"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

32301
S/020/61/141/004/005/019
C111/C222

A method for the construction ...

$$\psi(x) = \sum_{j=1}^{n} \sum_{i=0}^{\alpha_j - 1} b^i H_{ij}\left(\frac{x}{b}\right) \psi^{(i)}(x_j) + R_H \qquad (3)$$

and the quadrature formula

$$\int_{-b}^{t} \int_{-b}^{x} \cdots \int_{-b}^{x} \psi(x)dx^{\nu} = b^{\nu} \sum_{j=1}^{n} \sum_{i=0}^{\alpha_j - 1} b^i A_{ij} \psi^{(i)}(x_j) + R \qquad (4)$$

$$A_{ij} = b^{-\nu} \int_{-b}^{t} \int_{-b}^{x} \cdots \int_{-b}^{x} H_{ij}\left(\frac{x}{b}\right) dx^{\nu} \qquad (5)$$

is considered. It is pointed out that many integral equations and boundary value problems can be solved relatively easy with the aid of (4), (5) if there exist tables of the A_{ij} and the $H_{ij}\left(\frac{x}{b}\right)$. The author mentions

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the necessary tables for knot types 1). $x_j = \frac{2j-n-1}{n} b$ and

2), $x_j = \frac{2j-n-1}{n-1} b$ are given. It is shown that for an application of (4) to the solution of integral equations there appear systems of equations of a special kind for the approximative solution of which an algorithm is given. By the example of the boundary value problem

$$y'' = f(x,y,y') , \quad y(0) = \alpha_0 , \quad y(1) = \alpha_1 \qquad (7)$$

it is shown that the formula (4) permits to reduce the solution of boundary value problems to the solution of systems of equations with a small number of unknowns.
The author states that the proposed methods often have given good results.

X

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

32301
S/020/61/141/004/005/019
C111/C222

A method for the construction ...

There is 1 Soviet-bloc reference.

ASSOCIATION: Khar'kovskiy politekhnicheskiy institut imeni V.I. Lenina (Khar'kov Polytechnical Institute imeni V.I. Lenin)

PRESENTED: July 1, 1961, by I.G. Petrovskiy, Academician

SUBMITTED: June 28, 1961

Card 4/4

X

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARA, V., radist

Improving the quality of PRB radio receivers. Mor. flot 22 no.6:16 Je '62. (MIRA 15:7)

1. Srednii rybolovnyy trauler "German Titov".
(Radio--Receivers and reception)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARA, Valentin Vasil'yevich; NIKITIN, Georgiy Mikhaylovich; GNUTIKOV, P.I., red.; MYASNIKOVA, T.F., tekhn.red.

[Radio engineering demonstrational devices and study aids] Uchebno-demonstratsionnye posobiia po radiotekhnike. Moskva, Voen.izd-vo M-va obor.SSSR, 1960. 251 p. (MIRA 13:12)
(Radio--Study and teaching)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

PHASE I BOOK EXPLOITATION SOV/5540

Khara, Valentin Vasil'yevich, and Georgiy Mikhaylovich Nikitin

Uchebno-demonstratsionnyye posobiya po radiotekhnike (Teaching and Training Aids in Radio Engineering) Moscow, Voyenizdat M-va obor. SSSR, 1960. 225 p. No. of copies printed not given.

Ed.: P. I. Gnutikov; Tech. Ed.: T. F. Myasnikova

PURPOSE : This book is intended for officers engaged in training the personnel of radio subunits. It may also be useful to teachers in schools and tekhnikums and to the general reader.

COVERAGE: The book describes a set of teaching and training devices, its components, and various attachments. Diagrams and electric data of the devices and components used are given and the experiments and demonstrations of physical processes occurring in various radio systems which can be presented by means of the aids are listed. No personalities are mentioned. There are 8 references, all Soviet.

Card ~~1/8~~

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

Name: KHARAIIADZE, M. V.

Dissertation: On the problem of using testosterone-propionate in fibromyoma of the uterus (An experimental-clinical study)

Degree: Cand Med Sci

Affiliated at Publication ~~Affiliation~~: Tbilisi State Medical Inst

~~Defense~~ Date, Place: 1956, Tbilisi, Georgian State Medical Publishing House

Source: Knizhnaya Letopis', No 45, 1956

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

USSR / General Problems of Pathology. Tumors. Metabolism. U-5

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 46863

Author : Kharabadze, M. V.
Inst : Scientific Research Institute for the Health Protection of Mothers and Children, Georgian SSR.

Title : Fluctuation in Estrogenic Hormone Content in the Urine at the Presence of Uterine Fibromyomas with Regard to Testosteron Propionate Therapy.

Orig Pub : Sb. tr. n.-i. in-ta okrany materinstva i detstva GruzSSR, 1956, 7, 109-117

Abstract : Studies were conducted on 70 women with uterine fibromyomas. It was found that the estrogen (E) secretion in the urine was increased. When the patients were treated with testosteron propionate, however, the E secretion diminished. Surgical removal of the fibromyoma did not decrease the E

Card 1/2

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

USSR / General Problems of Pathology. Tumors. Metabolism. U-5

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 46863

Abstract : secretion in the urine during the first few days after the operation. If androgen preparations were used prior to surgery, a considerable decrease of E secretion after surgery was achieved.

Card 2/2

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KARABADZE, M.V.

USSR/Human and Animal Physiology. Internal Secretion. V

Abs Jour: Ref. Zhur-Biol., No 6, 1958, 27251.

Author : Kharabadze.
Inst : The Institute of Maternal and Child Care of the Georgian SSR.
Title : The Effect of Male Sex Hormone (Testosterone Proprionate) on the Morphology of the Genitalia of Guinea Pigs (An Experimental Investigation)

Orig Pub: Sb. tr. N-i. in-ta okhrany materinstva i detstva GruzSSR, 1956, 7, 119-134.

Abstract: No abstract.

Card : 1/1

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

V.

USSR/General Problems of Pathology. Tumors U-4

Abs Jour : Ref Zhur - Biol., No 14, 1958, No 66061

Author : Kharabadze ~~N.B.~~
Inst : -
Title : The Use of Testosterone Propionate in Uterine Fibromyomas

Orig Pub : Sb. tr. N.-i. in-t okhrany materinstva i detstva Gruz SSR, 1956, 7, 155-167

Abstract : The treatment of 55 patients with bleeding uterine fibromyomata with testosterone propionate is reported. A positive clinical effect (cessation of bleeding) was obtained in 50 patients. The course of treatment was from 14 to 30 days. The total weekly dose was 150-200 mg. with 300-650 mg. per course. Age of the patient is of great significance in selection of the dosage. Bibl. - 36 titles. -- I.D. Nechayeva.

Card : 1/1

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARABADZE, N.A.

Spectrophotometric study of permanganate solutions and compounds of trivalent manganese. Soob. AN Gruz. SSR 25 no. 3:273-278 S '60. (MIRA 14:1)

1. Gruzinskiy politekhnicheskiy institut im. V.I. Lenina. Predstavleno akademikom R.I. Agladze.
(Manganese compounds)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

S/058/61/000/009/012/050
A001/A101

AUTHOR: Kharabadze, N.A.

TITLE: Spectrophotometric study of permanganate solutions and compounds of trivalent manganese

PERIODICAL: Referativnyy zhurnal. Fizika, no. 9, 1961, 89, abstract 9V100 ("Soobshch. AN GruzSSR", 1960, v. 25, no. 3, 273 - 278)

TEXT: Complex solutions of trivalent Mn obtained by electrochemical oxidation of bivalent Mn and electrolytical dissolving of the metal in high-concentration acids were studied spectrophotometrically. It is shown that sulfate and pyrophosphate complexes of trivalent Mn absorb in the visible range with peaks at 513-515m μ and 495-515 m μ respectively, and the pyrophosphate complex is stabler than the sulfate one. Absorption obeys Bouguer's law at Mn^{3+} concentrations being 15-150 γ /ml.

S. Mirumyants

[Abstracter's note: Complete translation]

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARABADZE, N.I.

5(3) PHASE I BOOK EXPLOITATION SOV/1461

Akademiya nauk Gruzinskoy SSR, Tiflis. Institut prikladnoy khimii i elektrokhimii

Elektrokhimiya margantsa, t. 1 (Electrochemistry of Manganese, Vol. 1) Tbilisi, Izd-vo Akad. nauk Gruzinskoy SSR, 1957. 518 p. 2,000 copies printed.

Additional Sponsoring Agency: Tbilisi. Gruzinskiy politekhnicheskiy institut. Kafedra tekhnologii elektrokhimicheskikh proizvodstv.

Ed.: L.N. Dzhaparidze; Ed. of Publishing House: O.N. Giorgadze; Tech. Ed.: A.R. Todua.

PURPOSE: This book is intended for specialists working in the field of manganese technology and related fields.

