"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

GORBATOV, Vasiliy Matveyevich; LAGOSHA, Ivan Andreyevich;
RODIN, A.I., retsenzent; PROZOROVSKIY, V.N., retsenzent;
LAPSHIN, A.A., spets. red.; KORBUT, L.V., red.;
NOZDRINA, V.A., red.

[Handbook of the equipment of meat industry enterprises]
Spravochnik po oborudovaniiu predpriiatii miasnoi pro-
myshlennosti. Moskva, Pishchevaia promyshlennost'.
Vol. 1. 1965. 578 p. (MIRA 18:6)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, V. N.

USSR/Engineering - Creamery machinery

Card 1/1 : Pub. 77, 9/26

Authors : Prozorovskiy, V. N., Engineer

Title : Processing milk by Engineer Meleshin's method

Periodical : Nauka i zhizn' 21/7, 16 and insert page, July 1954

Abstract : A description is given of a new method of processing milk through the cream-separating stage, pasteurization, and butter making in 30 minutes. The illustration shows the old method which produces 400 kg. of butter in six hours and the new method which produces the same amount in one hour. Illustrations.

Institution : ...

Submitted : ...

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

KOCHETOV, [illegible]; [illegible], V.N.

Specificity of changes in transketolase activity at various temperatures. Vop. med. khim. 11 no.4:105-107 Jl-Ag '65. (MIRA 18:8)

1. Kafedra biokhimii zhivotnykh Gosudarstvennogo universiteta imeni M.V. Lomonosova, Moskva.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

AVAKOV, S.A., inzh.; MORDVINTSEV, M.N., inzh.; PROZOROVSKIY, V.N., inzh.; SOSNOVSKIY, V.K., inzh.; YASTREBOV, N.A., inzh.

Experimental and model plants in the food industry. Mekh.i avtom.proizv. 16 no.4:2-6 Ap '62. (MIRA 15:4)
(Food industry)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, V. N.

PROZOROVSKIY, V.N., inzhener.

According to the method of engineer Meleshin. Nauka i zhizn' 21 no.7:16-16a Jl '54. (MLRA 7:7)
(Butter)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

ACCESSION NR: AP4042848 S/0142/64/007/003/0316/0321

B

AUTHOR: Prozorovskiy, V. Ye.; Kolesov, L. N. (Docent); Afanas'yev, K. L.

TITLE: Stability of the Q-factor in an inductive circuit with p-n junctions

SOURCE: IVUZ. Radiotekhnika, v. 7, no. 3, 1964, 316-321

TOPIC TAGS: p n p transistor, reactive transistor, inductive transistor, Q factor stability, collector voltage effect, collector voltage stability, Q factor measuring bridge

ABSTRACT: The relationship between the Q-factor stability of inductive and reactive transistors and voltage under conditions of collision ionization in a collector junction was investigated. The cause of the Q instability was analyzed. It was shown that with the introduction of a loss-compensating negative resistance into the circuit, the Q-factor stability sharply decreases. Therefore, a large increase in Q is undesirable. The inductance of the discussed circuit depends only slightly on the collector voltage. If a considerable improvement of

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ACCESSION NR: AP4042848

the Q-factor is necessary special measures for supply voltage regulation must be taken. The Q-factor variation in an inductive transistor circuit as a function of collector voltage was investigated experimentally. A bridge with an oscillograph indicator was used. This permitted the measurement of the inductive Q-factor from 0.1 to 10 within the frequency range of 1 kc to 5 Mc, and with a 20 per cent accuracy at 50 mv. Orig. art. has: 2 figures and 24 formulas.

ASSOCIATION: none

SUBMITTED: 04Feb63 ATD PRESS: 3103 ENCL: 00

SUB CODE: EC NO REF SOV: 002 OTHER: 004

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

L 8897-66 EWT(m)/EWP(b)/EWP(t) JD

ACC NR: AP5026865 SOURCE CODE: UR/0108/65/020/011/0069/0074

AUTHOR: Prozorovskiy, V. Ye. (Active member); Afanas'yev, K. L. (Active member); Golovchenko, V. B. (Active member)

ORG: Scientific and Technical Society of Radio Engineering and Electrocommunication (Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A. S. Popova)

TITLE: Effect of the film resistance on the frequency characteristics of film capacitors

SOURCE: Radiotekhnika, v. 20, no. 11, 1965, 69-74

TOPIC TAGS: microelectronic thin film, thin film capacitor

ABSTRACT: The effect of metal-film loss on the parameters of a 3-thin-film capacitor is theoretically analyzed, and practical formulas for designing such capacitors and circuits containing them are developed. Regarding the capacitor as a series RC-circuit, formulas for the loss resistance, Q-factor, and impedance for higher and lower frequencies are derived. Frequencies at which the current-voltage phase shift reaches 45° are considered; the impedance is largely determined by the film width and is independent of the film length. The frequency band that corresponds to <10% error of the formulas is indicated. Orig. art. has: 3 figures and 32 formulas.

SUB CODE: 09 / SUBM DATE: 04Apr64 / ORIG REF: 002 / OTH REF: 001

Card 1/1 UDC: 621.319.443.4

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PASICHNYY, O.I.; PROZOROVSKIY, V.Ye.

Technology of the manufacture and indirect study of the properties of some ferromagnetic films. Izv. vys. ucheb. zav.; radiotekh. 6 no.6:611-615 N-D '63. (MIRA 17:1)

1. Rekomendovana kafedroy konstruirovaniya i proizvodstva radioapparatury Taganrogskogo radiotekhnicheskogo instituta.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

L 27834-66 EWA(h)/EWT(1)

ACC NR: AP6007154 SOURCE CODE: UR/0108/66/021/002/0055/0069

37
B

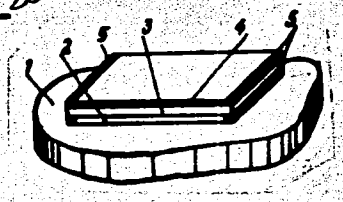
AUTHOR: Prozorovskiy, V. Ye. (Active member); Afanas'yev, K. L. (Active member); Negodenko, O. N. (Active member)

ORG: Scientific and Technical Society of Radio Engineering and Electrocommunication (Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi)

TITLE: Calculation of film two-terminal networks with distributed parameters

SOURCE: Radiotekhnika, v. 21, no. 2, 1966, 55-69

TOPIC TAGS: thin film circuit, circuit microminiaturization 25



ABSTRACT: A thin-film distributed-RC-structure (see figure) is theoretically considered. Dielectric backing 1 is coated with resistive film 2, dielectric film 3 and resistive film 4; metal films 5 are intended for connecting external circuits. This structure is replaced with an equivalent diagram consisting of two resistors and one capacitor. Various connections of these elements yield ten different two-terminal networks. Formulas for $\mathrm{Re}\dot{Y}(\mathrm{Re}\dot{Z})$, $\mathrm{Im}\dot{Y}(-\mathrm{Im}\dot{Z})$, tg φ, and $|\dot{Y}|$ for all networks are tabulated as are formulas for the equivalent parameters R_e, C_e, and tg φ (for numerical calculations). Orig. art. has: 2 figures, 4 formulas, and 4 tables.

SUB CODE: 09 / SUBM DATE: 24Jul64 / ORIG REF: 000 / OTH REF: 003

UDC: 621.382.416

Card 1/1 PB

2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, V.Ye.; AFANAS'YEV, K.L.; GOLOVCHENKO, V.B.

Effect of the resistance of the sheathing on the frequency characteristics of film capacitors. Radiotekhnika 20 no.11:69-74 N '65. (MIRA 18:11)

1. Deystvitel'nyye chleny Nauchno-issledovatel'skogo obshchestva radiotekhniki i elektrosvyazi imeni A.S.Popova. Submitted April 4, 1964.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, V.Ye.; KOLESOV, L.N.; SEMENTSOV, V.I.; AFANAS'YEV, K.L.

Analysis of some inductive and reactive parameters of transistors. Izv. vys. ucheb. zav.; radiotekh. 6 no.6:616-622 N-D '63. (MIRA 17:1)

1. Rekomendovana kafedroy konstruirovaniya i proizvodstva radioapparatury Taganrogskogo radiotekhnicheskogo instituta.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

ACCESSION NR: AP4012356 S/0142/63/006/006/0616/0622

AUTHORS: Prozorovskiy, V. Ye.; Kolesov, L. N.; Sementsov, V. I.; Afanas'yev, K. L.

