APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2
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GINZBERG, R.Ya.

Clinical groups of respiratory insufficiency in tuberculosis. (MIRA 8:1)
Probl. tub. no.6:24-33 N-D '54.

1. Iz Moskovskogo gorodskogo nauchno-issledovatel'skogo tuberkuleznogo instituta (dir.-prof. V.L.Rynis)
(TUBERCULOSIS, physiology
resp. insuff., classif.)
(RESPIRATION
insuff., in tuberc., classif.)

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2
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VYSOKOVA, T.M.; EYNIS, N.F.; GINZBERG, R.Ya.

Changes in gas exchange in pulmonary tuberculosis during therapy with PAS alone and in combination with streptomycin. Probl.tub. no.3:14-19 My-Je '55. (MLRA 8:8)

1. Iz Moskovskogo gorodskogo nauchno-issledovatel'skogo instituta (dir.-prof. F.A.Mikhaylov, nauchnyy rukovaditel'-prof. V.L.Eynis).

(OXYGEN, metabolism,
in pulm. tuberc., eff. of PAS ther. alone & with streptomycin)
(TUBERCULOSIS, PULMONARY, metabolism in,
oxygen, eff. of PAS ther., alone & with streptomycin)
(PARA-AMINOSALICYLIC ACID, ther. use,
alone & with streptomycin, tuberc., pulm., eff. on oxygen metab.)
(STREPTOMYCIN, ther. use,
tuberc., pulm., with PAS, eff. on oxygen metab.)

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2
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RYNIS, V.L.; GINZBERG, R.Ye.; VYSOKOVA, T.M.

Compensatory processes in treating pulmonary tuberculosis. Probl. tub. no.6:9-16 N-D '55. (MLRA 9:2)

1. Iz Moskovskogo gorodskogo nauchno-issledovatel'skogo tuberkuleznogo instituta (dir. V.F. Chernyshev, nauchnyy rukovoditel' -prof. V.L. Rynis)
(TUBERCULOSIS, PULMONARY, ther.
compensation of functions)

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2
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GINZBERG, R.Ye.; AMIANTOVA, M.A.

Study of the functional condition of tuberculosis patients by the respiratory pause method under control of a hemoxometer. Probl. tub. 36 no.8:51-57 '58. (MIRA 12:7)

1. Iz Moskovskoy gorodskoy tsentral'noy klinicheskoy tuberkuleznoy bol'nitsy (glavnyy vrach - prof. V. L. Rynis)
(TUBERCULOSIS) (BLOOD--OXYGEN CONTENT)

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2"

EINIS, V.L.; GINZBERG, R.Ye.; AMIANTOVA, M.A.

Functional restoration of respiration and blood circulation after surgical treatment of tuberculosis of the lungs. Probl.tub. 39 no.2:22-28 '61. (MIRA 14:3)

1. Iz Instituta tuberkuleza (dir. - chlen-korrespondent AMN SSSR prof. N.A. Shmelev) AMN SSSR i Moskovskoy gorodskoy tsentral'noy klinicheskoy tuberkuleznoy bol'nitsy (glavnyy vrach - zasluzhennyy deyatel' nauki prof. V.L. Einis).
(LUNGS--SURGERY) (RESPIRATION) (BLOOD--CIRCULATION)

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2
"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2"

BLAUNT, V.P. [Blount, W.P.]; GINZBURG, R.Z. [translator]; GINZBURG, P.Z., [translator]; PIGAREV, N.V., kand.sel'skokhozyaystvennykh nauk, red.; AKIMOVA, L.D., red.; CHEBYSHEVA, Ye.A., tekhn.red.

[Hen batteries. Translated from the English] Kletochnoe soderzhanie kur. Perevod s angliiskogo R.Z.Ginsburg, P.Z.Ginzburga. Pod red. N.V.Pigareva. Moskva, Pishcheprominizdat, 1957. 183 p. (MIRA 11:1)

(Poultry houses and equipment)

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2"

GINZBURG, S. (Kiyev)

Let's compile the balance of income and expenditures according to population groups. Sov. torg. 35 no.6:38-40 Je '62. (MIRA 15:7)
(Income accounting)

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2"

BOYCHENKO, Aleksandr Maksimovich, inzh.; GINZBURG, Shmilyk Moiseyevich, inzh.; ZHERDETSKIY, Petr Fedorovich, inzh.; PRISED'KO, Boris Stepanovich, inzh.; MERKLING, M.I., inzh., nauchnyy red.; YUDINA, L.A., red. izd-va; GILENSON, P.G., tekhn. red.

[Construction of apartment houses from large slabs] Stroitel'stvo zhilykh zdanii iz krupnykh panelei; iz opyta Glavkievstroia. [By] A.M.Boichenko i dr. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 128 p. (MIRA 15:2)

(Kiev--Apartment houses)
(Precast concrete construction)

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2"

KOROBTSOV, I.M., dotsent; GINZBURG, S.A., dotsent

Rapid method of checking the moisture content in highly viscous furnace mazout. Nauch.trudy OIIMF no.13:252-265 '57. (MIRA 11:11)

(Diesel fuels)

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2"

KOROBTSOV, I.N.; GINZBURG, S.A.

Urgent measures for improving the quality of fuel oil and methods for using it in the merchant marine. Neft. khoz. 36 no.1:64-69 Ja '58. (MIRA 11:2)

(Petroleum as fuel)

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2"

BUSALOV, A.A.; GINZBURG, S.A.; KOGOY, T.F.; SHCHETININA, I.N.; YUDIN, I.Yu.

Clinicoroentgenological and roentgenomorphological comparisons in nonspecific ulcerative colitis. Vest. rent. i rad. 39 no.1:3-7 Ja-F '64. (MIRA 18:2)

1. Kafedry fakul'tetskoy khirurgii (zav. - prof. A.A. Busalov), infektsionnykh bolezney (zav. - deystvitel'nyy chlen AMN SSSR prof. V.F. Rikhter), patologicheskoy anatomii (zav. - deystvitel'nyy chlen AMN SSSR prof. I.V. Davydovskiy) I Moskovskogo meditsinskogo instituta imeni Pirogova.

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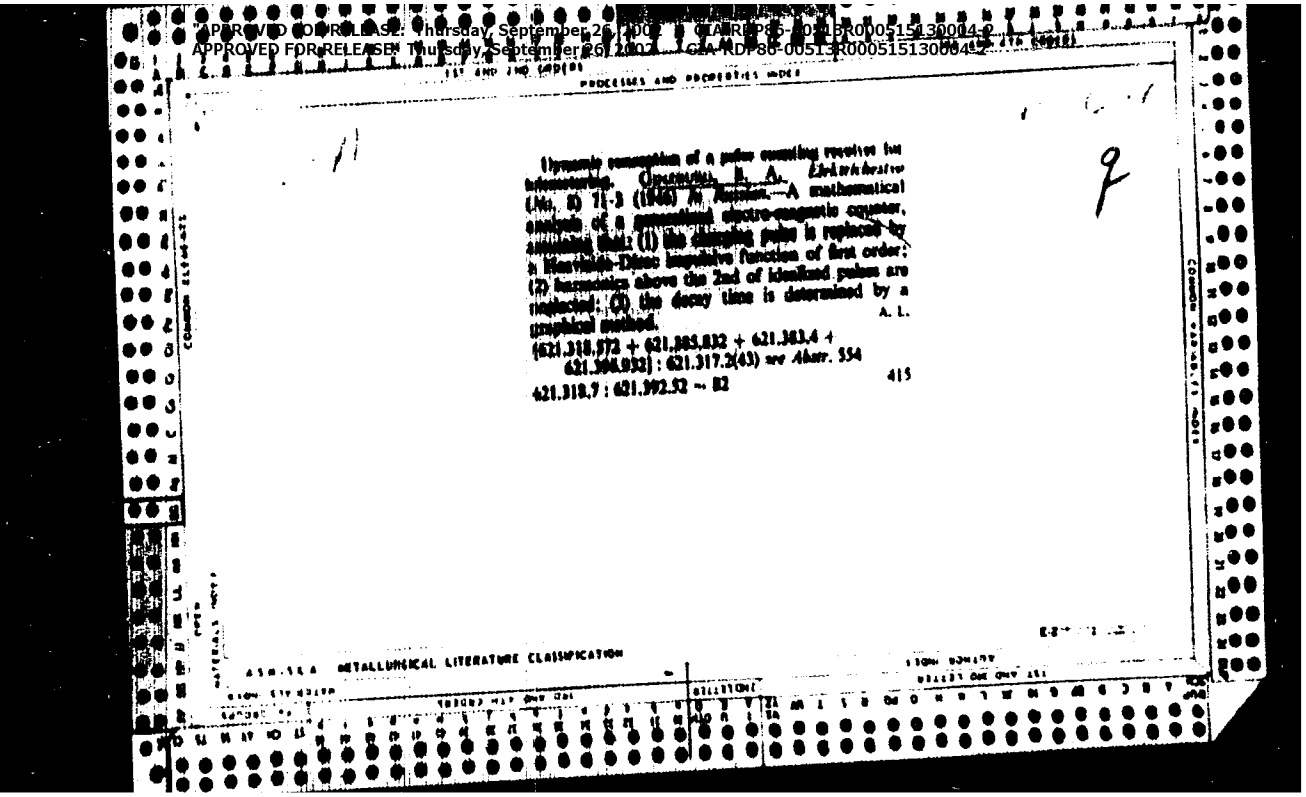
1ST AND 2ND ORDERS



