"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

[illegible]

Nuclear nature of integral operators and the existence of an S-matrix in the problem of scalar scattering on an infinite boundary and local potential. Ukr. mat. zhur. 17 no.3:84-90 '65. (MIRA 18:6)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, A.G.

Analytic continuation of the resolvent nucleus of a [illegible] operator on the spectral parameter and the principle of the limiting amplitude in infinite domains. Dokl. AN Azerb. SSR 21 no.1:3-7 '65. (MIRA 18:5)

1. Leningradskiy gosudarstvennyy universitet.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, A.G. (Leningrad)

Spectral properties of Schrödinger's operator in domains with infinite boundaries. Mat. sbor. 66 no.3:321-343 Mr '65.

(MIRA 18:5)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

L 62950-65 EWT(d) IJP(c) UR/0020/65/163/003/0584/0586

ACCESSION NR: AP5019419

15
13
B

AUTHOR: Ramm, A. G. 55

TITLE: On necessary and sufficient conditions for the principle of limiting amplitude

SOURCE: AN SSSR. Doklady, v. 163, no. 3, 1965, 584-586

TOPIC TAGS: partial differential equation, boundary value problem, integral operator 16,55

ABSTRACT: Given the semibounded operator $\mathcal{L}$ in Hilbert space, the following nonstationary problems are considered:

$$u_{tt} + \mathcal{L}u = f(x)e^{i\omega t};$$
$$u|_{t=0} = 0, \quad u_t|_{t=0} = 0;$$
$$u_{tt} + \mathcal{L}u = 0;$$
$$u|_{t=0} = 0, \quad u_t|_{t=0} = g(x).$$

Necessary and sufficient conditions are formulated such that the operator $\mathcal{L}$ will satisfy the principle of limiting amplitude expressed in the form

Card 1/2

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L 62950-65

ACCESSION NR: AP5019419

2

$$\frac{1}{T}\int_0^T u(x, t)\, e^{-i\omega t}\, dt - v(x, \omega) = o(1) \text{ as } T \to \infty.$$

Orig. art. has: 16 formulas.

ASSOCIATION: Leningradskiy institut tochnoy mekhaniki i optiki (Leningrad Institute of Precision Mechanics and Optics) 55

SUBMITTED: 07Jan65 ENCL: 00 SUB CODE: MA

NO REF SOV: 005 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

L 23761-66 EWP(e) IJP(c)

ACC NR: AP6014800 SOURCE CODE: UR/0249/65/021/001/0003/0007

AUTHOR: Ramm, A. G.

ORG: Leningrad State University (Leningradskiy gosudarstvennyy universitet)

TITLE: Analytic extension of the resolvent kernel of the Schrodinger operator with respect to a spectral parameter and the principle of limiting amplitude in infinite regions

SOURCE: AN AzerbSSR. Doklady, v. 21, no. 1, 1965, 3-7

TOPIC TAGS: mathematics, function

ABSTRACT: Given $\Omega$ the exterior of a sphere with boundary $\Gamma$ in space $E_3$ or the entire space $E_3$. L is an operator defined by the differential expression $Lu = -\Delta u + c(x)u$. $H(x, y, -p^2)$ is the resolvent kernel of operator L for the region $\Omega$. The author studies the analytic extension of the function $u(x, p) = \int H(x,y,-p^2)f(y)dy$; the results obtained are used to solve the problem $u_{tt} + Lu = f(x)e^{i\omega t}$ for $t \to \infty$. This paper was presented by Academician AN AzerbSSR Z. I. Khalilov. Orig. art. has: 23 formulas. [JPRS]

SUB CODE: 12 / SUBM DATE: 24Feb64 / ORIG REF: 005

Card 1/1

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

L 20811-66 EWT(d)/EWT(1)/T IJP(c)
ACC NR: AP6009418 SOURCE CODE: UR/0020/66/166/006/1319/1322

21

AUTHOR: Ramm, A. G.

B

ORG: none

TITLE: On the domain free of resonance poles in the problem of scattering by a three-dimensional potential

SOURCE: AN SSSR. Doklady, v. 166, no. 6, 1966, 1319-1322

TOPIC TAGS: potential scattering, Schroedinger equations, wave function, wave function analytic continuation

ABSTRACT: In connection with scattering of particles by a three-dimensional potential, the Schrödinger equation

$$\Delta u + k^2 u - V(x) u = 0, \quad x = (x_1, x_2, x_3), \tag{1}$$

is analyzed under the assumption that the potential V(x) is a differentiable, finite function. It is proven that the solution u(x, k) of equation (1) has an analytic continuation in the entire plane of the complex variable $k = \sigma + i\tau$. This continuation is regular in the half-plane Im $k > 0$. It is established that the poles of the function

Card 1/2 UDC: 517.9:539.1

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

L 20814-66

ACC NR: AP6009418

u(x, k) (the wave function) are located in the plane Im k < 0 and for large $\sigma$ values they are under the curve

$$\tau = -a \ln|\sigma| + b, \tag{2}$$

where a > 0 and b are certain constants. It is noted that since the poles of the scattering amplitude coincide with the poles of the wave function u(x, k) the derived results can be extended to the scattering amplitude. The problem of the analytic continuation of the wave function is also considered in the case when instead of the finiteness of the potential, the condition

$$\int e^{-a|x|} |V(x)| dx < C(a), \quad C(a) = \text{const}, \tag{3}$$

where a > 0 is an arbitrary number, is satisfied. Orig. art. has: 24 formulas. [LK]

SUB CODE: 20/ SUBM DATE: 24Jun65/ ORIG REF: 010/ OTH REF: 001
ATD PRESS: 4123

Card 2/2

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

L 02410-67 EWT(1)/T WR/GD

ACC NR: AT6022331 SOURCE CODE: UR/0000/66/000/000/0009/0013

52

B+1

AUTHOR: Ramm, A. G.

ORG: None

TITLE: Synthesis of a cavity antenna with a given directional pattern

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966. Sektsiya antennykh ustroystv. Doklady. Moscow, 1966, 9-13

TOPIC TAGS: antenna directivity, aircraft antenna, antenna radiation pattern

ABSTRACT: The author considers the problem of determining the spatial distribution of radiating elements corresponding to a given directional pattern. It is shown that this distribution is uniquely determined by the directional pattern. A class of functions is defined which are directional patterns for the distribution of radiating elements concentrated in a bounded region of space. A procedure is given for finding the distribution of radiating elements from a directional pattern. If the vector properties of the field are taken into account, the distribution of the radiating elements will not generally speaking be uniquely determined by the directional pattern. Orig. art. has: 19 formulas.

SUB CODE: 20/ SUBM DATE: 22Mar66/ ORIG REF: 006

Card 1/1

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, A.N., prof. doktor tekhn. nauk

Unjustified criticism of the [illegible] principle. [illegible] (MIRA 18:8)
686-689 Ag '65.

1. Leningradskiy politekhnicheskiy institut.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

[illegible]

Minimum theoretically possible consumption of [illegible] production of iron under present conditions. [illegible] (MIPA [illegible])

[illegible] Leningradskiy politekhnicheskiy institut.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, A.N.