TITLE: Analysis of some parameters of inductive and reactive transistors

SOURCE: IVUZ. Radiotekhnika, v. 6, no. 6, 1963, 616-622

TOPIC TAGS: inductive transistor, reactive transistor, microelectronics, solid state microelectronics, inductive transistor inductance, inductive transistor Q, reactive transistor inductance, reactive transistor Q

ABSTRACT: The inductance and Q factor of transistors with large base-circuit resistance (inductive transistor) and of transistors with a phase-shifting network connected in parallel to the base resistance (reactive transistors) are determined analytically by using the transistor equivalent circuit. It is shown that a decrease in the thickness of the base of an inductive transistor to a value ≈20--30μ (f_α ≈ 2--4 Mc) increases the value of Q, but beyond that

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ACCESSION NR: AP4012356

the Q decreases. The maximum Q obtainable by using an inductive or reactive transistor as an inductance is $0.5(1 - \alpha)^{-1/2}$. The frequency at which the maximum Q is reached is $f_\alpha(1 - \alpha)^{1/2}$ and $(1 - \alpha)^{1/2}/2\pi r_e C$ for the inductive and reactive transistors, respectively, where $r_e C$ is the emitter time constant. The reactive transistor is superior to the inductive one in that the dependence of its Q on the inductance is less pronounced, so that higher Q can be obtained with large inductances at low frequencies. Orig. art. has: 6 figures and 29 formulas.

ASSOCIATION: Taganrogskiy radiotekhnicheskiy institut (Taganrog Radio Institute)

SUBMITTED: 18Dec62 DATE ACQ: 14Feb64 ENCL: 02

SUB CODE: GE, SD NO REF SOV: 000 OTHER: 002

Card 2/4 2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

ACCESSION NR: AP4012355 S/0142/63/006/006/0611/0615

AUTHOR: Pasichny*y, O. I.; Prozorovskiy, V. Ye.

TITLE: Concerning the technology of producing some ferromagnetic films and indirectly investigating their properties

SOURCE: IVUZ. Radiotekhnika, v. 6, no. 6, 1963, 611-615

TOPIC TAGS: microelectronics, microsystem electronics, thin film circuit, ferromagnetic film, film production, permeability, magnetic material, thin film

ABSTRACT: For the purpose of obtaining ferromagnetic films with maximum permeability and maximum resistivity (so as to reduce the eddy currents), the authors investigate the properties of film evaporated in vacuum from sintered ferrite (8.89% Fe_2O_3, 29% NiO, 2.54% CuO, and 0.98% $CaCO_3$). Best results were obtained by evaporating the film from a crucible rather than directly from a tungsten or molybdenum evaporator. The evaporator temperature reached 1600C,

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ACCESSION NR: AP4012355

the evaporation rate from the crucible was 3--15 g/sec, and the film deposition rate was 500--3000 Å/sec. Factors governing the stability and properties of the film are discussed. It is concluded that films so evaporated have a higher resistivity than metallic films and are therefore preferable. Orig. art. has: 5 figures and 1 table.

ASSOCIATION: Taganrogskiy radiotekhnicheskiy institut (Taganrog Radio Institute)

SUBMITTED: 04Dec62 DATE ACQ: 14Feb64 ENCL: 02

SUB CODE: GE, SD NO REF SOV: 004 OTHER: 002

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, V.Ye.; KOLESOV, L.N.; AFANAS'YEV, K.L.

Q-factor stability of a circuit with inductive effects based on the p-n junctions. Izv. vys. ucheb. zav.; radiotekh. 7 no. 3:316-321 My-Je '64. (MIRA 17:9)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

L 09937-67 EWT(m)/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AP6033218 SOURCE CODE: UR/0142/66/009/004/0503/0509

AUTHOR: Prozorovskiy, V. Ye.; Negodenko, O. N.

ORG: none

55
B

TITLE: Losses in thin-film capacitors with silicon monoxide as the dielectric

SOURCE: IVUZ. Radiotekhnika, v. 9, no. 4, 1966, 503-509

TOPIC TAGS: electric capacitor, thin film circuit, dielectric material

ABSTRACT: Formulas are derived for calculating the loss tangent of thin-film capacitors with rectangular aluminum plates and with silicon monoxide as the dielectric.

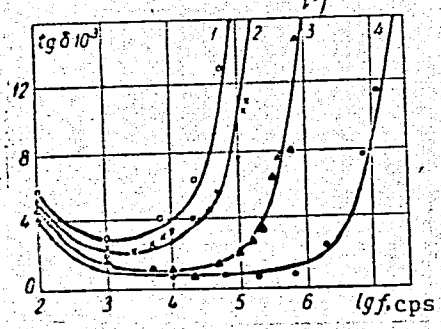

Fig. 1. Loss tangent as a function of frequency

1 - Dielectric film thickness, 0.03 μ; 2 - 0.06 μ; 3 - 0.29 μ; 4 - 5.6 μ.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

L 02987-67

ACC NR: AP6033218

It was assumed that the relaxation losses in the dielectric, the permeability of the dielectric, and the surface resistivity of the plates are known. To check the results of the theoretical analysis, several capacitors were built and tested. Dielectric films were obtained by evaporating a compressed mixture of one part silicon and two parts silicon dioxide. The dielectric films thus obtained were highly stable and losses in them varied only slightly with thickness. The frequency dependence of the

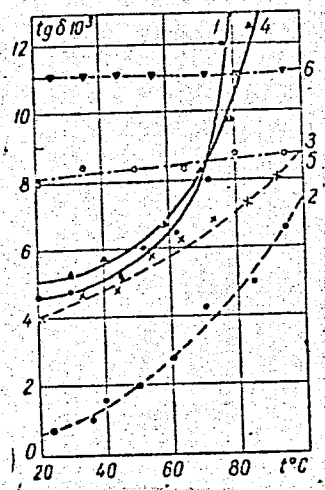

Fig. 2. Loss tangent as a function of temperature

1 - d = 2.3 μ, f = 100 cps;
2 - d = 2.3 μ, f = 10 kc;
3 - d = 2.3 μ, f = 1Mc;
4 - d = 0.03 μ, f = 100 cps;
5 - d = 0.03 μ, f = 1 kc;
6 - d = 0.03 μ, f = 53 kc.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

L 02937-67
ACC NR: AP6033218

loss tangent in capacitors with dielectrics of different thickness is illustrated in Fig. 1; its temperature dependence is shown in Fig. 2. Temperature characteristics are given for two capacitors with dielectric films 2.3 μ and 0.03 μ thick, respectively. Generally, it was noted that capacitance was affected only slightly by frequency, temperature, and variation in voltage. Orig. art. has: 19 formulas and 7 figures.

SUB CODE: 09/ SUBM DATE: 21Jan65/ ORIG REF: 005/ OTH REF: 005/ ATD PRESS: 5099

Card 3/3

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

L 8550-65 EWT(1)/EWT(m) ASD(a)-5/AFTC(b)/AFWL/AFMD(p)/AFETR/SSD/ESD(dp)/ESD(t)/RAEM(t) JD/JW

ACCESSION NR: AR4044045 S/0058/63/000/011/E002/E002

B

SOURCE: Ref. zh. Fizika, Abs. 11E6

AUTHOR: Gurvich, L. V.; Vorob'yev, B. A.; Kvlividze, V. A.; Prozorovskiy, Ye. A.; Rtishcheva, N. P.; Yungman, V. S.

TITLE: Thermodynamic functions of monatomic and diatomic gases in a broad temperature range. VI. O, O+, and O_2 in the ideal state to 20,000°K

CITED SOURCE: (Sb. tr.) Gos. in-ta prikl. khimii, v. 49, 1962, 38-60

TOPIC TAGS: thermodynamic function, monatomic gas, diatomic gas, high speed computer, computer

TRANSLATION: Gives the results of calculations of thermodynamic functions (Φ_T, S_T^0 and $H_T^0 - H_0^0$) O, O+, O_2, and O_2+, made, in accordance with previously-described methods (Journal of Abstracts, Physics, 1D4; 2D10), on a high-speed computer. Bibliography: 67 references.

SUB CODE: GC, TD ENCL: 00

Card 1/1

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

L 8551-65 EWT(1)/EWT(m) SSD/AFMD(p)/AFWL/AFETR/ASD(a)-5/AFTC(b)/ESD(dp)/ESD(t)/RAEM(t) JD/JW

ACCESSION NR: AR4044046 S/0058/63/000/011/E002/E002

SOURCE: Ref. zh. Fizika, Abs. 11E7

AUTHOR: Gurvich, L. V.; Kvlividze, V. A.; Prozorovskiy, Ye. A.; Rtishcheva, N. P.