COVERAGE: This collection of articles presents work accomplished recently in the field of manganese electrochemistry. The two main objectives of research were: new industrial methods for the preparation of high-purity manganese, and the utilization of low-grade ores and manganese wastes. Special attention is given

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

to the low-grade manganese ores of the Usinskiye (Usa) deposits situated near the Kuznetsk industrial center. Production of electrolytic manganese is of primary interest to the Georgian SSR which possesses rich manganese ores and an abundance of hydroelectric power. One chapter is devoted to anodic diffusion of manganese and its alloys in different media for the preparation of a variety of compounds of 3,6, and 7 valent manganese. Results of research in this aspect of manganese technology led to the construction of a plant for the production of potassium permanganate at the Rustavskiy azotnotukovoy zavod (Rustavi Factory of Nitrogen Fertilizers). New electrochemical methods for the production of manganese and permanganate were developed by Academician R.I. Agladze, the Academy of Sciences, Georgian SSR, jointly with collectives of research workers from the Zestafoni ferrosplavnyi zavod (Zestafoni Ferroalloy Plant) and the Rustavskiy Azotnotukovoy Zavod (Rustavi Factory of Nitrogen Fertilizers). Several papers on the cathodic and anodic behavior of manganese and related problems were contributed by the coworkers at the Departments of electrometallurgy and electrochemistry of the Institute of Applied Chemistry and Electrochemistry, Academy of Sciences, Georgian SSR, and the Chair of Electrochemical Technology, Georgian Polytechnical Institute.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

SOV/137-58-10-20476

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 19 (USSR)

AUTHORS: Agladze, R.I., Kharabadze, N.I.

TITLE: Polarization of a Manganese Anode in Sulfuric-acid Solutions (Polyarizatsiya margantsovogo anoda v rastvorakh sernoy kisloty)

PERIODICAL: V sb.: Elektrokhimiya margantsa. Tbilisi, AN GruzSSR, 1957, pp 235-252

ABSTRACT It is established that: 1) Upon anodic dissolution (AD) of Mn in strong H_2SO_4 solutions, solutions are obtained containing Mn of various levels of oxidation, depending upon the anode current density (cd) and the strength of the electrolyte; 2) the higher the H_2SO_4 strength, the lower the limit of cd at which a point of inflection is obtained on the polarization curve corresponding to the onset of a new process at the anode, and the anodic polarization curves gradually shift toward the more positive potentials i.e., the Mn anode undergoes more rapid polarization; 3) at low H_2SO_4 normalities (1-5 N), the Mn anode undergoes both electrochemical dissolution and intensive spontaneous dissolution, forming Mn^{2+} exclusively, this being

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

SOV/137-58-10-20476

Polarization of a Manganese Anode in Sulfuric-acid Solutions

accompanied by abundant liberation of H_2. Under these conditions polarization of the electrodes does not make for a reduction in spontaneous dissolution. The steady potential does not change even when cd = 70 amps/dm^2; 4) in solutions of 8, 10, and 13N H_2SO_4, within the range of the cd studied (up to 65 amps/dm^2), AD of the Mn proceeds in 2 stages: a) The anode dissolves with formation of Mn^{+2} and H_2; b) Mn^{3+} ions are formed, and O_2 is is liberated. In 15, 17, 20, and 22N solutions, the curves of anodic polarization consist of 3 segments, corresponding to the AD of Mn with formation of Mn^{2+}, Mn^{3+}, and Mn^{4+}. At H_2SO_4 concentrations of up to 22N, the passivation of the anode apparently is phased and conditioned by the blocking effect of the oxide film and the AD products upon the electrode surface. At over 25N, the Mn anode is passive, but its surface remains bright; 5) by their nature, curves I-V are in full correspondence with the polarization curves.

N.P.

1. Anodes--Polarization 2. Manganese--Decomposition 3. Sulfuric acid--Performance 4. Electrolytes--Properties 5. Electric current--Performance

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

SOV/137-58-10-20477

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 19 (USSR)

AUTHORS: Agladze, R.I., Khazabadze, N.I.

TITLE: Trivalent Manganese and the Potential of Manganese in Sulfuric-acid Solutions (K voprosu trekhvalentnogo margantsa i potentsiala margantsa v rastvorakh sernoy kisloty)

PERIODICAL: V sb.: Elektrokhimiya margantsa. Tbilisi, AN GruzSSR, 1957, pp 253-277

ABSTRACT: Literature data are employed for a detailed examination of the equilibrium of Mn ions of various degrees of oxidation in acid solutions, for investigation of various Mn^{3+} stabilizers, and of the structure of Mn^{3+} oxides. An investigation is made of the electrode potential of Mn in solutions of H_2SO_4 of from normal concentration to the monohydrate. Bibliography: 64 references.

N.P.

1. Manganese ions--Stability 2. Manganese ions--Oxidation 3. Manganese oxide--Structural analysis 4. Sulfuric acid solutions--Properties

Card 1/1

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

SOV/137-58-9-18769

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 88 (USSR)

AUTHORS: Agladze, R.I., Kharabadze, N.I.

TITLE: Anodic Dissolution of Manganese in Sulfuric-acid Solutions (Anodnoye rastvoreniye margantsa v rastvorakh sernoy kisloty)

PERIODICAL: V sb.: Elektrokhimiya margantsa. Tbilisi, AN GruzSSR, 1957, pp 279-301

ABSTRACT: A study is made of the influence of the concentration and temperature of the electrolyte, and also of current density (cd), upon the process of dissolution at the anode (AD) of Mn in strong solutions of H_2SO_4. It is found that when Mn is subjected to AD, the oxidizing capacity of the electrolyte rises as H_2SO_4 concentration is increased to 22 N and then declines. There is a specific level of solubility of Mn^{3+} sulfate for each concentration of H_2SO_4. This concentration declines as the acidity of the solution rises. The excess salt comes down as precipitate. When AD occurs at constant current density, the anode potential shifts in time toward the more positive values owing to the formation of hard-to-dissolve Mn^{3+} oxide on the

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

SOV/137-58-9-18769

Anodic Dissolution of Manganese in Sulfuric-acid Solutions

surface of the electrode. After the maximum has been attained, a reduction in the potential is observed due to the formation of soluble Mn^{4+} oxide and the effect of the liberated O_2, which loosens the passivating film of oxide. On AD in 14-16-N solutions of H_2SO_4 at an anode cd of 5-15 amps/dm^2 and 12-25°C, it is possible to obtain a crystalline deposit of Mn^{3+} sulfate. Crystalline deposits of Mn^{3+} double sulfates are obtained at 12-30°C. The increase in current density results in an increase in the oxidizing capacity of the solution. AD of Mn in H_2SO_4 to produce Mn^{3+} should be performed within the limits of cathode cd=-15 amps/dm^2. Consumption of electrical energy upon AD of Mn with derivation of Mn^{3+} and Mn^{4+} sulfates comes to 0.8 kwh/kg.

L.P.

1. Manganese--Separation 2. Anodes--Performance 3. Sulfuric acid--Applications
4. Electrolytes--Temperature factors

Card 2/2

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

BAGDAVADZE, N.V.; BARBAKADZE, L.V.; GINTURI, E.N.; KUCHAVA, N.Ye.; MGSULISHVILI, L.M.; KHARABADZE, N.Ye.

Radioactivation method for determining gold in the blood. Soob. AN Gruz. SSR 39 no.2:237-294 Ag '65. (MIRA 18:9)

1. Institut fiziki AN GruzSSR. Submitted January 15, 1965.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

L 5024-66 EWT(1)/EPA(s)-2

ACCESSION NR: AP5024579 UR/0292/65/000/009/0027/0031 42 B
621.313.33.001.4

AUTHOR: Chertok, B. N. (Engineer); Linchenko, V. G. (Engineer); Strusovskaya, M. I. (Engineer); Kharabash, P. N.

TITLE: Investigation of the effect of partial insulation around the cast squirrel cage of a rotor

SOURCE: Elektrotekhnika, no. 9, 1965, 27-31

TOPIC TAGS: induction motor

ABSTRACT: The results of an experimental investigation of the squirrel-cage rotor-core insulation and its effect on the induction-motor performance are reported. The aluminum-phosphate coating of the core was found to be the best. This coating proved to be able to withstand 500C continuously and, when applied to the NaOH-etched core surface, ensured a contact resistance about 10--30 ohm-mm². The effect of this "partial" insulation was investigated by comparing the performance of standard and experimental rotors in the same stator of a KOM31-4 induction motor; the experimental rotors had skewed slots. It was found that the reduction of the motor losses, thanks to the introduction of the rotor insulation, resulted in

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L 5024-66

ACCESSION NR: AP5024579

lowering the stator-winding temperature by 12C and enhancing the motor efficiency by 2.5--3%; also the motor minimum and maximum torques increased by 5 and 12%, respectively. Orig. art. has: 2 figures, 9 formulas, and 3 tables.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: EE

NO REF SOV: 005 OTHER: 002

Card 2/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARABAYEV, I.Kh.; BORISOV, O.M.

