PETRAKOV, B.D.		
	l. Iz Saratskoy rayonnoy sanitarno-enidemiologicheskoy stantsii Odesskoy oblasti. (SANITATION	
	in Russia in rural areas (Rus) (RURAL CONDITIONS,	
	sanit. protection in Russia (Rus)	



PETRAKOV, B.D., aspirant Origin and results of Health Month in Lesogorskiy District, Leningrad Province. Zdrav.Ros.Feder. 2 no.6:17-21 Je '58. (HIRA 11:5) 1. Is kafedry organizatsii zdravookhraneniya i istorii meditsiny (snv.-prof. B.S. Sigal) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (dir.-prof. A.Ya. Ivanov) (IESOGORSKIY DISTRICT--HEALTH EDUCATION)

PDTRAKOV, B.D., sanitarnyy vrach Organising the work of active public health workers. Gig. i san. 23 no.2:55-58 7 '58. (MIRA 11:4) 1. Is saratskoy rayonnoy sanitarno-epidemiologicheskoy stantai Glesskoy oblaati. (PUBLIC HEALTH, organis. (Rus))







PETRAKOV, B.D., aspirant.

Planning and organizing compound sanitary and antiepidemic measures in rural districts and an analysis of their effectiveness. Zdrav. Ros. Feder. 3 no.4:7-11 Ap '59. (MIRA 12:4)

 1. Iz kafedry organizatsii zdravookhraneniya i istorii meditsiny (zav. prof. B.S. Sigal) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (dir. - prof. A.Ya. Ivanov). (PUBLIC HEALTH, RURAL)

















PETRAKOV, B.D., assistent

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Sotablishing normal standards in urban and rural areas for sanitary and spidemiological service. Gig. i san. 25 no. 6:76-80 Je '60. (MIRA 14:2)

l. Iz Leningradskogo ordena Lenina instituta usovershenstvovaniya vrachey imeni S.M. Kirova. (PUBLIC HEALTH)

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PETRAKOV, B.D., assistant

Basic operative documentation at feldsher-midwife centers and the familial medical and hygienic passport. Zdrav. Ros. Feder. 5 no. 2:34-37 F '61. (MIRA 14:2)

1. Iz kafedry organizatsii zdravookhraneniya Leningradskogo instituta usovershenstvovaniya vrachey imeni S.M. Kirova (dir. - dotsent A.Ye. Kiselev). (MEDICAL RECORDS)





PETRAKOV, B.D., kand.med.nauk

Some new forms and methods of sanitary education and organization of the public for work in the polyclinics of Leningrad. Zdrav. Ros.Feder. 6 no.10:20-24 0 '62. (MIRA 16:4)

1. Iz kafedry organizatsii zdravookhrnaniya (ispolnyayushchiy obyazannosti zaveduyushchego B.D.Petrakov) Leningradskago gosudarstvennogo ordena Lenina instituta usovershenstvovaniya vrachey imeni S.M.Kirova (rektor - dotsent S.N.Polikarpov). (LENINGRAD-SANITARY AFFAIRS) (LENINGRAD-MEDICAL SOCIAL WORK)







PETRAKOV, B.D., dotsent

Dispensary service for students of professional and technical educational institutions in the USSR<sup>n</sup> by M.P.Motorina. Reviewed by B.D.Petrakov. Zdrav. Ros. Feder. 7 no.5:37-38 My<sup>1</sup>63. (MIRA 16:6)
1. Kafedra organizatsii zdravookhraneniya Leningradskogo gosudarstvennogo instituta dlya usovershenstvovaniya vrachey. (STUDENTS-HEALTH AND HYGIENE)

(HOSPITALS-OUTPATIENT SERVICES) (MOTORINA, M.P.)















INUBIN, V.P.; PETRAKOV, I.I. Monstier site Zolotarikha near Belev (Tula Province), Biul, Kom. chetv. per. no.29:171-174 '64. (MIRA 17:8)