TITLE: Thermodynamic functions of monatomic and diatomic gases in a broad range of temperatures. VII. C, C+, CO, CO+ in the ideal state to 20,000° K

CITED SOURCE: (Sb. tr.) Gos. in-ta prikl. khimii, vy*p. 49, 1962, 61-83

TOPIC TAGS: thermodynamic function, monatomic gas, diatomic gas, computer

TRANSLATION: Gives the results of calculations of the thermodynamic functions (Φ_T^0, S_T^0 and $H_T^0 - H_0^0$) C, C+, CO and CO+, made on an electronic computer in accordance with previously described methods (Journal of Abstracts, Physics, 1962, 1D4; 2D10). Bibliography: 73 references. Part VI: see abstract 11E6.

SUB CODE: GC, TD ENCL: 00

Card 1/1

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, Ye.G.; PROZOROVSKIY, V.L., tekhnicheskiy redaktor

[Conversion tables for quires and impression sheets having a 60 x 92 centimeter format] Tablitsy perevoda pechatnykh listov i pechatnykh listov-ottiskov v format 60 x 92 sm. Moskva, Gos. izd-vo "Iskusstvo," 1954. 142 p. (MLRA 7:10)
(Printing industry--Tables and ready-reckoners)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKII, E. G.

Conversion tables for quires and impression sheets having a 60 x 92 centimeter format. Moskva, Iskusstvo, 1954. 142 p. (55-22009)

Z245.P93

1. Printing industry - Tables and ready-reckoners.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROSKIY, Ye. G.

Discharge tube with a cool cathode extension. A. A. Malyshev, E. A. Prozoroskii, and V. A. Koryazhkin. *Pribory i Tekh. Eksperimenta* 1957, No. 1, 111.—An apparatus is described which is useful in the investigation of the fine structure of spectral lines. 6 references. A. K.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

GURVICH, Lev Veniaminovich, kand. khim. nauk; KHACHKURUZOV, Georgiy Akopovich, kand. khim. nauk; MEDVEDEV, Vadim Andreyevich, kand. khim. nauk; VEYTS, Inessa Veniaminovna, kand. khim. nauk; BERGMAN, Georgiy Andreyevich; YUNGMAN, Vladimir Stepanovich; RTISHCHEVA, Nina Petrovna; KURATOVA, Lidiya Fedorovna; YURKOV, Georgiy Nikolayevich; KANE, Amaliya Abramovna; YUDIN, Boris Fedorovich; BROUNSHTEYN, Boris Isidorovich; BAYBUZ, Viktor Feodoseyevich; KVLIVIDZE, Valeriy Aleksandrovich; PROZOROVSKIY, Yevgeniy Aleksandrovich; VOROB'YEV, Boris Aleksandrovich; GERASIMOV, Ya.I., retsenzeng; SKURATOV, S.M., prof., retsenzent; GLUSHKO, V.P., akad., otv.red.; KHACHKURUZOV, G.A., red.; GUROV, K.P., red.izd-va; LAUT, V.G., tekhn.red.

[Thermodynamic properties of individual substances; reference guide in two volumes]Termodinamicheskie svoistva individual'nykh veshchestv; spravochnik v dvukh tomakh. Izd.2., polnost'iu perer. i rasshirennoe. Pod red. V.P.Glushko (otv. red.) i dr. Moskva, Izd-vo Akad. nauk SSSR. Vol.1.(Calculation of thermodynamic properties]Vychislenie termodinamicheskikh svoistv. 1962. 1161 p. Vol.2. [Tables of thermodynamic properties]Tablitsy termodinamicheskikh svoistv. 1962. 916 p.
(MIRA 15:10)

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APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

YUNGMAN, V.S.; GURVICH, L.V.; KVLIVIDZE, V.A.; PROZOROVSKIY, Ye.A.; RTISHCHEVA, N.P. (Moscow)

Thermodynamic functions of mono- and diatomic gases in a wide temperature range. Part 3: N, N_2 and NO in the ideal state up to 20000 K. Zhur.fiz.khim. 35 no.10:2182-2189 O '61. (MIRA 14:11)

1. Akademiya nauk SSSR, Institut goryuchikh iskopayemykh.
(Nitrogen) (Nitrogen oxide) (Gas dynamics)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

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S/081/61/000/024/008/086
B138/B102

11.5100
11.3000

AUTHORS: Gurvich, L. V., Yungman, V. S., Prozorovskiy, Ye. A., Vorob'yev, B. A.

TITLE: Calculation of the thermodynamic functions of diatomic gases at elevated temperatures by direct summation on an electronic machine

PERIODICAL: Referativnyy zhurnal, Khimiya, no. 24, 1961, 62, abstract 24B422 (Tr. In-ta goryuchikh iskopayemykh AN SSSR, v. 12, 1961, 196 - 205)

TEXT: A very rapid and precise method is proposed for the calculation of the thermodynamic function tables of diatomic perfect gases at temperatures of up to 20,000 to 25,000°K. The statistical sums are calculated, for the rotational vibrational and electron states of the molecule in question, by direct summation through the really existant energy levels, using a high-speed electronic computer. For this kind of calculation the molecular constant which most precisely describes all the energy levels of

Card 1/3

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

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B138/B102

Calculation of the thermodynamic ...

the molecule must be known, as also the highest values of the quantum numbers up to which summation is to be made. A method is described for calculating vibrational constants and maximum vibrational quantum numbers v(max) using the conditions for the convergence of the vibrational levels toward the dissociation limit. A method has been developed for calculating values of rotational quantum numbers J(max) for each vibrational state, using the properties of the effective potential curves of the rotating molecule. As an example some results are given of the calculation of the main state $x^3\Sigma_g^-$ of an O_2 molecule. In particular, to describe the energy of vibrational levels (in cm^{-1}) the equation $G_0(v) = 1568.077\ v - 11.706\ v^2 - 0.00255\ v^3 - 0.00224\ v^4 - 0.0000821\ v^5$ is derived, which converges towards the 41261 cm^{-1} limit at v(max) = 42 (experimental values of dissociation energy of O_2 are 41260 ± 15 cm^{-1}). J(max) values are found for all v. The thermodynamic functions of molecular oxygen are given for the following temperatures: 5000°K (63.395 and 73.038), 10000°K (70.457 and 79.942),

Card 2/3

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32326

Calculation of the thermodynamic ... S/081/61/000/024/008/086
B138/B102

15000°K (74.229 and 83.255) and 20000°K (76.746 and 83.203) (values in brackets are for the isobaric-isothermal potential Φ_T^* and entropy S_T^o respectively, in cal/mol. degree. [Abstracter's note: Complete translation.]

Card 3/3

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24530

S/196/62/000/002/013/02?
E194/E155

AUTHORS: Gurvich, L.V., Yungman, V.S., Prozorovskiy, Ye.A. and Vorob'yev, B.A.

TITLE: Calculation of the thermodynamic function of di-atomic gases at high temperatures by direct summation on a computer

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika no.2, 1962, 4, abstract 2G 31. (Tr. In-ta goryuchikh iskopayemykh AN SSSR no.12, 1961, 196-205)

TEXT: A calculating procedure is described and, by way of example, the results of a calculation are given for molecular oxygen. The calculations were made on an electronic computer BESM (BESM) of AS USSR.

19 literature references.

[Abstractor's note: Complete translation.]

Card 1/1

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PROZOROVSKIY, IE. A.

JUN SOV/5260

PHASE I BOOK EXPLOITATION

Gurvich, Lev Veniaminovich, Georgiy Akopovich Khachkuruzov, Vadim Andreyevich Medvedev, Inessa Veniaminovna Veyts, Georgiy Andreyevich Bergman, Vladimir Stepanovich Yungman, Nina Petrovna Rtishcheva, Lidiya Fedorovna Kuratova, Georgiy Nikolayevich Yurkov, Amaliya Abramovna Kane, Boris Fedorovich Yudin, Boris Isidorovich Brounshteyn, Viktor Feodoseyevich Baybuz, Valeriy Aleksandrovich Kvlividze, Yevgeniy Aleksandrovich Prozorovskiy, and Boris Aleksandrovich Vorob'yev.