Results of the First All-Union Conference on Volcanology. Uzb. geol. zhur. no.2:91-93 '60. (MIRA 13:10)
(Volcanoes)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

ACC NR: AP6027531 SOURCE CODE: UR/0108/66/021/005/0067/0069

AUTHOR: Shushkevich, A. D.; Povet'yev, I. A.; Kharaberyush, V. P.

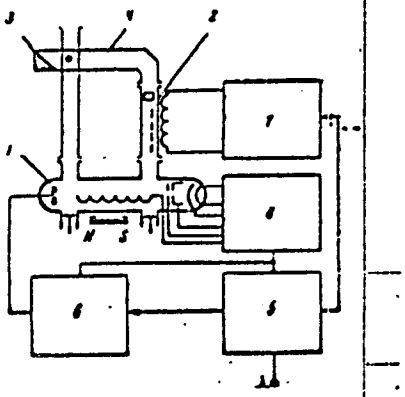
ORG: none

TITLE: Method for widening the spectrum of long SHF pulses by FM

SOURCE: Radiotekhnika, v. 21, no. 5, 1966, 67-69

TOPIC TAGS: radar, pulsed radar, radar pulse, SHF

ABSTRACT: The range resolution inherent to short radar pulses can also be attained with (high-power) longer pulses by widening their spectrum through FM. A suitable system (see figure) would include: 1 - TW-tube (or klystron, or platinotron) oscillator with a positive-feedback loop 4; 2 - phase shifter (a ferrite-loaded rectangular-waveguide segment) intended for calculating the phase of oscillations in the feedback loop; 7 - generator for calculating the phase-shifter magnetic field; 5 - synthesizing submodulator; 6 - modulator



Card 1/2 UDC: 621.396.96

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

ACC NR: AP6027531

supplying pulses to the tube collector; 3 - directional coupler. As the tube receives SHF oscillations with continuously increasing phase increment, the tube output yields a SHF signal with a continuously varying frequency. Orig. art. has: 2 figures and 9 formulas.

SUB CODE: 09 / SUBM DATE: 20Apr64 / ORIG REF: 003

Card 2/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARACH, A.M.

Increase in sugar content in radish as a result of the presowing seed treatment. Biul.Glav.bot.sada no. 48:93-94 '63. (MIRA 17:5)

1. Luganskiy sel'skokhozyaystvennyy institut.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

S/122/61/000/001/008/015
A161/A130

AUTHORS: Chichinadze, A. V., Candidate of Technical Sciences; Kharach, G. M., Engineer

TITLE: Experience with retinaks in some machinery applications

PERIODICAL: Vestnik mashinostroyeniya, no. 1, 1961, 51 - 55

TEXT: Information is given on component elements of retinaks, its properties, behavior and applications. It is since 2 - 3 years gradually replacing the old Soviet friction materials failing in heavy friction service. 17 Soviet publications are the information source. Its peculiar feature is a plastic, resilient surface film. The components are barite, asbestos and resin bond modified by colophony. Brass is added for heavy friction service. Resin heated by friction reacts with barite, the ambient medium and the counterbody in friction contact, and brass reacts with barite forming sulfurous compounds. The surface film maintains constant volume in a wide temperature range. The ФК-24 А (FK-24A) retinaks is made of asbestos, ground barite and a solution of modified phenol-formaldehyde resin. Microscopic pores on the surface fill with

Card 1/4

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

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A161/A130

Experience with retinaks in some ....

plastic wear products under the effect of friction and heat, as well as with particles of softened metal. The softening point of metal must not exceed the friction heat to prevent metal from being pulled on the retinaks surface. FK-24A contains no brass and is designed for a lower friction heat range. The other grade mentioned, ФК-16Л (FK-16L) is FK-24A with 16% brass wire of 0.18 - 0.20 mm in diameter in 20 - 30 mm lengths. It is a grade for higher friction loads. Softening brass replaces the burning bond and absorbs some heat. Softened brass with barite and resin decomposition products forms a layer isolating the deeper layers from contact with the counterbody and working like a lubricant which forms from friction. Retinaks linings are fabricated similarly with other non-metallic materials worked by hot pressing, and its properties are controllable by application of different pressure and temperature. The physical and mechanical properties are:

	FK - 24 A	FK- 16 L
Compression strength limit, kg/cm^2	1,300	900
Brinell hardness, kg/mm^2	33	36
Bending strength limit, kg/cm^2	--	600
Shear resistance, kg/mm^2	4.8	2.5
Impact resistance, kg-m/cm^2	--	13

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

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A161/A130

Experience with retinaks in some .....

	FK - 24 A	FK - 16 L
Density, g/cm^3	1.82	2.25
Heat conductivity, Kcal/m · h · deg	0.53	0.57
Specific heat, Kcal/kg · deg	0.23	0.2
Thermal diffusivity, m^2/h · 10^3.....	1.36	1.2
Water uptake, %	< 1	< 1

Retinaks is resistant to acids, alkali, nonpolar solvents, gasolin, oil, and stable in the arctic and tropical climate. Tambovskiy zavod asbestovykh i reziновykh tekhnicheskikh izdeliy (Tambov Asbestos and Rubber Technical Product Plant) produces retinaks linings since 1959. The following applications are listed. A friction clutch produced by Zavod mekhanicheskikh pressov (Mechanical Press Plant) in Altay area; an electromagnetic ЭТМ-153 (ETM-153) clutch with retinaks sectors developed by ENIMS, and clutches under development for friction service for 500,000 kg-m and higher, destined for the use in steam power plants and expected to decrease the required installed capacity of motors from 600 - 800 to 300 - 400 kw; brakes for aircraft wheels, walking excavators, oil drilling equipment. It has been tested with success in automobile brakes, in tests organized in 1958 by the Ministerstvo avtomobil'nogo transporta i shossynykh dorog Ukrainskoy SSR

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(Ministry of Motor Transport and Highways of the Ukrainian SSR) and IMASh AS USSR. The "Karbolit" Plant produces a retinaks grade for subway train brakes. Other applications are expected. Its life is 6 - 8 times longer than that of old friction materials in press clutches, more than three times longer in automobile brakes (linings withstood 100,000 km), up to 15 times in a walking excavator. The proper application range is for pressure up to 60 kg/cm^2 and sliding speed up to 100 m/sec; dry friction heat must not exceed 1,200°C. Large-scale tests are mentioned of old friction materials at Institut mashinovedeniya AN SSSR (Institute of Science of Mashines of the AS USSR) and Vsesoyuznyy nauchno-issledovatel'skiy institut asbotekhnicheskikh izdeliy (VNIIATI) (All-Union Scientific Research Institute for Technical Asbestos Products), in which the materials failed at much lower friction heat. The tested materials include non-Soviet "Marion" smoking and failing at 650 - 700°C, "Cobra" at 450°C, "Bokau-Wolf" at 600°C. The Soviet 6-Kβ-10 (6KV-10) failed at 420°, 6KX-1 (6KKH-1) at 500°C. FK-24A retinaks worked without coating with metal at 800 - 900°C in couple with ferrous metal, and FK-16L at 1,100°C. There are 4 figures and 17 Soviet-bloc references.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

BEGIDZHANOVA, A.P., kand. tekhn. nauk; KHARACH, G.M., inzh.; POPOV, S.N., inzh.

Investigating asbestos friction disks in tractor units. Trakt. i sel'khozmash. 33 no.10:12-14 O '63. (MIRA 17:1)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktornyy institut (for Begidzhanova). 2. Institut mashinovedeniya AN SSSR (for Kharach). 3. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy tekhnologicheskiy institut remonta i ekspluatatsii mashinno-traktornogo parka (for Popov).

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

BEGIDZHANOVA, A.P., kand.tekhn.nauk; KHARACH, G.M., inzh.; POPOV, S.N., inzh.

Results of testing friction members of tractors on the TIS-1 stand. Trakt. i sel'khozmash. 33 no.1:7-11 Ja '63. (MIRA 16:3)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktornyy institut (for Begidzhanova). 2. Institut mashinovedeniya AN SSSR (for Kharach). 3. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy tekhnologicheskiy institut remonta i ekspluatatsii mashinno-traktornogo parka (for Popov).
(Friction) (Tractors—Testing)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

L 32506-65 EWT(d)/EWT(m)/EWP(w)/EPF(c)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/
EWP(z)/EWP(b)/EWP(i) Pf-4/Pr-4 MJW/JD/DJ/GS UR/0000/64/000/000/0120/0124

ACCESSION NR: AT5012200

AUTHOR: Kharach, G.M.

