"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

PETROV, M.M.

Association of diverticulitis, ileus, and tubercular peritonitis in a child. Probl. tub. no.8:106-107'62. (MIRA 16:9)

1. Iz khirurgicheskogo otdeleniya (zav. M.M.Petrov) Rezinskoy rayonnoy bol'nitsy (glavnyy vrach D.F.Borshch) Moldavskoy SSR.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

ZENKOV, R.L.; PETROV, M.M.; KRUTIKOV, I.F., doktor tekhn. nauk, prof., retsenzent;

[High power conveyors] Konveiery bol'shoi moshchnosti. Moskva, Izd-vo "Mashinostroenie," 1964. 426 p. (MIRA 17:7)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

PETROV, M. M. PA 28T25

USSR/Engineering Jul 1946
Belts, Conveyer
Conveyers

"Portable Conveyer Belts," M. M. Petrov, Engr, VNIIPTMASH, 3 pp

"Mekhanizatsiya Stroitel'stva" No 7

Description of the mechanical structure and uses of portable conveyer belts.

10 28T25

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

PETROV, N.N., inzhener.

Mobile belt conveyers. Mekh.stroi. 4 no.7:20-23 Jl '47. (MLRA 9:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut proyektov tyazhelogo mashinostroyeniya.
(Conveying machinery)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

PETROV, M.M.

Novocaine block and its effect on some immunobiologic properties of the blood in patients with burns. Eksper. khir. i anest. 9 no.5:79-80 S-O '64. (MIRA 18:11)

1. Kafedra gospital'noy i fakul'tetskoy khirurgii (zav. - prof. A.A.Fedorovskiy) pediatricheskogo fakul'teta Kiyevskogo meditsinskogo instituta.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

KRASNOSEL'SKIY, M.V.; PETROV, M.M.

Conveyor dryers for large articles. Mashinostroitel' no.2:7-8 F '64. (MIRA 17:3)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

PETROV, M. M.

USSR/Engineering
Loaders, Bucket
Tractors

Jun 48

"Single Bucket Loader Mounted on an S-80 Tractor," M. M. Petrov, Engr, 2½ pp

"Mekh Trud i Tyazh Rabot" No 6

Describes experimental model constructed in Mar 48. Trials were satisfactory and Commission has recommended its production.

[redacted]

38/49T22

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

MOROKOV, Afanasiy Alekseyevich; PETROV, M.M., otv. red.; KOKOSOV, L.V., red.; SLUTSKIN, A.A., tekhn. red.

[Adjustment of ST-35 and STA teletypewriters]Regulirovka telegrafnykh startstopnykh apparatov tipa St-35, STA. Moskva, Sviaz'-izdat, 1962. 86 p. (MIRA 15:12)
(Teletype—Equipment and supplies)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

PETROV, Mikhail Mikhaylovich; PERKOVSKAYA, G.Ye., red.; MURASHOVA, V.A., tekhn. red.

[Laboratory chemistry manual for students of special secondary schools not majoring in chemistry] Laboratornye raboty po khimii; dlia uchashchikhsia srednikh spetsial'nykh uchebnykh zavedenii nekhimicheskikh spetsial'nostei. Moskva, Gos. izd-vo "Vysshaia shkola," 1961. 53 p. (MIRA 14:7)

(Chemistry—Laboratory manuals)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

PETROV, M.M.

Successful surgery in treating an embryonic hernia of the umbilical canal in a three-day-old child. Khirurgiia 35 no.3:103-104 Mr '59. (MIRA 12:8)

1. Iz khirurgicheskogo otdeleniya Rezinskoy rayonnoy bol'nitsy (glavnyy vrach D.F.Borshch) Mokdavskoy SSR.
(HERNIA)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

YUKHVETS, I.A.; PETROV, M.N.; BUSYGIN, N.N.; BELIK, V.F.; BYKADOROV, A.T.

Hardening of rolled wire rod from the rolling temperature by water cooling prior to coiling. Stal' 23 [i.e. 24] no.4: 364-366 Ap '64. (MIRA 17:8)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii im. Bardina i zavod "Krasnaya Etna".

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

YUKHVETS, I.A.; PETROV, M.N.

Methods of evaluating the quality of the preparation of steel wire surfaces for high-speed drawing. Sbor. trud. TSNIICHM no.39:214-223 '65. (MIRA 18:7)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

K.

BULGARIA/Forestry - Forest Crops.

Abs Jour : Ref Zhur - Biol., No 15, 1958, 68031

Author : Petrov, M.N.

Inst : Scientific Research Institute of Forest Economy.

Title : Our Experience in Stratifying Seeds and Producing Eucenia [evkonniya] Planting Material.

Orig Pub : Gorsko stopanstvo, 1956, 12, No 7, 304-309.

Abstract : On the basis of experiments of the Scientific Research Institute of Forest Economy in the tree nurseries of Sofiya Okrug and Sandansko surroundings in 1954-1955, the following method of treating seed before sowing is recommended. The seeds are placed in a pot with running water for 24 hours, after which they are aired for 1-2 hours and then embedded in snow (thickness of the layers: 2-3 cm.) After 15-30 days the seeds are put in a chamber where the

Card 1/2

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

BULGARIA/Forestry - Forest Crops. K.

Abs Jour : Ref Zhur - Biol., No 15, 1958, 68031

temperature is 15°-20°, and they are kept there in a moist state for several days. In the latter part of March they are sown and then mulched. Methods of taking care of the sowings and seedlings are described. -- L.K. Artyukhova

Card 2/2

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

FOMIN, Nikolay Aleksandrovich; KOMAROV, A.A., kand.tekhn.nauk, dotsent, retsenzent; PETROV, M.N., doktor tekhn.nauk, prof., retsenzent; GIMMEL'FARB, A.L., kand.tekhn.nauk, dotsent, red.; TUBYANSKAYA, F.G., izdat.red.; ROZHIN, V.P., tekhn.red.