Termodinamicheskiye svoystva individual'nykh veshchestv; spravochnik v dvukh tomakh. tom 1: Vychisleniye termodinamicheskikh svoystv; tom 2: Tablitsy termodinamicheskikh svoystv (Thermodynamic Properties of Individual Substances; Reference Book in Two Volumes. v. 1: Calculation of Thermodynamic Properties; v. 2: Tables of Thermodynamic Properties). 2d ed., rev. and enl. Moscow, Izd-vo AN SSSR, 1962. 1161 and 916 p. 4000 copies printed.

Sponsoring Agencies: Akademiya nauk SSSR. Institut goryuchikh iskopayemykh; and Gosudarstvennyy komitet Soveta Ministrov SSSR

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Thermodynamic Properties (Cont.) SOV/6260

po khimii. Institut prikladnoy khimii.

Resp. Ed.: V. P. Glushko, Academician, L. V. Gurvich, G. A. Khachkuruzov, I. V. Veyts, and V. A. Medvedev; Ed. of Publishing House: K. P. Gurov; Tech. Ed.: V. G. Laut.

PURPOSE: This reference book may be used in scientific-research and experimental-design work in institutes, design offices, and schools of higher education, as well as for training specialists in chemical thermodynamics and thermal physics.

COVERAGE: Volume 1 of this work deals with methods for calculating thermodynamic properties and with the selection of constants required for the calculations. Volume 2 contains tables of thermodynamic properties (reduced thermodynamic potential, entropy, enthalpy, and the logarithm of the dissociation or ionization constants of equilibrium) compiled, where data were lacking, on the basis of published and unpublished material from a number of Soviet research institutes. Thermodynamic properties for the ideal gas

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state are presented in table form for 335 gases, 44 liquids, and 45 solids compounded from 33 chemical elements and their isotopes, viz.: H, D, T, He, Li, Be, B, C, N, O, F, Ne, Na, Mg, Al, Si, P, S, Cl, Ar, K, Ca, Br, Kr, Re, Sr, Zr, I, Xe, Cs, Ba, Hg, and Pb. Thermodynamic properties are given for the following 22 gases in the range from room temperature to 20,000°K: H, H^+, H^-, O, O^+, H_2, O_2, O_3, OH, OH^+, H_2O, N, N^+, N_2, N_2^+, NO, NO^+, C, C^+, CO, CO^+, and e^-; for the 14 least stable gases up to 4000°K; and for the remaining 299 gases up to 6000°K. Virial coefficients for 34 gases are also given up to 6000°K.

TABLE OF CONTENTS (Volume 1) [Abridged]:

Foreword 11

Introduction 19

PART I. METHODS OF CALCULATING THE THERMODYNAMIC PROPERTIES OF INDIVIDUAL SUBSTANCES

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Prozorovskiy, Y. E.

12

PHASE I BOOK EXPLOITATION SOV/6260

Gurvich, Lev Veniaminovich, Georgiy Akopovich Khachkuruzov, Vadim Andreyevich Medvedev, Inessa Veniaminovna Veyts, Georgiy Andreyevich Bergman, Vladimir Stepanovich Yungman, Nina Petrovna Rtishcheva, Lidiya Fedorovna Kuratova, Georgiy Nikolayevich Yurkov, Amaliya Abramovna Kane, Boris Fedorovich Yudin, Boris Isidorovich Brounshteyn, Viktor Feodoseyevich Baybuz, Valeriy Aleksandrovich Kvlividze, Yevgeniy Aleksandrovich Prozorovskiy, and Boris Aleksandrovich Vorob'yov.

Termodinamicheskiye svoystva individual'nykh veshchestv; spravochnik v dvukh tomakh. tom 1: Vychisleniye termodinamicheskikh svoystv; tom 2: Tablitsy termodinamicheskikh svoystv (Thermodynamic Properties of Individual Substances; Reference Book in Two Volumes. v. 1: Calculation of Thermodynamic Properties; v. 2: Tables of Thermodynamic Properties). 2d ed., rev. and enl. Moscow, Izd-vo AN SSSR, 1962. 1161 and 916 p. 4000 copies printed.

Sponsoring Agencies: Akademiya nauk SSSR. Institut goryuchikh iskopayemykh; and Gosudarstvennyy komitet Soveta Ministrov SSSR

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po khimii. Institut prikladnoy khimii.

Resp. Ed.: V. P. Glushko, Academician, L. V. Gurvich, G. A. Khachkuruzov, I. V. Veyts, and V. A. Medvedev; Ed. of Publishing House: K. P. Gurov; Tech. Ed.: V. G. Laut.

PURPOSE: This reference book may be used in scientific-research and experimental-design work in institutes, design offices, and schools of higher education, as well as for training specialists in chemical thermodynamics and thermal physics.

COVERAGE: Volume 1 of this work deals with methods for calculating thermodynamic properties and with the selection of constants required for the calculations. Volume 2 contains tables of thermodynamic properties (reduced thermodynamic potential, entropy, enthalpy, and the logarithm of the dissociation or ionization constants of equilibrium) compiled, where data were lacking, on the basis of published and unpublished material from a number of Soviet research institutes. Thermodynamic properties for the ideal gas

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

state are presented in table form for 335 gases, 44 liquids, and 45 solids compounded from 33 chemical elements and their isotopes, viz.: H, D, T, He, Li, Be, B, C, N, O, F, Ne, Na, Mg, Al, Si, P, S, Cl, Ar, K, Ca, Br, Kr, Re, Sr, Zr, I, Xe, Cs, Ba, Hg, and Pb. Thermodynamic properties are given for the following 22 gases in the range from room temperature to 20,000°K: H, H^+, H^-, O, O^+, H_2, O_2^+, O_2, OH, OH^+, H_2O, N, N^+, N_2, N_2^+, NO, NO^+, C, C^+, CO, CO^+, and e^-; for the 14 least stable gases up to 4000°K; and for the remaining 299 gases up to 6000°K. Virial coefficients for 34 gases are also given up to 6000°K.

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MAL'TSEV, A.A.; PROZOROVSKIY, Ye.A.; KORYAZHKIN, V.A.

Discharge tubes with cooled hollow-type cathodes. Prib. i tekh. eksp. no.1:117 Ja-F '57. (MIRA 10:6)

1. Khimicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.

(Electric discharges through gases)
(Spectrum analysis--Equipment and supplies)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

GURVICH, L.V.; YUNGMAN, V.S.; PROZOROVSKIY, Ye.A.; VOROB'YEV, B.A.

Calculation of the thermodynamic functions of diatomic gases at high temperatures by the method of direct summation with the aid of an electronic computer. Trudy IGI 12:196-205 '61. (MIRA 14:3)

(Gases) (Thermodynamics)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

[illegible]

Thermodynamic functions of mono- and diatomic gases within a wide range of temperatures. Part 6: O, O^+, O_2, and O_2^+ in the ideal state [illegible] Trudy GIRM no.49:39-60 '62.

(MIRA 17:11)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

[illegible], Ye.A.; RT[illegible]CHEVA, N.[illegible].

Thermodynamic functions of mono- and diatomic gases within a wide range of temperatures. Part 7: O, O[illegible], CO, CO[illegible] in the ideal state up to 20 000° K. Trudy GIPKH no.49:61-83 '62. (MIRA 17:11)

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L 23417-66 EWP(e)/EWT(m)/EWP(w)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k) IJP(c) JD/HW/JH

ACC NR: AP6004134 (N) SOURCE CODE: UR/0125/66/000/001/0001/0005

64
63
B

AUTHOR: Prozorovskiy, Ye. V.; Petrov, G. L.