PROCESSES AND PROPERTIES INDEX

9

Dynamic conception of a pulse counting receiver for telemetering. Gusmanov, B. A. *Elektrichestvo* (No. 8) 71-3 (1946) *In Russian.*—A mathematical analysis of a generalized electro-magnetic counter, assuming that: (1) the charging pulse is replaced by a Heaviside-Dirac impulsive function of first order; (2) harmonics above the 2nd of idealized pulses are neglected; (3) the decay time is determined by a graphical method. A. L.

[621.318.572 + 621.385.832 + 621.383.4 + 621.396.932] : 621.317.2(43) *see Abstr.* 554

621.318.7 : 621.392.52 — 82 415

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2"

GINZBERG, S. A., All-Union Inst. Aviation Materials, c 1949.

"Modern Bridge Circuit with Automatic Balancing."

Electrichestvo, No 8, 1948.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2"

GINZBERG, S. A.

"Review of F/ Ye. Temikov's and R. R. Kharchenko's Book, 'Electrical Measurements of Non-Electrical Quantities.'"

Electrichestvo, No 8, 1949.

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2"
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2"

B. S.

GINSBURG, S. A.

Testing 4/1958

1081. Thyrotronic automatic temperature regulator for laboratory electric heaters.—S. A. GINSBURG (*Zavod. Lab.*, 15, 369, 1949). By means of electric and ionic lamps an automatic regulator was constructed for maintaining a constant temperature in electric heaters. The main characteristics were continuity of operation and the elimination of a galvanometer, relay or any other moving parts or contacts. In this apparatus the resistance thermometer, connected into the AC bridge circuit, is the sensitive element. The signal from the bridge is electronically amplified. The thyrotron is the functioning element, into the anodic circuit of which the heater is connected. The regulator is stated to be reliable and easily operated. A detailed description of the apparatus is given (2 figs.)

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AN ACCURATE TUBE ELECTROMETER. S. A. Ginsburg. (Zavodskaya Laboratoriya, 1949, vol. 15, Nov., pp. 1384-1386). [No. 11] [In Russian]/. A description is given of an electronic electrometer for the accurate measurement of poterntial in circuits of high resistance, e.g., in the study of corrosion potential at grain boundaries.—S.K.

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2"

USSR/Electricity - Four-Terminal Networks
Nonlinear Networks

Sep 50

"Theorem of Nonlinear Four-Terminal Networks," S. A. Ginzburg, Cand Tech Sci, Moscow

"Elektrichestvo" No 9, pp 68-74

Proves subject theorem useful in calculating nonlinear circuits. Gives relationship of dynamic conductance of this network to dynamic conductances of its nonlinear elements. Presents general method, based on theorem, of plotting volt-ampere curve of four-terminal

167T47

USSR/Electricity - Four-Terminal Networks (Contd)

Sep 50

network with any number of nonlinear elements with assigned characteristics, and special methods for nonlinear four-terminal networks with one or two nonlinear elements.

167T47

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GINZBURG, S.A.; LEKHTMAN, I.Ya.; MALOV, V.S.

[Fundamentals of automatic and remote control] Osnovy avtomatiki i telemekhaniki. Moskva, Gos.energ.izd-vo, 1953. 432 p. (MLRA 6:12)
(Automatic control) (Remote control)

USSR/Electronics - Circuit Theory Feb 53

"Synthesis of Some Non-Linear Circuits," Cand Tech Sci S. A. Ginzburg, Moscow Power Eng Inst imeni Molotov

Elek-vo, No 2, pp 48-55

Examines methods for detg parameters of linear circuit elements and possible currents and voltages satisfying given operating conditions and nonlinear element characteristics. Introduces concepts of functional and energy conditions of circuit operations. Examines in general form

248T56

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functional conditions of voltage indicator and regulator, also of relay circuit (trigger). Demonstrates feasibility of expressing characteristics of synthesized non-linear circuit in relative units. Cites numerical example of calcn of bridge regulator with ballast resistors using dimensionless formulas. This research was reported by author in 1949 to Sci and Tech Soc of Moscow Power Eng Inst and at sci session devoted to Radio Day. Submitted 17 Oct 51.

(EEA 56 no. 672: 4998 '53)

248T56

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GORYAINOV, O.A.; RAYNES, R.L.; GINZBURG, S.A., redaktor; FRIDKIN, A.M., tekhnicheskiy redaktor.

[Remote control] Teleupravlenie. Moskva, Gos. energ. izd-vo, 1954. 511 p. (MLRA 7:12)
(Remote control)

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2"

GINSBURG, S. A.

"A Magnetic-Static Power Transformer" from the book Remote Control of Power Systems, published by the AS USSR, 1954.

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MALOV, Vladimir Sergeyevich; GINZBURG, S.A., redaktor; FRIDKIN, A.M. tekhnicheskiy redaktor.

[Telemechanics in power systems] Telemekhanika v energeticheskikh sistemakh. Izd.2-e, perer. Moskva, Gos.energet. izd-vo 1955. 328 p. (MLRA 8:12)
(Remote control)

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2"

112-2-3998

Translation from: Referativnyy Zhurnal, Elektrotekhnika, 1957, Nr 2, p.210 (USSR)

AUTHOR: Ginzburg, S.A.

TITLE: Electromechanical Systems Reproducing Functions of a Complex Variable(Applicable to the Computation of Automatic Control Systems) (Elektromekhanicheskiye ustroystva, vosproizvodyashchiye funktsii kompleksnogo peremennogo (primenitel'no k raschetu sistem avtomaticheskogo regulirovaniya)

PERIODICAL: Tr. 2-go Vses. soveshchaniya po teorii avtomat. regulirovaniya.Moscow-Leningrad, 1955, Nr 3, 130-139, addresses 140-143

ABSTRACT: The design principles of five devices proposed by the author and intended on the whole for the analysis of automatic control systems (ACS) are explained. The operating principle of these devices is a method of representing complex numbers by sinusoidal voltages.

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Electromechanical Systems Reproducing Functions of a Complex (Cont.)