TITLE: New instrument and methods for the determination of fatigue characteristics of surface layers of materials during friction

SOURCE: AN SSSR. Nauchnyy sovet po trenivu i smazkam. Treniye tverdykh tel (Friction of solids). Moscow, Izd-vo Nauka, 1964, 120-124

TOPIC TAGS: friction measurement, material wear, surface fatigue, friction wear, steel friction, contact fatigue, surface interaction

ABSTRACT: Among various views concerning the nature of friction and wear of materials, the theory of I.V. Kragel'skiy seems to be the most comprehensive since it incorporates 5 types of interactions between the rubbing surfaces: microcutting, plastic forcing back, elastic forcing back, adhesion tear-off, and cohesion tear-off. At the same time, the strength of the material and its wear generally result after numerous repeated dynamic interactions between the surfaces, i.e., due to the development and accumulation of fatigue events within a certain volume of the material. Aiming at the experimental determination of the wear (contact) fatigue characteristics of the materials and of the number of cycles [illegible] of the material, the author developed a special device — called a

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

L 52506-65

ACCESSION NR: AT5013200

3

[illegible]rometer 14 at the Laboratoriya treniya i friktsionnykh materialov Instituta mashinove- [illegible] Laboratory of Friction and Friction Materials of the Institute for Machine Design) [illegible] and wear is studied not only following single [illegible] but also after multiple interactions of the indenter with the surface of the sample [illegible] consideration, with fixed normal indenter load and with continuous registration of the magnitude of the friction force. Descriptions of the instrument and of the test runs with ShKh-15 steel are given. Orig. art. has: 2 formulas and 3 figures.

19

ASSOCIATION: none

SUBMITTED: 28Nov64 ENCL: 00 SUB CODE: MT

NO REF SOV: 000 OTHER: 000

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Card 2/2

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

AUTHORS: Chukhlebov, P.M., Kharach, V.G. SOV/91-58-3-16/28

TITLE: On Simplifying the Shielding System of a 3,000 KW Electromotor from a Short Circuit to Ground (Uproshcheniye zashchity elektrodvigatelya 3 tys. kvt ot zamykaniya na zemlyu) Exchange of Experience (Obmen opytom)

PERIODICAL: Energetik, 1958, Nr 3, p 23 (USSR)

ABSTRACT: The complicated short circuit-to-ground protection of the 3,000 KW electromotors, attained by means of the maximum capacity relay IM-142, proved to be unreliable. Another system was introduced; current transformers TZR and electromagnetic relay ETD-551-60 were applied. The protection capacity of the new system is 3.5 to 4.0 a which meets the norms. The new system is more simple both in itself and in mounting, cheaper, and does not need systematic revisions. There is 1 circuit diagram.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

BEGIDZHANOVA, A.P.; POPOV, S.N.; KHARACH, G.M.

Testing friction materials for the friction areas of tractors. Trakt. i sel'khozmash. 31 no.8:15-17 Ag '61. (MIRA 14:7)

1. Nauchno-issledovatel'skiy avtotraktornyy institut (for Begidzhanova). 2. Vsesoyuznyy nauchno-issledovatel'skiy institut mekhanizatsii sel'skogo khozyaystva (for Popov). 3. Institut mashinovedeniya AN SSSR (for Kharach).
(Tractors) (Friction)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

AUTHOR: Kharach, V.G., Technician 91-58-5-21/35

TITLE: Alteration of the Contact System of the Relay Types ET-60 and ET-70 (Peredelka kontaktnoy sistemy rele tipov ET-60 i ET-70)

PERIODICAL: Energetik, 1958, Nr 5, p 23 (USSR)

ABSTRACT: In the preventive maintenance circular Nr E-3/55 of the USSR Ministry of Electric Power Station, it is mentioned that the current relay types ET-60, ET-70, and ET-500 are not reliable. In the article an alteration of these relays is proposed. The plates of the fixed contacts are removed and two anti-vibration brass plates of 0.12-0.15 mm thickness are shortened and cut out. The alteration and assembly is shown in the figure. The improved relay has been in operation for two years.
There is 1 figure.

AVAILABLE: Library of Congress

Card 1/1 1. Relays - Maintenance

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARACH, V.G., tekhnik

Light signaling of telephone calls in noisy workshops. Energetik 8 no.4:29 Ap '60. (MIRA 13:8)
(Telephone--Apparatus and supplies)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

GRODZIYEVSKIY, V.I., inzh.; KHARCHENKO, A.I., inzh.

Improving characteristics of a tractor diesel engine by cooling supercharging air. Mashinostroenie no.6:91-93 N-D '65. (MIRA 18:12)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

CA

The composition of paper-mill pitch. S. S. Malevskaya and S. D. Kharad (Molotov Leningrad Technol. Inst.). *Zhur. Priklad. Khim.* 22, 1310-20(1949).—Samples of pitch were collected from the beaters and paper machines of a paper mill with a furnish of 67% mech. pulp (fir) and 33% sulfite pulp. The samples contained 31-66% Et_2O-sol. material. The Et_2O exts. were sepd. by 5% Na_2CO_3 into (I) (18-34%), the Na salts of fatty and resin acids, and (II) (76-82%), a neutral fraction. I was neutralized with 10% AcOH and extd. with Et_2O; the mixed acids in MeOH were treated with $MeOH-H_2SO_4$, the mixt. dild. with 10% NaCl soln., extd. with Et_2O, the Et_2O soln. treated with 1% NaOH soln., salts of the resin acids (III) (19-31% of II) sepd. in the aq. layer, and the Me esters of the fatty acids (IV) (54-70% of II) sepd. in the Et_2O layer. The aq. layer was acidified with AcOH, III extd. with Et_2O, the Et_2O, evapd., and III sepd. into petr. ether-sol. (V) (70-100%) and -insol. (VI) fractions. V was abietic acid, m. 169-70° (from EtOH). VI (mol. wt. 338), consisted of oxidation products of III. IV were distd. at 0.001 mm., giving a liquid ester (VII) (30-52% of IV), solid ester (VIII) (3-7%), and unidistd. (IX) (22-36%) fraction. VII (sapon. no. 177-8, iodine no. 125), was sapond. with alc. KOH and 10.3 g. of the acids oxidized with alk. $KMnO_4$ to give 4 fractions, considered to be azelaic, dihydroxystearic, tetrahydroxystearic, and hexahydroxystearic acids, m. 104-1°, 128-30°, 166-8°, and 200-1°, resp., considered to indicate the presence in VII of oleic, linoleic, and linolenic acids. The total wt. of hydroxy acids was 4.3 g. Sapon. of VIII gave stearic acid. IX ($C_{18}H_{36}O_6$), considered to be oxidized fatty acid esters, was not further studied. II was strain distd., giving a small yield (2.5%) of α-pinene and p-cymene; the residue was divided into an Et_2O-sol. (X) (34-60% of II) and -insol. (XI) fraction. The Et_2O was evapd. from X, the residue sapond. with alc. KOH, and divided into an acid (XII) (42-55% of II) and a neutral (XIII) fraction. XIII contained an alc.-insol. sterol, m. 136-7° (dihydrositosterol?) and an alc.-sol. sterol (predominant), $[\alpha]_D$ −29, m. 134-6°, acetate, m. 121-2° (β-sitosterol?). XII was esterified with $MeOH-H_2SO_4$, and the unreacted, amorphous acids (not further investigated) sepd. from the Et_2O; the esters (17.4 g.) were distd. at 0.001 mm. to give 13.3 g. liquid ester ($C_{11}H_{20}CO_2Me$), n_D 1.4682, d_4^{20} 0.8619, contg. 2 double bonds; 3.3 g. solid ester, which was sapond. to give an acid, m. 80° (lignoceric?); and 0.5 g. residue. A similar study was made of the EtOH exts. of the Et_2O exts. from pitch.

John Lake Keays

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CA 26

Primary rosin acids isolated from the oleoresin of Russian fir. S. S. Malevskaya and S. D. Kharad (V. M. Molotov Technol. Inst., Leningrad). *Zhur. Prikład. Khim.* (J. Applied Chem.) 23, 153-4(1950).—From 200 g. fresh oleoresin there was obtained a total of 43 g. pure rosin acids, m. 140-2°, by extn. with hot Me_2CO. Crystn. of the Na salts from H_2O and then crystn. of free acids from Me_2CO gave: *dextropimaric acid*, m. 210°, α_D 72°; *levopimaric acid*, m. 148°, α_D −275°; and *α-sapinic acid*, m. 142°, α_D −65.2°. G. M. Kosolapoff

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CA

26

Primary resin acids isolated from the oleoresin of the Russian fir. S. S. Malevskaya and S. D. Kharad (V. M. Molotov Inst. Technol., Leningrad). *J. Applied Chem. U.S.S.R.* 23, 179-80(1950)(Engl. translation). See C.A. 44, 10340g. H. L. M.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARAD, S. D.