ORG: none

TITLE: Problems of the arc welding of boron-treated austenitic chromium-nickel alloys

SOURCE: Avtomaticheskaya svarka, no. 1, 1966, 1-5

TOPIC TAGS: arc welding, boron, austenite steel, chromium base alloy, nickel base alloy, crack propagation, oxidation

ABSTRACT: Argon arc welding, automatic submerged arc welding and manual welding of steels containing various proportions of B (0.005-2.0%) was carried out to determine the effect of B on the structure of the metal of Cr-Ni welded joints. The probability of the oxidation of various elements is determined by their affinity toward oxygen and, in this connection, submerged arc welding based on the use of the flux 48-OF-6 (varying content of SiO_2), with wire electrodes containing various concentrations of B and Ti, established that the affinity of B toward oxygen is greater than that of Si, smaller than that of Al and roughly equal to that of Ti (Fig. 1). During welding with electrodes coated with a relatively oxidation-resistant layer of calcium fluoride which is usually employed in the welding of Cr-Ni austenitic steels, the burnout

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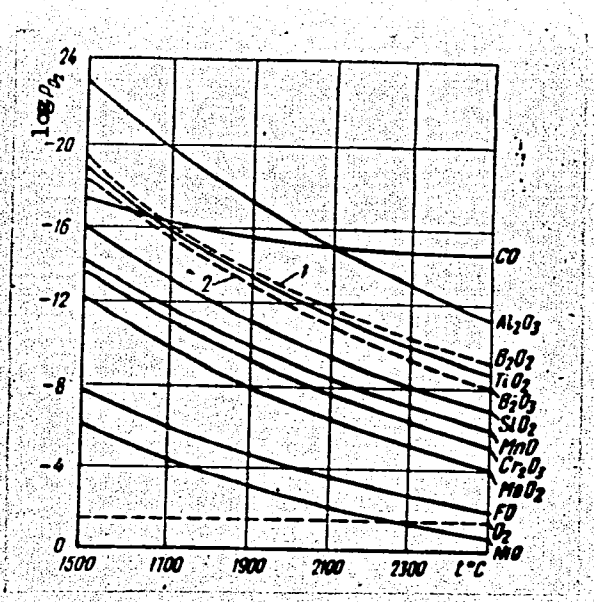

Fig. 1. Dissociation pressure of free oxides as a function of temperature.

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(oxidation) of B in the electrode rod is ~0.7%. Thus, B is an extremely active element with respect to oxygen, and even small amounts of oxidizing agents (e.g. oxides of elements with smaller affinity toward oxygen) may lead to considerable losses of B during welding. The burnout of B from metal may be reduced in two ways: by using more energetic deoxidizing agents than B (e.g. Al) or by treating the slag with boron oxides. Treatment with B of Cr-Ni steels in the austenitic class as well as of welded joints of an analogous composition leads to the appearance of Cr-rich borides in the structure. This contributes to a change in the ratio between the ferrite- and austenite-forming elements in the solid solution. Accordingly the authors propose formulas for taking into account the corresponding changes in the composition and volume of the solid solution and in the equivalent values of Cr and Ni. When the metal of purely austenitic welded joints contains minute amounts of B (0.01-0.35% B), it is extremely prone to form hot cracks. On the other hand, if it contains 0.35-1.5% B, it is sufficiently resistant to hot cracking. Orig. art. has: 4 figures, 3 formulas, 2 tables.

SUB CODE: 11, 13, 20/ SUBM DATE: 08Jul65/ ORIG REF: 011/ OTH REF: 002

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

107-57-1-20/60

AUTHOR: Prozorovskiy, Yu. (Moscow)

TITLE: UA3AW. A New Year Questionnaire (Novogodnyaya naketa)

PERIODICAL: Radio, 1957, Nr 1, p 15 (USSR)

ABSTRACT: The author reports his rare and interesting contacts with a Viet-Nam radio amateur 3W8AA, with UA0KQB in Yakutsk, with XE1PJ in Mexico, with FB8ZZ in New Amsterdam (Indian Ocean), and with Mirnyy settlement UA1KAE (Antarctica). The author made about 300 long-distance contacts in 40-, 20-, and 14-m bands. He has a 10-tube receiver and a transmitter with one GU-13 tube.

AVAILABLE: Library of Congress

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, Yu. (UA3AW)

Design of a quarter-wave vertical antenna. Radio no.10:23-24 O '62. (MIRA 15:10)

(Radio—Antennas)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

KROTOV, A. (UA3HF); ZHOMOV, Yu. (UA3FG); PROZOROVSKIY, Yu. (UA3AW)

Radio shortwaves. Radio no.7:16 '64. (MIRA 18:1)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, Yu., sudiya vsesoyuznoy kategorii, master sporta SSSR (UA3AW)

Let's talk about shortwave radio. Radio no.3:16 Mr '65.
(MIRA 18:6)

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PROZOROVSKIY, Yu. (UA3AW)

Input stage of a high-frequency amplifier with low signal to noise ratio. Radio no.3:20 Mr '62. (MIRA 15:3)
(Amplifiers (Electronics))

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, Yu., kand.tekhn.nauk (UA3AW)

Simplified design of antenna filters. Radio no.3:31-32, 34 Mr '61. (MIRA 14:8)

(Radio filters)

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PROZOROVSKIY, Yu. (UA3AW), sud'ya vsesoyuznoy kategorii

Champion shortwave radio operators. Radio no.3:10-11 Mr '63. (MIRA 16:2)

(Radio, Shortwave) (Radio operators)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

AUTHOR: Prozorovskiy, Yu. 107-58-3-24/41

TITLE: Wide-Band Amplifier (Shirokopolosnyye usiliteli)

PERIODICAL: Radio, 1958, Nr 3, pp 34 - 35 (USSR)

ABSTRACT: A number of correction systems has been developed for RC amplifier stages which reduce the parasite capacitance and widen the pass band of the stage several times while maintaining the original amplification factor. The application of simple, so-called two-band correction systems, as shown by Figure 1, will widen the pass band by approximately two times as compared to uncorrected amplifier systems. The pass band may be widened three to four times by more complicated four-band correction systems. However, an unlimited widening of the pass band cannot be achieved in this way, since the amplification factor of one stage may become less than one at very low plate loads, whereby the amplifier will weaken the signals instead of intensifying them, regardless to the number of stages it may contain. The formula listed below can be used to determine the widest frequency pass band f, which may be achieved by a multi-stage RC amplifier (with given amplification factor K)

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$$f_{cycles} = \frac{0.245 a \beta}{\sqrt{lgK}},$$

where β designates the correction factor, characterizing the correction system applied in the amplifier, and a is the "quality factor" of the tube which is equal to the ratio of its characteristic steepness to the total amount of capacities connected parallel to the anode load (capacitance of tubes, wiring, tube sockets, etc in regard to ground). The formula shows that with given K, a wide pass band may be obtained when selecting effective correction circuits or using tubes with high quality factors. Modern HF pentodes permit to build RC amplifiers with a pass band ranging from sound frequency to 100 - 150 megacycles with adequate amplification. Figure 2 shows the frequency characteristics of two models of such amplifiers, their circuit diagrams are shown in Figure 3. Both amplifiers have pass bands ranging in sound frequencies to 100 megacycles with an amplification of 35 - 38 db (60 - 80 times). The first amplifier has six stages. The second

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amplifier has seven stages and is built on a similar principle as the first, but has an additional resistance in the control grid circuits of the tubes. In both systems, tubes of type "6Zh9P" are used, having a characteristic of the magnitude 15 - 18 milliamps/volt and rather small parasite capacitances. Analogous amplifiers may be built with "6Zh1P" tubes. There is one diagram, one circuit diagram and one graph.

1. Amplifiers--Modification 2. Amplifiers--Operation

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

SOV-109-3-4-8/28

AUTHOR: Prozorovskiy, Yu. N.

TITLE: A Method of Analysis of the Amplifiers with Distributed Parameters (Metod analiza usiliteley s raspredelennymi postoyannymi)

PERIODICAL: Radiotekhnika i Elektronika, 1958, Vol 3, Nr 4, pp 518-521 (USSR)

ABSTRACT: The distributed amplifiers with grounded-cathode stages have been analysed and investigated by a number of authors (Refs.1 and 2). It is pointed out that it is also possible to design the distributed amplifiers with grounded-anode or grounded-grid stages. All the three types of the distributed amplifier can be analysed by the method proposed by Prozorovskiy (Ref.2), in which it is assumed that the analysed system consists of a finite number of quadripoles. It is assumed, for the purpose of analysis, that an amplifying stage can be represented by a generalised multipole shown in Fig.2. The multipole is divided into 3 component multipoles such that the system II represents the amplifying

Card 1/3

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tube and the sections I and III are two identical passive multipoles whose matrix is expressed by Eq.(1); R_{oa} and R_{oc} are ohmic resistances of the coils of the line, and F_a, F_c are the coefficients characterising the losses in the lines as a function of frequency. The matrix of the amplifying tube quadripole can be written as Eq.(2), in which the elements a, b, c and d are expressed by Eq.(3). From the above, the operation of a single amplifying stage can be described by Eq.(4). Matrices of the tube quadripoles for the 3 above-mentioned cases can be written as Eqs.(7), (8) and (9) respectively; symbols Y_{BX} and Y_{Bb1X} denote the input and output admittances of the tubes and S represents the mutual conductance of the tubes. From the above it is shown that an amplifying section of the grounded-anode type (see Fig.3b) can be described by Eq.(12); an analogous expression for a grounded

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A Method of Analysis of the Amplifiers with Distributed Parameters

SOV-109-3-4-8/28

grid amplifying stage (see Fig.3b) is in the form of Eq.(13). There are 4 figures and 3 references, 2 of which are Soviet and 1 English.