The solutions are automatically registed on a complex plane (on paper or on a tube screen). The roots of the equation $f_n(z) + f_{n-1}(z) + \cdots + f_o(z) = 0$ are found with the first device. Here $z = \rho e^{j\phi}$. The variable z is represented as mechanical dissplacements proportional to ρ and ϕ. The variables ρ and ϕ are introduced in such a way that the point z traces the complex plane. The moment of root passage is set by the zero-adjuster by the equality to zero of the sum of the sets output sinusoidal voltages generating the terms of the equation $f_k(z)$ is equal to zero. The design is given of a device for solving a special case of this problem, finding the roots of the characteristic ACS equation: $a_n z^n + a_{n-1} z^{n-1} + \cdots + a_o = 0$. The basic elements of this device are phase inverters and taper-wound rheostats. The experimental model has shown that the approximate accuracy in finding roots is to $\pm$ 5 per cent. Diagrams

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Electromechanical Systems Reproducing Functions of a Complex (Cont.)

obtained on this model for the solution of two equations with real and complex coefficients are given. The second device is designed for finding the roots of a characteristic ACS equation when the equation itself is not given, but only the characteristic polynomials of the ACS component units and when the ACS scheme is known. In the case of a one-circuit ACS, the device generates the sinusoidal voltages representing the complex numbers $\frac{D_1(z)}{K_1} = q_{1-e}{}^{j\alpha 1}$; $\frac{Da(z)}{K_2} = q_2\, e^{j\alpha 2}$;

Here D(z) are the characteristic polynomials, and k is the amplification factor of the component units. Then the follow-up systems transform the electrical quantities $q_1, q_2 \ldots\ldots, \alpha_1\ \alpha_2$ into mechanical ones, which are fed into the resolver which generates the voltage $W = \frac{q^1\ q^2 \cdots}{k_1\ k_2} e^{j(\alpha_1 + \alpha_2 + \ldots)} \div 1.$

In course of the solution, the complex plane z is traced.

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Electromechanical Systems Reproducing Functions of a Complex (Cont.)

The values of z which correspond to W = 0 are the desired roots. The roots for a multicircuit ACS are determined in practically the same way. The third device makes it possible to find the roots of the characteristic equation $D(z) - M(z)\, e^{\tau z} = 0$ for a time-lag ACS. The device generates the voltages qe^{σ} and $me^{j\beta}$ which represent the polynomials D(z) and M(z). By way of logarythmic operations the terms of the original equation can be reduced to the form: $\ln q + j\sigma = \ln m + j\beta - \tau z$. The real and imaginary terms in this equation are represented by voltages at a 90° phase angle to each other. The plane z is traced as above. The values of the independent variable z which satisfy this equation are its roots. The conformal mapping of the secondary axis of the plane z on the plane W for the function $W=D(z)/M(z)$, where $D(z) = q \cdot e^{j\sigma}$ and $M(z) = m \cdot e^{j\beta}$ are polynomials, is done in the fourth device on paper or on the screen of a tube. This device can be used for plotting Mikhaylov's curve, for grouping parameter regions ("D-razbiyeniye"), etc. The quantities q, σ, m and β obtained after the polynomials have been worked out, are fed to the computing machine giving the voltage $W = q/me^{j(\sigma-\beta)}$

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Electromechanical Systems Reproducing Functions of a Complex (Cont.)

at the output. This quantity is plotted on the complex plane W. Should plotting the Mikhaylov curve be required only, the design of the device can be considerably simplified. The fifth device is the most universal. Direct and reverse conformal mapping (from plane z to plane W and vice versa) of any curves for a given function can be done with this device. In direct conformal mapping the point z skirts the given curve, the voltage W is generated and the follow-up systems generate the modulus and the argument W. In reverse transformations the plane z is repeatedly tracked and the values of z which correspond to given values of the quantity W are registered. The point designating these successive values slowly skirts the given curve on the plane W.

V.A.B.

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APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130004-2"

USSR/Engineering - Regulation FD-1746

Card 1/1 : Pub. 10-5/12

Author : Ginzburg, S. A. (Moscow)

Title : [redacted] Static power converters

Pericdical : Avtom. i telem., Vol. 16, 172-183, Mar-Apr 1955

Abstract : The author analyzes the general theory and classification of static power converters that are employed as primary meters for telemetering and automatic regulation of power in electric power systems. He surveys static converters of various types, and describes the principles governing the theory and technical characteristics of magnetic power converters. 19 references; eg. V. S. Malov, "Remote-Control Telemetering," Elektrichestvo, No 1, 1953; G. M. Zhdanov, Teleizmereniye [Telemetering], State Power Press, 1952; G. N. Balasanov, "Semiconductor thermo-resistors," Sbornik rabot po avtomatike i telemekhanike [Symposium on automatics and telemechanics], Acad. Sci. USSR Press, 1953; A. M. Pshenichnikov, "Thermoelectric power transducer," Sbornik 'Telemekhanizatsiya energosistem', Acad. Sci. USSR Press, 1954; K. B. Karandeyev, Poluprovodnikovyye vypryamiteli v izmeritel'noy tekhnike [Semiconductor rectifiers in metering], Acad. Sci. Ukr. SSR Press, 1954.

Institution : -

Submitted : May 25, 1954

2

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"Methods of the Contruction of Static Power Transformers" (Metody postroyeniya staticheskikh preobrazovateley moshchnosti) from the book Telemechanization in the National Economy, pp. 264-276, Iz. AN SSSR, Moscow, 1956

(Given at meeting held in Moscow 29 Nov to 4 Dec 54 by Inst. of Automatics and Telemechanics)

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GINZBURG, S.A. (Moskva)

General theory of circuits with nonlinear magnetic members [with English summary in insert]. Avtom.i telem. 17 no.9:799-810 S '56. (MLRA 9:11)

(Electric circuits)

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9(6) SOV/112-59-3-5574

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 3, p 186 (USSR)

AUTHOR: Ginzburg, S. A., and Brik, V. A.

TITLE: Computer for Investigating the Indicial Equations of Automatic-Control Systems (Vychislitel'naya mashina dlya issledovaniya kharakteristicheskikh uravneniy sistem avtomaticheskogo regulirovaniya)

PERIODICAL: V sb.: Mezhvuz. konferentsiya po primeneniyu modelirovaniya v elektrotekhn. zadachakh i matem. modelirovaniya. M., 1957, p 184

ABSTRACT: An analog electromechanical computer permits analyzing polynomials of 10th power of the form $\omega = \sum_{0}^{10} a_n z_n$, where a_n are real or complex coefficients; the computer can automatically construct the Mikhaylov's hodograph for a closed automatic-control system, can determine a polynomial root locus on the complex plane z, multiple roots, and can also solve other

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SOV/112-59-3-5574

Computer for Investigating the Indicial Equations of Automatic-Control Systems

problems associated with investigations of an automatic-control system. By changing z arbitrarily, a corresponding curve on the plane w can be obtained, or vice versa. An electron-beam afterglow-type tube screen can be used as a plane z or w. In determining the roots of equations of an automatic-control system, modules and arguments can be approximately figured out from the tube screen and then can be accurately read from special scales. The computer error is 2% or less for the module and 2° for the argument. Most problems can be solved in a few minutes. The computer has been developed and tested by TsLEM, Mosenergo.

I.L.M.

Card 2/2

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PHASE I BOOK EXPLOITATION 793

Ginzburg, Samuil Aleksandrovich

Nelineynyye tsepi i ikh funktsional'nyye kharakteristiki (Nonlinear Circuits and Their Functional Characteristics) Moscow, Gosenergoizdat, 1958. 151 p. 15,000 copies printed.

Ed.: Negnevitskiy, I.B.; Tech. Ed.: Larionov, G. Ye.

PURPOSE: The monograph is intended for scientists, engineers, and senior students specializing in automation and telemechanics.

