DEMIDOV, P.N.

124-11-13480

Translation from: Referativnyy Zhurnal, Mekhanika, 1957, Nr. 11, p 162 (USSR)

AUTHORS: Demidov, P. N., and Filimonov, N. A.

TITLE: Life-Expectancy Calculations for the Pinions of Cutting Chains
(Raschet dolgovechnosti sharnirov rezhushchykh tsepey)

PERIODICAL: Nauchn. tr. Mosk. gorn. in-ta, 1956, sb. 17, pp 119-127

ABSTRACT: It is assumed that the tension of the chain resulting from the friction forces accrues uniformly over the entire length of the bar, whereas the tension created by the cutting forces appears only over the active length of the guide bar. Utilizing a relationship between the chain advance ratio and the attrition coefficient obtained experimentally, as well as by computational formulas derived in the work, the Authors have calculated the life expectancy of the pinions of the cutting chains of the coal-cutting machine GGK-35M.

Bibliography: 4 references.

(B. M. Zuyev)

Card 1/1

DEMIDOV, P.N.

History of rock disintegration by mechanical means. Nauch. trudy MGI no.21:5-16 '57. (MIRA 11:9)
(Crushing machinery)

DEMIDOV, P.N.

Experimental investigation of flywheel moments in coal cutting machines. Nauch.-trudy MGI no.21:169-188 '57. (MIRA 11:9)
(Coal mining machinery--Testing)

DAVIDOV, P.N., dots., kand.tekhn.nauk; LI GYN CHAN [Yi Chin-Ch'ang], inzh.

Determining the speed of the ratchet stroke on "Donbass-1" cutter-loaders. Nauch.dokl.vys.shkoly; gor.delo no.2:199-203 '59.
(MIRA 12:7)

1. Predstavlena kafedroy gornykh mashin Moskovskogo gornogo instituta im. I.V. Stalina.
(Coal mining machinery)

DEMIDOV, P.N., dotsent; LI GYN-CHAN, kand.tekhn.nauk

Effect of wear of the joints of multisectional ratchet gear on the "Donbass-1" cutter-loader feed dynamics. Izv.vys.ucheb. zav.; gor.shur. no.10:82-87 '59. (MIRA 13:5)

1. Moskovskiy gornyy institut.
(Coal mining machinery)

DEMIDOV, P.N., dotsent; LI GYN CHAN, kand.tekhn.nauk

Determining the design loads on the parts of the ratchet gear of the feed of the "Donbass-1" cutter-loader. Izv. vys. ucheb. zav.; gor. zhur. no.11:84-90 '61. (MIRA 15:1)

1. Moskovskiy gornyy institut imeni I.V.Stalina. Rekomendovana kafedroy gornykh mashin.

(Coal mining machinery)

DEMIDOV, Pavel Nikolayevich; KARTAVIY, Nikolay Grigor'yevich; PAVLYUCHENKO, Dmitriy Nikolayevich; LYUBIMOV, Boris Nikolayevich; KRIVONOSOV, V.F., retsenzent; SKOCHINSKIY, A.A., nauchnyy sotr., red.; PANOV, A.D., otv. red.; ABRAMOV, V.I., red. izd-va; BOLDYREVA, Z.A., tekhn. red.

[Coal plows]Ugol'nye strugi. [By] P.N.Demidov i dr. Moskva, Gosgortekhizdat, 1962. 295 p. (MIRA 15:7)

1. Donetskiy gosudarstvennyy proyektno-konstruktorskiy i eksperimental'nyy institut ugol'nogo mashinostroyeniya (for Krivonosov). 2. Institut gornogo dela im. A.A.Skochinskogo (for Panov).

(Coal mining machinery)

DEMIDOV, P.N.

Experimental study of the operation of the "Donbass-1" cutter-loader. Nauch. trudy Mosk. inst. radioelek. i gor. elektromekh. no.41:16-26 '62. (MIRA 16:10)

DEMIDOV, Pavel Pavlovich; MURAVIN, Yuriy Yakovlevich

Nakhodka. Vladivostok, Dal'nevostochnoe knizhnoe izd-vo 1965. 1 v. (MIRA 19:1)

L 29807-66 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6020873 SOURCE CODE: UR/0383/66/000/001/0074/0075

AUTHOR: Domidov, P. V.

41
B

ORG: none

TITLE: Smelting ferroalloys at the Almaznyan Plant

SOURCE: Metallurgicheskaya i gornorudnaya promyshlennost', no. 1, 1966, 74-75

TOPIC TAGS: smelting furnace, electric transformer, ferroalloy, industrial automation, metal extracting, silicon alloy, manganese alloy, electric furnace /OKB-613 electric furnace

ABSTRACT: The author describes equipment put into operation at the Almaznyan Ferroalloy Plant three years ago. Three-phase OKB-613 rotary electric furnaces were installed in the smelting department. These furnaces have a mechanism for reversible rotation at a rate of one revolution in 31-180 hours. Electric power is supplied from three, single-phase EOTsN 8200/10 transformers located around the furnace. The transformer has 17 voltage steps (secondary) from 132.5 to 210 v. The furnace installation has the following electrical parameters: resistance--$0.12 \cdot 10^{-4}$ Ω; reactance--$1.15 \cdot 10^{-10}$ Ω; voltage on the high side--10 kv; voltage on the low side--170-180 v; primary current--950 a; secondary current--48-52 Ka; power factor--0.82-0.85. The furnaces are used for smelting grades Si-75 and Si-45 ferrosilicon. Automation of charge loading has eliminated 16 men. Manual labor has been completely eliminated in the

Card 1/2 UDC: 669.168

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ACC NR: AP6020873

teeming process. Operational experience with these furnaces has shown that they may be used for smelting Si-45, Si-25 and Si-18 ferrosilicon and manganese-silicon alloys. However, smelting of grade Si-75 ferrosilicon has not been satisfactory. Orig. art. has: 1 table. [JPRS]

SUB CODE: 13, 11 / SUBM DATE: none

Card 2/2

CHUYKO, N.M., doktor tekhn.nauk; PEREVYAZKO, A.T.; MOSHKEVICH, Ye.I.;
Prinimali uchastiye: RUTKOVSKIY, V.B.; KONISHCHEV, M.I.;
FRANT'SEV, V.P.; DEMIDOV, P.V.

