Engineering, 1956, Vol.63, No.10, 246, 248). p.58.

Coke ovens in the Indiana harbour plant. (Abstracted from Blast Furnace and Steel Plant, Vol.44, 1956, 8, pp.885-890). p.59.

Composition of high-boiling fractions of coal tar. By A. S. Harris, E. N. White and D. McNeil. (Abstracted from J. Appl. Chem., 1956, July 5, Vol.6, No.7, pp.293-297). p.59.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PERIODICAL: "Koks i Khimiya", (Coke and Chemistry), 1957, No.[illegible], pp. 6[illegible] - 64 (U.S.S.R.) 169

Review of the book "Design of apparatus for the recovery of coking chemical products". ("Raschety apparatury dlya ulavlivaniya khimicheskikh produktov koksovaniya"). By I.E. Korbachanskii and M. D. Kuznetsov.

Reviewed unfavourably by Fu Tszyuy-Fu.

Comments to the above review by D. D. Zykov, Cand. Tech. Sc., Moscow Institute for Chemical Engineering.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

68-58-5-8/25

AUTHOR: Pil'skiy, I.Ya., Candidate of Technical Sciences

TITLE: A New Method of Intensified Operation of Coke Ovens (Novyy metod intensifikatsii raboty koksovykh pechey)

PERIODICAL: Koks i Khimiya, 1958, Nr 5, pp 29 - 31 (USSR)

ABSTRACT: Intensification of the coking process by an additional heating of the coking charge by an electric current passing through the charge is proposed. Laboratory experiments on supplying electric current (70 V) to 0.5 kg, 5 kg and 170 kg laboratory ovens indicated that a considerable intensification of the process is possible. In the 170 kg oven, the rate of heating of the charge with the additional internal heating increased from 0.865 °C/min to 1.5 °C/min. A 42% increase in the velocity of coking process with the consumption of 132 kW/ton of coke was obtained. In the industrial ovens at 70 V, the current cannot be passed through the charge with the corresponding intensity and therefore a lower increase in the rate of coking would be obtained. It is estimated that an increase of about 20% in the coking rate can be obtained with a current consumption of about 50 kW/ton. There is 1 figure.

ASSOCIATION: Moskovskiy institut khimicheskogo mashinostroyeniya (Moscow Institute of Chemical Machine Building)

Card 1/1

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

SOV/68-58-10-9/25

AUTHORS: Karavayev, N.M., Pil'skiy, ~~I.Ya. and~~ Lytkin, I.A

TITLE: Coking of Coal-Tar Pitch in a Pseudofluidized Coke Layer (Koksovaniye kamennougol'nogo peka v psevdoozhizhennom sloye koksa)

PERIODICAL: Koks i Khimiya 1958, Nr 10, pp 29 - 33 (USSR)

ABSTRACT: The possibility of the application of coking coal tar pitch on a fluidised bed of coke, as described in the literature for coking petroleum residues (English Refs 1, 3), is discussed. It is pointed out that the application of the fluidised bed technique will permit: increasing the production of coal tar pitch coke without a large capital expenditure; decreasing the production costs; improving the quality of the coke and by-products as the process will be more easy to control; simplifying the preparation of coke for the production of electrodes due to the possibility of producing coke of a more constant composition; producing coke from medium temperature pitch, thus, the process of production of high-temperature pitch will be unnecessary and the coking installation will

Card 1/2

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

Coking of Coal-Tar Pitch in a Pseudofluidized Coke Layer SOV/68-58-10-9/25

become only a small part of the tar distillation plant
There are 3 figures and 3 references, 2 of which are
English and 1 Soviet

ASSOCIATION. Moskovskiy institut khimicheskogo mashinostroyeniya
(Moscow Institute of Chemical Machine Building)

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PIL'SKIY, I Ya , kand.tekhn.nauk, dotsent

Investigating the process of dry quenching of coke. Trudy MIKHM vol.16:55-60 '58. (MIRA 14:7)

(Coke)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PIL'SKIY, I. Ya.