COVERAGE: General characteristics of nonlinear a-c and d-c electric circuits are given and a graph-analytical determination of voltage and current distribution in nonlinear circuits is presented. Utilization of nonlinear

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circuit characteristics in constructing mathematical functions and calculating parameters of circuits performing multiplication and division is discussed. Determination of conditions for stabilization and relay effects is covered and a method of constructing logarithmic and quadratic circuits is given. Two-terminal nonlinear elements such as semiconducting resistances, ferromagnetic elements, and nonlinear capacitors are discussed. Treatment of electronic-ionic two-terminal elements and multiterminal networks as well as transients in nonlinear a-c and d-c circuits is not included. Discussion of the behavior of a-c nonlinear circuits is limited to cases of a fixed frequency and sinusoidal voltages and currents. Examples of using nonlinear circuits in such devices as stabilizers, voltage indicators, contactless relays, and functional converters are given. The author thanks Professor A.V. Netushil, Doctor of Technical Sciences, for his valuable

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comments while reviewing the manuscript, and Docent I. B. Negnevitskiy, Candidate of Technical Sciences, who edited the monograph. There are 124 references, of which 113 are Soviet (including 4 translations), 10 English, and 1 German.

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AUTHORS: Brik, V. A., Ginzburg, S. A. (Moscow) 103-19-7-5/9

TITLE: A Computer Which Constructs the Conformal Mappings for N-Order Polynomials (Vychislitel'naya mashina, vypolnyayushchaya postroyeniye konformnykh otobrazheniy dlya stepennogo polinoma)

PERIODICAL: Avtomatika i telemekhanika, 1958, Vol 19, Nr 7, pp 674 - 683 (USSR)

ABSTRACT: The construction of the conformal mappings of a complex plane Z upon the plane W and vice versa for the equation

$$a_o + a_1 Z + a_2 Z^2 + \ldots + a_n Z^n = W \qquad (1)$$

is of great practical importance in the investigation of automatic control systems. Here a machine which was worked out in the TsLEM Mosenergo (Central Laboratory and Experimental Workshops of the Power Supply System Moscow) is described. It permits to perform operations of the conformal transformation for polynomials including the 10th degree. This machine makes possible the construction of the mappings of any points and curves from the plane Z to the plane W (direct maps) and of some points (and sections) from W to Z (reversal maps). The complex numbers are represented

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by sinusoidal voltages of constant frequency (50 c). Before the polynomial is introduced into the machine it must be transformed mathematically. The form (4) is derived and in this form the polynomial is introduced into the machine. The block scheme of the machine is given. The most fundamental part of it is the functional transformer which produces 2 voltages W and z. The phase sensitive scheme 2 decomposes the sinusoidal voltage (which represents a complex number) applied to it into 2 voltages which are proportional to the real and imaginary component. These voltages are applied to the deflecting plates of the cathode ray tube the screen of which represents a complex plane. The electron zero device 3 responds when its input voltage approaches zero. Subsequently the electric diagram of the machine is described. It is shown that the construction of the direct transformation in the machine is performed by means of introduction of those z-values the transformation of which is to take place. The construction of the reversal transformations, however, is performed after the method of scanning the plane. I.e.the variable z varies on the one or the other way until the required quantity W appears at the output. The fundamental practical problems for the machine are the

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determination of the polynomial roots and the construction of the hodograph by Mikhaylov. In the last case a direct map is constructed. The solution of the problem for the determination of the roots (under application of the automatic introduction of z) is described in detail. For the illustration of the accuracy of the solution by means of the machine, examples are given. The machine described here was produced in the TsLEM Mosenergo in two specimens and they are used in the Laboratory for Dynamic Models at the MEI (Moscow Institute of Power Engineering) and in the VNIIE MES for the solution of problems which are connected with the stability of the operation in the energy systems. There are 6 figures, 1 table, and 10 references, 7 of which are Soviet.

SUBMITTED: July 4, 1957

1. Control systems—Analysis 2. Conformal mapping 3. Mathematical computers—Performance 4. Mathematical computers—Equipment

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28(1) PHASE I BOOK EXPLOITATION SOV/3244

Ginzburg, Samuil Aleksandrovich, Izrail' Yakovlevich Lekhtman, and Vladimir Sergeyevich Malov

Osnovy avtomatiki i telemekhaniki (Fundamentals of Automation and Telemechanics) 2d ed., rev. Moscow, Gosenergoizdat, 1959. 478 p. 35,000 copies printed.

Ed. (Title page): S. A. Ginzburg; Ed. (Inside book): Yu. P. Ustinova; Tech. Ed.: G. Ye. Larionov.

PURPOSE: The book is intended for engineers and technicians working in automation and remote control or interested in familiarizing themselves with this field. It may also be used as a textbook by students.

COVERAGE: The book contains basic information on automation and remote control facilities. It describes electronic, semiconductor and other components, such as data units, relays, amplifiers, distributors, voltage regulators, servomotors and others. The authors examine automatic regulation and control, servos, and measuring and computing systems. They describe the operation of

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telemetering and remote control systems and the function of communication channels. The Introduction and Chapters 1, 2, 5 and 11 were written by S. A. Ginzburg, Chapters 3, 7, 8 and 9 by I. Ya. Lekhtman, Chapters 12, 13, 14, 15 and 16 by V. S. Malov. Chapter 4 was written jointly by S. A. Ginzburg and I. Ya. Lekhtman, and Chapters 6 and 10 by S. A. Ginzburg and V. S. Malov. There are 38 references, all Soviet.

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report to be presented at the 1st Intl Congress of the Intl Federation of Automatic Control, 25 Jun-5 Jul 1960, Moscow, USSR.

KITOVICH, Ye. L. - "Ultra stability in electronic calculating devices"
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CHERTKOVSKIY, A. - "Use of calculating devices in systems for
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CHERNYAKHOVSKIY, E. - "Concerning some problems of the organization of
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VITENBERG, I.M., kand.tekhn.nauk; GINZBURG, S.A., kand.tekhn.nauk;
Gornshteyn, V.M., kand.tekhn.nauk

Use of an electronic simulating device in calculating the efficiency of operation of power systems with hydroelectric power stations. (MIRA 13:9)
Trudy VNIIE no.8:233-242 '59.
(Hydroelectric power stations)
(Electric power)

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GINZBURG, S.A., kand.tekhn.nauk

Power converter with thyrite resistances. Trudy VNIIE no.8: 251-263 '59. (MIRA 13:9)
(Electric current converters)

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S/196/62/000/012/013/016
E194/E155

AUTHOR: Arshurg, S.A.

TITLE: A computer for calculating economic conditions of a power system

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.12, 1962, 14, abstract 12 E84. (V Sb. 'Primeneniye vychisl. tekhn. dlya avtomatiz. proiz-va' (In the Symposium 'Application of Computer Techniques to Automation of Production'). Moscow, Nashgiz, 1961, 358-368).

TEXT: In 1959 development commenced of an analogue computer for ODU YeES which is based on the equivalent circuit of the European part of the unified power system of the USSR. The computer is intended to calculate distribution of the active load between power systems and large hydroelectric stations, allowing for losses in the system and assuming constant heads at the hydro stations. It can also determine the total relative increments of fuel consumption of a group of stations and the

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A computer for calculating ... S/196/62/000/012/013/016
E194/E155

relative increments of power losses at various points in the system. The relative increment characteristics are reproduced by the 'triangle' method, which consists in the formation of linear-segment relationships as the sum of triangular functions. The computer is designed for sixteen objects (systems or stations) and fifteen sections of transmission system. With non-linear elements the power transmitted over the lines can be limited. The relative increments of power loss in the system are determined by the voltage drop in sections of the analogue. The computer uses 130 d.c. amplifiers type [illegible]-4 (UPT-4) with semi-automatic zero control system.
3 references.

Abstractor's note: Complete translation.