The influence of log storage on the properties of spruce pitch. S. S. Malevskaya, V. D. Karnaukhova, and S. D. Kharad. *Bumazh. Prom.* 30, No. 9, 14-15(1955).—Two types of spruce were studied: freshly cut (I) and stored (II) in an open from April to Sept. Sawdust from I was extd. with various solvents and the exts. were sepd. into acid and neutral components, which were further fractionated by standard methods with the following results (all values given are percentage of bone-dry wood.): (*a*) total extractives, (*b*) total, (*c*) resin, and (*d*) fatty acids, (*e*) total neutral, (*f*) unsaponifiable, and (*g*) saponifiable fractions: for the Et_2O ext. from I 2.03, 1.04, 0.80, 0.23, 0.99, 0.40, and 0.50; from II 1.57, 0.85, 0.61, 0.21, 0.69, 0.34, and 0.34; for the petr. ether ext. from I 1.70, 0.74, 0.48, 0.24, 0.95, 0.38, and 0.55; from II 0.81, 0.34, 0.23, 0.10, 0.47, 0.24, and 0.21; for the $(CH_2Cl)_2$ ext. from I 3.14, 0.95, 0.62, 0.31, 1.19, 0.31, and 0.75; from II 1.63, 0.79, 0.45, 0.29, 0.84, 0.23, and 0.50; for the Me_2CO ext. from I 2.57, 1.56, 1.33, 0.93, 1.01, 0.39, and 0.45; and from II 2.46, 1.41, 1.01, 0.40, 1.05, 0.41, and 0.60. In a study of the relation between pitch trouble and type of extractive, unbleached sulfite pulp was extd. with Et_2O and then with Me_2CO, the extd. pulp (1 g.) was impregnated with 5 cc. of an Et_2O soln. of extractives from I or II by various solvents, and the Et_2O evapd. overnight; a part of these pulps was ball-milled to 60° S. R., and the amt. of pitch picked up by the balls and mills detd.; another part of the treated pulps (30 g.) was stirred at 700 r.p.m. in 3 l. distd. H_2O and the amt. of pitch picked up by the stirrer and vessel walls detd. The amt. of extractives present in the treated pulps, the amt. of pitch picked up during ball-milling and during stirring were: for the petr. ether ext. from I 1.33, 0.13, and 0.15, and from II 1.02, 0.21, and 0.053; for the Et_2O ext. from I 1.68, 0.32, and 0.11, and from II 1.54, 0.21, and 0.053; for the $(CH_2Cl)_2$ ext. from I 1.51, 0.16, and 0.14, and from II 1.17, 0.088, and 0.011; and for the Me_2CO ext. from I 1.74, 0.09, and 0.14, and from II 2.13, 0.068, and 0.014.

John Lake Keays

(2)

Order Lenin, Wood-Technology Acad. im S. M. Kirov

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, A. K.

O rasprostraneii teoremy jentsch'a na ryady faber'a. Trudy vtorogo ysesoyuzn. Matem. s8yez da, T. 2 (1936), 207.

SO: Mathematics in the USSR, 1917-1947
edited by Jurosh, A. G.
Markushevich, A. L.
Rashevskiy, P. K.
Moscow-Leningrad, 1948

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, A. K.

Haradze, A. **On a class of algebraic surfaces.** Akad. Nauk Gruzin. SSR. Trudy Tbiliss. Mat. Inst. Razmadze 15, 95–99 (1947). (Georgian. Russian summary)

The author considers surfaces Σ_n defined by the parametric equations

$$x = A_n(u, v) = \tfrac{1}{3}[(1+u+v)^n + (1+\omega u+\omega^2 v)^n + (1+\omega^2 u+\omega v)^n],$$

$$y = B_n(u, v) = \tfrac{1}{3}[(1+u+v)^n + \omega(1+\omega u+\omega^2 v)^n + \omega^2(1+\omega^2 u+\omega v)^n],$$

$$z = C_n(u, v) = \tfrac{1}{3}[(1+u+v)^n + \omega^2(1+\omega u+\omega^2 v)^n + \omega(1+\omega^2 u+\omega v)^n].$$

From the author's summary.

So: MATHEMATICAL REVIEW (Unclassified)
Vol XIV, No 6, June 1953, pp 523-608

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, A. K.

Kharadze, A. K. "Notes on the algebraic solution of fourth-degree equations," Trudy Tbilis, gos. ped. in-ta im. Pushkina, Vol. V. 1948, p. 37-40 - Resume in Georgian language

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No. 3, 1949).

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, A. K.

23907 Kharadze, A. K. Ob odnom Primenenii Ortogonal'nykh Polinomov Chebysheva. Trudy Tbilis. Gos. PED. IN-TA IM. Pushkina, T. VI, 1949, S 321-24 - Rezyume Na Gruz. Yaz.

SO: Letopis, No. 32, 1949.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, A. K.

23906 KHARADZE, A. K. O posledovatel' Nostyakh Nepreryvnykh Funktsiy. Trudy Tbilis. Gos. Ped in-Ta im. Pushkina, T VI, 1949, S 325-27 - Rezyume Na Cruz. Yaz.

SO: Letopis, No. 32, 1949.

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67071

~~16(1),16(2)~~ 16.3000 SOV/44-59-9-9503

Translation from: Referativnyy zhurnal.Matematika,1959,Nr 9,p 174 (USSR)

AUTHOR: Kharadze,A.K.

TITLE: On a Generalization of the Formula of Simpson

PERIODICAL: Tr. Tbilissk. un-ta, 1955, 56,23-23

ABSTRACT: Let $f(z)$ be holomorphic in the circle $|z-c| \leq h$, let the power series [illegible] development of the function have real coefficients. Then if $F'(z) =$ [illegible] $= f(z)$ and $\omega_k = e^{i2\pi/k}$, there holds the following formula

$$(1) \quad \sum_{n=0}^{k-1} \omega_k^{k-n} F(c+\omega_k^n h) = \frac{h}{k+1}\left[\sum_{n=1}^{k-1} f(c+\omega_k^n h) + k^2 f(c)\right] + R,$$

$$R = -\frac{k^2 h^{2k+1}}{(k+1)(2k+1)} \lambda f^{(2k)}(z_0).$$

Here $|\lambda| \leq 1$, z_0 is the afix of a certain point of a regular polygon of k sides with the vertices

$$c+h,\ c+\omega_k h, \ldots, c+\omega_k^{k-1} h.$$

For $k=2$ (1) changes into the ordinary formula of Simpson.

M.A.Aleksidze

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

16(1),16(2) 06325

AUTHOR: Kharadze, A.K. SOV/140-59-6-26/29

TITLE: On the Situation of the Zeros of Some Classes of Polynomials

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1959, Nr 6, pp 214-219 (USSR)

ABSTRACT: Let Δp be the straight line through the origin of the z-plane forming the angle $\frac{2\pi}{k} \cdot p$ with the real axis. Let $\rho(z,\Delta p)$ be the amount of the distance of the point z from the straight line Δp and let $h_{(k,z)} = \min \rho(z,\Delta p)$ $(p=0,1,\ldots,k-1)$. Let

$$D_k^{(k)} \equiv \frac{d}{dz} \frac{1}{z^{k-2}} \frac{d}{dz}, \quad D_k^{(k-1)} \equiv \frac{1}{z^{k-2}} \frac{d}{dz}$$

and

$$H_{mk+1}(z) \equiv -e^{\frac{z^k}{k}} D_k^{(km+k-1)}\left[e^{-\frac{z^k}{k}}\right].$$

Theorem: If $f(z) = c_0 H_1(z) + c_1 H_{k+1}(z) + \ldots + c_m H_{km+1}(z)$, $c_m \neq 0$, then all zeros of the polynomial $f(z)$ lie in the domain defined by the inequation

Card 1/2

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

06325

On the Situation of the Zeros of Some Classes of Polynomials SOV/140-59-6-26/29

(7) $h_{(k,z)} \leqslant \sqrt[k]{1+\frac{M}{|c_m|}}$,

where $M = \max |c_i|$, $i=0,1,\ldots,m-1$.

There are 3 non-Soviet references, of which 2 are German, and 1 Indian.

ASSOCIATION: Tbilisskiy gosudarstvennyy universitet imeni I.V.Stalina (Tbilisi State University imeni I.V.Stalin)

SUBMITTED: June 26, 1958

Card 2/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, A.K. (Tbilisi)

Determinant-circulant as the only algebraic apparatus for solving equations of the second, third and fourth order. Mat. pros. no.5: 204-206 '60. (MIRA 13:12)

(Equations)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, A.K. (Tbilisi, SSSR)

Remark about a theorem of P.Turan. Mat kut kozl MTA 6 no.3:399-403 '61.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, A.K.

Some special functions of the Bessel's function family and the simplest generalizations associated with them. Soob. AN Gruz. SSR 27 no.5:513-519 N '61. (MIRA 15:1)

1. Tbilisskiy gosudarstvennyy universitet. Predstavleno akademikom N.I. Muskhelishvili.
(Bessel's functions)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, A.K.