**新闻的新闻,我们下来你们的问题** 

15(2) AUTHORS:	Petrakov, I. I., Ignatov, N. N.	SOV/72-58-12-8/23	
TITLE:	A Diminution of Waste Tiles by Modifying the Charge Composition (S izmeneniyem sostava shikhty umen'shilsya brak plitok)		
PERIODICAL:	Steklo i keramika, 1958, Nr 12, pp 26 - 27 (USSR)		
ABSTRACT:	Steklo i keramika, 1958, Nr 12, pp 26 - 27 (USSR) At the Voronezhskiy keramicheskiy zavod dlya proiz- vodstva oblitsovochnykh plitok (Voronezh Ceramic Pactory for the Production of Lining Tiles), the following standard charge was used: 28% of "New Swiss" clay, 31% of strengthened kaolin, 21% of quartz sand, and 20% of cullet. The output of usuable products did not amount to more than 65-75%, which is to be regarded as a deficiency common to all ceramic factories. At the Voronezh factory the dependence of quality on the content of lean components in the charge was in- vestigated experimentally and it was further determined, which raw material is to bear the expense of the necessity to reduce the percentage of plastics. The experimental results are mentioned in the table. The		

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A Diminution of Waste Tiles by Modifying the Charge SOV/72-55-12-8/23 Composition amount of lean components must be increased in the charge by the introduction of burnt kaolin. The

content of plastic components in the charge must be fixed with 48-50%. Kaolin must be burnt at temperatures of from 1200 to 1280°. The following mass composition is recommended for the tile production: 23% of quartz sand, 30% of clay: 10-15% of cullet, 20% of unburnt kaolin, and 17-12% of burnt kaolin. The Voronezh factory has taken up the processing of this mass, thus increasing the output of usable tiles up to 90%, which the authors, however, describe as not being a final figure. There is 1 table.

ASS' .ATION: Voronezhskiy keramicheskiy zavod (Voronezh Ceramic Factory)

Card 2/2



PETRAKOV, I.S. (Moskva)

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Teaching the ninth grade geometry course in the 1963/64 schoel-year. Mat. v shkole no.4:69-70 J1-Ag '63. (MIRA 16:9) (Geometry-Study and teaching)

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FETRAKOV, I.S., metodist po matematike
Results of the tests in mathematics given by the Ministry of Education of the R.S.F.S.R. in May 1962. (MIRA 16:1)
1. Ministerstvo prosvencheniya RSFSR. (Mathematics--Problems, exercises, etc.)








"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00124( <u>PETRAKOV, I.S.</u> New programs. Mat.v shkole no.4:17-25 J1-Ag '60. (MIRA 13:9) 1. Konsul'tant-metodist Ministerstva prosveshcheniya RSPSR. (Mathematics--Study and teaching)

PERAKOV, I.S., metodist
Methodology consultation. Mat. v shkole no.5:55-56 S-0 '59. (MIRA 13:2)
1.Glavnoye Upravleniye shkol Ministerstva prosveshcheniya RSFSR. (Nathematics--Study and teaching)



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ESTRAKOV, 1.5. (Boutowo Moakovskoy oblasti). Activities of the Mathematical Section of the Moscow Regional Institute for Training of Teachers. Mat. v shkole no.4:94-95 S-0 '57. (MIEA 10:8) (Mathematics--Study and teaching)



PETRAKOV.1.S.(Heutovo Moskovskiy obl.) Methodicel work in methemetics. Met. v shkole no. 4:36-40 J1-Ag '5. (MIRA 11:7) (Mathematics--Study and teaching)





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PETRAKOV, N.K., veterinarnyy vrach. Treating endometritis with purified penicillin. Veterinariis 30 no.5:28 My '53. (MLRA 6:5) 1. Krasnopolyanskiy RSKhO. 1.1







KHARAKHASH, V.G., inzh.; YAROZHEVSKIY, S.A., inzh.; ALEKSEYEV, N.N., inzh.; KOLESNIK, N.A., inzh.; FRIDMAN, O.A., inzh.; GRUBA, A.I., inzh.; GRIN', L.V.; PETRAKOV, V.I.

C ... CARACTERIZATION HIMSELINA PROCESSION I

Electric insulation coatings on the inside surface of battery boxes of electric mine locomotives. Ugol' Ukr. 10 no. 1: 31-33 Ja '66. (MIRA 18:12)

1. Ukrainskiy nauchno-issledovatel'skiy institut plasticheskikh mass.

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BGATOV, V.I.; AKUL'SHINA, Ye.P.; BUDNIKOV, V.I.; GERASIMOV, Ye.K.; GUROVA, T.I.; KAZANSKIY, Yu.P.; KAZARINOV, V.P.; KONTOROVICH, A.E.; KOSOLOBOV, N.I.; LIZALEK, N.A.; MATUKHIN, R.G.; MATUKHINA, V.G.; PETRAKOV, V.U.; RODIN, R.S.; SAVITSKIY, V.Ye.; SHISHKIN, B.B.; GAIN, Ye.P., tekhn. red.