[Design of airplanes. Determination of weight, arrangement, selection of the aerodynamic design and basic parameters] Proektirovanie samoletov. Opredelenie vesa. Komponovka. Vybor skhemy i osnovnykh parametrov. Moskva, Gos.nauchno-tekhn.izd-vo Oborongiz, 1961. 361 p. (MIRA 14:12)
(Air planes--Design and construction)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

BULGARIA/ Cultivated Plants - Commercial. Oil-bearing. Sugar-Bearing. M-5

Abs Jour : Ref Zhur - Biol., No 7, 1958, 29921

Author : Petrov, M.N.
Inst : -
Title : The Eucommia and the Possibilities of Cultivating It in Bulgaria.

Orig Pub : Priroda i znaniye (B"lg.) 1957, 10, No 5, 15-17 (Bulg.)

Abstract : No abstract.

Card 1/1

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

1. PETROV, M. N.

2. USSR (600)

4. Sytin, Peter Vasil'evich, 1885-

7. "From the history of Moscow's streets." P. V. Sytin. Reviewed by M. N. Petrov, Gor. khoz. Mosk., 23, No. 5, 1949.

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

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

PETROV, M. N., Engr. Cand. Tech. Sci.

Dissertation: "[illegible] of Airplane [illegible]." [illegible] the Labor Red [illegible] Construction [illegible] V.V. K[illegible]

SO: Vecherniaya Moskva, Apr, [illegible] (Project [illegible])

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

1. PETROV, M. N.

2. USSR (600)

4. Streets--Moscow

7. "From the history of Moscow's streets." P. V. Sytin. Reviewed by M. N. Petrov, Gor. khoz. Mosk., 23, No. 5, 1949.

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

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

1. PETROV, M. N.

2. USSR 600

4. Moscow - Streets

7. From the history of Moscow's streets, P. V. Sytin, Reviewed by M. N. Petrov, Gor. khoz. Mosk, 23, No. 5, 1949.

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

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

PETROV, M.N., polkovnik med. sluzhby, kand.med.nauk; MIRONOV, G.S., podpolkovnik med.sluzhby, kand.med.nauk; KHANINA, K.P.

Change in the vitamin content and certain immunological factors in acute dysentery treated with biomycin. Voen.-med.zhur. no.11:44-47 N '57. (MIRA 11:4)

(DYSENTERY, BACILLARY, therapy,
chlortetracycline, eff. on immunol. indices & vitamin metab (Rus)
(CHLORTETRACYCLINE, therapeuticuse,
dysentery, bacillary, eff. on immunol. indices & vitamin metab. (Rus)
(VITAMINS, metabolism,
in bacillary dysentery, eff. of chlortetracycline ther. (Rus)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

PETROV, M.N., dotsent; MIRONOV, G.S.

Effect of biomycin on the clinical of acute dysentery. Sov.med. 24 no.11:25-29 N '60. (MIRA 14:3)

1. Iz kafedry infektsionnykh bolezney (nachal'nik - prof.P.A.Alisov) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova.
(DYSENTERY) (AUREOMYCIN)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

85719

S/150/60/000/009/001/002/XX
B012/B054

26.2120

AUTHOR: Petrov, M. P., Candidate of Technical Sciences

TITLE: Determination of the Theoretical Work of a Compressed-air Gear Engine

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Gornyy zhurnal. 1960, No. 9, pp. 83-88

TEXT: A method of determining the theoretical work of compressed-air gear engines is described in A. M. Misharin's paper (Ref. 1) on these engines. Although the theory of such engines is based on the work space, some authors (Ref. 2) assume the total volume of the tooth space as such work space. It is pointed out here that not the total volume of the tooth space participates in the generation of the torque but only the part which is enclosed by the radii corresponding to the beginning and end of mesh. Therefore, only the useful volume of the tooth space should be considered in determining the theoretical work of gear engines. In the present paper the author presents a calculation of the theoretical work of a compressed air gear engine, which holds for gear engines with spur, helical, and

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

85719

Determination of the Theoretical Work of a Compressed-air Gear Engine

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B012/B054

herringbone gears. The calculation is based on the general theory of such engines, and considers - in contrast to the usual methods - only the work space of the engine. Fig. 1 shows a diagram for determining the useful area of the tooth space. It is pointed out that only the part between R_e and r_1 does some work. The dedendum with the height $r_1 - R_1$ (where R_1 is the radius of the dedendum circle) does not participate in the mesh, and the compressed air enclosed between r_1 and R_1 does no work. Therefore, only the tooth space enclosed by R_e and r_1 should be considered in determining the theoretical work of the engine. The following formula is derived for this effective area ABB'A' = Ω:

$$\Omega = \frac{\varepsilon^3 t_o^3}{6r_o} + r_o \varepsilon t_o + \frac{\varepsilon t_o^2}{2} \tan\alpha \quad R_e^2 (\alpha_e - \alpha) - r_1^2(\alpha - \alpha_1)$$

where ε is the engagement face, t_o is the tooth pitch on the base circle, and α is the angle of mesh of gears. This formula holds for involute tooth as well as for helical and herringbone gears. The useful amount of air per gear revolution is $V = 2\Omega bz$, where b is the gear width, z the number of teeth, and 2 the number of gears. Finally, the author writes the formula for the theoretical work per gear revolution for engines without

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05719

Determination of the Theoretical Work of a Compressed-air Gear Engine

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B012/B054

expansion, and that for engines with expansion of the compressed air according to a polytropic curve. As these formulas are generally known, they are not given here. The publication of this article was recommended by the kafedra gornoy mekhaniki (Chair of Mining Mechanics). There are 1 figure and 3 Soviet references.