SUBMITTED: July 30, 1957

1. Distributed amplifiers--Analysis 2. Mathematics--Applications

Card 3/3

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

107-58-7-12/43

AUTHOR: Prozorovskiy, Yu. (UA3AW) Chief Judge of the Competition

TITLE: The Youth Competition (Sorevnovaniya yunykh)

PERIODICAL: Radio, 1958, Nr 7, p 14 (USSR)

ABSTRACT: The author reports on the Second All-Union Competition of Young VHF Operators held on 30 March, 1958, in which children's radio clubs took part.

1. Radio awards--USSR 2. Radio operators--Competition

Card 1/1

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PROZOROVSKIY, Yu. (UA1AW), glavnyy sud'ya sorevnovaniy, sud'ya vsesoyuznoy kategorii

Contests of youngsters for the prize offered by the periodical "Radio." Radio no.7:14 Jl '58. (MIRA 11:9)
(Radio, Shortwave--Competitions)

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PROZOROVSKIY, YU.

"With the Pencil athe Receiver," Radio, No. 1, 1948;
"Preparing and Conducting Competitions," Radio, No. 4, 1949;
"A Portable Transreciever for Demonstration Purposes,"
Radio, No. 5, 1949;
"A Narrow Band Filter," Radio, No. 11, 1949;
"A 100-Watt Transmitter," Radio, No. 12, 1950.

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177T97

PROZOROVSKIY, Yu.

USSR/Radio - Transmitters Dec 50

"A 100-Watt Transmitter," Yu. Prozorovskiy (UA3AV)

"Radio" No 12, pp 33-38

Describes transmitter for 40-, 20-, 14- and 10-m amateur bands. "G-813" beam tetrode in output stage delivers to antenna 100 w for telegraphy, 20-25 w for telephony. Complete transmitter includes 7 rf stages, 4 rectifiers, microphone unit, modulator stage, and antenna. Other tubes used are 5 6P3's, VR 150, 6K7, and 6V6. Rectifiers are 2 VG-129's (1,300 v), VO-188 (400 v), and selenium rectifiers for 200 and 250 v.

177T97

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, YU. N.

USSR (600)

Technology

Radio Receiving sets for local reception, Moskva, Gosenergoizdat, 1951.

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

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, Yu.

USSR/Radio - Telegraphy Dec 51
Keying Circuits

"A Keying Circuit," Yu. Prozorovskiy (UA3AB), Moscow

"Radio" No 12, p 42

Cites the disadvantages of connecting the key in the screen grid or cathode of the master oscillator for semiduplex operation. Describes a special keying circuit in which the key operates a relay, whose contacts remove ground from the screen grid of the master oscillator and, after a time lag, close the cathode circuit of a following stage.

208T93

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKY, Y.N.

PROZOROVSKY, Y.N.

Y.N. PROZOROVSKY is the author of a book, "AMATEUR SHORT WAVE RADIO STATIONS". (1952. 56 pages. Price: 1 4. 40 k.)

The book is designed for the short wave radio amateurs who have acquired experience as radio observers and intend to build low powered radio transmitting stations. It gives the description of an eight-tube crystal filter radio receiver and two radio transmitters (five and twenty watts sets). A special emphasis is laid by the author on the description of structure of the transmitters and methods of their tuning up.

SO: 2110257 Air, Di, ATIC, F-Ts-8005, Oct. '52 (New Books; People's Radio Library; Chief Editor A.I. Berg; "Gosenerg" Publishing House; Moscow-Leningrad)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, YU.

USSR/Electronics - Radio
Power Supplies Mar 52

"A Regulated Rectifier," Yu. Prozorovskiy

"Radio" No 3, pp 39-41

Describes the operating principles of a stabilized voltage supply which uses a tube as a variable resistance. Gives circuit diagram and components for a rectifier whose output voltage can be regulated from 220 to 300 v for a load current change from zero to 250 ma. A line voltage change of ± 10% causes an output voltage change of only 0.5-0.8 v.

229T69

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, U.

"Transmitter for Novice Short-Wave Operators," Soviet journal "Radio," Issue No. 4, 1952.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, Yu.

USSR (600)

Radio, Short Wave-Receivers and Reception

Short wave receiver., Radio, no. 8, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

[illegible] R.I. [illegible]

Radio - Rectifiers

Stabilized rectifier. Radio, 29, No. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, June 1952 Unclassified

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

1. PROKOFYEVSKIY, Yu.

2. USSR (600)

4. Radio

7. Compensation of the temperature coefficient of the frequency of a generator tube circuit, Radio No. 1, 1953.

Discusses methods for obtaining frequency stability of a master oscillator using 2 trimmer capacitors, one having a high negative temp coef of capacitance and the second, a coef close to zero.

253T76

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

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, Yu. (UAZAV).

Short-wave and ultrashort-wave receiver. Radio no.8:33-36 Ag '53. (MLRA 6:8)

(Radio, Short-wave--Receivers and reception)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, YU.

USSR/Miscellaneous - Radio contests

Card 1/1 Pub. 89 - 8/28

Authors : Prozorovskiy, YU.

Title : Instructor's notes

Periodical : Radio 4, 12-13, Apr 1955

Abstract : Author's notes and comments are given concerning the Soviet and satellite radio operators competition in Leningrad. Reasons why the Soviet radio operators won the first place in these competitions are explained, and scores achieved by several participants are listed.

Institution : .....

Submitted : .....

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, YU. N.

PROZOROVSKIY, YU. N. -- "Broad Banded Video Amplifiers of High Intensity." Acad Sci USSR, Inst of Radio Engineering and Electronics, Moscow, 1956. (Dissertation for the Degree of Candidate in TECHNICAL SCIENCES).

SO: KNIZHNAYA LETOPIS' (Book Register), No. 42, October 1956, Moscow.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, Yu. (UA3AV) (Moskva)

Ultrashortwave oscillator. Radio no.4:56 Ap '56. (MLRA 9:7)
(Oscillators, Electric)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROWSKI J. N.

Amatorska radiostacja krótkofalowa (An amateur short wave station) by J. N. Prozorowski. Reported in New Books., (Nowe Ksizaki), No. 6. March 15, 1956.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, YU.N.

621.375.121.2 : 621.372.6 3080

Amplifier with Distributed Constants as a System of Multipoles.—Yu. N. Prozorovski. (*Radiotekhnika i Elektronika*, Jan., 1957, Vol. 2, No. 1, pp. 57-64.)

Analysis is presented of an amplifier with distributed parameters considered as a system of a finite number of multipoles. Matrices connecting the input and output voltages and currents are derived and the transmission coefficient of the amplifier is determined.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, YU.N

621.385.5 3360

Input Conductance of a Pentode. Yu. N. Prozorovski. (*Radiotekhnika i Elektronika*, Jan. 1957, Vol. 2, No. 1, pp. 121–123.) The effect of the heater/cathode capacitance on the input conductance is briefly discussed.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, Yu. (UA3AW).

Antennas for amateur radio station. Radio no.7:Supp.14-17 Jl '57.
(Radio--Antennas) (MLRA 10:8)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

Prozorovskiy, Yu

107-8-35/62

AUTHOR: Prozorovskiy, Yu (UA3AW), President of the Competition Jury and Jury Member of the All-Union Category.

TITLE: Short and Ultra-Short Waves. Results of the All-Union Competition (Korotkiye i ultrakorotkiye volny. Itogi vsesoyuznykh sorevnovaniy).

PERIODICAL: Radio, 1957, # 8, pp 27-28 (USSR)

ABSTRACT: The 12th All-Union competition of DOSAAF short wave amateurs in radio communication and receiving was recently finished.

In the first round it was required to contact the greatest number of different stations. In the second round it was necessary to contact the greatest number of provinces and to contact all the Union republics in the shortest time possible.

Each participant also tried to make the greatest number of contacts within one hour.

The STALINO radio station UB5KAB became the All-Union champion of the collective stations, the call numbers UA4KCE (SARATOV) and UA3KWA (KALUGA) were second and third respectively.

Card 1/2

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

107-8-35/62

TITLE: Short and Ultra-Short Waves. Results of the All-Union Competition (Korotkiye i ultrakorotkiye volny. Itogi vsesoyuznykh sorevnovaniy).

Most of the participants of the second round were unable to attain all the objects. The All-Union speed record of communications with all the Soviet republics was not improved.