Mikhail Aleksandrovich Pavlov, 1863-1958; on the one hundredth anniversary of his birth. Trudy LPI no.225:7-10 '64.
(MIRA 17:9)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

L 19819-65 EWT(d)/EEC(k)-2/EEC-4 Po-4/Pq-4/Pg-4/Pk-4/Pl-4

ACCESSION NR: AP5001031 S/0115/64/000/011/0035/0037

AUTHOR: Etkin, L. G.; Yanovskiy, V. Ya.; Ramm, D. V.

TITLE: Effect of inertial forces on vibration-frequency sensors

SOURCE: Izmeritel'naya tekhnika, no. 11, 1964, 35-37

TOPIC TAGS: measuring sensor, vibration frequency sensor, primary element

ABSTRACT: Some theoretical considerations are offered regarding the effect of inertial (e.g., centrifugal) forces on vibration of the sensitive element represented by a flat bar with one constrained end. Several positions of the bar with respect to the inertial-force field are analyzed: (1) Centrifugal and Coriolis forces are applied in the maximum-stiffness plane of the bar; (2) Centrifugal and Coriolis forces are at right angles, etc. Formulas for calculating frequency errors are developed. Orig. art. has: 2 figures and 14 formulas.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00

SUB CODE: IE NO REF SOV: 002 OTHER: 000

Card 1/1

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

DORZHIYEV, D.P., inzh.; RAMM, D.V., inzh.; ETKIN, I.G., kand.tekhn.nauk

Some problems in the theory of vibration-frequency transducers. Priborostroenie no.3:10-13 Mr '65. (MIRA 18:4)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

[illegible]

Increasing the precision of vibration [illegible].
Pribor stroenie no.6:7-8 Je '35. (MIRA 12:7)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

ZAYEZDNYY, A.M.; KUSHNIR, V.F.; RAYM, G.S., otv. red.; GAL'CHINSKAYA, V.V., tekhn. red.

[Parametric systems; outline of lectures on the course "Theoretical radio engineering."] Parametricheskie sistemy; konspekt lektsii iz kursa "Teoreticheskaia radiotekhnika." Leningrad, Leningr. elektrotekhn. in-t sviazi, 1962. 110 p. (MIRA 17:3)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

L 13116-63 BDS/EWT(1) AFFTC/ASD S/043/63/007/002/001/008

51

AUTHOR: Ramm, A. G.

TITLE: A study of the scattering problem in certain infinite domains. I.

PERIODICAL: Leningrad. Universitet. Vestnik, no. 7. Seriya matematiki, mekhaniki i astronomii, no. 2, 45-66

TEXT: In his study of the problem of the dispersion of plane waves on the surface of an infinite domain, the author examines the resolvent of the Laplace operator of the Dirichlet problem in the domain $0 \leq \varphi \leq \alpha$ on a plane. He finds that the resolvent kernel $G(x, y, k + i\varepsilon)$ uniformly tends to its limit on the real axis. The kernel $G(x, y, k)$ allows the asymptotic $G(x, y, k) \underset{\substack{r=|y| \to \infty \\ \arg y = \omega}}{\simeq} \simeq \gamma(r) u(x, w, k)$. The functions $u(x, \omega, k)$ are solutions of the scattering problem of plane waves on the surface indicated. The author arrives at a theory of decomposition on the basis of functions $u(x, \omega, k)$. He transfers all these results to the domains whose boundaries coincide with the boundary of the triangle $0 \leq \varphi \leq \alpha$ outside a given circle. He obtains the estimates of the Green frunctions of the Helmholtz operator in the domain with unlimited boundary.

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APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, A.G.

Analysis of the scattering problem in certain infinite domains. Part 1. Vest.LGU 18 no.7:45-66 '63. (MIRA 16:4)
(Scattering (Physics)) (Operators (Mathematics))

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, A.G.

Concerning Kotel'nikov's theorem. Elektrosviaz' 16 no.10:71-72 O '62. (MIRA 15:9)

(Information theory)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, A. G.

Necessary and sufficient indication of the compactness of imbedding. Vest. LGU 18 no.1:150-151 '63. (MIRA 16:1)

(Spaces, Generalized)
(Operators(Mathematics))

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

ARUTYUNOV, N.B., inzh., red.; VOSKOBOYNIKOV, V.G., doktor tekhn. nauk, red.; GOTLIB, A.D., prof., doktor tekhn.nauk, red.; GUSOVSKIY, A.A., inzh., red.; KRASAVTSEV, N.I., kand. tekhn. nauk, red.; NEKRASOV, Z.I., akademik, red.; OSTROUKHOV, M.Ya., kand. tekhn. nauk, red.; POKHVISNEV, A.N., prof., doktor tekhn.nauk, red.; RAMM, A.N., prof., doktor tekhn. nauk, red.; TSYLEV, L.M., prof., doktor tekhn. nauk, red.; POZDNYAKOV, G.L., red. izd-va; ISLENT'YEVA, P.G., tekhn. red.

[Blast furnace process according to most recent developments; on the 100th. anniversary of Academician M.A.Pavlov's birth] Domennyi protsess po noveishim issledovaniiam; k 100-letiiu so dnia rozhdeniia akad. M.A.Pavlova. Moskva, Metallurgizdat, 1963. 325 p. (MIRA 16:8)

1. AN Ukr.SSR (for Nekrasov).
(Blast furnaces)
(Pavlov, Mikhail Aleksandrovich, 1863-1958)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

GOL'MSHTOK, Ya.M.; KUZ'MIN, I.A.; LEVIN, L.Ya.; RAMM, A.N.; YAKUBTSINER, N.M.

Three years of blast furnace operation at the Cherepovets Metallurgical Plant. Trudy LPI no.212:7-23 '60. (MIRA 13:12)
(Cherepovets--Blast furnaces)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

18(6) PHASE I BOOK EXPLOITATION SOV/1728

Akademiya nauk SSSR. Institut metallurgii

Sovremennyye problemy metallurgii (Modern Problems in Metallurgy) Moscow, Izd-vo AN SSSR, 1958. 640 p. 3,000 copies printed.

Resp. Ed.: A.N. Samarin, Corresponding Member, USSR Academy of Sciences; Eds. of Publishing House: V.S. Rzhevnikov, and A.N. Bernov; Tech. Ed.: T.V. Polyakova.

PURPOSE: This book is intended for scientific and technical personnel in the field of metallurgy.

COVERAGE: This is a collection of articles on certain aspects of Soviet metallurgy. The book is dedicated to Academician Ivan Pavlovich Bardin on the occasion of his 75th birthday. The book is divided into seven parts. The first part consists of two articles presenting a brief account of the biography and professional activity of the Soviet metallurgist. It includes an article by John Chipman, Nicholas Grant, and John Elliott (M.I.T., USA) describing their meeting with Bardin in Moscow and also his visit to the United States. The second part consists of three articles and deals with raw materials and fuels for the Soviet metallurgical industry. The third part represents the major portion of the book. It consists of 25 articles dealing with the various aspects of the metallurgy of pig iron and steel. The fourth part consists of two articles treating the metallurgy of nonferrous metals. The fifth part consists of three articles on the forming of metals. The sixth part consists of eight articles discussing certain aspects of physical metallurgy. The last part deals with general problems in the field of metallurgy. References are given after each article. No personalities are mentioned.