Review of IA.M.Obukhovskii's book "Blending coal for coking." Koks i khim. no.11:62-63 '58. (MIRA 11:11)

1. Moskovskiy institut khimicheskogo mashinostroyeniya.
(Coal--Carbonization)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PIL'SKIY, I.Ya., kand.tekhn.nauk

New method of packing coal charges in coke oven chambers.
Koks i khim. no.7:30-33 '60. (MIRA 13:7)

1. Moskovskiy institut khimicheskogo mashinostroyeniya.
(Coke)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

Machinery)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PIL'SKIY, I.Ya., kand.tekhn.nauk

New means of intensifying the operation of coke ovens. Koks i khim. no.5:29-31 '58. (MIRA 11:5)

1.Moskovskiy institut khimicheskogo mashinostroyeniya.
(Coke ovens)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

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L 5388-66 EWT(1)/EWP(m)/ETC/EWG(m)/EWA(d)/EPA(w)-2/FCS(k)/EWA(h)/EWA(c) IJP(c)
ACC NR: AP5027280 WW/AT SOURCE CODE: UR/0207/65/000/005/0118/0120

AUTHORS: Iakol'dskiy, A. M. (Novosibirsk); Kurtmullayev, R. Kh. (Novosibirsk); Nesterikhin, Yu. Ye. (Novosibirsk); Pil'skiy, V. I. (Novosibirsk); Ponomarenko, A. G. (Novosibirsk)

ORG: none

TITLE: Magnetic field trapping and plasma containment in experiments with a collisionless shock wave

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 5, 1965, 118-120

TOPIC TAGS: magnetic field, plasma, shock wave, rarefied plasma, neutron generation, deuterium

ABSTRACT: Magnetic trapping and plasma containment were achieved in a rarefied, cylindrical, deuterium plasma by creating a collisionless shock condition. A 16-cm glass tube was placed in the centerline of a quasi-stationary magnetic field ($H_0 \sim 0.5$ kilo-oersted, $T = 5$ $\mu$sec). In the center of this system was added a 30-cm shock coil generating a magnetic field $H \sim 3$ to 6 kilo-oersteds, for $T \sim 1.4$

Card 1/2

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ACC NR: AP5027280

to 2 μsec. The initial plasma concentration was $5 \times 10^{12}$ to $3 \times 10^{13}$ $cm^{-3}$. Magnetic field trapping and plasma containment were achieved on the basis of the following observation. An average 40 μsec delay in neutron generation ($10^6$ to $10^7$ neutrons), 10 kev ion-energy attainment, and bremsstrahlung radiation were obtained after the applied field $H_o$ had decayed. Qualitative measurements from magnetic probes indicated that the trapped field was of the order of H (coil field) with a duration commensurate with neutron generation. The trapped plasma energy was about 10 kev. The authors thank G. I. Budker for his constant influence and interest in the work and R. Z. Sagdeyev for his help and participation in evaluating the results. Orig. art. has: 2 figures and 1 formula.

SUB CODE: NE/ SUBM DATE: 17Nov64/ ORIG REF: 002/ OTH REF: 001

Card 2/2

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

4/721 66 EWT(1)/EWT(m)/ETC/EPF(n)-2/EWG(m)/T/EWA(m)-2 IJP(c) AT

ACC NR: AP5026515 SOURCE CODE: UR/0286/65/000/019/0046/0047

INVENTOR: Naumov, A. A.; Pil'skiy, V. I.; Yudin, L. I.

44,55 44,55 44,55

TITLE: Device for energy synchronization of charged-particle injection in an accelerator. Class 21, No. 175153 [Announced by the Institute of Nuclear Physics, SO AN SSSR (Institut yadernoy fiziki SO AN SSSR)]

67 B

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1965, 46-47

44,55

TOPIC TAGS: 21,44,55 particle accelerator component, 21,44,55 plasma injection, timing device

ABSTRACT: The proposed device (see figure) provides energy synchronization of charged-particle injection in an accelerator by means of a trigger pulse controlling the actuation of the electron gun, the inflector, and other components. To produce optimum conditions for the capture of the particles, a generator of calibrated pulses

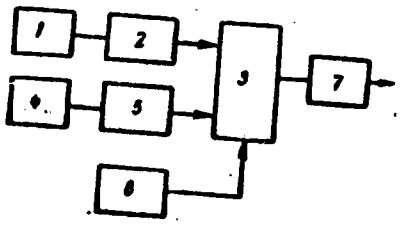


Fig. 1. Energy synchronization device

1 - Magnetic field pickup; 2 - integrator; 3 - adder; 4 - injector-voltage pickup; 5 - cathode follower; 6 - generator of calibrated pulses; 7 - output shaper.

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L 7721-66

ACC NR: AP5026515

is employed which is connected with an adder. The other inputs of the summator are connected with magnetic-field and injector-voltage pickups; the output is connected through a zero indicator to a shaper which generates the trigger pulse at the moment of zero indication. Orig. art. has: 1 figure. [DW]

SUB CODE: EC/ SUBM DATE: 22Nov63/ ATD PRESS: 4141

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

L 17798-65 EWT(d)/EWT(1)/EWG(k)/EPA(sp)-2/EEC(k)-2/EEC-4/EPA(w)-2/EEC(t)/T/EEC(b)-2/EWA(m)-2 Po-4/Pz-6/Pab-10/Pq-4/Pg-4/Pi-4/Pk-4/Pl-4 IJP(c)/SSD(b)/AFWL/AEDC(b)/SSD/SSD(a)/ASD(f)-2/BSD/AS(mp)-2/ASD(a)-5/AFETR/RAEM(a)/ESD(c)/ESD(gs)/ESD(t) AT

ACCESSION NR: AP5001146 S/0294/64/002/006/0837/0841

AUTHORS: Kurtmullayev, R. Kh.; Nesterikhin, Yu. Ye.; Pil'skiy, V. I.; Ponomarenko, A. G.