1

[Lithoformational analysis of sedimentary rocks] Litologoformatsionnyi analiz osadochnykh tolshch. Pod red. V.I. Bgatova i V.P.Kazarinova). (MIRA 16:7)

1. Sibirskiy nauchno-issledovatel'skiy institutu geologii, geofiziki i mineral'nogo syr'ya. (Rocks, Sedimentary-Analysis)

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PETRAKOV, V.D.

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Role of disinfection in lowering the incidence of dysentery and other acute intestinal infections. Zhur.mikrobicl.epid.i immun. 32 no.2:32-36 F \*61. (MIRA 14:6)

1. Iz Veliko-Mikhaylovskoy rayonnoy bol'nitsy. (DYSENTERY) (DISINFECTION AND DISINFECTANTS)

## PETRAKOV, V.U.

New data on the stratigraphy of the Lower Paleozoic of the Turukhan region. Dokl. AN SSSR 152 no.6:1436-1438 0 '63. (MIRA 16:11) geofiziki i mineral'nogo syr'ya. Predstavleno akademikom A.L. Yanshinym.

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5 (5) AUTHOR:	Petrakov, V. U. 50 V/20-127-3-50/71
TITLE :	New Data on the Stratigraphy of Cambrian-Ordovician Sediments in the Basin of the River Kureyka
PERIODICAL:	Dokledy Akademii nauk SSSR, 1959, Vol 127, Nr 3, pp 651-654 (USSR)
ABSTRACT:	Since 1955 the Yenisey Expedition of the Institute mentioned in the Association (directed by S. P. Mikutskiy) has carried out a multi-purpose investigation of supporting exposures of the Paleozoic of the west-Siberian .'lateau from the river Bakhta to the Noril'sk Rayon. On account of the investigation results the former stratigraphic schemes, especially those of the sediments mentioned in the title, were given a precise description. The oldest deposits on the river Kureyka are cream-colored and dark brownish-grey porous dolomites found in the upper and middle course of the river Munduyka (left tributary to the river Kureyka). Figure 1 shows a geological map of the region along the rivers mentioned. Figure 2 contains a summarized stratigraphic column of the above sediments. A. F. Abushek and B. I. Dragunov fcund pieces of trilobites on the right bank of the Kureyka 3 km
Card 1/3	below the mouth of the river Pelyanka. No for each of the strata classified these pieces. The question as to whether the strata

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New Data on the Stratigraphy of Cambrian-Ordovician SOV/20-127-3-50/71 Sediments in the Basin of the River Kureyka

containing them belong to the Upper Cambrian or to the Lower Ordovician, however, cannot be definitely solved by this classification. A. A. Vysotskiy took part in disclosing fossils. A. V. Rosova and N. P. Kul'kov made further classifications. On account of the results obtained the author draws the following conclusions: (1) On the basis of new faunal discoveries the predominantely grey calcareous mass has to be considered Upper Cambrian and not Ordovician as has been done so far. (2) The higher deposited sediments up to the Middle-Ordovician terrigenous horizons correspond to the Ust'-Kutskiy and Chun'skiy stage of the Lower Ordovician. (3) There are no traces of erosion at the boundary between the Lower and Middle Ordovician. There are 2 figures and 3 references, 2 of which are Soviet.

ASSOCIATION: Sibirskiy nauchno-issledovatel'skiy institut geologii, geofiziki i mineral'nogo syr'ya g. Novosibirsk (Siberian Scientific Research Institute of Geology, Geophysics, and Mineral Raw Materials, City of Novosibirsk)

Card 2/3

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ACCESSION ARI AR5012864	UR/0276/65/00(1/004/B035/B035 621.785.533
OURCE: Ref. zh. Tekhnologiya mashino	stroyeniya. Svodryy ton, Abs. 4E294
UTHORS: Kuznetsov, L. I.; Petrakova, evel!son, G. Ye.	E. S.; Postyks, V. V.; Paramongva, M. V.;
TTLE: <u>Nitrogen</u> case hardening of hee	
treatment/ 20Kh2N4A steel, 18Kh2N4VA	trogen case hardening, carburizing, heat
18Kh2N47A may be replaced by nitrogen details with the nominal layer depth of temperature of 900C, anmonia consumption depth of 1.5 mm nitrogen case harden consumption 4-5 liters/minute. The education	burizing of gears made of steels 20Kh2N4A and case hardening. The optimal conditions: for of 0.8-1.5 mm nitrogen case hurdening at the lon 6 liters/minute; for details with layer ming at the temperature of 920-930C, ammonia liventages of the exchange: shortuning of time possibility of eliminating normalization from