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Modern Problems in Metallurgy SOV/1728

METALLURGY OF PIG IRON AND STEEL

Rzhev, A.N. [Doctor of Technical Sciences, Leningrad Polytechnic Institute]. Application of Combination Blast in Blast-furnace Smelting 61

Shapovalov, N.A. [Candidate of Technical Sciences, Central Scientific Research Institute of Ferrous Metallurgy], B.A. Goes [Candidate of Technical Sciences, Metallurgical Institute, AS USSR]. Future Prospects for Pig Iron Production with the Application of Oxygen Blast (90-95% $O_2$) 96

Pshenicnov, A.S. [Doctor of Technical Sciences, Moscow Steel Institute]. Metallurgical Evaluation of Raw Materials for Blast-Furnace Smelting 104

Wu, Shu-p'ei [Director of the Chemical and Metallurgical Institute of the Chinese People's Republic, Peking]. A New Concept of the Blast Furnace Process 115

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APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, A.N., prof., doktor tekhn. nauk

Using combined blast in blast-furnace smelting. Biul. TSNIICHM no. 8:9-22 '58. (MIRA 11:7)

(Blast furnaces)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

SOV/137-57-10-18807

Translation from Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 53 (USSR)

AUTHOR: Ramm, A.N.

TITLE: Theoretical Fundamentals of the Employment of Fluxed Sinter in Blast Furnaces (Teoreticheskiye osnovy primeneniya oflyusovannogo aglomerata v domennykh pechakh)

PERIODICAL: Tr. Nauch. tekhn. o-va chernoy metallurgii, 1956, Vol 8, pp 44-64; Stal', 1954, Nr 12, pp 1073-1081

ABSTRACT: The thermal equivalents of the charge components and comparisons of the heat balances of the blast-furnace process with utilization of fluxed sinter (FS) and raw limestone are employed by the author to derive equations for calculation of possible coke savings. Calculations based thereon for standard smelting conditions show that coke savings per kg of limestone eliminated from the blast-furnace charge come to 0.4-0.5 kg. Thus, when 0.25-0.4 t raw limestone is eliminated from the blast-furnace charge per t coke, the reduction in relative coke consumption and the increase in furnace-output capacity may attain 10-15%. The limits of coke economy depend upon the reducibility of the FS. The maximum coke saving theoretically

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

SOV/137-57-10-18807

Theoretical Fundamentals of the Employment of Fluxed Sinter (cont.)

possible corresponds to the attainment of an equilibrium ratio, $i = CO_2:CO$, in blast-furnace gas and of minimum identical reducibility of fluxed and unfluxed sinter. From these conditions, equations are derived for calculation of the maximum coke economies possible when ordinary sinter and limestone are replaced by FS. The employment of FS reduces the thickness of the belt of viscous primary slags, and this leads to a diminution in overall loss of gas head in the blast furnace. Therefore, the increase in output capacity on conversion to FS may be greater than the reduction in coke consumption alone would indicate. The possible coke saving rises with increase in the proportion of raw limestone converted from blast-furnace usage to sinter mix. The optimum degree of sinter fluxing should be determined primarily by its physical properties and the output capacity of the sintering machines.

F.K.

Card 2/2

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, A.N.

Materials and heat balance in blast furnace smelting with the blowing in of reducing gases. Trudy LPI no.212:24-39 '60. (MIRA 13:12)

(Blast furnaces) (Iron--Metallurgy)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, A.N.; ANDRONOV, V.N.

Hydrogen participation in the reduction processes of blast furnace smelting. Trudy LPI no.212: 120-127 '60. (MIRA 13:12)
(Iron--Metallurgy) (Hydrogen)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, A.N.

Heat calculations of an air-cooled blast furnace hearth. Trudy LPI no.212:128-135 '60. (MIRA 13:12)
(Blast furnaces) (Heat-transmission)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, A.N.

18 27 18

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The reduction of iron ores with gases in a counterflow system. A. N. Ramm and Yu. P. Svintsov. *Trudy Leningrad. Politekh. Inst.* 1955, No. 179, 18–43, *Referat. Zhur., Met.* 1956, No. 108.—Generator gas, contg. 35% CO and 65% $N_2$, is supplied at the bottom of the furnace through a heat-resistant steel jet, and is discharged from the top. Temp. at the top of the furnace is 250–300°; at the bottom, 850°. The reaction zone is 60–120 mm. high. Ore mixed with coke (size 1–4 mm.) is introduced from the top at a controlled rate and is supported on a circular table. Temp. in different points of the shaft is regulated automatically by Chromel-Alumel thermocouples. An increase in gas pressure of 1–3 atm. in the reaction zone increases the $CO_2$ content of the exhaust gas by 1.5–2.0% per atm.

Alexis N. Pestoff

from BG

conf

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, A. M. (Prof. - Dr. Tech. Sci.)

"Regulation of Gas Diffusion in the Blast Furnace," Problemy Metallurgii, pp 209-216, 1953

Translation - M-283, 22 Mar 55

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

BAHN, A. N.

Prof., Leningrad Polytechnic Inst., -c1944-.

Dr. Technical Sci.

"The best shape for large-capacity blast furnaces," Stal', No. 9, 1948

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

BC

B-1-4

**Effect of oxygen concentration in blow gas on consumption of fuel in the smelting of pig iron.** A. N. RAMM (Bull. Acad. Sci. U.R.S.S., 1938, Cl. Sci. Tech., No. 7, 23—40).—The thermal balances of a blast furnace operating on blow gas containing 21—40% $O_2$ are calc. The direct and indirect effects of $O_2$ enrichment on fuel consumption are discussed, and it is concluded that no fuel economy is to be expected thereby in normal contemporary practice. D. G.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, A. N.

137-1958-3-4735

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 38 (USSR)

AUTHOR: Ramm, A. N.

TITLE: On the Effect of Smelting Intensity on the Productivity of Blast Furnaces and on the Relative Coke Consumption (O vliyanii intensivnosti plavki na proizvoditel'nost' domennykh pechey i otnositel'nyy raskhod koksa)

PERIODICAL: V sb.: Issled. domennogo protsessa. Moscow, AN SSSR, 1957, pp 85-97

ABSTRACT: The index of the smelting intensity in a blast furnace, J, is related to the blast-furnace utilization coefficient (Transl. Ed. Note: $m^3$ of furnace chamber volume per ton of blast per day), $v_p$, and to the relative coke consumption, K, by the equation: $J = k/v_p$ $(t/m^3)$ or $p_v = J/k$ (where $p_v = 1/v_p$). The relative coke consumption is to a large degree a function of the intensity of smelting. A value of the intensity of smelting exists which is most favorable with regard to the coke consumption. Firstly, as this optimum regimen is approached, the productivity of the furnace may be increased with a reduction in coke consumption.

Card 1/2

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

137-1958-3-4735

On the Effect of Smelting Intensity on the Productivity (cont.)

Exceeding this optimum regimen results in an excessive consumption of coke and only a slight increase in the productivity of the furnace, followed by a decrease in productivity. The optimal degree of intensity of blast furnace smelting may be raised by means of improving the design of the furnace and by improving the quality of the raw material. The reduction in coke consumption, accompanying an increased smelting intensity, is attributable to improved distribution of the gases throughout the furnace, and some increase in the rate of the reduction processes in the shaft of the blast furnace. A critical survey of literature on the subject is presented. Production results of the operation of blast furnace Nr 2 at the "Zaporozhstal'" are developed in detail; analysis of these results confirms the Author's general postulates concerning the relationship between the intensity of smelting, the specific coke consumption, and the productivity of the furnace. Considerations dealing with methods of determining the most economical smelting regimens for a given individual plant are also offered.