ASSOCIATION: Kemerovskiy gornyy institut (Kemerovo Mining Institute)

SUBMITTED: March 28, 1960

Card 3/4

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

85719

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B012/B054

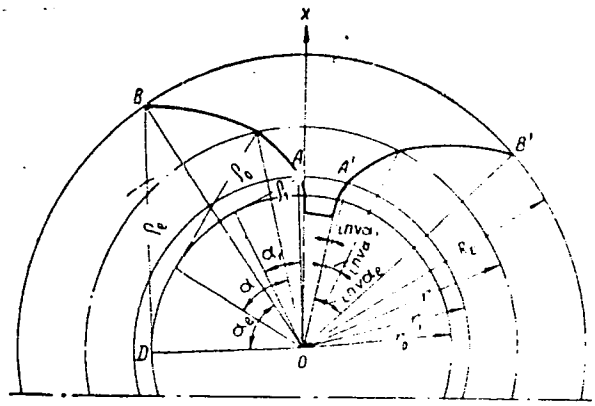

Fig. 1

Legend to Fig. 1: Scheme for determining the work space of the tooth space

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87163

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B019/B056

26.2311

2 PETROV, M.P.

AUTHORS: Afrosimov, V. V., Gladkovskiy, I. P., Gordeyev, Yu. S., Kalinkevich, I. F., Petrov, M. P., and Fedorenko, N. V.

TITLE: Investigation of a Flux of Neutral Atomic Particles Emitted by the Plasma of "Al'fa" Research Installation

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1960, Vol. 30, No. 12, pp. 1469 - 1484

TEXT: The authors used the device described in the present issue on p. 1456 ff. to investigate the atomic flux with energies of 500 ev to 10 kev, emitted by the plasma of "Al'fa". The measurements showed that practically all atoms recorded are hydrogen atoms. The quantity of the fast atoms grows with an increase of the capacitor voltage, with a decrease of the external magnetic field H_e, or with a decrease of the hydrogen pressure in the chamber. In the course of discharge, the quantity of fast atoms reaches a maximum, while the discharge current increases to its first maximum. However, there is no considerable

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difference in the energy distribution of atoms during discharge. A table gives data on the atomic flux. Analysis of the data showed that the fraction of atoms in the atomic flux generated by reflection of ions from the wall, is small compared to the fraction coming direct from the plasma. It was further shown that the energy distribution of atoms and ions in the plasma space are very similar, and that the energy distribution cannot be approximated by Maxwell distribution. The mean energy of hydrogen atoms reflected from a metal surface is estimated in an appendix. The authors thank B. P. Konstantinov for his valuable advice and discussion, D. M. Kaminker for his interest, O. V. Konstantinov and V. I. Perel' for taking part in discussions, as well as Yu. G. Komar, A. M. Stolev and V. A. Glukhkih for their assistance in measurements. There are 11 figures, 1 table, and 8 references: 6 Soviet and 2 US.

Card 2/4

ASSOCIATION: Fiziko-tekhnicheskiy institut AN SSSR (Institute of Physics and Technology of the AS USSR). Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury (Scientific Research Institute of Electrophysical Apparatus)

87163

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B019/B056

1	2 a	2 b	2 c	3	4
5 ев, 360 ватт	1.9 10^{-13}	1.2 10^{14}	1.8 10^{-3}	680	1.8
10 ев, 360 ватт	8.6 10^{-13}	5.4 10^{14}	6.1 10^{-3}	1400	13.5
10 ев, 720 ватт	5.3 10^{-13}	3.3 10^{14}	7.4 10^{-3}	1400	7.5
15 ев, 180 ватт	5.0 10^{-13}	3.1 10^{14}	1.1 10^{-2}	470	4.4
15 ев, 360 ватт	3.5 10^{-13}	2.2 10^{14}	1.3 10^{-2}	1200	7.2
15 ев, 720 ватт	4.4 10^{-13}	2.8 10^{14}	2.4 10^{-2}	1200	7.2

Legend to Table 1: 1) Experimental conditions, voltage at the discharge capacitors in kv, magnetic field in oe. 2a) Atoms per unit of solid angle. 2b) Density of atomic flux in isotropic velocity distribution. 2c) Energy of atoms in joules/cm^2.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

ACCESSION NR: AT4025308 S/0000/63/000/000/0182/0192

AUTHORS: Afrosimov, V. V.; Gladkovskiy, I. P.; Petrov, M. P.

TITLE: Plasma diagnostics by means of fast neutral particles in apparatus using a discharge in a strong magnetic field

SOURCE: Diagnostika plazmy* (Plasma diagnostics); sb. statey. Moscow, Gosatomizdat, 1963, 182-192

TOPIC TAGS: plasma turbulence, plasma research, magnetic mirror, ion mass analysis, nuclear stripping reaction, mass analysis, ionization, ionized plasma

ABSTRACT: In view of the large amount of information that can be obtained from a study of the flux of fast neutral atoms emitted by a plasma in toroidal-discharge installations in a strong magnetic field, an atomic analyzer was employed for the analysis of the flux of fast atoms emitted by the plasma in the "Tokamak-2 (T-2)" appara-

Card 1/5

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ACCESSION NR: AT4025308

tus. The analyzer was described in detail earlier (Zh. tekhn. fiz. v. 30, No. 12, 1456, 1960). A fraction of the fast atoms entering the instrument was converted into ions by stripping on nitrogen molecules. These ions were analyzed by energy in an electric field and then by mass in a magnetic field, after which they proceeded to the detector. The instrument was calibrated with auxiliary apparatus described in detail in the same reference as the main apparatus. The various precautions needed to ensure precision are discussed. It was established that the plasma from the T-2 apparatus emits an atom flux with energy of hundreds and thousands of electron volts. A mass analysis of the secondary ions produced by stripping the nitrogen atoms has shown that about 99% of the ions are protons. The only noticeable impurity was carbon-12. The main mechanism producing this flux of fast atoms is neutralization of the plasma ions via charge exchange with the atoms entering the plasma. The conditions for the occurrence of this flux are estimated. Preliminary measurements of the spatial distribution of the atom flux over the volume

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

ACCESSION NR: AT4025308

of the chamber was also carried out and it was established that the fast-atom flux comes from all parts of the chamber. The energy distribution of the fast atoms indicates that the plasma ions have no Maxwellian energy distribution, a feature characteristic of turbulent plasma. Orig. art. has: 3 figures and 6 formulas.