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he cycle of subsequent hea itrogen case hardening by ng from 7 to 3.5-4 hours. resented. Five illustrati	unannicating and include for	m nitrogen case har	lening 19
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	<u>L 53718-65</u> $EWF(E)/EWP(z)/T/EWP(b)/EWA(d)/EWP(w)/EWP(t) MJW/JI$	<u>بالمحمد</u> محمد عب
	ACCESSION NR: AR5013017 669.14.018.298	
	26 SOURCE: Ref. zh. Metallurgiya, Abs. 41285	
	AUTHOR: Kuznetsov, L. I.; Petrakova, E. S., Shaposhnikova, L. Ye.; Chernoray, L. S.	
	TITLE: A comparative study of the mechanical and engineering properties of 20Kh2N4A, <u>18Kh2N4VA</u> and 15KhNG2VA steels	
	CITED SOURCE: Sb. Liteyn, proiz-yo i term. obrabotka. Omsk, 1964, 181-197	
	TOPIC TACS: alloy steel, metal mechanical property TRANSLATION: 15KhNG2VA steel is proposed as a substitute for 20KhN4A and	
	19khNUVA steels which are used in machine building for making heavily loaded parts. This steel has a reduced nickel content and is at least as good mechanically as 18kh2N4VA. The properties of 15khNG2VA steel are: $\sigma_{s} = -115 - 120 \text{ kg/mm}^2$ ; $\sigma_{s} = -95 - 10^{\circ}$ kg/mm <sup>2</sup> ; $\delta_{s} = -12^{\circ}$ ; $\phi_{s} = -55^{\circ}$ ; $a_{L} = -10 - 11 \text{ kg/mm}^2$ . 15khNG2VA steel may be used in the case-	f
	hardened state, as well as in the tempered state since it has high hardenability. For higher contents of Cr (1.15-1.45%) and Mn (1.8-2.2%) this steel can be easily	
	Card 1/2	
yu afyin		

* Source gives this as. I 53718-65		
bility of the steel to supe	ice of Si (0.17-0.37%) and Ni (1.4 resaturate its surface layers with tleness and is easily machined and ()	h carbides. The steel $\sim 1 \gtrsim 1$
SUB CODE: MN *'Source gives this as läKh2	ENCL: OO	
1×B Card 2/2		








PETRAKOVA -ji 24-10-10/26 AUTHORS: Glazov, V. M., Mirgalovskaya, M.S. and Petrakova, L. A. (Moscow) New semi-conductor materials with a chalcopyrite structure. (Navye poluprovodnikovye materialy so strukturoy TITLE: khalkopirita) PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1957, No.10, pp.68-70 (USSR) ABSTRACT: The aim of the here described work was to produce and investigate twelve compounds of the ABX, type where A - Cu, Ag; B - Al, Ga, In; X - Se, Te. The synthesis of the compounds was effected directly by melting the elements inside evacuated and sealed quartz The compounds containing aluminium were synthesized in graphite crucibles with a lid which were ampules. also placed into evacuated and sealed quartz ampules. It was found that all the compounds had a similar structure; substitution of copper by silver produced on the X-ray pictures a splitting of the lines which is attributed to an appreciable change in the ratio of the lattice parameters. The results of determination of the lattice parameters of the compounds by means of X-ray structural analysis are entered in the Table, p.70 for twelve compounds. The Card 1/2

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## PETRAKOVA, L. V.

Effect of different cultivation methods on the moisture conditions of leached Chernozem soils in Chelyabinsk Province. Nauch. dokl. vys. shkoly; biol. nauki no.3:199-202 '62. (MIRA 15:7)

1. Rekomendovana kafedroy pochvovedeniya Omskogo sel'skokhozyaystvennogo instituta.

> (CHELYABINSK PROVINCE\_SOIL MOISTURE) (CHERNOZEM SOILS)



PIRK, F.; PETRAKOVA, N.

The significance of the most frequent errors causing uneven darkening of roentgen pictures. Cesk.rentg. 15 no.2:139-143 Ap '61.