Ye. V.

Card 2/2

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMAZ, A. N.

18

V 2960. POSSIBILITY OF INTENSIFYING BLAST FURNACE YIELDS BY HIGHER GAS PRESSURE. Ramaz, A.N. (Trud. Leningr. Politekh. Inst. (Proc. Leningr. Polytech. Inst.), 1955, (179), 118-126; abstr. in Ref. Zh. Mekh. (Ref. J. Mech., Moscow), 1956, (6), 3768). Theoretical considerations are given demonstrating the possibility of intensifying the blast furnace yield by increasing the gas pressure under the furnace throat. The analysis is founded on the known relationship between loss of head in a layer of granular materials and the rate of flow of a gas which is assumed to be proportional to the index of intensity of fusion.

MT

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

**Some relations in the composition of blast furnace slags**

A. N. Ramm. *Stal* 9, No. 3, 13-17 (1930). The compn. of 37 blast-furnace slags from the U. S., Germany, England and Russia corresponded very closely to the equation (RO) = $M$ - 0.25 ($Al_2O_3$) + 3(S) - [0.3 [Si] + 30 [S]]. $M$ where (RO) is the combined % of CaO, MgO, MnO and FeO in the slag, ($Al_2O_3$) and (S) are the % $Al_2O_3$ and S in the slag, [Si] and [S] are the % Si and S in the metal and $M$ is the ratio of the wt. of the slag to the wt. of the metal. The equation held for furnaces producing 12% Si pig and spiegeleisen as well as open-hearth, Bessemer and foundry pig and can be applied more generally than other equations for calcg. the charge. H. W. Rathmann

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

PROCESSES AND PROPERTIES

**Determination of indexes of direct and indirect reduction in blast furnace fusion, based on experimental data.** A. N. Ramm. *Sovet. Met.* 10, No. 3, 17-29 1938.—An analytical review of the existing methods is given, together with a method of calcn. based on the balance of O and N and formulas for calcg. the amts. of gas and blast, carbon consumption, the rate of direct reduction and the "reduction no." Relation of the direct reduction of iron detd. by the Pavlov method to the "reduction no." and to the rate of oxidation of iron in the batch is computed.

F. F. Stefanowsky

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

PROCESSES AND PROPERTIES INDEX

9

**Firing the world's largest blast furnace at Zaporozhstal**
A. N. Ramm. *Stal* 8, No. 10, 1-15 (1948). The operation of this furnace, which has a vol. of 1300 cu. m., has been satisfactory with an av. output of 1348 metric tons per day during the 2nd month. H. W. Rathmann

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

CA 7

**Effect of oxygen concentration in blow gas on consumption of fuel in the smelting of pig iron.** A. N. Ramin. *Bull. acad. sci. U. R. S. S., Classe sci.-tech.* 1930, No. 7, 23-40.—The thermal balances of a blast furnace operating on blow gas contg. 21-40% O are calcd. The direct and indirect effects of O enrichment on fuel consumption are discussed, and it is concluded that no fuel economy is to be expected thereby in normal contemporary practice.

B. C. P. A.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

S

4

**Some Relations in the Composition of Blast-Furnace Slags.** A. N. Rosum. (Stal, 1939, vol. 9, No. 3, pp. 13–17; Chem. Abs., 1939, vol. 33, p. 9237). The composition of 27 blast-furnace slags from the U.S.A., Germany, England, and Russia corresponded very closely to the equation $(RO) = 50 - 0 \cdot 25\,(Al_2O_3) + 3\,(S) - [(0 \cdot 3\,[Si] + 30\,[S])/A]$ where (RO) is the combined percentage of CaO, MgO, MnO, and FeO in the slag, $(Al_2O_3)$ and (S) are the percentages of $Al_2O_3$ and sulphur in the slag, [Si] and [S] are the percentages of silicon and sulphur in the metal, and A is the ratio of the weight of the slag to the weight of the metal. The equation held for furnaces producing 12%-silicon pig iron and spiegeleisen as well as for open-hearth, Bessemer, and foundry iron, and can be applied more generally than other equations for calculating the charge.—R. A. R.

METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

ETKIN, L.G.; YANOVSKIY, V.Ya.; RAMM, D.V.

Effect of inertia on the vibration-frequency transducers.
Izm. tekh. no.11:35-37 N '64. (MIRA 18:3)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

STROTSKIY, G.N.; RAMM, G.M.

Controlling directional well drilling using bottom-hole inclinometers lowered into diamagnetic pipes. Neft. khoz. 36 no.5:14-18 My '58. (MIRA 11:6)
(Inclinometer) (Oil well drilling)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, G. S., SOROKA, F. M. and TOMASEVICH, K. V.

"Measurement of the Input Resistances of Tubes With the Help of a Line", Radio, No. 3, p 5, 1950.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

Ramm, G. S.

USSR/Electronics

Card 1/1

Author : Ramm, G. S., Active Member, VNORiE

Title : The applicability of a quasilinear method in the theory of vacuum-tube self-excited oscillators

Periodical : Radiotekhnika 9, 19-27, Jan-Feb 1954

Abstract : Examines operation of a self-excited oscillator under overvoltage conditions and shows that a small circuit attenuation does not provide a sinusoidal voltage. It was found that use of the quasilinear procedure under these conditions leads to significant errors.

Institution : All-Union Scientific and Technical Society of Radio Engineering and Electric Communications imeni A. S. Popov (VNORiE)

Submitted : June 15, 1953

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, G.S.

High-frequency electron-tube apparatus for the heating of dielectrics. [Izd.] LONITOMASH no.33:75-92 '54. (MIRA 8:2)
(Dielectric heating)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, G.S.; VRUBLEVSKIY, A.V., inzhener-mayor, redaktor; KUZ'MIN, I.F., tekhnicheskiy redaktor.

[Ultra-high frequency triode oscillators] Triodnye generatory kolebanii sverkhvysokikh chastot. Moskva, Voen.izd-vo Ministerstva oborony SSSR, 1955. 247 p. (MLRA 8:12)
(Oscillators, Electron--Tube)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, G.S.

Calculation of an amplification stage with simple highfrequency correction. Elektrosviaz' 10 no.5:32-36 My '56. (MLRA 9:8)
(Amplifiers, Electron-tube)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

G.S. RAMM

3000

Radiotekhnika, vol. 11, No. 2, 1956

G. S. RAMM: Triode generators of superhigh frequency oscillations. Voenizdat, 1955, 248 pp.

Questions of using triodes to generate super-high frequency oscillations are explained. A method is given of computing triode currents; graphs are given permitting the simple enough technical computation of tube generators in various regions; question is considered of joint tube and oscillator system operation.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

DONSKOY, Aleksandr Vasil'yevich; RAMM, Grigoriy Samoylovich; VIGDOROVICH, Yuriy Borisovich; MONDRUS, D.B., redaktor; MIKHAYLOVA, Ye.M., tekhnicheskiy redaktor.