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GINZBURG, S.A., kand.tekhn.nauk; GORNSHTEYN, V.M., kand.tekhn.nauk; SOVALOV, S.A., kand.tekhn.nauk

Fundamental principles of designing a computer for operational calculation of the load distribution efficiency of a consolidated electric utility system. Elek. sta. 32 no. 5:35-41 My '61. (MIRA 14:5)

(Interconnected electric utility systems)

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KORCHAGINA, V.I.; GINZBURG, S.A.; FIN'KO, A.A.; RUTMAN, L.I.; DAVYDOV, I.V.; LAVRINOVICH, D.A.

Electric method for measuring the water content in crude oil. Neft. i gaz. prom. no.2:51-56 Ap-Je '62. (MIRA 15:6)

1. Odesskiy neftepererabatyvayushchiy zavod.
(Petroleum--Refining)

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S/044/62/000/012/041/049
A060/A000

AUTHOR: Ginzburg, S.A.

TITLE: A logical method of synthesizing function generators

PERIODICAL: Referativnyy zhurnal, Matematika, no. 12, 1962, 46, abstract 12V252 (Tr. I Mezhdunar. kongressa Mezhdunar. federatsii po avtomat. upr. 1960. /T. 4/. Tekhn. sredstva avtomatiki. Moscow, AN SSSR, 1961, 267 - 281. Discussion 281 - 284)

TEXT: The author sets forth the elements of the algebra of the logic of continuous quantities (taking all finite values), based on the operations of disjunction ($x \vee y = \max(x, y)$), conjunction ($x \wedge y = \min(x, y)$), and inversion ($\bar{x} = -x$). The author shows networks realizing these operations. These circuits contain diodes, active resistances and voltage sources. He gives a method of using these circuits to synthesize networks realizing functions of one variable by means of piecewise-linear approximation. A method is also proposed for realizing functions of two variables specified by a finite number of points on the Z-axis (the X and Y axes being taken by the input variables), where the interpolation

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A logical method of synthesizing function generators

between these points is carried out by surfaces of the second order.

A.D. Zakrevskiy

[Abstracter's note: Complete translation]

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BOROZINETS, B.V., inzh.; GINZBURG, S.A., doktor tekhn. nauk; SHLIMOVICH, V.D., inzh.

Network, construction, and operational indices of the RER computer of the Administration of Power Production, Distribution, and Control of the Consolidated Power System of the European part of the U.S.S.R. Trudy VNIIE no.18:4-13 '64. (MIRA 18:6)

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ACCESSION NR: AP4019325 S/0105/64/000/003/0008/0012

AUTHOR: Borozinets, B. V.; Ginzburg, S. A.; Gornshteyn, V. M.; Shlimovich, V. D.; Sovalov, S. A.; L'vov, Yu. N.

TITLE: Computer for calculating power-system economy operation and the operating experience gained at ODU YeES

SOURCE: Elektrichestvo, no. 3, 1964, 8-12

TOPIC TAGS: power system, Soviet united power system, power system economics, power system economics computer, computer, interconnected power systems, high economy power system operation

ABSTRACT: An analog computer intended for calculating the high-economy operation of the Soviet United Power System (UPS) is described. The following features were taken into account in designing the computer: (1) The UPS is represented by an equivalent network in which all generating stations of a local power system are replaced by an equivalent station having an equivalent incremental economy rate characteristic; (2) Easy setting of any incremental characteristic; (3) System loads are represented by equivalent loads that have

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ACCESSION NR: AP4019325

individual load curves; (4) Interconnection-line losses are evaluated by special methods. The computer comprises the following essential parts: 16 generating station equivalents, 16 loads, 15 tie lines, 8 nonlinear units representing incremental losses due to power exchanges and tie-line load restrictions, 14 elements for setting the resistances of transmission lines. The computer includes 128 UPT-4 amplifiers, 1,000 6D6A diodes, 800 SP-2-A potentiometers, 2,000 resistors, 7 power-supply packs, etc.; power consumption is 7 kw. Computation of a set of operating UPS conditions takes about 2 hrs. The computer has been in continuous use since Nov. '62. "L. B. Denisevich (ODU YeES) and N. S. Malishevskaya (VNIIE) took part in aligning and operating the computer." Orig. art. has: 3 figures and 1 table.

ASSOCIATION: VNIIE (All-Union Scientific Research Institute of Electrical Power Engineering); ODU YeES (Joint Load-Dispatcher's Office, United Power System)

SUBMITTED: 10Jun63 DATE ACQ: 27Mar64 ENCL: 00
SUB CODE: PR, EE NO REF SOV: 001 OTHER: 000

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GINZBURG, S.A., doktor tekhn. nauk

Logical method for the synthesis and analysis of electrical networks in the representation of mathematical functions. Trudy VNIIE no.18:14-34 '64.

Basic construction principles of the RER-2 analog-digital computer. Ibid.:88-98 (MIRA 18:6)

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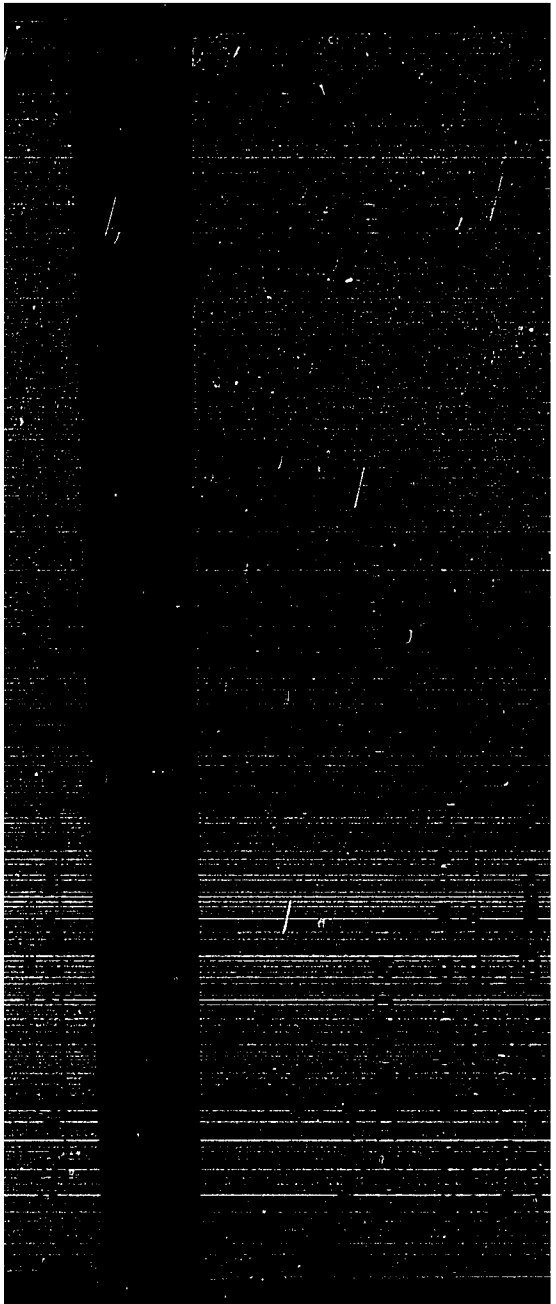
GINZBURG, S.A., doktor tekhn. nauk; LYUBARSKIY, Yu.Ya., inzh.; SHLIMOVICH, V.D., inzh.

Functional converter of the RER computer and its design. Trudy VNIIE no.18:35-52 '64. (MIRA 18:6)



GINZBURG, S.A., doktor tekhn. nauk; LYUBARSKIY, Yu.Ya., inzh.

Composite (analog-digital)functional converters of one and two variables. Trudy VNIIE no.18:53-62 '64.

(MIRA 18:6)

GINZBURG, S.A., doktor tekhn. nauk; LYUBARSKIY, Yu.Ya., inzh.;
MALISHEVSKAYA, N.S., inzh.