Controlling the gaseous phase composition in an electric furnace by means of an air curtain. Met. i gornorud. prom. no.2:15-18 Mr-Ap '62. (MIRA 15:11)

1. Dnepropetrovskiy metallurgicheskiy institut (for Chuyko).
2. Dnepropetrovskiy staleplavil'nyy zavod vysokokachestvennykh i spetsial'nykh staley (for Perevyazko, Moshkevich).
(Electric furnaces) (Gases--Analysis)

KHITRIK, S.I., doktor tekhn. nauk; KADINOV, Ye.I., inzh.; BORODULIN, G.M., inzh.; TREGUBENKO, A.F., inzh.; YATSKEVICH, I.S., inzh.; DEMIDOV, P.V., insh.; FRANTSOV, V.P., inzh.; SMOLYAKOV, V.F., inzh.; MALIKOV, G.P., inzh.; DOVGIY, M.M., inzh.; MOSHKEVICH, Ye.I., inzh.; RABINOVICH, A.V., inzh.

Reducing chromium losses in the manufacture of acid-resistant and stainless steels in electric arc furnaces. Met. i gornorud. prom. no.1:17-20 Ja-F '62. (MIRA 16:6)
(Steel, Stainless—Electrometallurgy)

FEDOROV, G.B.; Prinimali uchastiye: VASIL'YEV, E.A. i DEMIDOV, S.A.

Determining the heat of sublimation of silver, nickel, and zirconium by means of radioactive tracers. Met. i metalloved. chist. met. no. 2:141-147 '60. (MIRA 13:12)
(Heat of sublimation) (Radioisotopes--Industrial applications)

DEMIDOV, S. F.

DEMIDOV, S. F. Razvite sel'skogo khoziaistva v poslevoennoi piatiletke. Moskva, Gosplanizdat, 1946. 210 p. DLC: S469.R9D4

SO: LC, Soviet Geography, Part 1, 1951, Uncl.

DEMIDOV, S.

25130 DEMIDOV, S. Vsemernoye Razvitie Zhivotnovodstva-Tsentralbnaya Zadacha V Razvitll Sel'skogo Khozyaystva. Plan. Khoz-vo, 1949, No.3, S. 3-19

SO: Letopis' No. 33, 1949

DEMIDOV, S. F.

"V.R.Vil'yam's Study on a Grassland System of Cultivation and the Stalin Plan for Transforming the Nature of the Steppe," Vest. Mosk. Un. 5, No. 8, 1950

MLRA, Nov 51

DEMIDOV, S.

Agriculture

Soviet agronomy in the fight for improved agriculture, Plan. khoz., No. 1, 1952.

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

[redacted], S. P.; VASKHIL, Acad.

Soils

Soil Fertility, Agrobiologiia No. 3, 1952

SO: Monthly List of Russian Accessions, Library of Congress, Sept 1952 1953, Uncl.

1. S. F. DEMIDOV.
2. USSR (600)
4. Agriculture
7. Agricultural problems in the fifth five-year plan. Agrobiologiia no. 6. 1952.

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

DEMIDOV, S.

"For Further Increase in Flax Culture on Collective Farms," Kolkh. Proizv. 12, No. 9, 1952..

MLRA, Dec 52

DEMIDOV, Acad. S.

Flax

Further development of collective farm flax cultivation. Sots. sel'.khoz. 23, no. 6, 1952.

MONTHLY LIST OF RUSSIAN ACCESSIONS, LIBRARY OF CONGRESS, SEPTEMBER 1952. UNCLASSIFIED.

1. DEMIDOV, S., Acad.

2. USSR (600)

4. Agriculture

7. Main task in the field of agriculture during the fifth five-year plan. Sots. sel'khoz, 23, No. 11, 1952

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

S. DAVIDOV

"The main agricultural task set in the fifth Five-Year Plan of the USSR. Tr. from the Russian." Page 7 (ANALELE ROMANO-SOVIETICE. SERIA AGRICULTURA-ZOOTEHNIE, Series a II-a, v. 7, no.1, Jan./Mar. 1953, Bucuresti.)

SO: Monthly List of East European Accessions, Library of Congress, Vol. 2, No10, Oct. 1953, Uncl.

S. DEMIDOV

"Soil fertility. Tr. from the Russian." Page 33 (ANALELE ROMANO-SOVIETICE. SERIA AGRICULTURA-ZOOTEHNIE, Series a II-a, v. 7, no. 1, Jan. Mar. 1953, Bucuresti.)

SO: Monthly List of East European Accessions, Library of Congress, Vol. 2, No. 10, Oct. 1953, Uncl.

DEMIDOV, S.

"The Realization of Stalin's plan for the Transformation of Nature. p. 20"
(KOOPERATIVNO ZEMEDELIE) Vol. 8, No. ½, 1953, Sofiya, Bulgaria.

SO: Montly List of East European Accessions, L.C. Vol. 2, No. 11, Nov. 1953, Uncl.

DEMIDOV, SERGEI FEDOROVICH

DEMIDOV, Sergey Fedorovich. KALALEYEVA, T.F., redaktor; GUBIN, M.I., tekhnicheskiy redaktor

[Specialization and distribution of branches of agriculture] Spetsializatsii i razmeshchenie otraslei sel'skogo khoziaistva. Moskva, Izd-vo "Znanie," 1957. 39 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser. 3, no.16) (MLRA 10:9)

1. Deystvitel'nyy chlen Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk imeni V.I.Lenina (for Demidov)
(Agriculture)

DEMIDOV, Sergey Fedorovich, akademik; BOGATYRENKO, Z.S., red.; SAVCHENKO, Ye.V., tekhn.red.

[Development of socialist agriculture of the U.S.S.R. in the seven-year plan] Razvitie sotsialisticheskogo sel'skogo khoziaistva SSSR v semiletke. Moskva, Izd-vo "Znanie," 1959. 46 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser.3, Ekonomika, no.31) (MIRA 12:11)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni V.I. Lenina (for Demidov).
(Agriculture)

DEMIDOV, S.F., akademik

Establishing efficient farm management systems for different zones of the U.S.S.R. Izv.TSKhA no.2:181-192 '59.
(MIRA 12:8)

(Agriculture)

AVERKIYEV, A.S., red.; AGEYEV, Ya.P., dots., otv. red.; AREF'YEV, V.A., dots., kand. ekon. nauk, red.; DEMIDOV, S.F., akademik, red.; KARSHIN, V.Ye., dots., red.; KOGAN, A.Ya., starshiy prepodav., red.; MAKHALOV, V.I., starshiy prepodavatel', red.; PITAYEVSKIY, P.I., prof., red.; SLOBODIN, V.M., prof., red.; SHOLOKHOV, Ye.I., red.