[High frequency electrothermic apparatus with electron-tube oscillators] Vysokochastotnye elektrotermicheskie ustanovki s lampovymi generatorami. Moskva, Gos.energ.izd-vo, 1957. 307 p. (MLRA 10:4)
(Induction heating) (Oscillators, Electron-tube)
(Dielectric heating)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

L 39607-66

ACC NR: AR6012300 SOURCE CODE: UR/0274/65/000/010/A010/A010

AUTHOR: Ramm, G. S.

TITLE: Theory of high power electron tube oscillators

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz', Abs. 10A69

REF SOURCE: Tr. Nauchno-tekhn. konferentsii Leningr. elektrotekhn. in-ta svyazi, vyp. 1, 1964, 67-76

TOPIC TAGS: electronic oscillator, oscillator theory, electron tube

ABSTRACT: A method is presented for calculating a self-excited oscillator with nonsinusoidal voltages on tube electrodes (additional resonances are present). The tube static characteristics are known, the tube load is linear (consists of passive elements) and resonates at $\omega_0$, $2\omega_0$, $3\omega_0$. In this case, the stationary anode voltage is: $U_a = U_{a0} - \sum_{k=1}^{3} U_{mk} \cos(k\omega_1 t + \varphi_k)$, where $U_{mk}$ are harmonic amplitudes, $\varphi_k$ are their initial phases, $\omega_1$ is an unknown frequency so close to $\omega_0$ that their difference is neglected. Amplitudes and initial phases of harmonics are found for transient conditions, which permits examining the transient process in the oscillator. The possibility of realization of required parameters is discussed. Seven figures. Bibliography of 5 titles. L. S. [Translation of abstract]

Card 1/1 SUB CODE: 09 UDC: 621.373.421

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

L 33305-66 EWT(1) GD

ACC NR: AT6006270 SOURCE CODE: UR/0000/64/000/000/0067/0076

24
B+1

AUTHOR: Ramm, G. S.

ORG: none

TITLE: Theory of high-power tube self-excited oscillators 25

SOURCE: Leningrad. Elektrotekhnicheskiy institut svyazi. Nauchno-tekhnicheskaya konferentsiya. Trudy, no. 1, 1964, 67-76

TOPIC TAGS: oscillator theory, oscillator circuit, circuit design

ABSTRACT: The purpose of the paper was to construct a self-excited oscillator theory which would permit the computation of the currents and voltages in the oscillator despite the presence of additional resonance. The method presented, which is a development and refinement of the so-called "quasi-linear method," permits the calculation of the oscillations in the oscillator circuit with nonsinusoidal voltages in the tube electrodes. The method also makes it possible to study the process of sustained auto-oscillations, permitting the design

Card 1/2

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L 33305-66

ACC NR: AT6006270

of an oscillator the plate and grid voltages of which will conform to a prescribed configuration. Orig. art. has: 7 figures and 14 formulas.

SUB CODE: 09 / SUBM DATE: 08Dec64 / ORIG REF: 005

Card 2/2

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

L 3030-66 EWT(1)/EWA(h)

ACCESSION NR: AR5013240

UR/0275/65/000/003/A022/A022

621.385.623

23

B

SOURCE: Ref. zh. Elektronika i yeye primeneniye. Sv. t., Abs. 3A138

AUTHOR: Ramm, G. S.; Yanovskiy, S. A.

TITLE: Calculation of the frequency characteristics of a high-power klystron amplifier

CITED SOURCE: Tr. uchebn. in-tov svyazi. M-vo svyazi SSSR, vyp. 20, 1964, 15-23

TOPIC TAGS: klystron amplifier, high power klystron amplifier

25

TRANSLATION: The final resonator of a multiresonator klystron amplifier is considered with an assumption that this resonator and its load form a linear system whose frequency characteristic, under zero excitation condition, is known. The final-resonator gap voltage is determined as a function of the excitation frequency. The frequency characteristics of a klystron amplifier operating under nonlinear (high-amplitude) conditions are calculated by a quasilinear method for the case when the gap transit angle, under static conditions, is 90°. Design curves and tables are supplied for the case when the klystron incoming convection

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L 3030-66
ACCESSION NR: AR5013240

current can be approximated by a step curve. The klystron amplifier is analogous to the ordinary electron-tube amplifier in that the allowance for the amplifier nonlinearity results in a narrower passband and in a closer position of the maxima of the Chebyshev-type frequency characteristic, this phenomena being more pronounced in the klystron amplifier. Bibl. 3.

SUB CODE: EC ENCL: 00

Card 2/2

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

L 18963-65 EWT(d)/EWT(1)/EEC(b)-2/EWA(h) Pn-4/Pac-4/Peb/Pi-4/Pj-4
AFWL/SSD/RAEM(a)/BSD/ESD(c)/ESD(gs)/ESD(t)
ACCESSION NR: AR5000810 S/0058/64/000/010/H023/H023

SOURCE: Ref. zh. Fizika, Abs. 10Zh166

AUTHORS: Ramm, G. S.; Yanovskiy, S. A.

TITLE: Calculation of frequency characteristics of a klystron power amplifier

CITED SOURCE: Tr. uchebn. in-tov svyazi. M-vo svyazi SSSR, vyp. 20, 1964, 15-23

TOPIC TAGS: klystron, power amplifier, frequency characteristic, nonlinear operation

TRANSLATION: A quasilinear method is used to analyze the frequency characteristics of a klystron amplifier operating in the nonlinear mode. It is assumed that the angle of flight through the klystron gap is equal to 90° in the static mode. Computation graphs and

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L 18963-65
ACCESSION NR: AR5000810

tables are presented for the case when the convection current entering into the klystron gap can be approximated by a staircase-like curve.

SUB CODE: EC ENCL: 00

Card 2/2

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, G.S.; KLAYEVAYA, V.Ya.; KOVALEVA, D.I.; PAK, I.N.; ZAVEZDNYY, A.M., red.; GAL'CHINSKAYA, V.V., tekhn. red.

[Tables and formulas of sums of trigonometric series of the type $\sum_{n=1}^{\infty} \frac{J_n(r)}{n^2+a^2} \begin{matrix}\cos\\ \sin\end{matrix} nx$ and $\sum_{n=1}^{\infty} \frac{nJ_n(r)}{n^2+a^2} \begin{matrix}\cos\\ \sin\end{matrix} nx$; textbook for students]

Tablitsy i formuly summ trigonometricheskikh riadov vidov $\sum_{n=1}^{\infty} \frac{J_n(r)}{n^2+a^2} \begin{matrix}\cos\\ \sin\end{matrix} nx$ i $\sum_{n=1}^{\infty} \frac{nJ_n(r)}{n^2+a^2} \begin{matrix}\cos\\ \sin\end{matrix} nx$; uchebnoe posobie dlia studentov. Pod red. A.M.Zaezdnogo. Leningrad, 1961. 91 p. (MIRA 15:12)

1. Leningrad, Elektrotekhnicheskiy institut svyazi.
(Series) (Mathematics--Tables, etc.)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

S/196/62/000/010/033/035
E194/E155

AUTHOR: Ramm, G.S.

TITLE: Recording the characteristics of tubes for digital computer requirements

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.10, 1962, 16, abstract 10 K90. (In the Symposium 'Vysokochastotn. elektrotermich. ustanovki' (High-frequency electro-thermal installations), M.-L., Gosenergoizdat, 1961, 109-116).