The article states that many radio amateurs are not sufficiently disciplined and conscientious.

INSTITUTION: The 12th All-Union Competition of DOSAAF Radio Amateurs.

PRESENTED BY:

SUBMITTED: No date indicated

AVAILABLE: At the Library of Congress

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

AUTHOR: PROZOROVSKIY, Yu.N., regular member of the society. PA - 2825

TITLE: On the Selection of Video Amplifiers (Image Amplifiers). (O vybore vedeousiliteley, Russian).

PERIODICAL: Radiotekhnika, 1957, Vol 12, Nr 3, pp 57 - 61 (U.S.S.R.)
Received: 5 / 1957 Reviewed: 6 / 1957

ABSTRACT: Those domains are investigated where it is purposeful to use a multicascade amplifier of one or the other type (with sufficiently great amplifying coefficient). These investigations are carried out by means of approximated formulae, without consideration of scatterings in transition characteristics. It is assumed that the amplifiers to be compared are equivalent, in case that amplifying coefficients and front duration of the transition characteristics of both amplifiers are equal. The minimum front duration of the transition characteristics of a corrected RC amplifier is investigated and the corresponding formula is derived. If the minimum front duration τ_{KV} of the corrected amplifier is determined, the most favorable cascade number can be determined herefrom. It is purposeful to use corrected RC amplifierd where the given front duration of the transition characteristics is larger than the minimum front duration, obtained by such amplifiers. If $\tau_{given} < \tau_{KV_{min}}$, amplifiers with distributed constants should be used. The most favorable number of tubes in the amplifiers with distributed constants is investigated

Card 1/2

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PA - 2825

On the Selection of Video Amplifiers (Image Amplifiers),

and a comparison between these amplifiers and the corrected ones is drawn. Modern tubes allow the use of corrected RC amplifiers with a frequency band of up to 200 - 300 kc with small K (general amplifying coefficient) and up to 100 - 150 kc with relatively large K. (6 illustrations)

ASSOCIATION: Not given.
PRESENTED BY:
SUBMITTED: 14.9.1956
AVAILABLE: Library of Congress

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

BUNIMOVICH, Sergey Georgiyevich; YAYLENKO, Leonid Petrovich; PROZOROVSKIY, Yu.N., spets. red.; GODINER, F.Ye., red.

[Amateur single-sideband radio communication techniques] Tekhnika liubitel'skoi odnopolosnoi radiosviazi. Moskva, Izd-vo DOSAAF, 1964. 243 p. (MIRA 17:12)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, Yu.N.

Letter to the editor. Radiotekhnika 20 no.7:77 Jl '65. (MIRA 18:8)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, Yu. N.

Defense of Dissertations 30-12-41/45
January - July 1957
Section of Technical Sciences

Vest. AN SSSR, 1957, vol. 27, No. 12, pp. 122-123

utilization for the determination of the position of mineral oil and water-containing deposits (Aktivatsionnyy analiz gornykh porod v usloviyakh skvazhiny i yego ispol'zovaniye dlya opredeleniya mestopolozheniya neftenosnykh i vodonosnykh plastov). Application for the degree of Candidate of Chemical Sciences: N. Ya. Chernyak - The kinetics and the mechanism of the liquid-phase oxidation of dibenzyl and "dicyclohexyl ethane (Kinetika i mekhanizm zhidkofaznogo okisleniya dibenzila i ditsiklogeksiletana).

At the Institute for Radio Engineering and Electronics (Institut radiotekhniki i elektroniki). Applications for the degree of Candidate of Technical Sciences: M. V. Persikov - Controlled wave deflector for the wave H_{01} in a wave guide with a round cross section (Napravlennyy otvetvitel'dlya volny H_{01} v volnovode kruglogo secheniya). Yu. N. Prozorovskiy - Broad striped video amplifiers with high amplifying power (Shirokopolosnyye videousiliteli s bol'shim usileniyem). Application for the degree of Candidate of Physical-Mathematical Sciences: T. A. Shmaonov - Absolute measurements of low effective temperatures

Card 4/5

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

Defense of Dissertations 30-12-41/45
January - July 1957
Section of Technical Sciences

of fluctuating radiation (Absolyutnyye izmereniya nizkikh effektivnykh temperatur flyuktuatsionnogo radio-izlucheniya).

AVAILABLE: Library of Congress

1. Mechanical engineering—Applications 2. Oil wells—Operation 3. Oil wells—Maintenance 4. Waveguides 5. Temperature—Measurement

Card 5/5

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, Yu. (UA3AW)

Astronauts! We were listening! Radio no.10:8-9 O '62.
(MIRA 15:10)

(Radio operators) (Astronautics)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, Yu.N.

Pulse generator with controlled delay. Prib. i tekh. eksp. no.3:142-143 My-Je '60. (MIRA 14:10)

1. Institut radiotekhniki i elektroniki AN SSSR.
(Oscillators—Electron-tube)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

27369
S/194/61/000/003/033/046
D201/D306

6.9500

AUTHORS: Kaznacheyev, Yu.I., Kolesnikova, N.A. and Prozorovskiy, Yu.N.

TITLE: Fast-acting electronic instruments transforming continuous into sampled data and vice versa, for wide band communication transmitting systems with pulse code modulation

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 3, 1961, 31, abstract 3 G212 (V sb. Teoriya i primeneniye diskretn. avtomat. sistem, M., AN SSSR, 1960, 329-338)

TEXT: The pulse systems for transmitting information which possess better interference killing features are now beginning to be used increasingly. The signals transmitted by such a system are undergoing double transformation: they are coded into a sequence of pulses before being applied to the line and at the other end of it

Card 1/3

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27369
S/194/61/000/003/033/046
D201/D306

Fast acting electronic...

are decoded and their original shape reinstated. Considerable advantages are shown by transmitting systems using pulse code modulation (ИКМ (IKM)) which hardly increase the noise during retranslation. The principle of pulse code modulation is that the "quantisized" discrete values of the continuous signal are transmitted by means of a binary pulse code which reproduces different combinations of the same pulses and intervals. The number of signals sent during every code group remains constant and their combination depends on the adopted law of coding. Usually the Sears CRT is used in pulse code modulation (Sears, R.W., Bell system Techn. J. 1948, 27, No. 1, 44-47). This tube has certain disadvantages which limit the range of its application to low frequencies only. A fast acting coding CRT with internal delay is described. The tube may be used in systems with pulse duration $<10-20\mu\mu$sec. A decoder is described which may be used in wide band systems. Certain electronic instruments are also described used for restoring the shape, amplitude and time dependence of pulses forming the code groups. Coding, decoding and restoring electron beam instruments are described for use in wide

Card 2/3

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27369
S/194/61/000/003/033/046
D201/D306

Fast acting electronic...

band pulse code transmitting systems. These instruments, or their sub-assemblies, may find application in other branches of technology, such as automatic control systems, remote control etc. 5 references. [Abstracter's note: Complete translation]

Card 3/3

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, Yu. (UA3AW), glavnyy sud'ya sorevnovaniy "Polevoy den."

Results of the "Field Day" of 1960. Radio no.12:4 D '60. (MIRA 14:1)

(Radio operators)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PROZOROVSKIY, Yu.N.

Rapid scanning generator. Prib. i tekh. eksp. no.6:131-132 N-D '60. (MIRA 13:12)

1. Institut radiotekhniki i elektroniki AN SSSR.
(Oscillators, Electric)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

86764

S/120/60/000/006/040/045
E041/E335

S/4760

AUTHOR: Prozorovskiy, Yu.N.

TITLE: Fast Scan Generator

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No. 6, pp. 131 - 132

TEXT: In the majority of commercial oscillographs the time base is no faster than 1-2 μs per scan. As a rule, specially developed fast-scan generators do not work at slow speeds and consequently two separate time-bases are needed. The scanning generator shown in Fig. 1 works both at slow speeds and over very short time intervals ($8 \cdot 10 \cdot 10^{-9}$ secs per scan). Triode $Л_{1a}$ and the inner electrodes of $Л_2$ form a single-shot multivibrator triggered by a negative input pulse. The multivibrator square wave is terminated by the blocking oscillator $Л_{3b}$. The wave is applied to the grid of the discharge tube $Л_4$. The scan speed may have 5 values between 10 and 0.1 μs per scan by setting the switch П.