Sequence of Appel type polynomials satisfying the recursion relation. Sib. mat. zhur. 5 no.4:963-967 Jl-Ag'64 (MIRA 17:8)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, A.K.

Representation of ultraspherical polynomials in the form of a differential operator containing the generating function of these polynomials. Dokl. AN SSSR 158 no.1:59-61 S-O '64 (MIRA 17:8)

1. Tbilisskiy gosudarstvennyy universitet. Predstavleno akademikom P.S. Aleksandrovym.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

Def. at
Tbilisi State U.

KHARADZE, A. L.

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Зад. 1941, 19.3.

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Зад. 1938, 29.4.

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Зад. 1938, 23.10.

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Зад. 1938, 2.11.

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Аколян Ясон Георгиевич. Влияние условий воспитания и свойств материнского организма на рост, развитие и продуктивность тутового шелкопряда (Bombyx mori L.). 1952. [1], 142 с., илл.

Зад. 1953, 6.5.

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Зад. 1944, 4.11.

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Мжелидзе Тамара Семеновна. К вопросу об изучении пауков Грузии. 1942. 134 с., [21] вкл. л., 16 карт, 8 рис. (Тр. ТГУ, т. 19, 1947).

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Конаев Мирон Кондратьевич. Биолого-экологические особенности мучнистого клеща и борьба с ним (кратко химического метода). 1945. 90 с.

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Зад. 1941, 16.6.

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Candidate Biological Sciences

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE A. [redacted]

Kharadze, A. [redacted] - "Study of the xerophlous flora of the Rocky Mountain range," Trudy Tbilis. botan. in-ta, Vol. XII, 1948, p. 1-14 (16!) Resume in Georgian, - Bibliog: p. 14

SO: U-4924, 20 Oct 53, (Letopis 'Zhurnal 'nykh Statey, No. 16, 1949).

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZYE, A. Gayt.

28318

Sistyematiki kavkazskikh vidov poda samrapula l. Syektsii medium A.D.S. zamyetki po si styematikye i. Gyeografii rastyenty (akad nank gruz. SSR, IN - T. Butaniki). Byp. 15, 1949. S. 13-33-Ryezyumye Na gruz. Yaz. --Bibliogr: 12 Nazv.

So: Letopis Nr. 34

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, A.

Notes on the bellflowers of the Caucasus. Zam.po sist.i geog.rast. no.17:100-109 '53. (MLRA 8:9)
(Caucasus--Bellflowers)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE,A.; KAPELLER,O.

New species of the genus Primula L. from Ciscaucasia. Zam.po sist. i geog.rast. no.17:136-139 '53. (MIRA 8:9)
(Caucasus, Northern--Primroses)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, A. L.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954

Name	Title of Work	Nominated by
Kapeller, O.A. Kemulariya-Natadze, L. M. Ketskhoveli, N. N. Kutateladze, Sh. I. Makashvili, A. K. Mandenova, A. P. Sakhakia, M. P. Sosnovskiy, D. I. Ter-Khachaturova, S. Ya. Kharadze, A. L. Shkhiyan, A. S.	"Flora of Georgia" (Vols I- VIII)	Institute of Botany Academy of Sciences Georgian SSR

SO: W-30604, 7 July 1954

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

14-57-7-15041

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 7, p 137 (USSR)

AUTHORS: Kharadze, A. L., Tamamshyan, S. G.

TITLE: Modestia Char et Tamamsch, A New Genus of the Compositae (Modestia Char et Tamamsch - novyy rod iz semeystva slozhnotsvetnykh)

PERIODICAL: Zametki po sistematike i geogr. rasteniy, AN GruzSSR, 1956, Nr 19, pp 40-44, 39

ABSTRACT: The authors describe the new genus and three species, Modestia darwasica, M. juncunda, and M. mira. They furnish detailed information on their distribution, habitat, and the history of scientific work done on them.

No name

Card 1/1

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, A. L.

"On the history of mountain xerophyte vegetation of the Central Caucasus".

report presented at a Joint Session of the Biological Dept. of AN USSR and Biological and Medical Depts. AN Gruziya SSR, Tbilisi, 2[illegible] Sept - 3 Oct 1957. Vestnik Akad. Nauk SSSR, 1958, Vol. 28, No. 1, pp. 121-125. (author Dzidzishvili, N. N.)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, A.L.

Notes on critical Caucasian species of the genus Cirsium Mill.
Zam. po sist. i geog. rast. no.20:42-51 '58. (MIRA 12:9)
(Caucasus--Thistle)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, A.L.

Two new species from the Caucasus. Zam. po sist. i geog. rast. no.21:47-54 '59. (MIRA 13:8)
(Caucasus--Valerian) (Caucasus--Pinks)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, A., red.; TOPURIA, Sh., red.izd-va; TODUA, A., tekhn.red.

[Collection of works by graduate students and young scientists dedicated to the 1500th anniversary of Tiflis and 40th anniversary of the Communist Youth League] Sbornik rabot aspirantov i molodykh nauchnykh rabotnikov, posvieshchennyi 1500-letiiu g.Tbilisi i 40-letiiu komsomola. Tbilisi, 1960. 59 p. (MIRA 13:7)

1. Akademiya nauk Gruzinskoy SSR, Tiflis. Institut botaniki. (Botany)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, A.L.

Endemic semixerophilous element in alpine regions of the Greater Caucasus. Probl. bot. 5:115-126 '60. (MIRA 13:10)

1. Botanicheskiy institut AN GruzSSR, Tbilisi.
(Caucasus--Xerophytes)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

ASKEROVA, R.K.; AKHUNDOV, G.F.; ISAYEV, Ya.M.; KARYAGIN, I.I.; PRILIPKO, L.I.; SOFIYEVA, R.M. Prinimali uchastiye: KUTATELADZE, A.; MANDENOVA, I.P.; LINCHEVSKIY, I.A.; POBEDIMOVA, Ye.G.; POYARKOVA, AI.; FEDOROV, An.A.; KHARADZE, A.L.; YUKSIP, A.Ya.; VARUNTSYAN, I., red. izd-va; POGOSOV, V., tekhn. red.

[Flora of Azerbaijan] Flora Azerbaidzhana. Baku, Izd-vo Akad. nauk Azerbaidzhanskoi SSR. Vol.8. Rubiaceae - Compositae. 1961. 688 p. (MIRA 14:11)

(Azerbaijan--Dicotyledons)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHAMIDOV, A.L.

Data on the [illegible] of scullcaps of the section Dracocephalum in the Greater Caucasus. Zap. po sist. i geog. rast. no.22:43-56 '61. (MIRA 14:7)
(Caucasus—Skullcap(Botany))

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, A.L.

New and critical species of Cirsium Mill. Zam. po dist. i geog. rast. no.22-63-77 '60. (MIRA 14:7)
(Caucasus--Cirsium)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

BOBROV, Ye.G.; BONDARTSEV, A.S.; BORISOVA, A.G.; VASIL'KOV, B.P.; VASIL'CHENKO, I.T.; GOLUBKOVA, V.F.; GRUDZINSKAYA, I.A.; YEGOROVA, T.V.; ZINOVA, A.D.; IVANINA, L.I.; LEONOVA, T.G.; MATSENKO, A.Ye.; PIDOTTI, O.I.; POBEDIMOVA, Ye.G.; POLYAKOV, P.P.; POYARKOVA, A.I.; SAVICH, V.P.; SIN'KOVA, G.M.; SMIRNOVA, Z.N.; SMOL'YANINOVA, L.A.; FEDOROV, Al.A.; KHARADZE, A.L.; TSVELEV, N.N.; SHISHKIN, B.K.[deceased]; PEN'KOVA, G.A., red.; BARANOVA, L.G., tekhn. red.; FRIDMAN, Z.L., tekhn. red.

[Botanical atlas] Botanicheskii atlas. Moskva, Sel'khozizdat, 1963. 501 p. (MIRA 16:12)

1. Chlen-korrespondent AN SSSR (for Shishkin).
(Botany—Atlases)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, A.L.

Notes on some endemic genera of the Greater Caucasus. Vest. Bot. ob-va. Gruz. SSR. no.1:41-56 '62. (MIRA 17:1)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, A. L.

"The analysis of the mountain xerophile flora of the Great Caucasus."

report submitted for 10th Intl Botanical Cong, Edinburgh, 3-12 Aug 64.

AS GSSR.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, A.L.

Notes on the Crimean species Cirsium laniflorum. Zam. po sist. i geog. rast. no.23:103-109 '63.