TEXT: In making computer calculations on large oscillators it is necessary to know the static characteristics of tubes, i.e. the relationship between the anode and grid currents and the anode and grid voltages. The accuracy must be high, for example, with an error of 0.1%, so that numerical solution of a problem with multiple reiteration always leads to the same results. By way of example, a semi-graphical method is applied to a triode type ГУ-10А (GU-10A). 3 literature references.

Abstractor's note: Complete translation.

Card 1/1

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, G.S.

Design of transistor amplifiers with feedback. Elektrosviaz' 15 no.7:30-36 Jl '61. (MIRA 14:6)

(Transistor amplifiers)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

28516 S/106/61/000/007/003/004
A055/A127

9,2520 (also 1139, 1161, 1067)

AUTHOR: Ramm, G. S.

TITLE: Calculation of transistorized amplifiers with feedback

PERIODICAL: Elektrosvyaz', no. 7, 1961, 30 - 36

TEXT: This article is a purely theoretical analysis of transistorized amplifiers with feedback in the general case, i.e. without any limiting assumptions as to the operation of the feedback circuit. Fig. 1 is a block-diagram of the amplifier (amplifier $K_c$). The K-circuit represents the amplifier (linear fourpole) all the parameters of which are supposed to be known. The β-circuit (linear circuit) ensures the feedback and the coupling of the K-circuit to the signal source E and to the load $Z_1$. The aim of the analysis is to derive formulae (taking into account the feedback effect) for:

the amplification factor $\overline{K}_c = \frac{\dot{U}_1}{\dot{E}}$, (1)

the input admittance $Y_{inp\ c} = \frac{\dot{I}}{\dot{E}}$, (2)

and the output admittance $Y_{outp\ c} = \frac{(\dot{I}_1)_{sh\ circ.}}{(\dot{U}_1)_{open}}$, (3)

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subscripts "sh.circ." (short circuit) and "open" corresponding to the cases $Z_1 = 0$ and $Z_1 = \infty$ respectively. The analysis includes also the determination of the conditions for a stable operation of the amplifier. The replacement of the K-circuit (in Fig. 1) by its equivalent circuit gives the total equivalent circuit shown in Fig. 3. All the currents and voltages in this circuit coincide exactly with those of Fig. 1, provided that

$$\dot{U}'_{k\ inp} = \dot{U}_{k\ inp}, \qquad (5)$$

where $\dot{U}'_{k\ inp}$ determines the current $\bar{S}_k\dot{U}'_{k\ inp}$ generated by the current generator. Owing to the linearity of the system of Fig. 3, it is possible to examine independently the effects of the generators of the current $\bar{S}_k\dot{U}'_{k\ inp}$ and of the emf $\dot{E}$. The author examines first the case $\dot{E} = 0$. In this case, voltage $\dot{U}'_{k\ inp}$ produces voltage $\dot{U}'_1$ (at the amplifier output), current $\dot{I}'$ (at the amplifier input) and voltage $\dot{U}_{coupl}$ (feedback voltage between points a and a'). An analysis of the circuit of Fig. 3 permits to obtain the following formulae:

for the amplification factor of the K-circuit: $\bar{K} = \dfrac{\dot{U}'_1}{\dot{U}'_{k\ inp}}$, (6)

for the insertion input admittance: $Y_{insert} = \dfrac{\dot{I}'}{\dot{U}'_{k\ inp}}$ (7)



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28516 S/106/61/000/007/003/004
A055/A127

Calculation of transistorized amplifiers with feedback

and for the amplification factor along the feedback loop:

$$\bar{a} = \frac{\dot{U}_{coupl}}{\dot{U}'_{k\ inp}}. \qquad (8)$$

The author examines the case $\dot{U}'_{k\ inp} = 0$. Here, the emf E produces voltage $\dot{U}_I$ (at the amplifier output), current $\dot{I}''$ (at the amplifier input) and voltage $\dot{U}_{inp}$ (between points a and a'). An analysis of the circuit of Fig. 3, makes it possible to obtain the following formulae:

for the voltage forward-path coefficient: $\Delta\bar{K} = \frac{\dot{U}_I}{\dot{E}}$, (14)

for the coefficient of voltage transmission to the K-circuit input:

$$\bar{\gamma} = \frac{U_{inp}}{E} \qquad (15)$$

and for the initial input conductance: $Y_{inp\ o} = \frac{\dot{I}''}{\dot{E}}$. (16)

The author derives the following final formulae for (1), (2) and (3):

$$\bar{K}_c = \frac{\bar{\gamma}\bar{K}}{1-\bar{a}} + \Delta\bar{K}, \qquad (18)$$

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$$Y_{inp\ c} = Y_{insert} \frac{\overline{\gamma}}{1-\overline{a}} + Y_{inp\ o} \qquad (19)$$

and

$$Y_{outp\ c} = \left(\frac{\overline{K}_c}{Z_1}\right)_{sh.circ.} \frac{1}{\overline{K}_{c\ open}}. \qquad (20)$$

As for stability conditions (assuming that the circuit of Fig. 3 is stable), the characteristic equation of the system is:

$$\overline{a} = 1 \qquad (21)$$

Since this equation coincides with the characteristic equation resulting from the accepted feedback theory, the considerations stated in this theory as to stability are valid for the general case analysed in this article. In the last part of the article, the author applies his analyses to two particular cases, and especially to the case of the emitter follower. He reproduces the formulae giving K, $\overline{\gamma}$, $\overline{a}$, $\Delta\overline{K}$, $Y_{insert}$, $Y_{inp\ o}$ and, finally, $\overline{K}_c$, such as these formulae are in these particular cases. There are 10 figures and 2 Soviet-bloc references.

SUBMITTED: December 17, 1960



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3/106/61/000/007/003/004
A055/A127

Calculation of transistorized amplifiers with feedback

[Abstracter's note: The following subscripts are translated in formulae and text: sh.circ. stands for кз; open stands for хх; insert. stands for вн]

Fig. 1.
Legend: (1) inp; (2) outp; (3) K-circuit; (4) β-circuit; (5) 1 (load).

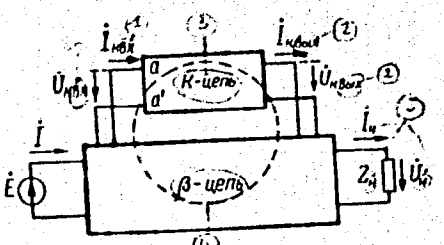


Рис. 1

Fig. 3.
Legend: (1) inp; (2) outp; (3) β-circuit; (4) 1.

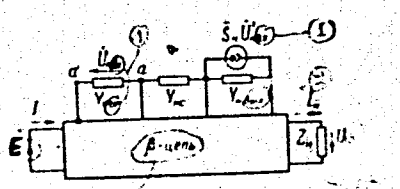


Рис. 3

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APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

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22814

16.6500 16.6800 16.4200

S/044/61/000/002/012/015
C111/C222

AUTHOR: Ramm, G.S.