Functional analog memory device for a digital computer. Trudy
VNIIE no.18:63-68 '64. (MIRA 18:6)

KRAVCHUK, V.F., inzh.; KORCHAGINA, V.I., inzh.; GINZBURG, S.A., inzh.; KONGRE, G.A., inzh.; RUTMAN, L.I., inzh.; FIN'KO, A.A., inzh.; DAVYDOV, I.V., inzh.; LAVRINOVICH, D.A., inzh.

Express method for determining water content in highly viscous mazuts using their dielectric constant. Elek. sta. 35 no.9:22-26 S '64.
(MIRA 18:1)

GINZBURG, Semail Aleksandrovich; LEKHTMAN, Izrail' Yakovlevich; NOVOV, Vladimir Sergeyevich; SHRNOV, A.D., red.

[Principles of automatic and remote control] Osnovy avtomatiki i telemekhaniki. Izd.3., perer. Moskva, Energiia, 1965. 511 p. (MIRA 18:6)

ACC NR: AP6029550 SOURCE CODE: UR/0103/66/000/008/0131/0138

AUTHORS: Ginzburg, S. A. (Moscow); Lyubarskiy, Yu. Ya. (Moscow)

ORG: none

TITLE: A hybrid function generator

SOURCE: Avtomatika i telemekhanika, no. 8, 1966, 131-138

TOPIC TAGS: analog digital convertor, digital analog convertor, generator, hybrid computer, analog digital computer, interpolation, polynomial / RER-2 analog digital computer, RER-1 analog digital computer

ABSTRACT: An analog-digital single-variable function generator is described. The device has fast response, accuracy, and simplicity. An extended interpolation polynomial is used to obtain fairly simple tuning of the circuit (see Fig. 1). An input converter (see Fig. 2) is used to separate the input value into digital and analog parts. The analog value required for interpolation x_a is formed in accordance with

$$x_a = \left[x - \frac{2X}{m} E\left(\frac{xm}{2X}\right) - \frac{X}{m}\right] \frac{m}{X},$$

where $E(xm/2X)$ is the integral part of $xm/2X$. Both digital and analog function

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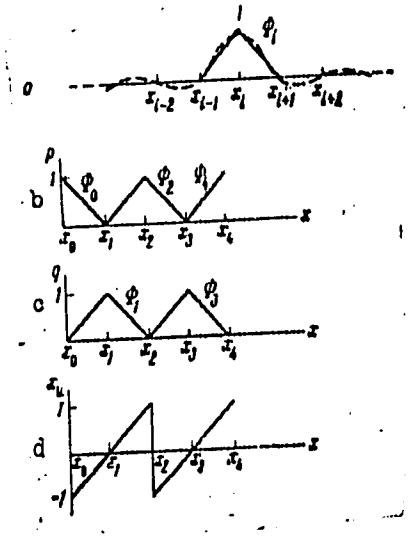

Fig. 1. Structure of hybrid function generator

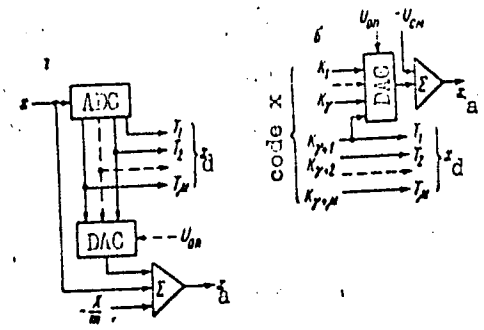

Fig. 2. Input converter of hybrid function generator: a--analog form of input value; b - digital form of input value

ACC NR: AP6029550

setting are provided. Such a hybrid function generator was constructed for the RER-2 analog-digital computer, in which the rms instrument error in reproducing monotone functions is 0.5--0.6%. The generation time is not over 1 msec. Orig. art. has: 15 formulas, 2 graphs, and 5 diagrams.

SUB CODE: 09/ SUBM DATE: 20Jan66/ ORIG REF: 008/ OTH REF: 002

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PHASE I BOOK EXPLOITATION SOV/3938

Akademiya nauk SSSR. Ural'skiy filial. Institut khimii.

Sbornik rabot laboratorii vysokomolekulyarnykh soyedineniy, No. 2 (Collected Papers of the Laboratory of High-Molecular Compounds, No. 2) Sverdlovsk, 1959. 53 p. (Series: Its: Trudy, vyp. 3) Errata slip inserted. 1,000 copies printed.

Eds.: V.G. Plymenin, Doctor of Chemistry, and V.N. Kozlov, Doctor of Technical Sciences; Tech. Ed.: N.P. Seredkina.

PURPOSE: This collection of three articles is intended for chemists and technicians interested in the chemistry of high-molecular compounds and polymers.

COVERAGE: The first article of this collection discusses the expression of the activity factor in the Alfrey and Price equation by a constant which could be determined independently of equations

$$r_1 = \frac{Q_1}{Q_2} e^{-e_1(e_1 - e_2)}, \quad r_2 = \frac{Q_2}{Q_1} e^{-e_2(e_2 - e_1)}$$

, where r_1 and r_2 are the copolymerization constants, Q_1 and Q_2 are the activity factors of the monomers, e_1 and e_2 are the polar factors of the monomers, and e is the base of the natural logarithms. The article explores the possibility of using for this end a value characterizing the dimensions [size] of the electron cloud formed by π-electrons of the reacting double and short bonds conjugated with it. The second article reports on a study made of the copolymerization of polydiethylene glycol fumarate and of poly-1, 3-butylene glycol fumarate with styrol, methylmethacrylate, acrylonitrile and vinyl acetate to explain the peculiarities of the copolymerization reaction of unsaturated polyesters with vinyl monomers. The third article reports on a study of the behavior of nitrile rubbers and polyesters of various structure used as plasticizers. L.M. Gindin, A.D. Abkin, and S.S. Medvedev are mentioned. References accompany each article.

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SPASSKIY, S.S.; OBOLONSKAYA, N.A.; YUGIN, V.I.; GINZBURG, S.B.; TAGIL'TSEVA, Ye.S.

Plasticizers for nitrile rubbers based on polymester resins. Trudy Inst. khim. UFAN SSSR no.3:33-42 '59. (MIRA 14:3)
(Plasticizers) (Rubber, Synthetic)

GINZBURG, S.G.; TEUMIN, I.I., redaktor; GROZNOVA, V.I., redaktor; KORUZEV, N.N., tekhnicheskiy redaktor.

[Methods of solving problems on transition transients in electric circuits] Metody resheniia zadach po perekhodnym protsessam v elektricheskikh tsepiakh. Pod red. I.I.Teumina. Moskva, Izd-vo "Sovetskoe radio," 1954. 251 p. (MIRA 8:4)
(Transients (Electricity)) (Electric circuits)

GINZBURG, S.G.. Prinimal uchastiye RIZKIN, A.A., dotsent; IVANUSHKO, N.D., red.; SVESHNIKOV, A.A., tekhn.red.

[Methods of solving problems of transients in electric networks] Metody resheniia zadach po perekhodnym protsessam v elektricheskikh tsepiakh. Izd.2., dop. i perer. Moskva, Sovetskoe radio, 1959. 403 p. (MIRA 13:2)
(Electronic circuits)

8(0) SOV/105-59-5-26/29

AUTHORS: Ginzburg, S. G., Greyner, L. K., Zakharov, S. N., Kaplyanskiy, A. Ye., Neyman, L. R., Netushil, A. V., Petrov, L. S., Pines, G. Ya., Polivanov, K. M., Savenko, V. G., et al

TITLE: Vladimir Borisovich Romanovskiy

PERIODICAL: Elektrichestvo, 1959, Nr 5, p 93 (USSR)

ABSTRACT: On January 13, 1959, Vladimir Borisovich Romanovskiy, Professor, Doctor of Technical Sciences, died at the age of 63. He started his activity as an engineer in the design office of the "Elektroapparat" Works in 1926. Soon he became head of the works laboratory. Since 1937, he was head of the Chair of Theoretical Electrotechnics at the Leningradskiy elektrotekhnicheskiy institut svyazi im. M. A. Bonch-Bruyevicha (Leningrad Communications Electrical Engineering Institute imeni M. A. Bonch-Bruyevich). At the same time, he maintained his relations to the works where he was a counsel, chief electrical engineer and a permanent member of the technical council. He is one of the founders of the theoretical principles for the building of high-voltage apparatus. At the chair he was occupied with calculations of transition processes in electric current circuits which were also the subject of his doctoral thesis. He published more than 40 scientific papers.