[Problems in the new system of agricultural planning]Voprosy novogo poriadka planirovaniia sel'skogo khoziaistva; trudy. Kyibyshev, Kuibyshevskii planovoi in-t, 1961. 419 p. (MIRA 15:12)

1. Mezhvuzovskaya nauchnaya konferentsiya, Kuibyshev, 1960. 2. Zamestitel' predsedatelya Kuybyshevskoy oblastnoy komissii (for Averkiyev). 3. Kuybyshevskiy planovyy institut (for Ageyev, Makhalov, Karshin). 4. Deystvitel'nyy chlen Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk imeni V.I.Lenina i Moskovskaya ordena Lenina sel'skokhozyaystvennaya akademiya imeni K.A.Timiryazev (for Demidov). 5. Ural'skiy filial Akademii nauk SSSR (for Slobodin). 6. Zamestitel' nachal'nika otdela sel'skogo khozyaystva i zagotovok Gosudarstvennogo planovogo komiteta Soveta Ministrov RSFSR (for Sholokhov).

(Agricultural policy)

GALITSINSKIY, Panteleymon Konstantinovich; DEMIDOV, Sergey Ivanovich; OBUKHOV, Mikhail Nikolayevich; SAMOYLOV, Andrey Yemel'yanovich; GRUSHKIN, A., red.; ABBASOV, T., tekhn. red.

[Cotton varieties in Uzbekistan; results of state variety testing for 1950-1959] Sorta khlopchatnika v Uzbekistane; itogi gosudarstvennogo sortoispytaniia za 1950-1959 gg. Tashketn, Gosizdat, UzSSR, 1962. 219 p. (MIRA 15:7)
(Uzbekistan—Cotton—Varieties)

L 25391-65 EWT(m) IJP(c)

ACCESSION NR: AP5002145 S/0120/64/000/006/0045/0050

AUTHOR: Damaskinskiy, Ye. A.; Demidov, S. K.; Rynnov, N. I.

TITLE: Characteristics of spark discharge chambers filled with various gas mixtures

SOURCE: Pribory i tekhnika eksperimenta, no. 6, 1964, 45-50

TOPIC TAGS: spark discharge chamber, spark chamber gas

ABSTRACT: Results are reported of an experimental investigation of the effect of gas composition on the irregularity of intensity of spark luminescence in various gaps when a discharge in a spark chamber along the track of a cosmic particle takes place. Cosmic particles were recorded as they passed through a six-electrode spark chamber and two scintillation counters connected in a coincidence circuit. The effect of an admixture to the principal gas on the number of spurious discharges that accompanied the main discharge along the particle track was studied. It was found that even a small admixture of a gas, whose ionization potential is slightly lower than the minimum excitation potential of the principal gas, can drastically change the chamber efficiency; such an admixture sharply

Card 1/2

cuts the h-ν pulse height. These gases were tested: He, Ne+0,5%A, A, H_2, N_2, He plus various admixtures of A, Ne, Xe, N_2, H_2, C_2H_2. It was established that a certain minimum energy is required in the discharge channel for an observable luminescence of the spark. The irregularity of luminescence depends on the gas composition and, for a given composition, is independent of the applied voltage and power. It is suggested that an A+(0,015—0,4)% C_2H_2 mixture be used in spark chambers instead of the conventional Ne+A mixture. "The authors wish to thank D. G. Alkhazov and I. S. Kirin for their useful advice, S. P. Kruglov for his support and interesting discussions, and V. I. Il'in for his help in building the chamber." Orig. art. has: 9 figures, 1 formula, and 2 tables.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN SSSR (Physico-Technical Institute, AN SSSR)

SUBMITTED: 19Nov63 ENCL: 00 SUB CODE: NP

NO REF SOV: 005 OTHER: 003

DEMIDOV, S. M.

"K voprosu o religioznom sinkretizme u turkmen XIX -- nachala XX v."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences, Moscow, 3-10 Aug 64.

DEMIDOV, S.N., inzh., red.; TEMKIN, L.Ye., red.; VORONIN, K.P., tekhn. red.

[Directions for erecting reinforced concrete structures and installations by industrial methods; planning and execution (USP 101-51)]Ukazaniia po vozvedeniiu zhelezobetonnykh konstruktsii promyshlennykh zdanii i sooruzhenii industrial'nymi metodami; proektirovanie i proizvodstvo rabot (USP 101-51). Moskva, Gos. izd-vo lit-ry po stroit. i arkhit. 1952. 222 p. (MIRA 16:7)

1. Russia (1923- U.S.S.R.) Komitet po delam stroitel'stva. (Reinforced concrete construction)

DEMIDOV, S. P.

"A Clean Break of a Curved Beam Having a Right Angle Cross Section", an article in the book "Computing the Stability, Hardness and Creep of Elements in Machine Construction", Mashgiz, 1953, p. 64.

DEMIDOV, S. P.

"Calculating Right Angle Plates Loaded with Equal Loads" an article in the book "Computing the Stability, Hardness and Creep of Elements in Machine Construction", Mashgiz, 1953, p. 64.

DEMIDOV, S.P., inzhener.

Calculation of jammed rectangular plates subjected to balanced load. [Trudy] MVTU no.26:64-75 '53. (MLRA 7:5)
(Elastic plates and shells)

DEMIDOV, S.P., inzhener.

Pure bending of curved beams of rectangular cross sections. [Trudy] MVTU no.26:76-105 '53. (MLRA 7:5)
(Flexure) (Girders)

DAMDOV, S. P.

Dissertation: -- "An Investigation of the Stresses on a Rectang[illegible] Bar Transverse Cross Section of a Horizontal Curved Beam During Arbitrary Loadin[illegible]." Cand Tech Sci, Moscow Order of the Labor Red Banner Higher Technical School imeni N. E. Bauman, 21 Jun 54. (Vechernyaya Moskva, Moscow, 11 Jun 54)

SO: Sum 318, 23 Dec. 1954

SOV/124-57-3-3384

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 3, p 107 (USSR)

AUTHOR: Demidov, S. P.

TITLE: Stress Investigations of a Plane Rectangular Bow Girder Under Plane-spatial Loading (Issledovaniye napryazheniy ploskogo krivogo brusa pryamougol'nogo poperechnogo secheniya v usloviyakh ploskoprostranstvennogo nagruzheniya)

PERIODICAL: V sb.: Raschety na prochnost' v mashinostroyenii. Moscow, Mashgiz, 1955, pp 28-62

ABSTRACT: The paper is a summary of the results obtained in two previous articles by the same author (see RZhMekh, 1954, abstract 4945; 1956, abstract 2342).

V. L. Biderman

Card 1/1

DEMIDOV, S.P.

Strength calculations of plane curved bars of rectangular cross section subjected to forces perpendicular to the plane of the curve. [Trudy] MVTU no.31:126-172 '55. (MLRA 8:5)
(Elasticity) (Mechanical engineering)

DEMIDOV, S.P., kandidat tekhnicheskikh nauk.