ASSOCIATION: None

SUBMITTED: 19Oct63 DATE ACQ: 16Apr64 ENCL: 02

SUB CODE: ME NR REF SOV: 003 OTHER: 002

Card 3/5

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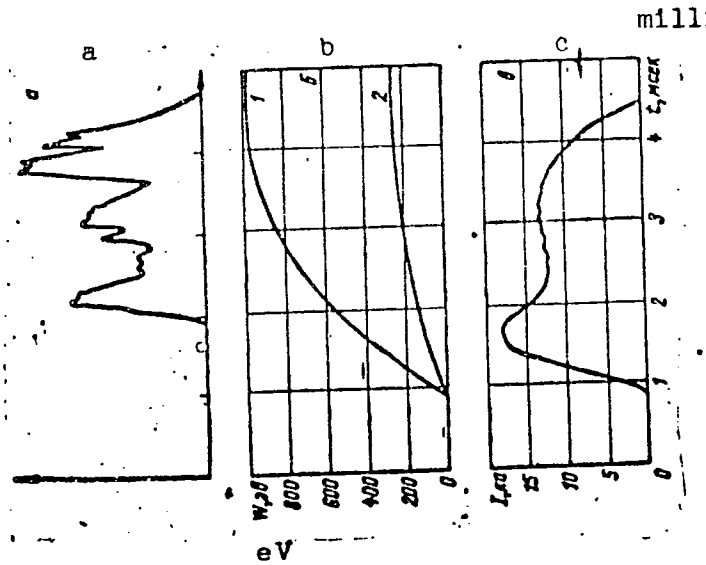
ACCESSION NR:AT4025308 ENCLOSURE: 01



Comparison of time dependence of the hydrogen atom flux, discharge current, and energy supplied.
a - hydrogen atom flux (E = 300 eV), b - energy delivered to plasma (1 - per perticle within the plasma pinch, 2 - per particle within the chamber volume), c - discharge current

Card 4/5

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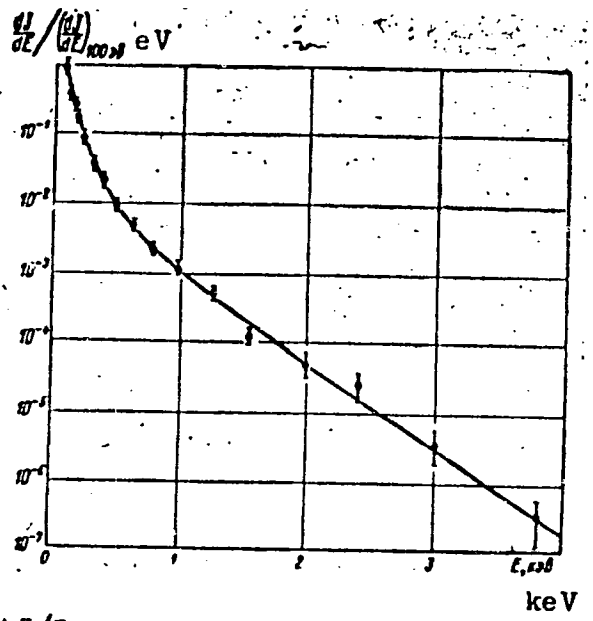
"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

ACCESSION NR: AT4025308

ENCLOSURE: 02



Energy distribution of the hydrogen atoms in the stream

Card 5/5

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

L 13037-63 EWA(k)/EWP(j)/EWP(k)/EWT(1)/EWT(m)/BDS/3W2/EEC(b)-2/ES(t)-2
AFFTC/ASD/ESD-3/RADC/APGC/AFWL Pc-4/Pf-4/Pi-4 RM/JHB/WG/IJP(C)/K/EH
ACCESSION NR: AP3000620 S/0181/63/005/005/1400/1402

86
85

AUTHOR: Moskalev, V. V.; Petrov, M. P.

TITLE: An investigation of the spectrum of nuclear magnetic resonance and the time of spin-lattice relaxation in d-camphor

SOURCE: Fizika tverdogo tela, v. 5, no. 5, 1963, 1400-1402

TOPIC TAGS: nuclear magnetic resonance, spin-lattice relaxation, d-camphor, methyl group, correlation frequency, potential barrier

ABSTRACT: The authors investigated this spectrum through a temperature range from -183 to +150C and determined the values of the potential barrier and the velocities characterizing movements of molecules and molecular groups for corresponding temperature intervals. They computed that at room temperature $V = 3.3$ Kcal/mole and the correlation frequency is 2.5 times 10 sup 9 cps, values that are in good agreement with experimental data. Above the temperature of phase transition the basic mechanism of relaxation is reorientation of molecules as a whole. Below this temperature such reorientation is absent, and the basic mechanism is reorientation of methyl groups. The authors conclude that to orient

Card 1/2

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L 13037-63
ACCESSION NR: AP3000620

methyl groups that make no noticeable contribution to the relaxation time above the temperature of the phase transition it must be assumed that low-temperature phase transition is accompanied not only by reorientation of the molecules as a whole, but also by a sharp increase in correlation frequency for the methyl group. Orig. art. has: 2 figures, 5 formulas.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: 08Jan62 DATE ACQ: 11Jun63 ENCL: 00

SUB CODE: 00 NO REF SOV: 000 OTHER: 003

Card 2/2

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

S/057/63/033/002/011/023
B108/B186

AUTHORS: Afrosimov, V. V., Gladkovskiy, I. P., Kislyakov, A. I., and Petrov, M. P.