TITLE: Numerical determination of the Fourier coefficients of a periodic function

PERIODICAL: Referativnyy zhurnal, Matematika, no.2, 1961, 25, abstract 2V 176 ("Tr. Nauchno-tekhn. konferentsii Leningr. elektrotekhn. in-ta svyazi", Vyp.2. L., 1960, 7-17)

TEXT: The author gives the derivation of approximate formulas being more exact than the Bessel ones for the calculation of the Fourier coefficients of a periodic (period T) function f(t) which is given graphically or analytically. He obtains two variants of calculation formulas which distinguish by the kind in which f(t) is approximated inside each of the 2N equal intervals into which the period is subdivided. Here f(t) is replaced by a step curve or it is composed of 2N linear lines which, circumstances permitting, mutually are not combined. The second variant is recommended for practical calculations. The author gives an estimation of the absolute error arising for the determination of the Fourier coefficients according to the approximate formulas. A detailed description is given of the performance of the calculations

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22814

Numerical determination... S/044/61/000/002/012/015
C111/C222

according to these formulas for the use of the specialized computer "Sintez" (synthesis) by which the summation of trigonometric polynomials is possible.

[Abstracter's note: Complete translation.]

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, G.S.

In regard to A.A.Kulikovski's article "Determination of the stability of circuits containing vacuum tubes and transistors by means of the principal component of pole emittance." Elektrosviaz' 14 no.5: 72-74 My '60. (MIRA 13:8)

(Transistor circuits) (Electronic circuits)
(Kulikovski, A.A.)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAHM, Grigoriy Samoylovich; SHCHUKEVICH, B.Ts., otv. red.;
VIZIRova, V.V., red.

[Electronic amplifiers] Elektronnye usiliteli. Moskva, Izd-v "Sviaz'," 1964. 334 p. (MIRA 17:6)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, Grigoriy Samoylovich; VOYSHVILLO, G.V., otv.red.; GAL'CHINSKAYA, V.V., tekhn.red.

[Electronic amplifiers; study aid] Elektronnye usiliteli; uchebnoe posobie. Leningrad, Leningr.elektrotekhn.in-t sviazi im. M.A.Bonch-Bruevicha, 1959. 320 p. (MIRA 13:10)
(Amplifiers (Electronics))

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

GALANIN, N.; AGEYEV, P.; IOFFE, M.; KYUPAR, A.; RAMM, I.; SHAFIR, A.

Using sewage for field irrigation. Gig. i san. 22 no.9:73-74 S '57. (MIRA 10:12)

1. Predsedatel' pravleniya Leningradskogo otdeleniya Vserossiyskogo obshchestva gigiyenistov (for Galanin). 2. Chleny pravleniya Leningradskogo otdeleniya Vserossiyskogo obshchestva gigiyenistov (for Ageyev, Ioffe, Kyupar, Ramm, Shafir)

(SEWAGE
utilization for irrigation of fields)
(IRRIGATION
utilization of sewage)

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, I.E.

[Water supply on collective farms and simple methods for hygienic inspection of] Vodosnabzhenie kolkhozov i prosteishaia metodika sanitarnogo obsledovaniia vodoistochnikov. [Leningrad] Medgiz, 1955 87 p. (MLRA 8:10)

(WATER SUPPLY, RURAL) (WATER--ANALYSIS)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, I.Ye., prof., NEVSTRUYEVA, M.A., dots.

Establishing hygienic standards for atmospheric conditions inside rooms used by hypertensive patients. Trudy LMI 2:267-276 '55 (MIRA 11:8)

1. Kafedra obshchey gigiyeny (zav. - prof. I.Ye. Ramm) Pervogo Leningradskogo meditsinskogo instituta imeni akademika I.P. Pavlova.
(AIR)
(HYPERTENSION)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, M. G. and [illegible]KAYA, V. V.

"First Surgical Aid for Traumas in War and Peace", Moscow, 1942.

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RAMM, M. G.

The Committee on State Prizes [illegible] of Ministers [illegible] in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for State Prizes for the years 1950 and 1951 (Sovetskaya Kultura, Moscow, [illegible] Feb [illegible] Apr 1952)

| Name | Title of Work | Nominated by |
|---|---|---|
| Ramm, M. G. | "Elements of Traumatology" | Central Institute for the Advanced Training of Physicians |

SO: Moscow, 7 July 1954

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

ZDANOVICH, V.G., doktor tekhn. nauk, prof.; RAMM, N.S., kand. tekhn. nauk, st. nauchnyy sotr.; SHARIKOV, Yu.D., kand. tekhn. nauk, st. nauchnyy sotr.; YANUTSH, D.A., kand. tekhn. nauk, st. nauchnyy sotr.; CHERKASOV, I.A., kand. tekhn.nauk; ALEKSEYEV-SHEMYAKIN, V.P., nauchnyy sotr.; KOL'TSOV, V.V., nauchnyy sotr.; KOSHECHKIN, B.I., nauchnyy sotr.; SEMENCHENKO, I.V., nauchnyy sotr.; UGLEV, Yu.V., nauchnyy sotr.; KUZINA, A.M., starshiy laborant; KUDRITSKIY, D.M., kand. tekhn. nauk, dots., retsenzent; VEYNBERG, V.B., doktor tekhn. nauk, retsenzent; LOSHCHILOV, V.S., kand.geogr. nauk, retsenzent; REKHTZAMER, G.R., kand. tekhn.nauk, dots., retsenzent; KOZLYANINOV, M.V., kand. geogr. nauk, retsenzent; BUSHUYEV, A.V., inzh., retsenzent; ZAMARAYEVA, R.A., tekhn. red.

[Use of airborne methods to study the sea] Primenenie aerometodov dlia issledovaniia moria. Pod obshchei red. V.G.Zdanovicha. Moskva, Izd-vo Akad. nauk SSSR, 1963. 546 p. (MIRA 16:4)

1. Akademiya nauk SSSR. Laboratoriya aerometodov. 2. Laboratoriya aerometodov Akademii nauk SSSR (for Zdanovich, Ramm, Sharikov, Yanutsh, Cherkasov, Alekseyev-Shemyakin, Kol'tsov, Koshechkin, Semenchenko, Uglev, Kuzina).
(Aeronautics in oceanography) (Aerial photogrammetry)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAKOM, N.S., kand. tekhn. nauk; PONOMAREV, Ye.B.; KUZINA, A.M.

Detail refinements in the distortion-free model technique. Geod. i kart. no.12:28-40 D '57. (MIRA 11:2)
(Stereoplanigraph) (Photogrammetry)

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

S/035/62/000/007/070/083
A001/A101

AUTHOR: Ramm, N. S.

TITLE: Increase of vertical scale of a stereomodel by means of convergent aerophotosurvey

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 7, 1962, 15, abstract 7G121 (In collection: "Ispol'zovaniye aerometodov pri issled. prirodn. resursov", Moscow-Leningrad, AN SSSR, 1961, 269 - 278)

TEXT: Contradictions in the present literature as to the evaluation of convergent aerophotosurvey are explained by the absence of a duly elaborated theory. Individual problems of the convergent aerophotosurvey theory are considered as applied to the case of determining elevations of two closely located points. Formulae are derived for elevations as a function of coordinates of points on aerial photographs and convergence angle, for errors in these elevations, and formulae for scales. The ratio of errors in elevations deduced from the plan and convergent aerosurveys, at the same flight altitude, characterizes

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A001/A101

the value of the corresponding variant of convergent survey. This ratio increases with increasing focal length of the aerial camera; therefore, a possibility presents itself of attaining any prescribed accuracy in elevations from any flight altitude. The optimum variant of convergent aerosurvey is a survey with 100% lengthwise overlapping of the front photograph of the first pair and the rear photograph of the following pair at 45° inclination angle. There are 16 references.