Some new species of the genus Cirsium Mill. Ibid.:111-116 (MIRA 17:12)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHANAGOV, A. [illegible]

Occurrence of the monotypic genus [illegible] (Bliss.) Rapr. in the Caucasus. Bot. zhur. [illegible] (MIRA 18:2)

1. Institut botaniki AN Gruzinskoy SSR, Tbilisi.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

BORISOVA, A.G.; IL'IN, M.M.; KLOKOV, M.V.; LINCHEVSKIY, I.A.; POBEDIMOVA, Ye.G.; SEMIDEL, G.L.; SOSKOV, Yu.D.; SOSNOVSKIY, D.I.; TAMAMSHYAN, S.G.; KHARADZE, A.L.; TSVELEV, N.N.; CHEREPANOV, S.K.; SHOSTAKOVSKIY, S.A.; BOBROV, Ye.G., doktor biol. nauk, prof., red. toma; SHISHKIN, B.K., red. izd. [deceased]; SMIRNOVA, A.V., tekhn. red.

[Tribes Cynareae and Mutisieae.] Kolena Cynareae i Mutisieae. Moskva, 1963. 653 p. (Akademiia nauk SSSR. Botanicheskii institut. Flora SSSR, vol.28). (MIRA 16:12)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, G.A.

Electromagnetic properties of nucleons. Soob. AN Gruz. SSR 19 no.543-550 N '57. (MIRA 11:6)

1.Tbilisskiy gosudarstvennyy universitet im. Stalina. Predstavleno chlenom-korrespondentom AN V.I. Mamasakhlisovym.
(Nucleons)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, G.A.

Electromagnetic properties of baryons. Soob. AN Gruz. SSR 21 no.4:407-412 O '58. (MIRA 12:4)

1. AN GruzSSR, Institut fiziki, Tbilisi. Predstavleno chlenom-korrespondentom Akademii V.I. Mamasakhlisovym.
(Mesons)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

21(8), 24(5)

AUTHOR: Kharadze, G. A. SOV/56-36-5-49/76

TITLE: On the Influence of the Isobaric State of the Nucleon on Electron-neutron Interaction (O vliyanii izobarnogo sostoyaniya nuklona na elektron-neytronnoye vzaimodeystviye)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 5, pp 1577-1578 (USSR)

ABSTRACT: In the introduction the author discusses the difficulties of the theoretical explanation of the observed $V_0^{(s)}$-values; $V_0^{(s)}$ denotes the potential well depth of the electrostatic e-n interaction. He discusses the unsatisfactory results obtained by some investigations and then points out the success attained by means of the semiphenomenological theory (Refs 4-6) in describing phenomena connected with meson-nucleon interaction. In these papers mention has already been made of the resonance character of meson-nucleon interaction in the state $T = J = 3/2$. The author endeavors in this paper, by using this theory, to evaluate the well depth $V_0^{(s)}$, and he investigates the influence exercised by the isobaric states on the electromagnetic nucleon radius in

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

On the Influence of the Isobaric State of Nucleon on Electron-neutron Interaction SOV/56-36-5-49/76

the case of certain neglects. By employing the three-vertex diagram technique $\langle r^2 \rangle_{I\pi}^{(N)} = (F^2/4\pi M_N^2)(0.8-12.2\tau_z)$ is obtained for the root mean square electric nucleon radius. For the depth of the electrostatic e-n well $V_0^{(s)}(I\pi) = -1.42\, M_N^2 \langle r^2 \rangle_{I\pi}^{(n)}$ kev is obtained. A comparison with the results obtained in the ordinary pseudoscalar theory with cutoff results in $V_0^{(s)} \approx 1$ kev on the assumption that $F^2/4\pi = 0.15$. This result, being based on evaluations, is of only qualitative significance. There are 9 references, 2 of which are Soviet.

ASSOCIATION: Institut fiziki Akademii nauk Gruzinskoy SSR (Institute of Physics of the Academy of Sciences, Gruzinskaya SSR)

SUBMITTED: January 5, 1959

Card 2/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, G. A.

Cand Phys-Math Sci - (diss) "Several problems of the theory of electromagnetic structure of nucleons." Tbilisi, Pub. Tbilisi Univ, 1961. 8 pp; (Tbilisi State Univ imeni Stalin); 180 copies; free; bibliography at end of text (16 entries); (KL, 7-61 sup, 220)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

ACCESSION NR: AP4031170 S/0056/64/046/004/1461/1463

AUTHOR: Kharadze, G. A.

TITLE: Scattering of thermal neutrons by polarized nuclei of the atoms of a ferromagnet

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 4, 1964, 1461-1463

TOPIC TAGS: thermal neutron, neutron scattering, ferromagnetic structure, nuclear scattering, incoherent scattering

ABSTRACT: A possibility is pointed out of determining the incoherent amplitude of nuclear scattering in experiments on Bragg scattering of unpolarized thermal neutrons by polarized nuclei making up a ferromagnetic lattice. The interference phenomena which occur in such scattering are studied and it is pointed out that because of the interference between magnetic and the incoherent nuclear scattering it is possible to determine the sign of the incoherent amplitude, for which purpose it is sufficient to use an unpolarized beam of thermal neutrons. Such a possibility is related to the interference between nuclear and magnetic scattering, which occurs in the scattering of neutrons by a crystal with ferromagnetically ordered atomic spins and nonzero degree of polarization of the nuclei even when the incident

Card 1/2

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ACCESSION NR: AP4031170

neutron beam is polarized. The incoherent part of the scattering then participates in the interference. "The author is indebted to G. R. Khutsishvili for enabling him to become familiar with various papers on the subject and for valuable discussion." Orig. art. has: 4 formulas.

ASSOCIATION: Institut fiziki Akademii nauk Gruzinskoy SSR (Institute of Physics, Academy of Sciences, Georgian SSR)

SUBMITTED: 11Nov63 DATE ACQ: 07May64 ENCL: 00

SUB CODE: NP, SS NR REF SOV: 000 OTHER: 008

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

L 12951-65 EWT(1)/EPA(e)-2 Pt-10 IJP(c) GG ASD(a)-5/AFWL/ESD/
AS(mp)-2/RAEM(c)/RAEM(a)/ESD(gs)/ESD(t)
ACCESSION NR: AP4046598 S/0181/64/006/010/2921/2925

AUTHORS: Buishvili, L. L.; Giorgadze, N. P.; Kharadze, G. A.

TITLE: Magnetic resonance in antiferromagnets with helical structure

SOURCE: Fizika tverdogo tela, v. 6, no. 10, 1964, 2921-2925

TOPIC TAGS: antiferromagnetism, magnetic resonance, electron spin, nuclear spin, magnetic susceptibility, magnetic structure

ABSTRACT: The article is devoted to a theoretical investigation of resonance phenomena in magnetic substances having a helical structure, with allowance for the hyperfine interaction between the electron and nuclear spins. The components of the tensor of the high-frequency susceptibility of the spin system are calculated. The calculation is in an approximation that is linear in the external alternating field. It is shown that in the longitudinal case, i.e., when the magnetic vector of the high frequency field is parallel to

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ACCESSION NR: AP4046598

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the axis of the helix, resonance absorption can be observed, due to the presence of a gap in the spectrum of the elementar excitations

SUBMITTED: 06Mar64 ENCL: 00

SUB CODE: SS, NP NR REF SOV: 003 OTHER: 005

Card 2/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

L 9250-66 EWT(1)/EWT(m)/EWP(t)/EWP(z)/EWP(b) IJP(c) JD/WW/GG

ACC NR: AP5022725 SOURCE CODE: UR/0181/65/007/009/2793/2798

AUTHOR: Buishvili, L. L.; Giorgadze, N. P.; Kharadze, G. A.

ORG: Institute of Cybernetics AN GruzSSR (Institut kibernetiki AN GruzSSR); Institute of Physics AN GruzSSR (Institut fiziki AN GruzSSR)

TITLE: On the theory of nuclear magnetic resonance in ferrometals

SOURCE: Fizika tverdogo tela, v. 7, no. 9, 1965, 2793-2798

TOPIC TAGS: ferromagnetic material, nuclear magnetic resonance, conduction electron

ABSTRACT: This paper is a theoretical investigation of problems associated with nuclear magnetic resonance in ferrometals. It is shown that the conduction electrons in these materials cause an additional indirect anisotropic interaction between a pair of nuclear spins which differs from relationships of the Suhl-Nakamura and Ruderman-Kittel type. The Hamiltonian is given for the system of interrelated electrons and nuclear spins in a semimetal and formulas are derived for calculating the various parameters appearing in this function. The results apply to a single domain of the ferrometal and do not account for transition regions (Bloch walls), which have a considerable effect on the nature of nuclear magnetic resonance in ferromagnetic materials. In conclusion, the authors are grateful to G. R. Khutsishvili and G. Ye. Gurgenishvili for extremely useful discussions. Orig. art. has: 33 formulas.