Stress study of a flat, curved beam of rectangular cross section under a plane, dimensional load. [Trudy] MVTU no.46:28-62 '55. (Strains and stresses) (Machinery--Design) (MLRA 9:4)

DEMIDOV, S. P.

PHASE I BOOK EXPLOITATION 871

Belyayev, V. N., Candidate of Technical Sciences; Birger, I. A., Doctor of Technical Sciences; Demidov, S. P., Candidate of Technical Sciences; Korotkov, V. P., Candidate of Technical Sciences; Kudryavtsev, V. N., Doctor of Technical Sciences, Professor; Martynov, A. D., Candidate of Technical Sciences; Niberg, N. Ya., Candidate of Technical Sciences; Ponomarev, S. D., Doctor of Technical Sciences, Professor; Pronin, B. A., Candidate of Technical Sciences; Push, V. E., Candidate of Technical Sciences; Sleznikov, G. I., Engineer; Stolbin, G. B., Candidate of Technical Sciences; Tayts, E. A., Doctor of Technical Sciences

Spravochnik metallista. t. 2 (Metals Engineering Handbook. v. 2) Moscow, Mashgiz, 1958. 974 p. 100,000 copies printed.

Ed.(title page): Chernavskiy, S. A., Candidate of Technical Sciences; Ed. (inside book): Markus, M. Ye., Engineer (deceased); Tech. Ed.: Sokolova, T. F.; Editorial Board of the set: Acherkan, N. S., Doctor of Technical Sciences, Professor, Chairman of the Board and Chief Ed.; Vladislavlev, V. S. (deceased); Malov, A. N.; Pozdnyakov, S. N.; Rostovykh, A. Ya.; Stolbin, G. B.; and Chernavskiy, S. A.

PURPOSE: The book is intended for technicians and engineers working in the field of machine design and in production.

Card 1/19

Metals Engineering Handbook. v. 2

COVERAGE: The book covers the following: strength of materials, design of machine parts, connections, transmissions, lubrication, etc. The arrangement of mechanical drawings and symbols used are shown. The book contains GOST (All-Union State Standards) tables for standard machine parts. The book is the second of a five-volume series. There are 79 references, of which 76 are Soviet, 2 are German and 1 English.

TABLE OF CONTENTS:

STRENGTH OF MATERIALS (Candidate of Technical Sciences Demidov, S. P.)

Card 2/19 12

DEMIDOV, S.S.; KOSTINSKIY, D.N., red.; KUZNETSOV, N.S., red.kart; GLEYKH, D.A., tekhn.red.

[Mongolian People's Republic] Mongol'skaia Narodnaia Respublika. Moskva, Gos.izd-vo geogr.lit-ry, 1952. 55 p. (MIRA 13:7)

(Mongolia)

VAVILOV, A.A.; VERKHOLAT, M.Ye.; RUBASHKIN, I.B.; Prinimali uchastiye: YAKOVLEV, V.B.; [redacted]MIDOV, S.V.; VOROSHILOV, M.S., kand. tekhn. nauk, retsenzent

[Actuating electromechanical servosystems for copying milling machines] Silovye elektromekhanicheskie sledíashchie sistemy kopiroval'no-frezernykh stankov. Moskva, Mashinostroenie, 1964. 406 p. (MIRA 18:2)

1. CHEKULAYEVA, L., DEMIDOV, V., Eng.

2. USSR (600)

4. Milk, Condensed

7. Standardization of milk in canned milk production. L. Chekulayeva, Eng. V. Demidov. Moloch. prom. 14, No. 3, 1953.

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

DEMIDOV, V.

Individual stereometric construction apparatus. Politekh.obuch. no.5:83-84 My '59. (MIRA 12:7)

1. Saranskaya srednyaya shkola No.17.
(Mensuration--Study and teaching)

DEMIDOV, V.

Miracles of miniature radio engineering. Znan.-sila 38 no.6: 6-8 Je '63. (MIRA 16:8)

(Miniature electronic equipment)

AGAYEV, E.R.; DEMIDOV, V.A. (Moskva)

Experience in the brigade method in a municipal polyclinic. Sov. zdrav. 20 no.1:33-38 '61. (MIRA 14:5)

1. Iz Instituta organizatsii zdravookhraneniya i istorii meditsiny imeni N.A.Semashko Ministerstva zdravookhraneniya SSSR i poliklinika No.37 Frunzenskogo rayona Leningrada.
(HOSPITALS, ADMINISTRATION)

MINYAYEV, V.A.; SHELOMENTSEVA, K.A.; DEMIDOV, V.A.

Concerning the articles, "Medical care without registration in outpatient institutions of Tashkent" and "Distribution of surgical beds in a city." Zdrav. Ros. Feder. 5 no.5:39-41 My '61. (MIRA 14:5)

1. Zaveduyushchiy Leningradskim gorodskim otdelom zdravookhraneniya (for Minyayev). 2. Glavnyy vrach ob"yedinennoy bol'nitsy imeni V.I.Lenina, Leningrad (for Shelomentseva). 3. Glavnyy vrach poliklinik No.37, (for Demidov).

(TASHKENT--HOSPITALS--OUTPATIENT SERVICES)
(PENZA--HOSPITAL BEDS)

DEMIDOV, Vladimir Aleksandrovich; PETRAKOV, Boris Dmitriyevich; KHROMOV, Boris Mikhaylovich; GOL'DZIL'BER, E.M., red.; KOROLEV, A.V., tekhn. red.

[New forms of organization and methods for the work in city polyclinics; works experience of Polyclinic No.37 in Leningrad] Novye formy organizatsii i metody raboty gorodskikh poliklinik; iz opyta raboty polikliniki No.37 Leningrada. Moskva, Medgiz, 1963. 96 p. (MIRA 16:5)
(LENINGRAD--HOSPITALS--ADMINISTRATION)

DEMIDOV, V.A., inzhener.

Equipment for processing gravel-sand mortars used in England.
Stroi.prom. 34 no.11:37-45 N '56. (MLRA 9:12)
(Great Britain--Building machinery) (Gravel)

DEMIDOV, V.A., inzhener.

Mounted equipment for a small tractor. Stroi.prom.34 no.12:45-47 D '56. (MLRA 10:2)

(England--Bulldozers)

DEMIDOV, V.A.