TITLE: A mass analysis of the current of neutral atomic particles ejected from the plasma in the "Alpha" machine

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 33, no. 2, 1963, 205 - 211

TEXT: Fast neutral particles with energies of 500 - 5000 ev were mass-analyzed by measuring the flight time of the particles as described in ZhTF, 30, 12, 1456, 1960. A magnetic mass analyzer was used to avoid difficulties in handling high-energy particles. The hydrogen plasma in the Alpha machine was found to be a source of a large number of impurity atoms. Since the impurity concentration varies with time and depends on the working conditions of the machine in the same way as the hydrogen concentration it can be assumed that the impurity and hydrogen atoms form in similar processes (recharging, desorption of gases from chamber wall, evaporation of wall material, etc.). The current of the impurity atoms increases at the end of the discharge. This may lead to an increase in impurity ion concentration of the plasma, and also to an increase of the

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

current of particles on which the impurity ions are recharged. There are 4 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR, Leningrad (Physicotechnical Institute imeni A. F. Ioffe AS USSR, Leningrad)

SUBMITTED: February 2, 1962

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

PETROV, M.P., dotsent, kand. tekhn. nauk

Effective power of a geared pneumatic motor. [illegible] Kem. gor. inst. n. 5:[illegible]-3 [illegible].

Experimental study of the effect of terminal and radial gaps on the effective power of a geared pneumatic motor and the [illegible] ture of compressed air. Ibid.:[illegible]-36

[illegible]

1. Gorno-elektromekhanicheskiy fakultet Kemerovskogo [illegible] instituta.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

PETROV, M.P.

Reviews and bibliography. Izv. AN Turk. SSR. Ser.biol.nauk no.5:87-88 '65. (MIRA 18:11)

1. Institut pustyn' AN Turkmenskoy SSR.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

L 1604-66 EWT(1)/EPF(c) IJP(c) WW/GG

ACCESSION NR: AP5014561 UR/0181/65/007/006/1663/1666

AUTHOR: Petrov, M. P. 44,55

TITLE: Nuclear magnetic resonance of ^{19}F in $NaNiF_3$ and $NaCoF_3$ 21 44,55 45 B

SOURCE: Fizika tverdogo tela, v. 7, no. 6, 1965, 1663-1666

TOPIC TAGS: nuclear magnetic resonance, nmr parameters, sodium compound, chemical bond, hyperfine interaction, crystal lattice distortion, electron shell

ABSTRACT: The nuclear magnetic resonance spectra of ^{19}F were investigated in polycrystalline samples of $NaNiF_3$ and $NaClF_3$ for the purpose of checking the results with analogous data obtained for the potassium salts by R. G. Shulman and S. Sugano (Phys. Rev. v. 130, 506, 1963) and by T. Tsang (J. Chem. Phys. v. 40, 729, 1964). The polycrystalline samples were obtained from the melt. The nuclear magnetic resonance was observed on the ^{19}F nuclei at room temperature. The measurements were made at 14.7 Mcs, and the first derivative of

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L 1604-66

ACCESSION NR: AP5014561

the absorption line was observed. In both substances the observed line exhibited the complicated form characteristic of polycrystalline paramagnets. Shifts were observed in the resonant frequencies of both substances, and are attributed to the overlap of the electron shells and to the covalent nature of the chemical bond. In the case of $NaNiF_3$ the hyperfine interaction constants As and Ap for the s and p shells are calculated to be $(39.0 \pm 6) \times 10^{-4}$ and $(75 \pm 1.5) \times 10^{-4}$ cm^{-1}, respectively. The frequency shifts f_s and f_p for the s and p shells is found to be (0.52 ± 0.1) and (3.5 ± 0.7) per cent, respectively. The corresponding values for $NaCoF_2$ are $A_s = (36 \pm 7) \times 10^{-4}$ cm^{-1}, $A_p = (9 \pm 2) \times 10^{-4}$, and $f_s = (0.79 \pm 0.15)$ per cent. The results and the comparison with the data for the corresponding potassium salts are interpreted from the point of view of the overlap of the electron shells and the deviation of the Ni-F-Ni bond from 180°. The latter is also credited with the decrease in the Neel temperature, since it decreases the indirect exchange interaction between the

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L 1604-66

ACCESSION NR: AP5014561

3

nickel ions. It also is concluded that the overlap of the 2s orbit of fluorine and of the e_g orbit of nickel is larger in $NaNiF_3$ than in $KNiF_2$, and this leads to an increase in the anisotropic shift of the nmr frequency, i. e., to an increase in A_s and f_s.

ASSOCIATION: Institut poluprovodnikov AN SSR Leningrad (Institute of Semiconductors, AN SSSR)

44,55

SUBMITTED: 20Nov64 ENCL: 00 SUB CODE: SS

NR REF SOV: 000 OTHER: 011

Card 3/3

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

L 58992-65 EWT(1)/FS(c) Pi-4 IJP(c) WW/GG

ACCESSION NR: AP5017319 UR/0181/65/007/007/2156/2161

38
35
B

AUTHOR: Petrov, M. P.; Smolenskiy, G. A.