He bore the Badge of Honor and various medals. There is 1 figure.

KAPLYANSKIY, A.Ye., doktor tekhn.nauk, prof. (Leningrad); GINZBURG, S.G., kand.tekhn.nauk (Leningrad)

Concerning the order of the differential equation of a transient process in a complex electrical network. Elektrichestvo no.10: 57-59 O '62. (MIRA 15:12)
(Electric networks) (Differential equations)

GINZBURG, Sh. G.

23632.

OPYT LEChENNYa BATsILLYaRNOY DIZENTERII MALYMI DOZAMI SUL'FIDINA. TRUDY SARAT. GOS. MED. IN-TA, T. VIII, 1949, c. 251-55.

SO: LETOPIS' NO. 31, 1949

GINZBURG, S. I. Cand. Chem. Sci.

Dissertation: "The Hydrolysis of the Complex Chlorides of Platinum Metals and its Utilization in Analysis." Inst of General and Inorganic Chemistry imeni N. S. Kurnakov, Acad Sci USSR, 19 Nov 47.

SO: Vechernyaya Moskva, Nov, 1947 (Project #17836)

GINZBURG, S.I.

CA

7

Use of acetylene for determination of palladium and platinum in copper-nickel slimes. N. K. Pshenitsyn, S. I. Ginzburg, and I. G. Sidskaya. *Tsvet. Sektsiya Plavnoy i Drugikh Blagorod. Metal., Inst. Obshchet. i Neorg. Khim., Akad. Nauk S.S.S.R.* No. 22, 64-75 (1948). In the presence of Cu, Pd and Pt are pptd. together in a relatively pure state after the soln. has been boiled with tartaric acid to reduce part of the Pt to metal, by passing C_2H_2 for 1 hr., and filtering and washing the ppt., passing C_2H_2 through the filtrate for approx. 5 min., boiling the soln., satg. again with C_2H_2, and boiling again to ppt. Pt and Pd, not pptd. in the first operation. The ppts. are ignited, reduced, and weighed. In analyzing Cu-Ni slimes and concentrates the method is accurate to within 1.5%.

M. Hoch

CA

7

Review of hydrolytic methods for separation of platinum metals. N. K. Pshenitsyn and S. I. Ginzburg. *Izvest. Sektora Platiny i Drugikh Blagorod. Metallov Inst. Obshchei i Neorg. Khim., Akad. Nauk S.S.S.R.* No. 22, 130-44 (1948). M. Hoech

CA GINSBURG, S. I.

Hydrolysis of complex chlorides of platinum metals and the pH at which their hydroxides begin to separate. N. K. Palentsyn and S. I. Ginzburg. *Izvest. Sektora Platiny i Drugikh Blagorod. Metallov, Inst. Obshchei i Neorg. Khim., Akad. Nauk S.S.S.R.* No. 24, 109–16(1949). The salts studied were $Na_3[RhCl_6]$, $Na_2[PtCl_4]$, $K_2[PtCl_6]$, $Na_2[IrCl_6]$, $Na_3[IrCl_6]$, $Na_2[PdCl_4]$, and $Na_2[RuCl_5H_2O]$. The pH of solns. of these salts at concns. of 1 mol. per 500 l. was measured at definite time intervals. The pH of the solns. decreased with time, except that of the Rh salt, which did not change during the 72 hrs. of the expt., and that of $Na_3[IrCl_6]$, which rose slightly. Possibly, the latter is an exptl. error and needs further study. The rate of reaction with hydroxide was studied by measuring the pH of the salt solns. upon addn. of similar vols. of NaOH. Pd and Ru salts attained equil. after 30–40 min. The Rh salt after 4–5 hrs. had practically reached equil. Changes in the pH of the Ir^{+++} salt could be observed even after 48 hrs. The pH of the Pt^{++++} salt changed only 1.00 units during 72 hrs. To 50 ml. of salt solns. various quantities of NaOH were added and the pH of all solns. was measured (glass electrode) over a period of time. At room temp. the hydroxides formed at the following pH values: Rh^{+++}, 6.6–6.7; Ir^{+++}, 7.4–7.6; Pt^{++}, 5.9–7.4; Pd^{++}, [illegible], and Ru^{+++} 3.2–3.8. Analogous detns. made at boiling temp. showed that hydrolysis results in greater drop of the pH and that the hydroxides appear at: Rh^{+++}, 3.3–3.4; Ir^{+++}, 3.0–4.0; Pd^{++}, 3.0; Pt^{++}, 3.8; and Ir^{++++}, 3.0–4. Excess Cl inhibited the formation of $Pd(OH)_2$, which proceeds according to: $[PdCl_4]^{--} \rightarrow Pd^{++} + 4Cl^-$, $Pd^{++} + 2OH^- \rightarrow Pd(OH)_2$. M. Hoch

C. A. GINSBURG, L. I.

7

Hydrolytic method for separation of platinum metals with the aid of zinc oxide N. K. Pshenitsyn and S. I. Ginzburg *Zavod. Sektora Platiny i Drugikh Blagorod. Metallov, Akad. Nauk S.S.S.R.* No. 24, 115-20 (1949). To sep. Rh from Pt acidify the soln. with 1-2 drops of HCl, bring to a boil, add the necessary ZnO, boil 2-3 min., filter, and wash the ppt. until free of chlorids. The filtrate is free of Rh, the ppt. is likely to be contaminated with Pt. Dissolve the ppt. in HCl, neutralize to a weakly acid reaction with Na_2CO_3, and reppt. once or twice if necessary. Pt is apparently adsorbed on ZnO and therefore excess ZnO should be avoided. Ir was sepd. from Pt similarly except that Cl_2 was passed through the hot soln. to oxidize Ir^{+++} to Ir^{++++} which was reduced by the added ZnO. Similarly, Pd was sepd. from Pt. In the last sepn. care must be taken to avoid excess chlorids. To this end the amt. of HCl used should be small and chlorids washed out before reppttn.

M. Hosch

GINZBURG, S. J.

[illegible]