1. Ustav pro vyzkum vyzivy lidu, Praha-Krc, Budejovicka 800, reditel doc. MUDr. Josef Masek. (RADIOGRAPHY)



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PIHK, F.; PETRAKOVA, M.; BROZEK, N.

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Our experience with automatic measuring of blackening of the film with the aid of the amplimat. Cesk.rentg.14 no.6:416-418 D'60.

1. Ustav pro vyskum vysivy lidu, Praha-Krc, reditel doc. MUDr. Josef Masek, Chirana, n.p. Praha-Modrany. (RADIOGRAPHY eauip & supply)

RABKIN, Semen L'vovich; MIRATOV, Igor' Vledimirovich; SHIRYAYEV, Grigoriy Anatol'yevich; SLAVIN, D.S., otv.red.; PETRAKOVA, Ye.P., red. izd-va; BERESLAVSKAYA, L.Sh., tekhn.red.

> [Sectional reinforced concrete constructions for mine support] Sbornye zhelezobetonnye konstruktsii shakhtnoi krepi. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1959. 227 p. (MIRA 12:12)

(Mine timbering) (Precast concrete construction)

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SHIRAY, Yevgeniy Nikolayevich; TRUPAK, N.G., doktor tekhn. nauk, prof., retsenzent; BRODSKIY, I.A., otv. red.; PETRAKOVA, Ye.P., red. izd-va; LOFILINA, L.N., tekhn. red.; MINSKER, L.I., tekhn. red.

> [Vibration method of shaft sinking in shifting sands] Vibrometod pri prokhodke stvolov shakht v plyvunakh. Moskva, Gos.nauchnotekhn.izd-vo lit-ry po gornomu delu, 1961. 99 p. (MIRA 14:11) (Shaft sinking)



FETRAKOVICH, G.I., ordinator

On use of angiorrhaphic apparatus in suturing the urster injured during surgery. Akush.i gin. 37 no.2:78-80 F '61. (MIRA 14:3)

FETRAKOVICH, V.Ye.; PODUROVSKAYA, O.M.; TUR'YAN, Ya.I.

Comparison of platimum oxide and glass indicator electrodes in acid-base titration. Effect of nonaqueous solvents, the nature of the titrant, and various additions. Zhur. anal. khim. 20 no.8:785-789 '65. (MIRA 18:10)

1. Nauchno-issledovatel'skiy i proyektnyy institut azotnoy promyshlennosti, Moskva, i Yaroslavskiy nauchno-issledovatel'skiy institut monomerov.

PETRAKOVICH, V.Ye.
Midized platinum electrode in electrometric analysis. Zur.anal. (MIRA 10:12)
I. Nauchno-issledovatel'skiy i proyektnyy institut azotnoy promyshlennosti i produktov organicheskogo sinteza, Moskva.

RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00313100---"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00124(

AUTHORS:	Entelis, S. G., Petrakowich, V. Ye., Korovina, G.V., 20-114-4-46/63 Chirkov, N. M.
TITLE:	The Kinetics of the Formation of Alcohol and Alkyl Acid in the Reaction of Propylens With a Water Solution of Sulphuric Acid.
(Vinatil's charges	and the solution of the second the solution being and the second the solution of the second the sec
PERIODICAL:	Joklady Akademii Nauk SSSR, 1957, Vol. 114, Al 4, pp. 040 094
ABSTRACT :	A number of papers was devoted to the investigation of the absorption kinetics of olefines by sulphuric acid. The majority of the works, that of Rustamov excepted, have a common funda- mental deficiency: they were performed under conditions in which the absorption velocity is limited by diffusionprocesses. The authors studied the absorption kinetics of propylene by 67%- -sulphuric acid at 42-90°C and an initial pressure of 800 torr. The complicated acid~catalytic processes of propylene in sul- phuric acid may be described roughly for the dissolution as three reversible reactions: I. Formation of alkyl acid: $C_3H_6\frac{K_1}{K_2}u-C_3H_7SO_4H$ . II. Direct Formation of alcohol: u-C H + H O $\frac{K_3}{K_4}u-C_3H_7OH$ .
Card 1/3	4

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The Kinetics of the Formation of Alcohol and Alkyl Acid in the 20-114-4-46/63 Reaction of Propylene With a Water Solution of Sulphuric Acid.