SUB CODE: 20/ SUBM DATE: 31Dec64/ ORIG REF: 003/ OTH REF: 006

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L 14130-66 EWT(1) IJP(c) WW/GG
ACC NR: AP6000878 SOURCE CODE: UR/0181/65/007/012/3662/3664

33

AUTHORS: Buishvili, L. L.; Giorgadze, N. P.; Kharadze, G. A.

ORG: Physics Institute AN GruzSSR, Tbilisi (Institut fiziki AN GruzSSR)

TITLE: Acoustic resonance in magnetic materials with simple helicoidal structure

SOURCE: Fizika tverdogo tela, v. 7, no. 12, 1965, 3662-3664

TOPIC TAGS: magnetic material, acoustic resonance, magnetic domain structure, spin resonance

ABSTRACT: In view of recent investigations of nuclear acoustic resonance in magnetic materials, the authors calculate the average power absorbed by a magnet with helicoidal structure under the assumption that the interaction between the nuclear spin and the spin of the magnetic shell has a contact character. The calculations show that, unlike a radio frequency field, ultrasound always senses the helicoidal structure of the magnetic system. Unlike magnetic resonance, acoustic

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resonance occurs also at doubled frequencies, owing to the fact that the magnetostriction energy is quadratic in the spin. It is shown that no account need be taken of spatial dispersion in the vicinity of nuclear resonances, and that the high frequency resonances at which spatial dispersion must be taken into account are practically unattainable for ultrasound. The frequency contraction at double the frequency is approximately 10^4 times smaller than at the fundamental frequency, and the resonance at double the frequency is much weaker than at the fundamental frequency. Orig. art. has: 3 formulas.

SUB CODE: 20/ SUBM DATE: 01Jul65/ ORIG REF: 003/ OTH REF: 003

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L 4128-66 EWT(1)/EWT(m)/EPF(n)-2/EWA(h) IJP(c) AT

ACCESSION NR: AP5024714 UR/0056/65/049/003/0925/0929

AUTHOR: Mamaladze, Yu.G.; Kharadze, G.A.; Cheyshvili, O.D.

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v.49, no.3, 1965, 925-929

TITLE: Passage of polarized neutrons thru a superconductor in a mixed state

TOPIC TAGS: superconductor magnetic field, mixed state superconductor field, superconductor magnetic structure, polarized neutron beam method, superconductivity

ABSTRACT: The author develops a method for the determination of the two-dimensional periodic magnetic field structure known to exist in a second-kind superconductor in a mixed state. For a beam of monochromatic polarized neutrons passing through such a superconductor, the author finds that the beam directions resulting in depolarization maxima of the beam are related to the parameters of the two-dimensional internal field structure and its type of symmetry. This definite dependence is suggested for a method for the study of the two-dimensional lattice of Abrikosov vortices. One difficulty is seen in the narrowness of the beam at depolarization maxima: their angular limits are of the order of $\Delta\beta \approx L/d$, where L is the average lattice

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ACCESSION NR: AP5024714

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spacing of the field structure and d is the sample thickness. This poses strict collimation requirements for the neutron beam. This problem is, however, alleviated by the use of the main (passing) rather than the diffracted beam proposed in other methods. The greatest difficulty is anticipated in the necessity of using superconductors with a "monocrystalline" vortex grating, which is more essential here than in neutron diffraction experiments. Numerical estimates on the basis of expressions developed in this work point to attainment of a ten percent polarization. Orig. art. has: 31 formulas. [18]

ASSOCIATION: Institut fiziki Akademii nauk Gruzinskoy SSR (Institute of Physics, Academy of Sciences Georgian SSR)

44,55

SUBMITTED: 17Apr65 ENCL: 00 SUB CODE: EM,SS

NO REF SOV: 002 OTHER: 004 ATD PRESS: 4127

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

BUISHVILI, L.L.; GIORGADZE, N.P.; KHARADZE, G.A.

Acoustic resonance in magnets of simple helicoidal structure.
Fiz. tver. tela 7 no. 12:3662-3664 D '65 (MIRA 19:2)

1. Institut fiziki AN GruzSSR, Tbilisi.

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L 23696-66 EWT(m)/EPF(n)-2/EWA(h)

ACC NR: AR6005236 SOURCE CODE: UR/0058/65/000/009/E132/E132

54
B

AUTHOR: Subramanian, R.; Kharadze, G. A.

TITLE: Inelastic magnetic scattering of neutrons by a ferromagnetic crystal

SOURCE: Ref. zh. Fizika, Abs. 9E1097

REF SOURCE: Sb. Elektron. i ionnyye protsessy v tverd. telakh. No. 1. Tbilisi, Metsniyereba, 1964, 77-89

TOPIC TAGS: neutron scattering, electron spin, thermal neutron, crystal lattice, neutron energy distribution, differential cross section, scattering cross section, Green function, magnetic crystal

TRANSLATION: The authors consider theoretically the form of the energy spectrum of thermal neutrons scattered inelastically by a system of electron spins localized in the sites of the crystal lattice and coupled by exchange interaction. Special attention is paid to the question of the deviation of the energy distribution of the inelastically scattered neutrons from the pure Lorentz form. The calculation was made for a simple Heisenberg model of an isotropic ferromagnet: the differential cross section for the neutron scattering is expressed in terms of the spin correlators, for the calculation of which a chain of Green's equations is solved approximately. After carrying out the decoupling in all the pairings in the second Green's function, a single-particle Green's function is obtained with poles in the complex plane. The asymmetry parameter of the energy spectrum is the imaginary part of the mass operator. Yu. Rudoy.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

ACC NR: AR6035059 SOURCE CODE: UR/0058/66/000/008/E093/E093

AUTHOR: Kharadze, G. A.

TITLE: Neutron scattering on conductivity electrons in a quantized magnetic field

SOURCE: Ref. zh. Fizika, Abs. 8E712

REF SOURCE: Sb. Elektron. i ion. protsessy v tverd. telakh. No. 2. Tbilisi, Metsneyereba, 1965, 82-88

TOPIC TAGS: neutron scattering, magnetic field, conductivity electron, quantized magnetic field, spin orbital interaction, spin function, space function, solid metal

ABSTRACT: A computation is made of the cross-section $d^2\rho/d\Omega dE_f$ of a nonelastic scattering of a bundle of nonpolarized neutrons on conductivity electrons in a non-ferromagnetic metal, contained in a quantized magnetic field H. The scattering of neutrons is a result of their interaction with the magnetic field, produced by spin and orbital currents of electrons. The spin-orbital interaction of electrons is not taken into account, so the wave function of the electron is

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ACC NR: AR6035059

represented in the form of the product of the space function (oscillation function of an electron in a strong magnetic field H) and the spin function. It is assumed that the electrons have a simple parabolic spectrum. The final result is obtained when the transmitted pulse is directed longitudinally along H. I. Korenblit. [Translation of abstract] [SP]

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

ACC NR: AT7000185 SOURCE CODE: UR/3182/65/002/000/0082/0088

AUTHOR: Kharadze, G. A.

ORG: none

TITLE: Neutron scattering on conduction electrons in a quantizing magnetic field

SOURCE: AN GruzSSR. Institut fiziki. Elektronnyye i ionnyye protsessy v tverdykh telakh, v. 2, 1965, 82-88

TOPIC TAGS: conduction electron, neutron scattering, magnetic effect, thermal neutron, electron structure

ABSTRACT: An attempt is made to define the conditions for direct observation of the effects of spatial quantization of electron states in experiments involving magnetic scattering of neutrons. Starting with the operator describing the interaction between the magnetic moment of the neutron and the magnetic field of a system of conduction electrons and the state of the latter expressed in terms of a set of quantum numbers, the author develops a mathematical treatment of the problem. The author thanks Yu. M. Kagan and G. Ye. Gurgenishvili for suggestions and discussions. Orig. art. has: 35 formulas.

SUB CODE: 20/ SUBM DATE: none/ OTH REF: 003

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

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KHARADZE, G.K., inzh.

Planning is important for the effective use of tower cranes in construction. Mekh.stroi. 19 no.3:23-25 Mr '62. (MIRA 15:3)
(Cranes, derricks, etc.)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9"

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Seven-wire steel cables for reinforcing concrete piles. Transp. stroi. 13 no.9:63-64 S '63. (MIRA 16:12)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, N.M., nauchnyy sotrudnik

Method of bacteriological control in ultraviolet disinfection of the air. Gig.i san. 25 no.1:90-93 Ja '60. (MIRA 13:5)

1. Iz Nauchno-issledovatel'skogo sanitarnogo instituta Ministerstva zdravookhraneniya Gruzinskoy SSR.
(ULTRAVIOLET RAYS)
(AIR microbiology)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721810003-9

KHARADZE, R.D.; LOMTATIDZE, G.V.

Morphological characteristics and the deglaciation stages of the Tviberi Glacier. Trudy Inst. geog. AN Gruz. SSR 18: 264-265 '64. (MIRA 17:6)

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