Reusable metal form for sealing joints of girders and columns. Suggested by V.A.Demidov. Rats.i izobr.predl.v stroi. no.8: 31-32 '58. (MIRA 13:3)

1. Po materialam Ministerstva transportnogo stroitel'stva SSSR.
(Building--Tools and implements)

YUSKOVETS, M.K., akademik, otv. red.; BOBKOVA, A.F., kand. vet. nauk, red.; GOREGLYAD, Kh.S., akademik, red.; DEMIDOV, V.A., red.; TUZOVA, R.V., red.; KARKLINA, E., red.

[Controlling losses in animal husbandry; transactions] Bor'ba s poteriami v zhivotnovodstve; trudy NIVI. Minsk, Gos. izd-vo sel'khoz. lit-ry BSSR, 1963. 212 p. (MIRA 17:6)

1. Minsk. Nauchno-issledovatel'skiy veterinarnyy institut.
2. Akademiya nauk Belorusskoy SSR (for Yuskovets, Goreglyad).

DEMIDOV, V.D.; ZARANKIN, N.Ye.

New type of mine in the Kuznetsk Basin. Ugol' 34 no.1:7-11 Ja '59.
(MIRA 12:1)

1.Kuzbassgiproshakht.
(Kuznetsk Basin--Coal mines and mining)

BORODATOV, V.A., kand.biolog.nauk; DEMIDOV, V.F.; DUKHANIN, A.N.; ZHUKOVA, A.I.; KADIL'NIKOV, Yu.V.; KAMPECHENKO, Yu.L.; KORZHOVA, Yu.A.; MAKHOVER, Z.I.; PETROV, G.P.; PROSVIROV, Ye.S.; RULEV, N.N.; SOKOLOV, O.A.; SPICHAK, M.K.; KHROMOV, N.S.; SHUIN, V.I., red.; FORMALINA, Ye.A., tekhn.red.

[Study of tuna fish and sardines in the eastern part of the Atlantic Ocean; report on the cruise of the scientific fishery survey expedition of 1957] Issledovaniia tuntsa i sardiny v vostochnoi chasti Atlanticheskogo okeana; reisovyi otchet nauchno-poiskovoi ekspeditsii, 1957 g. Moskva, 1959. 158 p. (MIRA 13:6)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii.
(Atlantic Ocean--Tuna fish) (Atlantic Ocean--Sardines)
(Fish, Canned)

SHUL'MAN, G.Ye.; DEMIDOV, V.F.

Changes in the fatness of sardines (Sardinella surita Vallenciennes) in the Dakar region during the prespawning period of the annual cycle. Zool. zhur. 40 no.10:1532-1535 O '61. (MIRA 14:9)

1. Azovo-Black Sea Research Institute of Marine Fishery Management and Oceanography, Kerch.
(Dakar region--Sardines)

DEMIDOV, V.F.

Some behavior features of the west African sardinella (Sardinella aurita) in the Dakar and Takoradi areas. Trudy Azcherniro no.20: 25-44 '62. (MIRA 16:4)

(Atlantic Ocean—Sardines)

DEMIDOV, V. I.

Rasprostranenie radiovoin v severnykh shirotakh i mery bor'by s narusheniliami radiosviazi. [Propagation of radio waves in the northern latitude and measures for preventing disturbances in radio communications]. Moskva, Redizdat Aeroflota, 1946. 48. p. (Nauchno-issledovatel'skii institut GVF)
Bibliography: p. 48

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference department, Washington, 1951, Unclassified.

DEMIDOV, V.I.

Combined method for dragline during seasonal frosts. Ger.shur. no.12:58 D '55. (MLRA 9:4)

1.Glavnyy inzhener priiskovogo upravleniya tresta Yeniseyzolote.
(Mining engineering)

DEMIDOV, V.I

KULYAMZIN, M.P.; DEMIDOV, V.I.

Mechanization of the boiler room in the Dmitrov excavator plant.
Stroi. i dor. mashinostr. no.2:24-26 F '57. (MLRA 10:3)
(Boilers)

DEMIDOV, V.I.

Compilation and analysis of metal balance in ore dressing plants. TSvet. met. 34 no.2:25-26 F '61. (MIRA 14:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tsvetnykh metallov.

(Ore dressing)

DEMIDOV, V.I.; VOLODIN, V.S.

Sorption method for the purification of ore dressing plant waste waters from cyanide compounds. TSvet. met. 37 no.6:5-10 Je '64. (MIRA 17:9)

PIEK, M.N., inzh.; DEMIDOV, V.K., inzh.; RAGAZINA, M.F., nauchnyy red.; DANILOV, V.M., red.

[Methods for calculating the stability of pit sides in open-cut mining] O metodakh rascheta ustoichivosti otkosov otkrytykh gornykh vyrabotok. Moskva, TSentr.biuro tekhn.inform., 1960. 47 p. (MIRA 14:1)

1. Moscow. Gosudarstvennyy proyektnyy institut "Fundamentproyekt." (Strip mining) (Soil mechanics)

BILENKO, D.I.; DEMIDOV, V.K.; KOTELKOV, V.N.; NAZVANOV, V.F.; NOSOVA, V.A.; ORNATSKAYA, Z.I.; ROKAKH, A.G.; SVERDLOVA, A.M.; KAPSHTAL', G.G.; KIR'YASHKINA, Z.I., dots., red.; VINNIKOVA, I.A., red.

[Textbook for practical studies on the physics of semiconductors] Rukovodstvo k prakticheskim zaniatiiam po fizike poluprovodnikov; uchebnoe posobie. [Saratov], Saratovskii univ., 1964. 115 p. (MIRA 18:11)

DEMIDOV, V.I.

Sorption method for the removal of phenol from the waste water of ore dressing plants. TSvet. met. 35 no.7:13-19 Jl '62. (MIRA 15:11)

(Ore dressing—Water supply)
(Water purification)

L 01297-66 EWT(l)/EWA(h) GS

ACCESSION NR: AT5020450 UR/0000/64/000/000/0059/0064

AUTHOR: Kir'yashkina, Z. I.; Demidov, V. K.