TITLE: Nuclear magnetic resonance in paramagnetic $TlMnF_3$

SOURCE: Fizika tverdogo tela, v. 7, no. 7, 1965, 2156-2161

TOPIC TAGS: nuclear magnetic resonance, crystallography, paramagnetic resonance

ABSTRACT: Nuclear magnetic resonance is studied in ^{203}Tl, ^{205}Tl and ^{19}F nuclei in paramagnetic $TlMnF_3$ with a cubic structure of the perovskite type at room temperature. A polycrystalline sample of $TlMnF_3$ was prepared by mixing aqueous solutions of TlF and MnF. The $TlMnF_3$ which precipitated was dried and subjected to chemical and X-ray structural analysis. It was established that the lattice constant was $a = 4.25$ Å. The nuclear magnetic resonance was observed by means of an autodyne operating in the range from 7 to 16 Mc. The external magnetic field was measured with the IMI-2 magnetic induction meter based on the nuclear magnetic resonance of protons and lithium. Shifts in the resonant frequencies of ^{203}Tl, ^{205}Tl, and ^{19}F in paramagnetic $TlMnF_3$ were observed which points to the decompensation of electron spins in Tl^+ and F^- shells. Due to the superfine interaction, auxiliary magnetic

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

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ACCESSION NR: AP5017313

3

fields are observed in the nuclei. The width of the nuclear magnetic resonance of ^{203}Tl and ^{205}Tl is also due to the superfine interaction of the nucleus with the paramagnetic electron shells. "The authors thank F. Ya. Kul'b and V. Ye. Mironov for synthesizing the $TlMnF_3$ samples and for doing the chemical analysis." Orig. art. has: 4 figures, 8 formulas.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors, AN SSSR)

SUBMITTED: 25Dec64 ENCL: 00 SUB CODE: SS, NP

NO REF SOV: 002 OTHER: 023

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

L 15732-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JW

ACC NR: AP6000893 SOURCE CODE: UR/0181/65/007/012/3689/3690

AUTHORS: Petrov, M. P.; Smolenskiy, G. A.; Syrnikov, P. P.

ORG: Institute of Semiconductors, AN SSSR, Leningrad (Institut poluprovodnikov AN SSSR)

65
64
B

TITLE: Nuclear magnetic resonance in $RbMnF_3$

SOURCE: Fizika tverdogo tela, v. 7, no. 12, 1965, 3689-3690

TOPIC TAGS: nuclear magnetic resonance, rubidium, fluorine, line shape, line broadening

ABSTRACT: Measurements of the nuclear magnetic resonance were made on the Rb and F nuclei at room temperature, using a weak-oscillation generator. The $RbMnF_3$ were synthesized from the cold RbF and $MnCl_2$ by heating to a temperature ~700C. It was found that the magnetic field acting on the F and Rb nuclei in the polycrystal is not equal to the external applied field. In the case of ^{19}F, the NMR line had

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L 15732-66

ACC NR: AP6000893

an asymmetrical shape, while that of ^{87}Rb had a Lorentz shape. The ratio $\alpha = \Delta H/H_0$ where ΔH is the supplementary magnetic field on the nucleus, was 0.022 ± 0.003 and $-(1.9 \pm 0.2) \times 10^{-3}$ for F and Rb, respectively. In the case of measurements on polycrystalline $RbNiF_3$ with hexagonal structure, no resonance was observed on ^{87}Rb, probably because of quadrupole broadening and the NMR line of ^{19}F had a complicated form with $\alpha = 0.0058$. Authors thank A. G. Tutov for an x-ray analysis of the crystal and S. A. Kizhayev for magnetic measurements.

SUB CODE: 07/ SUBM DATE: 14Jul65/ ORIG REF: 002/ OTH REF: 003

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

[illegible], M.[illegible]

[illegible]

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PETROV, M.P.; IVANCHENKO, A.G.; MIRONOV, V.S.

Brief news. Vest. LGU 20 no.7:154-160 '65.

(MIRA 18:2)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

PETROV, M.P.

Temperature regime of sands in the Kara Kum and the dynamics of vegetation. Vest. LGU 20 no.4:89-98 '65.

(MIRA 18:1)

1. Submitted March 26, 1964.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

L 29308-66 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6012455 SOURCE CODE: UR/0181/66/008/004/1013/1020

AUTHORS: Ansel'm, L. N.; Bir, G. L.; Myl'nikova, I. Ye.; Petrov, M. P.

ORG: Institute of Semiconductors AN SSSR, Leningrad (Institut poluprovodnikov AN SSSR)

67
65
B

TITLE: Electron paramagnetic resonance of Cr^{3+} ions in lithium-aluminum spinel

21

SOURCE: Fizika tverdogo tela, v. 8, no. 4, 1966, 1013-1020

TOPIC TAGS: electron paramagnetic resonance, chromium, lithium compound, aluminum compound, epr spectrometry, fine structure

ABSTRACT: The purpose of the investigation was to determine the structure of the crystal ...e electric fields in the octahedral lattice sites of inverted and intermediate ordered spinel. The single crystals of $LiAl_5O_8$ were grown by spontaneous crystallization from the solution. The solvent was a mixture of PbF_2 and PbO. The EPR spectra were measured at room temperature in the 3-cm band using a standard radiospectroscope (RE-1301). In the main measurements the constant magnetic field was in the (110) plane. When the magnetic field was rotated in this plane, seven lines were observed, and the angular dependence of their positions

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ACC NR: AP6012455 2

as well as the number point to the existence of a strong crystalline field with rhombic symmetry. The spin Hamiltonian corresponding to the spectrum and the corresponding values of the g factor and the crystal-field constants are determined. The Cr^{3+} ion has twelve magnetically non-equivalent positions, so that in an external magnetic field of arbitrary direction it is possible to observe 12 EPR lines. To determine the correct number of lines it is necessary to take into account the rhombic distortion of the potential, and this is found to be due to the presence of differently-charged ions, Al^{3+} and Li^{+}, in the octahedra. The rhombic distortion decreases linearly with increasing temperature (from 250 Oe at 100K to 120 Oe at 800K). The rhombic distortion also causes the axis of the crystal electric field in the octahedra to deviate somewhat from the crystallographic axes $[111]/\sqrt{3}$, $[112]/\sqrt{6}$, and $[110]/\sqrt{2}$. The larger the difference in the charge between the ions and the octahedra, the greater the deviations of the field axes. The authors thank G. A. Smolenskiy for interest in the work and a discussion of the results and M. F. Bryzhina for x ray investigations of the samples. Orig. art. has: 10 formulas and 2 figures.