III. Saponification of the alkyl acid:  $u-C_3H_7SO_4U+H_2O_{K_6}$  $u-C_3H_7OH + H_2SO_4$ . In publications/it has hitherto K\_6

not been recorded whether the chief amount of alcohol is obtained by II. or III. However, the fact of a parallel accumulation of alcohol itself excludes reaction III. The experimental curves obtained are compared with the theoretical ones. Two cases were assumed: 1. no saponification of the alkyl acid occurs, 2. alcohol forms parallel to u-C<sub>3</sub>H<sub>7</sub>SO<sub>4</sub>H as well as by saponification of the latter. From the described short analysis it may be concluded that the chief, if not the total, amount of alcohol does not result from saponification of u-C<sub>3</sub>H<sub>7</sub>SO<sub>4</sub>H , but develops parallel with it during the C<sub>3</sub>H<sub>6</sub> reaction in water. There are 4 figures, 2 tables, and 8 references, 5 of which are Slavic. Institute for Chemical Physics of the AS USSR (Institut khimicheskoy fiziki Akademii nauk SSSR)

PRESENTED: January 19, 1957 by V. N. Kondrat'yev, Member, Academy of

Card 2/3

ASSOCIATION:



÷. PODUROVSKAYA, O.M.; PETRAKOVICH, V. Ye. Titration of acids and bases by metal oxide electrodes. Zav. lab.27 no.2:157-159 '61. (MIRA 14 (MIRA 14:3) 1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut azotnoy promyshlennosti 1 produktov organicheskogo sinteza. (Acids) (Bases (Shemistry))(Electrodes, Oxide)





PETRAKOVSKIY, G.A.

Note on the effect of anisotropy of the damping parameter of spin waves on the saturation of ferromagnetic resonance. Izv. vys. ucheb. zav.; fiz. 8 no.6:169-170 '65.

(MIRA 19:1) 1. Sibirskiy fiziko-tekhnicheskiy institut imeni V.D. Kuznetsova. Submitted May 21, 1964.

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CONSTRUCTION BOARD の法が必要が必要が必要である。 L 8601-66 ACCESSION MR: AP5021170 AUTHOR; Petrakovskiy, G. TITLE: Anisotropy and temperature dependence of spin wave damping in single crys-SOURCE: IVUZ. Fizika, no. 4, 1965, 72-75 10072/0075 TOPIC TAGS; ferrite, single crystal, line width, spin wave, temperature dependence ABSITACT: The temperature dependence of the anisotropic part of the spin-wave line width of the ferromagnetic resonance line was investigated experimentally using of the line width was defined as the difference between the spin-wave line widths single crystals of magnesium-manganess and lithium ferrites. The anisotropic para of the line width was defined as the difference between the spin-wave line width measured for magnetization of a scherical sample along the [111] and [100] direc. or the line winth was defined as the difference between the Spin-wave line windth measured for magnetization of a Spherical Sample along the [111] and [100] direction tions. The measurements were carried out by the method of parametric excitation The measurements were carried out by the method of parametric excitation of spin waves by a longitudinal high frammanov engatin field. The field for which tions. The measurements were carried out by the method of parametric excitation of spin waves by a longitudinal high-frequency magnetic field. The field for which the spin waves are excited most easily investigated for a sample of magnesium. or spin waves by a longitudinal high-frequency tagnetic field. The field for with the spin waves are excited most easily, investigated for a sample of magnesium manganese farrite. Was found to agree with previous theoretical calculations. The spin wave of the s the spin waves are excited most easily, investigated for a sample of magnesium manganese ferrite, was found to agree with previous theoretical calculations. The spine-wave line width was found to be highly anisotropic. The temperature depend-Spine-ways line width was found to be highly anisotropic. The temperature dependence of the anisotropy obtained experimentally cannot be explained theoretically if one takes into account only the scattering mechanian monosed for anin waves ance of the anisotropy obtained experimentally cannot be explained theoretically if one takes into account only the scattering methanism proposed for spin waves Cord 1/2 The temperature depend-2

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	lizika tverdogo tela, v. 7, no. 8, 1965, 2339-2344
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the spectr tions for subjected ence of th checked ex test setur in a waveg proximatel plunger.	The authors calculate the influence of isotropic elastic stresses on um of the frequencies of magnetostatic oscillations, by deriving equa- the resonance fields of magnetization oscillations in a ferrite spheroid to unilateral uniform compression or tension. In addition, the depend- eresonance fields of the simplest type on the compression stress was perimentally for an yttrium ferrite single crystal. A diagram of the o is shown in Fig. 1 of the Enclosure. The investigated sample was placed uide in the antinode of the magnetic microwave field at a distance ap- y equal to the electromagnetic wavelength from the short-circuiting The power reflected from the waveguide section with the ferrite was mea- a waveguide bridge. The influence of the stresses on the resonance