TITLE: Some properties of detectors based on germanium-silicon alloys

SOURCE: Mezhvuzovskaya nauchno-tekhnicheskaya konferentsiya po fizike poluprovodnikov (poverkhnostnyye i kontaktnyye yavleniya). Tomsk, 1962. Poverkhnostnyye i kontaktnyye yavleniya v poluprovodnikakh (Surface and contact phenomena in semiconductors). Tomsk, Izd-vo Tomskogo univ., 1964, 59-64

TOPIC TAGS: SHF, crystal detector, semiconductor rectifier, germanium base alloy, silicon containing alloy, semiconductor research

ABSTRACT: Previous research indicates that germanium-silicon alloys could be used for making semiconductor devices with better frequency characteristics than silicon which are capable of operating at higher temperatures than germanium. The *p-n* junction in germanium-silicon alloys gives lower reverse currents than a germanium *p-n* junction up to 135°C. Another advantage of the alloys over pure germanium and silicon is that the Hall coefficient is independent of temperature over a wide range. Silicon and germanium form a continuous series of solid solutions throughout the

Card 1/3

L 01297-66

ACCESSION NR: AT5020450

entire interval of component concentrations. However, the most interesting alloys from the standpoint of semiconductor electronics contain no more than 14% silicon for several reasons: 1. In this range of concentrations, the width of the forbidden zone increases most rapidly with silicon content: 0.015 ev/at %. 2. The current carrier mobility in the alloy decreases rapidly with an increase in silicon concentration; in an alloy with 12% silicon the electron mobility is 1700 $cm^2/v \cdot sec$ as compared with 3900 $cm^2/v \cdot sec$ in pure germanium. 3. As the silicon content in the alloy is increased, it becomes more difficult to produce a uniform single crystal, a difficulty which is compounded by the need for heavily doped materials in making SHF detectors. The authors study the possibility of using low-silicon germanium alloys as a material for detectors in the 3-centimeter range. In contrast to pure germanium, it was impossible to get tin to fuse well to the doped alloys in air (with or without flux). A reliable contact with the alloys was produced by using electrodeless nickel plating followed by tinning in air. An ordinary 3-centimeter signal generator was used for testing the detector. A description of the installation is given. Operating conditions (SHF power level, constant bias, load impedance) were studied with regard to their effect on the parameters of the detector (conversion losses, current sensitivity). A definite relationship was observed between the high frequency and low frequency characteristics of the detector. It was

Card 2/3

L 01297-66
ACCESSION NR: AT5020450

found that a material with a rather high current carrier concentration and a more regular structure (high μ_n = 860 $cm^2/v \cdot sec$) is the best for use in making SHF detectors. Preliminary low frequency observations indicate that a point contact based on a germanium-silicon alloy has a higher inverse puncture voltage than a germanium point contact (for samples with identical resistivities). It is hoped that the development of techniques for manufacturing doped alloys with a higher silicon content will help to reveal the advantages of silicon in the alloys at high frequencies as well. However, for the present it is pointed out that it has been possible to achieve high frequency characteristics close to the parameters of germanium detectors in low-silicon (less than 5%) germanium alloys. Orig. art. has: 2 figures, 1 table.

ASSOCIATION: Saratovskiy gosudarstvennyy universitet (Saratov State University)

SUBMITTED: 06Oct64 ENCL: 00 SUB CODE: EC, SS

NO REF SOV: 004 OTHER: 004

Card 3/3

L 45865-66 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AR6017153 SOURCE CODE: UR/0275/66/000/001/B020/B020

AUTHOR: Kir'yashkina, Z. I.; Demidov, V. K.

REF SOURCE: Sb. Poverkhnostn. i kontaktn. yavleniya v poluprovodnikakh. Tomsk, Tomskiy un-t, 1964, 59-64

TITLE: Properties of detectors based on germanium and silicon alloys

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 1B147

TOPIC TAGS: germanium containing alloy, silicon containing alloy, forbidden zone width

TRANSLATION: GaSi alloys are of interest due to the fact that they have a greater forbidden zone width than Ga and higher carrier mobility than Si. On the basis of these alloys, therefore, one can expect to construct instruments which will operate at higher frequencies than in the case of silicon and at higher temperatures than in the case of germanium. An application of alloys with small silicon content in the components used in a detector (3 cm band) was studied. The volt-ampere characteristics of the semiconductor diodes and the dependence of video-mixer and video-detector parameters on the parameters of the material (composition, concentration of the carriers, mobility and specific resistance) are indicated. 2 figures, 8 references. N. S.

SUB CODE: 09/ SUBM DATE: none UDC: 621.382.2:546.28'289

Card 1/1 UCR

DEMIDOV, V.M., inzhener.

Photoelectric reflectometer. Svetotekhnika 2 no.4:27 Jl '56.
(Reflectometer) (MLRA 9:10)

Demidov, V.N

USSR/Chemical Technology - Chemical Products and Their Application - Leather. Fur. Gelatin. Tanning Agents. Technical Proteins. I-29

Abs Jour : Referat Zhur - Khimiya., No 9, 1957, 33115

Author : Semenova, V.N., Lendenskiy, D.A., Demidov, V.N.

Inst :

Title : Tanning of Yuft Leather with the Use of Syntans PL, PS and SPS.

Orig Pub : Legkaya prom-st', 1956, No 11, 47-49

Abstract : The possibility was checked of utilizing syntans PL, PS and SPS for the tanning of yuft. The experiments were carried out with halves of dehaired hides, of which the controls were tanned in the usual manner with oak and spruce tannins (T). To tan the experimental halves the following mixtures were used: 50% oak T and 50% PL; 50% oak T and 50% PS; 50% T and 50% SPS; oak T, 50% spruce T and 30% SPS. By organoleptic indices the

Card 1/2

DEMIDOV, V.P., inzh.

Gas-turbine locomotives. Zhel.dor.transp. 44 no.7:90-94 Jl '62. (MIRA 15:8)

(Gas-turbine locomotives)

DEMIDOV, V.P. (Saransk)

Improving the efficiency of stereometry lessons. Mat.v shkole no.6:26-27 N-D '62. (MIRA 16:1)
(Geometry, Solid—Problems, exercises, etc.)

DEMIDOV, V.P.

Some aspects of the methodology for solving stereometric problems. Uch. zap. MGPI 151:18-51 '60. (MIRA 16:5)
(Geometry--Study and teaching)

DEMIDOV, V.P.

Single-row puckering suture in gastrectomy and X-ray features of the stump thus formed (in the light of late results); abstract. Khirurgiia 34 no.12:99 D '58. (MIRA 12:1)

1. Iz Dzerzhinskoy rayonnoy bol'nitsy Stalinskoy oblasti.
(STOMACH--SURGERY)

DEMIDOV, V. P.

Surgical treatment of tumors and cysts of the mediastinum. Grud. khir. 4 no.3:63-69 My-Je '62. (MIRA 15:7)

1. Iz 1-go khirurgicheskogo torakal'nogo otdeleniya (zav. - doktor meditsinskikh nauk N. D. Garin) Gosudarstvennogo onkologicheskogo nauchno-issledovatel'skogo instituta imeni P. A. Gertsena (dir. - prof. A. N. Novikov). Adres avtora: Moskva, Krasnogorskiy r-n, p/o Stepanovskoye, bol'nitsa No. 62, d. 34.

(MEDIASTINUM—TUMORS) (CYSTS)

DEMIDOV, V.P.