SUB CODE: 20/ SUBM DATE: 23Jul65/ ORIG REF: 003/ OTH REF: 007

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

L 36043-66 EWT(1)/ETC(f)/EPF(n)-2/EWG(m) IJP(c) AT

ACC NR: AP6004883 SOURCE CODE: UR/0057/66/036/001/0089/0101

66
61
B

AUTHOR: Afrosimov, V.V.; Ivanov, B.A.; Kislyakov, A.I./Petrov, M.P.

ORG: None

21, 44, 55

TITLE: Active diagnosis of a hot plasma by means of neutral particles

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 1, 1966, 89-101

TOPIC TAGS: heated plasma, hydrogen plasma plasma diagnostics, plasma density, particle beam, neutral particle, atomic beam, charge exchange.

ABSTRACT: A technique for measuring the charged particle density of a hydrogen plasma with the aid of a beam of high energy (5–20 KeV) hydrogen atoms has been developed and tested by measuring plasma densities in the "Al'fa" installation. The method has the advantages of good sensitivity, negligible interference with the plasma and independence of the physical state of the plasma and the presence of magnetic fields. The injector consisted of an ion source, accelerating electrodes, electrostatic deflecting electrodes for directing the beam, a charge exchange chamber containing hydrogen at ($1-4 \times 10^{-4}$ mm Hg in which some of the ions were neutralized, and a transverse electric field which removed the unneutralized ions. After traversing the plasma the hydrogen atom beam passed through a transverse electric field which cleared it of any charged particles that it might have picked up, and a charge exchange chamber in which some of the atoms became ionized. The ions issuing from

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L 36043-66

ACC NR: AP6004883

the charge exchange chamber were analyzed by means of electric and magnetic fields and those with the proper energy and mass, corresponding to the energy and mass of the initial probe beam particles, were recorded with a scintillation counter. The sensitivity was such that a beam current corresponding to 10^{-10} A of singly-charged ions could be employed. The injector and detector assemblies were enclosed in iron housings of approximately 1 cm wall thickness for magnetic shielding. The plasma density was calculated from the attenuation of the beam on traversing the plasma. The theoretical discussion is facilitated by the fact that once a beam particle is ionized it is removed from the beam by the ambient magnetic field, so that the possibility of the ion becoming neutralized again does not have to be considered. The most significant beam attenuating process is shown to be resonant charge exchange with plasma protons; ionization by electron impact is also significant, but other processes are negligible. The effect of scattering of beam atoms was partly eliminated by comparing the attenuation of the beam by the plasma with its attenuation by an equivalent mass of unionized gas, and the residual effect of scattering was shown experimentally to be imperceptible. The attenuation of the beam was independent of beam energy over the investigated range from 4 to 20 keV. The attenuation of such high energy beams is nearly independent of the plasma temperature. The decay curve of the plasma in the "Al'fa" machine from 1.5×10^{13} to 0.2×10^{13} cm^{-3} as measured with the hydrogen atom probe agreed within the experimental error with the decay curve measured with a microwave interferometer. It is concluded that with the investigated technique one can make

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absolute measurements of the ion concentration in a hot hydrogen plasma over the range of plasma thickness from 5×10^{13} to 10^{16} cm^{-2}. The authors thank N. V. Fedorenko for his interest and for valuable discussions. Ye. G. Komar and A. M. Timonin for their interest, and M. M. Larionov and V. V. Rozhdestvenskiy for performing the microwave interferometer measurements. Orig. art. has: 4 formulas and 7 figures. [15]

SUB CODE: 20/ SUBM DATE: 03May65/ ORIG REF: 015/ OTH REF: 007/ ATD PRESS: 4203

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

L 21707-66 EWT(1)/ETC(f)/EPF(n)-2/EWG(m) IJP(c) AT

ACC NR: AP6004884 SOURCE CODE: UR/0057/66/036/001/0102/0110

69
67
B

AUTHOR: Afrosimov, V.V.; Ivanov, B.A.; Kislyakov, A.I.; Petrov, M.P.

ORG: none

21, ~~44~~, ~~55~~

TITLE: Investigation of the plasma concentration in the "Al'fa" installation with a probe beam of fast atoms

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 1, 1966, 102-110

TOPIC TAGS: hydrogen plasma, plasma diagnostics, particle beam, neutral particle, atomic beam, plasma density, plasma magnetic field, plasma decay, plasma dynamics, plasma concentration

ABSTRACT: The authors have employed their technique of plasma diagnosis with a fast atomic beam to investigate the hydrogen ion concentration in plasmas in the "Al'fa" installation over a wide range of operating conditions. The theory of the technique and the apparatus employed have been described in a previous paper by the authors (ZhTF, 36, 89, 1966/ see Abstract AP6004883/). For the present measurements the apparatus was so adjusted as to have a resolving time of 30 μsec. Under all operating conditions the proton density rose rapidly to a maximum value of n_{max} at time t_{max} after initiation of the discharge, decreased less rapidly with irregular fluctuations until the discharge current fell to zero, and subsequently decreased exponentially with the time constant T. The variations with the discharge conditions (the gas pressure P_o prior to the discharge, the strength H_z of the longitudinal magnetic field,