TITLE: Velocity diagnostics of plasma jets

SOURCE: Teplofizika vysokikh temperatur, v. 2, no. 6, 1964, 837-841

TOPIC TAGS: microwave equipment, microwave plasma, plasma, interferometer, electron collision, phase shift, reflected signal envelope / OK 15 oscillograph, 23L051A cathode ray tube, 6V2P diode, OK 17 oscilloscope

ABSTRACT: A microwave interferometer for plasma speed diagnostics is described. The characteristics of the interferometer are: $\lambda = 8$ mm; resolving power $3 \times 10^{-8}$ sec; maximum rate of phase change $\pm 6$ rad/$\mu$sec, and sweep range T = (3 to 100) $\mu$sec. The interferometer operates by measuring the phase shift of the probe waves and by utilizing a frequency transformation from $f_o = 3.7 \times 10^{10}$ cycles to an intermediate F = 30 Mcycle frequency with a heterodyne circuit. This is then compared with a reference frequency phase $F_o = 30$ Mcycle on a cathode-ray oscilloscope. The schematic of the interferometer is shown in Fig. 1 on the

Card 1/4

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ACCESSION NR: AP5001146

3

Enclosures. The instrument was used to measure the phase shift $\phi(t)$

$$\varphi(t) = 2\pi \frac{l}{\lambda}\left(1 - \frac{1}{l}\int_0^l \sqrt{\varepsilon(x,t)}\,dx\right),$$

the strength of reflected and transmitted signals, and thus to determine the mean electron density $N$, conductivity $\sigma$, and electron collision frequency $\nu$. The plasmoid diameter was 12 $\lambda$ and was generated from a conical source. The minimum value of $N$ was $5 \times 10^{10}$ cm$^{-3}$, and the boundary velocity was $1.4 \times 10^{6}$ cm/sec. The measurement accuracy is independent of probe signal absorption. "The authors are grateful to Yu. M. Malyavin for adjusting the apparatus and carrying out the experiments." Orig. art. has: 3 formulas and 2 figures.

ASSOCIATION: Institut yadernoy fiziki Sibirskogo otdeleniya Akademii nauk SSSR (Institute of Nuclear Physics, Siberian Branch, Academy of Sciences SSSR)

SUBMITTED: 08Jun64

ENCL: 02

SUB CODE: ME,GP,EE

NO REF SOV: 003

OTHER: 003

Card 2/4

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ACCESSION NR: AP5001146

ENCLOSURE: 01

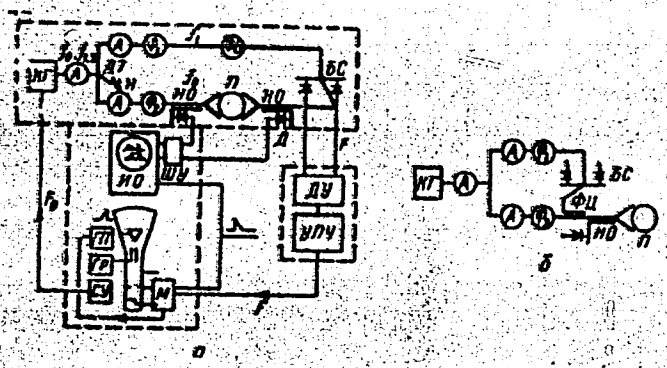


Fig. 1. Block-diagram of microwave interferometer
ДТ - double T-junction
$Ф_1, Ф_2$ - filters
КГ - probe signal source
$U_1, U_2, H$ - loads

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ACCESSION NR: AP5001146 (to card 3/4) ENCLOSURE: 02

А - attenuator

П - plasma

БС - balanced mixer

ДУ - differential amplifier

УПЧ - intermediate frequency amplifier

ІО - pulse oscillograph

ІІІУ - two-channel amplifier

ФП - ferrite circulator

Card 4/4

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910006-7

PILSZAKOWNA, D.

"The latest achievements of Soviet medicine", p. 4; "The provincial branch of the Polish Red Cross in Lodz won the challenge banner, the symbol of competition", p.5, (ZDROWIE, Vol 5, No. 6, 1953, Warszawa, Poland)

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