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AUTHOR: <u>Petrakovskiy, G. A.; Berzhanskiy, V. N.</u> ORG: <u>Siberian Envsicetermiteal Institute im. V. D. Kuznetsov</u> (Sibirskiy fiziko- tekhnicheskiy institut) TITLE: Contribution to the nonlinear theory of excitation of spin waves in fer- rites by a longitudinal microwave magnetic field SOURCE: IVUZ. Fizika, no. 5, 1965, 128-133 TOPIC TAGS: spin wave, spin relaxation, paramagnetic relaxation, ferrite, para- metric resonance, microwave, magnetization ABSTRACT: This is a continuation of an earlier study (Voprosy radioelektroniki, Ser. III. no. 6, 1th, 1962) dealing with the determination of the relaxation pro- perties of spin wives by paramagnetic excitation has been developed only wave field. Since the theory of paramagnetic excitation has been developed only in the linear approximation, the authors construct in the present article a non- inter theory of parametric excitation of the constant magnetic field. An equation is derived for the alternating magnetization of a ferrite Cord 1/2	<u>l 232117-66</u> ACC NR: AP60	09170		UR/0139/65/000/005/	-18 . B
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SOURCE: IVUZ. Fizika, no. 5, 1965, 128-135 TOPIC TAGS: spin wave, spin relaxation, paramagnetic relaxation, ferrite, para- metric resonance, microwave, magnetization ABSTRACT: This is a continuation of an earlier study (Voprosy radioelektroniki, Ser. III. no. 6, 144, 1962) dealing with the determination of the relaxation pro- perties of spin waves by paramagnetic excitation with longitudinal magnetic micro- wave field. Since the theory of paramagnetic excitation has been developed only in the linear approximation, the authors construct in the present article a non- linear theory of parametric excitation of spin waves excited in ferrites by a linear theory of parametric excitation of spin waves excited in ferrites by a linear theory of parametric along the direction of the constant magnetic microwave magnetic field polarized along the direction of a ferrite		and the the nonline	ar theory of excit agnetic field	stion of spin waves	in fer-
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L 6747-65 EWT(1)/EPA(s)-2 Pt-10 IJP(c)/ASD(a)-5/AS(mp)-2/ASD(m)-3/ESD(gs)/ ACCESSION NR: AP4043867 RAEM(t) GG S/0139/64/000/004/0068/0071 AUTHORS: Petrakovskiy, G. A .; Nayden, Ye. P.; Pukhov, I. TITLE: Dependence of the rate of spin wave damping on the temperature ሲ SOURCE: IVUZ. Fizika, no. 4, 1964, 68-71 TOPIC TAGS: spin wave magnetostriction, temperature dependence, ferromagnetic resonance, ferrite microstructure, crystal lattice structure ABSTRACT: The method is based on the relation between the spin-wave damping decrement  $\eta_k$  and the spin-wave ferromagnetic resonance line width  $\Delta H_{k}$ . The latter is given by  $\Delta H_{k} = 2\eta_{k}/|\gamma|$ , where  $|\gamma| = modu$ lus of magnetomechanical ratio. The authors have determined  $\Delta H_k$  experimentally by parametric excitation of the spin wave with a micro-Card 1/4

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wave magnetic field, described by one of the authors earlier (G. A. Petrakovskiy, Voprosy radioelektroniki, seriya III, no. 6, 144, 1962). The procedure consisted of applying a microwave pulse 1.9 µsec in duration, with 200 cps repetition frequency, to a cavity of Q = 1130 and resonant frequency 9090 Mc and containing the sample. The signal reflected from the resonator was observed on a pulse oscilloscope screen. The temperature dependence of the spin-wave relaxation in the single-crystal ferrites was measured from room temperature (300K) to the Curie point. The samples constituted singlecrystal yttrium and manganese ferrites magnetized in [111] directions. The measurements showed the temperature dependence of the spin wave damping to agree with the theoretical expression and the variation of  $\Delta H_k$  with temperature to be essentially analogous to the corre-

sponding dependence of the ferromagnetic resonance line width of homogeneous procession of magnetization. The initial variation of AH, is found to be connected with the degree of ordering of the ions

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