Criteria of operability in surgery of mediastinal tumors and cysts. Khirurgiia no.1:63-67 '63. (MIRA 17:5)

1. Iz 1-go torakal'nogo otdeleniya (zav. - doktor med. nauk N.D. Garin) Nauchno-issledovatel'skogo onkologicheskogo instituta imeni P.A. Gertsena.

DEMIDOV, V.P., inzh.; MEYLIKHOV, M.Yo., inzh.

Gas-turbine locomotive made by the Kolomna Plant; results of the tests on the line of the GL-01 gas-turbine locomotive. Elek. i tepl.tiaga 7 no.11: 4-6 N '63. (MIRA 17:2)

DEMIDOV, V.P., inzh.; SEN-ZHELEN, Ye.A., inzh.

Effect of climate conditions on the performance of the G1-01 gas-turbine locomotive manufactured by the Kolomna Plant. Vest. TSNII MPS 22 no.7:37-38 '63. (MIRA 16:12)

DEMIDOV, V.P., kand. tekhn. nauk

Determining the basic parameters of locomotive gas-turbine engines under changed climatical conditions. Trudy VNII MPS no.282:60-64 '64. (MIRA 17:10)

DEMIDOV, V.P.; KRIVENKO, E.V.; KUZNETSOV, I.D. (Moskva, Leninskiy prosp., d.36, kv.20); ROZENSHTRAUKH, L.S.

Results of the use of clinical pneumomediastinography. Grud. khir. 6 no.6:62-67 N-D '64. (MIRA 18:7)

1. Nauchno-issledovatel'skiy rentgeno-radiologicheskiy institut (direktor - prof. I.G. Lagunova) i Onkologicheskiy institut imeni P.A. Gertsena (direktor - prof. A.N. Novikov), Moskva.

DEMIDOV, V.P.

Two-photon transitions between the surfine structure levels of the 1 S-state of the hydrogen atom. Astron.zhur. 38 no.6:1065-1068 N-D '61. (MIRA 14:11)

(Radio astronomy) (Cosmic physics)

DEMIDOV, V.P., inzh.-podpolkovnik

Powerful klystron amplifiers. Vest.protivovozd.obor. no.9:23-25 S '61. (MIRA 14:8)

(Klystrons) (Amplifiers (Electronics))

24.6710
24.6740

37258
S/057/62/032/005/005/022
B125/B102

AUTHOR: Demidov, V. P.

TITLE: Excitation of a plasma waveguide by given currents

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 5, 1962, 549-553

TEXT: The excitation of an infinite, homogeneous cylinder of radius R, filled with a cold plasma without losses, and placed in a longitudinal, uniform magnetic field H_0 is considered. By solving the initial equations for this waveguide (i.e., the Maxwell equations and the relation $D_\alpha = \varepsilon_{\alpha\beta}E_\beta$ for the dielectric constant $\varepsilon_{\alpha\beta}$) in the form of a wave of frequency ω traveling along the cylinder axis z, one obtains $H_{zm} = J_m(\varkappa r)e^{im\varphi}$ ($J_m(\varkappa r)$ is a Bessel function of the m-th order). The following dispersion equation is obtained for waves traveling through the plasma waveguide: $k^2 = (\omega^2/c^2)\varepsilon \pm \sqrt{\varkappa_{mn}^4 + 4g^2(\omega^4/c^4) - \varkappa_{mn}^2}/2$ (3). The

Card 1/4

Excitation of a plasma waveguide...

wave corresponding to the plus sign before the root is called Alfvèn wave in unbounded space, and that corresponding to the minus sign is called magnetoacoustic wave in unbounded plasma. At very low frequencies, the first and the second wave resemble, respectively, the TEM and the TE wave of a hollow waveguide, and Eq. (3) is reduced to $k^2 = \omega^2\varepsilon/c^2$ and $k^2 = (\omega^2/c^2)\varepsilon - \varkappa^2$, respectively. Because of the gyrotropy of the medium, the eigenfunctions $\psi_{mn} = J_m(\varkappa_{mn}r)\, e^{im\varphi}$ are not orthogonal with respect to r. The system of functions $\psi_{m,n}$ has to be orthogonalized for $m \neq 0$. If there are foreign currents of density I_o in the finite volume within the waveguide, the solution is written as an expansion of the eigenfunctions of the cross section. The amplitude of the wave traveling far from the exciting conductors is described by

Card 2/4

Excitation of a plasma waveguide...

$$|A_{mn}^{\pm}| = \frac{2\pi}{\omega\sqrt{n_{mn}^4 + g^2 n_{\pm}}} \int_V \left\{ g\left[\frac{\partial(rI_{0r})}{\partial r} + \frac{\partial I_{0\varphi}}{\partial \varphi}\right] + \right.$$

$$\left. + i\left(n_{\pm}^2 - \varepsilon\right)\left[\frac{\partial(rI_{0\varphi})}{\partial r} - \frac{\partial I_{0r}}{\partial \varphi}\right]\right\} f_{mn} e^{ik_{\pm}|z-z'|}\, dr\, d\varphi\, dz'.$$

The plus or minus signs correspond to the signs of Eq. (3), and $n_{mn}^2 = \nu_{mn}^2 c^2/\omega^2$. The eigenvalue ν_{mn} corresponds to the eigenfunction f_{mn}. If a tube of radius R has one turn of radius R_0, which is concentric with its axis and is traversed by the current I_0, the wave corresponding to the plus sign in (3) has an amplitude described by

$$A_{0n}^{+}| = \frac{4\pi\sqrt{\pi}\, cI_0}{\omega^2 R_0\sqrt{n_{0n}^4 + 4g^2}} \cdot \frac{k_+^2 - \frac{\omega^2}{c^2}\varepsilon}{k_+} \cdot \frac{J_0(\nu_{0n}R_0) - \nu_{0n}R_0 J_0'(\nu_{0n}R_0)}{J_0(\nu_{0n}R^0)}.$$

Card 3/4

For the wave corresponding to the minus sign, the wave number k_+ has to be replaced by k_-. At $\omega \to 0$, the ratio $|A^+_{0n}|/|A^-_{0n}|$ tends toward zero. A ring concentric with the axis chiefly excites a wave of a structure similar to that of the TE wave in a hollow waveguide. A loop introduced into the longitudinal section of a tube excites waves of a structure similar to that of the TEM wave in a hollow waveguide. Professor Frank-Kamenetskiy is thanked for his attention and assistance.

SUBMITTED: November 18, 1960 (initially)
April 14, 1961 (after revision).

28646
S/020/61/139/006/011/022
B104/B209

24.6714

AUTHOR: Demidov, V.P.