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L 21707-66

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2

and the potential U on the capacitor bank feeding the eddy winding) of the parameters n_{max}, t_{max}, T, and the time $t_{0.5}$ during which the proton concentration was greater than half its maximum value are presented graphically and are discussed at some length. n_{max} was proportional to P_0 and, for fixed P_0, increased linearly with H_z. Values of n_{max} up to nearly 10^{14} cm^{-3} were observed. The ionization was relatively independent of U and increased from about 42% for H_z = 200 Oe to approximately 85% for H_z = 1 kOe. For U = 10 kV, t_{max} and $t_{0.5}$ reached minimum values of 0.5 and 1.4 millisec, respectively, at about the same value (360 Oe) of H_z. T increased linearly with H_z from approximately 0.25 millisec for H_z = 200 Oe to 0.8 millisec for H_z = 900 Oe. Mechanisms possibly contributing to the plasma decay are discussed and it is concluded that diffusion plays no appreciable part, that drift in the toroidal magnetic field makes the most significant contribution, and that recombination may be important if the plasma temperature at this stage is of the order of 0.2 eV. The authors thank V.Ye.Golant for valuable discussions and N.V.Fedorenko for his interest. Orig. art. has: 8 formulas and 9 figures.

SUB CODE: 20/ SUBM DATE: 22Jul65/ ORIG REF: 010/ OTH REF: 004

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APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

L 28073-66 EWT(m)/T/EWP(t)/ETI IJP(c) JD

ACC NR: AP6014025 SOURCE CODE: UR/0056/66/050/004/0871/0876

89
86
B

AUTHOR: Petrov, M. P.; Smolenskiy, G. A.

ORG: Institute of Semiconductors, AN SSSR (Institut poluprovodnikov AN SSSR)

TITLE: Investigation of local magnetic and electric fields in the $NaNiF_3$ single crystal

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 50, no. 4, 1966, 871-876

TOPIC TAGS: single crystal, nuclear magnetic resonance, magnetic field intensity, electric field, dipole interaction, temperature dependence, nickel, sodium compound, fluorine

ABSTRACT: Shifts of the nuclear magnetic resonance frequency in an $NaNiF_3$ single crystal was investigated as a function of the orientation, external magnetic field intensity, and temperature. For the ^{19}F nucleus, the shifts are due to dipole and hyperfine interaction with the Ni^{2+} ions, resulting in the appearance of local magnetic fields on the ^{19}F nucleus. The spin density in fluorine nuclei was calculated and the nuclear magnetic resistance and the Neel temperature data for $NaNiF_3$ and $KNiF_3$ crystals were compared. The qualitative agreement between the superexchange theory and the experiments

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L 28073-66

ACC NR: AP6014025

3

was determined. The shifts in the ^{23}Na nuclear magnetic resonance field are related to the second-order quadrupole effects. It is shown that the electric field near the sodium atoms has a separate axis whose direction is identical for various nuclei in the planes $z = 1/4$ or $z = 3/4$. No local magnetic field has been detected in the sodium nucleus. This indicates the absence of hyperfine interaction between the sodium nucleus and the unpaired electrons on e_g orbits of Ni^{2+}. The authors thank P. P. Syrnikov for growing and A. G. Tutov for orienting $NaNiF_3$ single crystals, and V. M. Yudin for magnetic measurements. Orig. art. has: 3 figures and 7 formulas. [Based on author's abstract]

[NT]

SUB CODE: 20 / SUBM DATE: 01Nov65/ ORIG REF: 004/ OTH REF: 011/

Card 2/2 CO

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

ACC NR: AP6033584 SOURCE CODE: UR/0181/66/008/010/3124/3126

AUTHOR: Petrov, M. P.; Kudryashov, V. A.

ORG: Institute of Semiconductors, AN SSSR, Leningrad (Institut poluprovodnikov, AN SSSR)

TITLE: Nuclear magnetic resonance and hyperfine interaction in $RbCoF_3$

SOURCE: Fizika tverdogo tela, v. 8, no. 10, 1966, 3124-3126

TOPIC TAGS: nuclear magnetic resonance, hyperfine structure, frequency shift, line width, nuclear shell model, nuclear spin

ABSTRACT: The authors have investigated nuclear paramagnetic resonance in the paramagnetic crystal $RbCoF_3$ on the nuclei ^{59}Co, ^{87}Rb, and ^{19}F. Polycrystalline $RbCoF_3$ was obtained from a melt of RbCl and CoF_2. The NMR measurement procedure was described earlier (FTT v. 7, 2156, 1965). Shifts of the resonant frequencies were observed for all nuclei. The corresponding shifts and line widths are given. It is shown how to determine the constants of the hyperfine interaction of nuclei with paramagnetic electron shells and to evaluate from them the spin density. Preliminary numerical values of the constants and of the spin density are given. The authors thank G. A. Smolenskiy for interest in the work and for a discussion of the results.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

ACC NR: AP6033584

and P. P. Syrnikov for preparing the samples. Orig. art. has: 2 formulas and 1 table.

SUB CODE: 20/ SUBM DATE: 07May66/ ORIG REF: 002/ OTH REF: 007

Cord 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240510003-5

PETROV, M.P.

"Novyy vid iz rodu Quelitia Fries,"

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This could be the cause of the disconnection of the rapid-action switch. Elek. i tepl.tiaga 6 no.8:32-34 Ag '62. (MIRA 17:3)

1. Depo Zlatoust Yuzhno-Ural'skoy dorogi.

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