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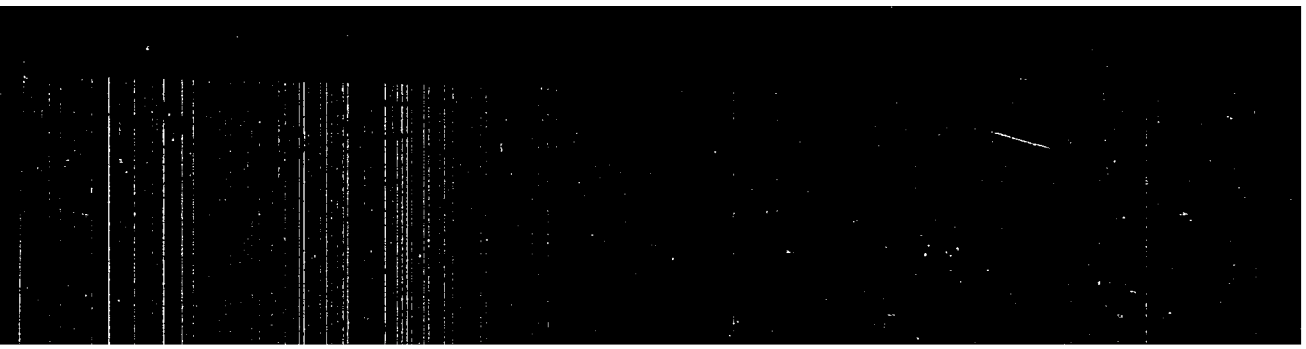
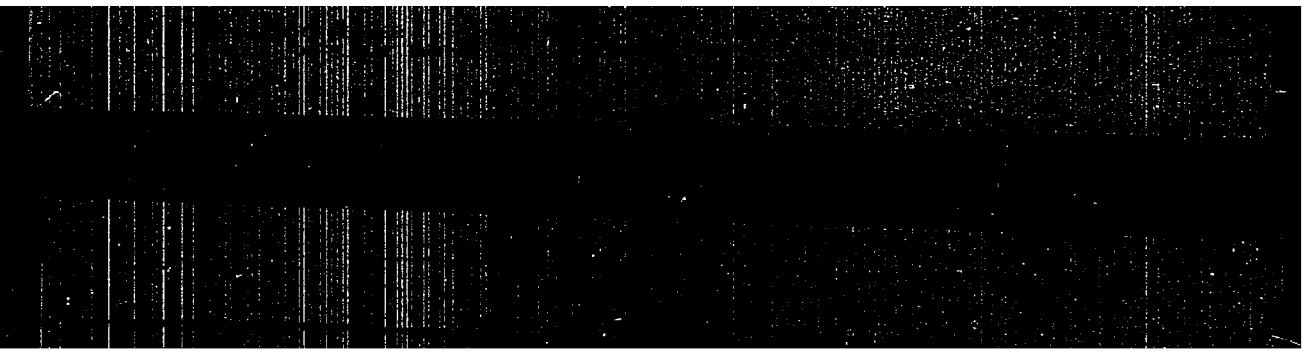
GINZBURG S.I.

PSHENITSYN, N.K.; GINZBURG, S.I.

Study of the effect of composition of certain platinum-group complex compounds upon their resistance to hydrolysis. Izv.Sekt.plat.i blag. met. no.28:213-228 '54. (MLRA 7:9)

(Platinum group) (Compounds, Complex) (Hydrolysis)





USSR/Analytical Chemistry - Analysis of Inorganic Substances, G-2

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61847

Author: Pshenitsyn, N. K., Ginzburg, S. I.

Institution: None

Title: Determination of Palladium by the Method of Potentiometric Titration in the Presence of Platinum

Original Periodical: Izv. Sektora platiny IONKh AN SSSR, 1955, No 32, 31-37

Abstract: Potentiometric titration (PT) of a solution of complex palladium chloride (I) in 0.15-0.3 N H_2SO_4 with a solution of KJ is conducted at room temperature in CO_2 atmosphere, using a palladium electrode as indicator electrode. Beginning with a certain definite concentration of $[PtCl_6]^{2-}$ admixture in I there appears on the PT curves a minimum from the position of which is determined the end point of titration of I. However as the content of Pt in the solution increases the minimum becomes

USSR/Analytical Chemistry - Analysis of Inorganic Substances, G-2

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61847

Abstract: of Pd a determination of the latter is no longer possible. In such cases the influence of any amount of Pt is eliminated by precipitating it as $K_2[PtCl_6]$ by addition of K_2SO_4. The precipitate that separates does not interfere with the titration. Error of determination of 20-72 mg Pd by this method as a rule does not exceed 2%. With the same degree of accuracy Pd is determined in the presence of Pt by the method of "rapid" titration which is based on the difference in rate of interaction of complex chlorides of Pd and Pt with KJ. With $[PtCl_6]^{2-}$ KJ reacts much more slowly than with I. In this method titration is carried out as rapidly as possible without waiting for a constant value of the potential.

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GINZBURG, S.I.

PSHENITSYN, N.K.; GINZBURG, S.I.

Study of the reduction reactions of the hydroxopentachloride of tetravalent ruthenium -- $K_2[RuOHCl_5]$. Zhur. neorg. khim. 2 no.1: 112-120 Ja '57. (MLRA 10:4)

1. Institut obshchey i neorganicheskoy khimii im. N.S. Kurnakova AN SSSR.

(Ruthenium compounds) (Complex compounds)

GINZBURG, S. I.

18(6) PHASE I BOOK EXPLOITATION SOV/3199

Akademiya nauk SSSR. Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova

Analiz blagorodnykh metallov (Analysis of Noble Metals) Moscow, 1959. 193 p. Errata slip inserted. 2,700 copies printed.

Resp. Ed.: N. K. Pshenitsyn, USSR Academy of Sciences, Corresponding Member; and O. Ye. Zvyagintsev, Doctor of Chemical Sciences; Eds. of Publishing Houses: T. G. Levi, and D. N. Trifonov; Tech. Ed.: I. N. Guseva.

PURPOSE: This collection of articles is for scientists engaged in the study and analysis of the noble metals.

COVERAGE: This is a collection of articles on the analysis of the noble metals. It includes studies carried out by the Institute of General and Inorganic Chemistry im. N. S. Kurnakov (AN SSSR), as well as reports presented by scientific research organizations and by industrial enterprises at the Third and Fourth Conference on Noble Metals held in 1954 and 1957, respectively. The

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studies and reports describe new organic reagents for gravimetric determination of platinum metals, and physicochemical methods of analysis (spectrophotometric, polarographic and potentiometric). Special attention is given to spectral analysis for the determination of admixtures in alloys of platinum metals, silver, and gold, as well as in refined noble metals. The collection also includes analytical methods, tables and charts for materials containing metals of the platinum group, as well as a review of the literature on the analysis of platinum metals published in the last five years. No personalities are mentioned. References follow each chapter.

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5(4)

SOV/78-4-2-10/40

AUTHORS: Pshenitsyn, N. K., Ginzburg, S. I., Sal'skaya, L. G.

TITLE: Investigation of the Oxidation Reaction of Iridium (III) in Solutions of Sulfuric, Phosphoric, and Perchloric Acid (Izucheniye reaktsii okisleniya iridiya (III) v rastvorakh sernoy, fosfornoy i khlornoy kislot)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 2, pp 301-313 (USSR)

ABSTRACT: The oxidation of iridium (III) with cerium (IV) sulfate, sodium bismuthate, perchloric acid, and potassium bichromate in concentrated solutions of sulfuric acid, diluted sulfuric acid, and concentrated phosphoric acid was investigated. The following compounds were used as initial reagents: standard solutions $H_2[IrCl_6]$ of various concentrations; standard solutions $Ce(SO_4)_2$ (0.1-0.04 N); $K_2Cr_2O_7$ (0.1-0.04 N); $NaBiO_3$; chemically pure; $HClO_5$, 50%; H_3PO_4, 60%; H_2SO_4 (specific gravity 1.84). The investigation of the oxidation reaction was carried out by means of the absorption spectra and the

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potentiometric titration of the solutions by Mohr's salt. It was found that the oxidation reaction of iridium (III) mainly depends on the concentrations of sulfuric acid and phosphoric acid, respectively. In concentrated solutions of these acids blue solutions are formed, independent of the oxidizer, with characteristic absorption spectra with an absorption maximum at 570 mμ. These solutions contain iridium (IV) in the form of a complex anion with the addenda SO_4^{2-} or PO_4^{3-}. The same characteristics of phosphoric acid and sulfuric acid show that these complex compounds contain the same chromophoric group. On the oxidation of iridium (III) red solutions are formed in weak solutions of sulfuric and phosphoric acid and in perchloric acid, which have characteristic spectra with an absorption maximum at 500 mμ. The separation of the products formed did not prove successful. It may be presumed that these compounds contain iridium (IV) as a hydrated cation. The hydrated complex is stable in acid media only and with an increase of pH in the solution it becomes a hydroxo compound which is separated as iridium hydroxide.