Card 1/4

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

86764

S/120/60/000/006/040/045
E041/E335

Fast Scan Generator

The output stage is a pair of 6П13С (6P13S) tubes whose anodes are connected to the horizontal plates of the c.r.t. The anode supply is stabilized to avoid scan modulation. This generator will scan a 13-ЛО-3И (13-LO-3I) tube in 0.1 μs at a rate of up to 10 kc/s. Apart from a portion at the beginning, the scan is linear. There are 1 figure and 1 Soviet reference.

Card 2/4

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

86764

S/120/60/000/006/040/045
E041/E335

Scan Generator

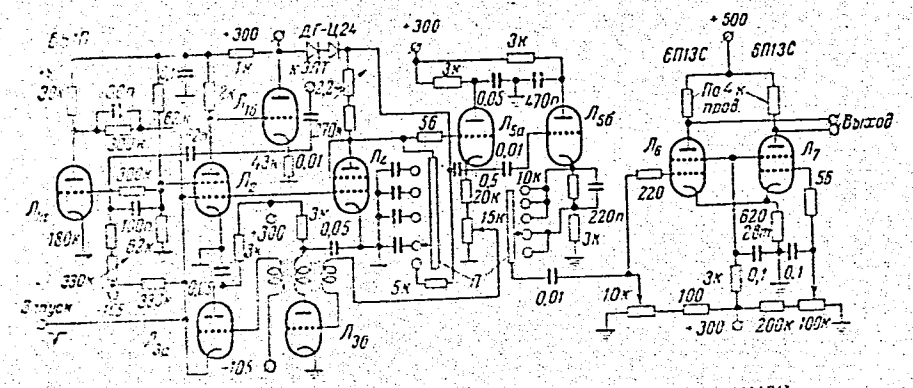

Рис. 1. $Л_1$, $Л_3$, $Л_5$ — 6П14П; $Л_2$, $Л_4$ — 6П15П; $Л_6$, $Л_7$ — 6П13С

Card 3/4

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

86764

S/120/60/000/006/040/045
E041/E335

Fast Scan Generator

ASSOCIATION: Institut radiotekhniki i elektroniki AN SSSR (Institute of Radioengineering and Electronics of the AS USSR)

SUBMITTED: October 17, 1959

Card 4/4

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343410012-2

PHASE I BOOK EXPLOITATION SOV/4411

Konferentsiya po voprosam teorii i primeneniya diskretnykh avtomaticheskikh sistem, Moscow, 1958

Teoriya i primeneniye diskretnykh avtomaticheskikh sistem; trudy konferentsii (Theory and Application of Discrete Automatic Systems; Transactions of the Conference). Moscow, AN SSSR, 1960. 572 p. 5,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Natsional'nyy komitet SSSR po avtomaticheskomu upravleniyu. Institut avtomatiki i telemekhaniki.

Editorial Board: M.A. Gavrilov, Doctor of Technical Sciences, Yu.V. Dolgolenko, Doctor of Technical Sciences, V.A. Kotel'nikov, Candidate of Technical Sciences, A.Ya. Lerner, Doctor of Technical Sciences, I.S. Morosanov (Scientific Secretary), G.S. Pospelov, Doctor of Technical Sciences, A.A. Fel'dbaum, Doctor of Technical Sciences, A.V. Khramoy, Candidate of Technical Sciences, and Ya.Z. Tsypkin, Doctor of Technical Sciences; Resp. Ed.: Ya.Z. Tsypkin, Doctor of Technical Sciences; Ed. of Publishing House: M.L. Podgoyetskiy; Tech. Ed.: S.G. Markovich.

PURPOSE: These transactions are intended for the members of the conference and other specialists in automatic control.

COVERAGE: The Conference on the Problems of Theory and Application of Discrete Automatic Systems took place in Moscow from September 22 to 26, 1956. It was the first conference devoted to discussions of the present status of the theory and techniques of discrete automatic systems and to planning for future development. The papers discussed at the conference have been divided into four groups. In the first group optimization switching circuits are discussed as well as methods of relay control systems, in particular plant lag control systems in which are realized optimal processes as to quick response. The second group of papers is devoted to the analysis and synthesis of pulse systems with variable parameters, of pulse systems with several pulse components, to the study of self-oscillation phenomena in nonlinear pulse systems, and to the methods of calculating linear pulse systems. Problems of simulating pulse systems and investigation of [illegible] pulse regulators have also been included. The third group of papers [illegible] with digital systems. Problems of using elements of digital technique and digital computers for the automation of various fields of engineering, i.e., power engineering, mining, radio-communication, metallurgy, etc., are discussed. Problems of analog-digital conversion and vice versa as well as problems of developing specialized functional converters have been included in this group. The fourth group of papers includes theoretical elements and certain practical applications of the simplest types of self-adjusting systems optimizing control systems, which are developed in relay, pulse and digital devices. Here are also found papers describing various methods of investigating steady state conditions in optimizing systems, results of studying the effects of random factors on the process of automatic counting, and examples of existing optimizing control systems. Some of the more interesting communications and observations made during the discussion of the various conference papers have also been included in the transactions. Personalities and references accompany most of the papers.

Gitis, E.I. (Moscow). Suggestions for the Classification of Analog-to-Digital Converters 323

There is 1 Soviet reference.

Mikhaylov, I.I. (Gorlovka, Stalinskaya Oblast'). Transmitter of the Angle of Rotation of a Multiturn Axis 326

The author describes the transmitter according to the author's certificate issued in his name. There is 1 Soviet reference.

Kaznacheyev, Yu.I., N.A. Kolesnikova, and Yu.M. Prozorovskiy (Moscow). High-Speed Electric Vacuum Devices Converting Continuous Data Into Discrete and Vice Versa for Use in Wideband Systems of Communication Transfer With Pulse-Code Modulation 329

The authors describe coding, decoding, and regenerating cathode-ray devices used in pulse-code modulation systems. There are 5 references: 2 Soviet and 3 English.

Yermilov, B.L. (Leningrad). Some Types of Digital Function Generators 339

The author investigates the structure of a square-law function generator and of a pulse device for extracting square roots. There are 6 references: 2 Soviet and 4 English.

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GULYAYEV, Boris Borisovich. Prinimali uchastiye: SHAPRANOV, I.A., kand.tekhn. nauk; MAGNITSKIY, O.N., kand.tekhn.nauk; POSTNOV, L.M., kand.tekhn. nauk; BOROVSKIY, Yu.F., kand.tekhn.nauk; KOLACHEVA, O.V., kand. tekhn.nauk. BERG, P.O., prof., doktor tekhn.nauk, zasluzhennyy deyatel' nauki i tekhniki, retsenzent; PROZHOGIN, A.A., nauchnyy red.; CHFAS, M.A., red.izd-va; KONTOROVICH, A.I., tekhn.red.; SPERANSKAYA, O.V., tekhn.red.

[Founding processes] Liteinye protsessy. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 415 p. (MIRA 13:7)

(Founding)

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AUTHOR: Prozorovskiy, Yu.N.

TITLE: A Wide-band Amplifier for a Typical Oscillograph (Shirokopolosnyy usilitel' dlya tipovogo ostsillografa)

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ABSTRACT: The currently available wide-band amplifier type UR-4 is intended to work at a load of 6.5 pF. A typical oscillograph, for example the 25-I, has a deflection-plate capacitance of 20-25 pF. The UR-4 amplifier cuts off between 55 and 60 mc/s with such a load. This is unsatisfactory for studies on milli-microsecond pulses. The 5-stage distributed amplifier whose circuit is in Fig 1 has a cut-off frequency of 150 mc/s and a gain of 55 db. With oscillograph type 25-I the height of the pulse on the screen may be 50 mm. The input stage is matched to 275 ohms. The second stage has compensation for the overall frequency characteristic. The third stage is a voltage amplifier. These preliminary stages use the type 6Zh9P valve. The fourth and fifth stages use the 6P15P valve to develop a sufficient power to give as large an output voltage as possible. The preliminary and final stages and the entire amplifier and

Card 1/3

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SOV/120-59-2-44/50

A Wide-band Amplifier for a Typical Oscillograph

oscillograph are linked by precise lengths of RK-50 cable. Winding data are given for coils in Table 1, while Table 2 presents the anode and screen currents. The valves are biased to favour a positive pulse output so that unless a small signal is used a harmonic measurement of frequency response will encounter distortion. Fig 2 is a frequency response taken from the screen of the oscillograph using a GSS-7 signal generator as source. Curve 1 shows the effect of shunting the output terminals with a 150 ohm resistor; the corresponding behaviour with a 1 μ pulse is in Fig 3. When operating with another type of oscillograph the cable length would need to be modified.

Card 2/3

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