TITLE: Transverse refractive index of a plasma near cyclotron frequencies and their harmonics

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 139, no. 6, 1961, 1342-1344

TEXT: The author studied the oscillations of a homogeneous unbounded plasma in a constant homogeneous magnetic field which is applied in the z direction. The wave vector $\vec{k}$ lies in the x direction. The general dispersion relation for this case is known (E.P. Gross, Phys. Rev., 82, 2, 232,(1951)). However, little is known about the behavior of the refractive index near cyclotron frequencies and their harmonics. The components of the tensor of dielectric constant are obtained from the Maxwell equations and from the equation of motion of charged particles with Maxwellian velocity distribution in space:

Card 1/4

Transverse refractive index of ...

$$\varepsilon_{xx} = 1 - \sum_{\alpha} \frac{\Omega_{p\alpha}^2}{\Omega_{e\alpha}^2} \frac{e^{-r_\alpha}}{r_\alpha} \sum_{m=-\infty}^{\infty} \frac{m^2 I_m(r_\alpha)}{\omega^2/\Omega_{e\alpha}^2 - m^2},$$

$$\varepsilon_{xy} = -\varepsilon_{yx} = i \sum_{\alpha} \frac{\Omega_{p\alpha}^2}{\omega\Omega_{e\alpha}} e^{-r_\alpha} \sum_{m=-\infty}^{\infty} \frac{m^2 [I_m'(r_\alpha) - I_m(r_\alpha)]}{\omega^2/\Omega_{e\alpha}^2 - m^2},$$

$$\varepsilon_{yy} = 1 - \sum_{\alpha} \frac{\Omega_{p\alpha}^2}{\Omega_{e\alpha}^2} \frac{e^{-r_\alpha}}{r_\alpha} \sum_{m=-\infty}^{\infty} \frac{m^2 I_m(r_\alpha) + 2r_\alpha^2 [I_m(r_\alpha) - I_m'(r_\alpha)]}{\omega^2/\Omega_{e\alpha}^2 - m^2},$$

$$\varepsilon_{zz} = 1 - \sum_{\alpha} \frac{\Omega_{p\alpha}^2}{\Omega_{e\alpha}^2} \sum_{m=-\infty}^{\infty} e^{-r_\alpha} \frac{I_m(r_\alpha)}{\omega^2/\Omega_{e\alpha}^2 - m^2},$$

Card 2/4

$I_m(r)$ is the Bessel function of the first kind with imaginary argument; $r_\alpha = k^2 v_{T_\alpha}^2 / 2\Omega_{e_\alpha}^2$; $v_{T_\alpha}^2 = \varkappa T_\alpha / m_\alpha$; $\Omega_{e_\alpha} = eH_0/m_\alpha c$; $k = |\vec{k}|$; $\Omega_{p_\alpha}^2 = 4\pi e^2 n/m_\alpha$. The other components vanish. By means of these expressions, the behavior of r or of N^2 as depending on frequency near $m\Omega_{e_\alpha}$ is studied under the assumption that $\Omega_p^2 \gg \Omega_e^2$. For the extraordinary wave it holds that $N^2 = \varepsilon_{yy} + \varepsilon_{xy}^2/\varepsilon_{xx}$. In studying N^2 near the first resonances, one may regard the electrons as cold and thus neglect the electron terms in the expressions for ε_{ik}. Figs. 1 and 2 show N^2 (refractive index of the extraordinary wave) near the ion cyclotron frequency and its first harmonics (Fig. 1) and near the first harmonics of electron cyclotron frequencies (Fig. 2) in a hot plasma. The author thanks Professor D. A. Frank-Kamenetskiy for his interest and advice. There are 2 figures and 3 references: 2 Soviet and 1 non-Soviet.

28646
S/020/61/139/006/011/022
B104/B209

Transverse refractive index of ...

PRESENTED: April 5, 1961, by I. K. Kikoin, Academician

SUBMITTED: March 8, 1961

Card 4/4

DEMIDOV, V.P., inzh.

Selecting the optimum rated temperature of the outdoor air for a locomotive gas-turbine plant. Trudy MIIT no.151:112-117 '62. (MIRA 16:2)

(Gas-turbine locomotives)

DEMIDOV, V.P., inzh.

Sensitivity of locomotive gas-turbine plants to atmospheric temperature changes. Trudy MIIT no.151:118-134 '62.
(MIRA 16:2)
(Gas-turbine locomotives--Performance)

DEMIDOV, V.P., inzh.; SEN-ZHELEN, Ye.A.

Gas-turbine locomotives with mechanical and hydraulic transmission. Vest. TSNII MPS 22 no.2:63-64 '63. (MIRA 16:4)
(Gas-turbine locomotives)

Demidov, V.P.

AID Nr. 980-12 31 May

ATTENUATION OF MAGNETOACOUSTIC WAVES IN PLASMA (USSR)

Demidov, V. P., D. A. Frank-Kamenetskiy, and V. L. Yakimenko. Zhurnal tekhnicheskoy fiziki, v. 33, no. 4, Apr 1963, 398-405.

S/057/63/033/004/005/021

In an investigation of absorption processes of magnetoacoustic waves propagating at an angle to the constant magnetic field with frequencies higher than ion-cyclotron and much lower than electron-cyclotron ($\omega_i < \omega \ll \omega_e$) in totally ionized thermal plasma, the ion-cyclotron and electron-Cerenkov absorption, as well as absorption resulting from electron-ion collisions, were calculated from general expressions for components of dielectric constant tensor in plasma with Maxwell velocity distribution. It was found that when the ratio of the electronic gas pressure to the magnetic pressure (β_e) is less than 10^{-4}, the ion-cyclotron absorption in the neighborhood of ω_i harmonics is larger than electron-Cerenkov absorption and much smaller than absorption resulting from collisions. If

Card 1/2

AID Nr. 980-12 31 May

ATTENUATION OF MAGNETOACOUSTIC WAVES [Cont'd] S/057/63/033/004/005/021

$\beta_e \sim 10^{-4}$-10^{-3}, at lower ω_1 harmonics the ion-cyclotron and Cerenkov absorption can be of the same order; at higher harmonics, however, the Cerenkov absorption is much larger than the ion-cyclotron absorption. At $n = 10^{13} cm^{-3}$, $T = 1$ ev, $H_0 = 10^3$ oe, and $\beta_e = 4 \cdot 10^{-4}$, the absorption resulting from collisions exceeds the Cerenkov and ion-cyclotron absorption. With an increase in temperature ($\beta_e \sim 10^{-2}$-10^{-1}) the collision absorption decreases and, at higher harmonics, the Cerenkov absorption plays the main role. [JA]

Card 2/2