V. Orlov

[Abstracter's note: Complete translation]

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APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

KUZINA, A.M., starshiy laborant; RAMM, N.S., mladshiy nauchnyy sotrudnik; SEMENCHENKO, I.V., mladshiy nauchnyy sotrudnik

Use of polaroid light filters in aerial maritime surveying. Izv. vys. ucheb. zav.; geod. i aerof. no.6:83-95 '60. (MIRA 14:5)

1. Laboratoriya aerometodov AN SSSR.
(Hydrographic surveying) (Photography--Light filters)
(Polarization (Light))

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21323
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B116/B201

9,5320 (also 1227)

AUTHORS: Kuzina, A. M., senior Laboratory Assistant, Ramm, M. S., junior scientific worker, Semenchenko, I. V., junior scientific worker

TITLE: Polarizing light filters in marine aerial photography

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos"yemka, no. 6, 1960, 83-95

TEXT: The present paper deals with the theory and methods of reducing the solar reflection in marine aerial photography with the aid of polarizing light filters (polaroids). The recommendation to use the latter for such purposes has been made in Refs. 17, 18. Experimental marine aerial photographs with the use of polaroids were taken by the Laboratory of Aerial Methods of the AS USSR in summer 1958. It was found possible to extinguish the reflections in question. Still, polaroids are no universal means for their elimination. The theory of reduction of brightness of reflection with the aid of a polaroid is described first, and the following formulas are derived:

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Polarizing light filters in ...

$s = T_r : 0.5\ k = 1 - q + 2q \cos^2 \xi$ (3)

$$q = \left[\frac{\sin^2(\varphi - \psi)}{\sin^2(\varphi + \psi)} - \frac{tg^2(\varphi - \psi)}{tg^2(\varphi + \psi)}\right] : \left[\frac{\sin^2(\varphi - \psi)}{\sin^2(\varphi + \psi)} + \frac{tg^2(\varphi - \psi)}{tg^2(\varphi + \psi)}\right]. \quad (5) \qquad (5)$$

$\sin \psi = \sin \varphi : n = 0.75 \sin \varphi$ (6), $\sin \beta' = \sin \beta : n' = \sin \beta : 1.521$ (7), $\cos 2\varphi = \sin h \cos \beta - \cos h \sin \beta \cos \delta$ (8), $\sin \gamma = \cos h \frac{\sin \delta}{\sin 2\varphi}$ (9), $\cos \alpha = \cos \beta \cos \varphi + \sin \beta \sin \varphi \cos \gamma$ (10), $ctg\, \delta = \cos \beta' \tan \delta$ (11), $\cos \xi = -\cos \gamma \cos \delta + \sin \gamma \sin \delta \cos (\beta - \beta')$ (12). It is possible by these formulas to calculate the values of s and $\alpha$ for known h, $\beta$, and $\delta$. $T_r$ is the amount of light passing through a real polaroid. k is a coefficient dependent upon the quality of the polaroid, and is about equal to 0.7-0.8. q is the polarization degree of the light incident upon the polaroid. $\xi$ is the angle between the direction of the light vector in the polarized ray hitting the polaroid and that in the ordinary ray (which penetrates the polaroid). h is the sun height,

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β is the angle of inclination of the projecting ray, $\gamma$ is the angle between the radius vector of the point concerned and the radius vector opposite to the sun's azimuth. $\eta$ is the angle of incidence of solar rays upon the water surface, and $\psi$ the corresponding angle of refraction. n is the refractive index of water. All other angles may be seen from Fig. 3a. Such calculations have been made by the authors for different β and $\gamma$ values for h = 15, 25, 35, and 45°. Results are presented in Fig. 4 in the form of isolines of magnitudes α° and S %. The α-isolines are dashed, while the s-isolines are dash-dotted. Fig. 4 was obtained on the assumption that the axis of the polaroid is precisely perpendicular to the plane of the sun vertical. In the practice, this involves a certain error $\varkappa$. It is found to be necessary for the polaroid to be adjusted with sufficient accuracy, as already at $\varkappa$ = 5° the coefficient s becomes very large (Fig. 5). The S-isolines (Fig. 4) refute the opinion holding that the polaroid is able to extinguish only a very narrow strip of the hotspot (in perpendicular to its axis). This widely accepted opinion is based upon the identification of the angle $\psi$ with the angle $\varkappa$. A knowledge of the S-isolines only is not sufficient to solve the problem as to how the reflection can be reduced, since the density of the

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negative is not proportional to the brightness of the object. The reduction of the density of reflection in the point concerned is shown to depend not only on s but also on the brightness of reflection in this point. The brightness again depends on the form of the water surface, i.e., on the hydrometeorological conditions. Table 1 gives the absorption and reduction values of reflection, as obtained from the analysis of the above-mentioned experiment. It follows from Fig. 4 and Table 1 that only at $h \leqslant 45^{\circ}$ it is suitable to use the polaroids to reduce reflection and only at a focal length of the aerial camera of $f \leqslant 140$ mm (format of picture taken as $18 \times 18$ cm). A complete extinction of reflection can in practice be achieved only at $h \leqslant 25^{\circ}$, while in the other cases the reflection with respect to surface and density is considerably reduced. The utilization of polaroids is the more effective, the wider the angle of the objective of the aerial camera. Finally, the method applied in the test under discussion is described. The axis of the polaroid must be marked. The polaroid must then be attached to the aerial camera. The time of exposure must be increased by 1 : 0.5 k, viz., by the threefold. This increase is the chief disadvantage displayed



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Polarizing light filters in ...

by polaroids. Prior to operation, the polaroid must be adjusted correctly, by turning the handle of its frame to the graduation equaling the angle A between the direction toward the sun and the direction of the picture side. Experience has shown that it is by all means possible to adjust a polaroid with a maximum accuracy of 5°. The use of polaroids is not recommended in frequent changes of the flight azimuth with more than 10-15°. The experiment has also shown that the use of polaroids has no effect upon the sharpness and contrast of the pictures of sea-bottom contours or water surfaces. There are 5 figures, 1 table and 18 references: 16 Soviet-bloc.

ASSOCIATION: Laboratoriya aerometodov AN SSSR (Laboratory of Aerial Methods, AS USSR)

SUBMITTED: September 21, 1960

Card 5/12

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

PONOMAREV, Ye.V.; RAMM, N.S.

Determining the elements of relative orientation for aerial photographs. Geod.i kart. no.5:26-28 My '61. (MIRA 14:6)
(Aerial photogrammetry)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, N.S., mladshiy nauchnyy sotrudnik; KUZINA, A.M.

Theory of convergent aerial photogrammetry. Izv. vys. ucheb. zav.; geod. i aerof. no.3:85-99 '63. (MIRA 17:1)

1. Starshiy laborant Laboratorii aerometodov Gosudarstvennogo geodezicheskogo komiteta SSSR (for Kuzina.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

Ramm, N. S.

AUTHORS: Ramm, N. S., Candidate of Technical Sciences, 6-12-4/14
Ponomarev, Ye., V., Kuzina, A. M.

TITLE: Precise Determination of the Details in the Method of the Non-Distored Model (Utochneniye detaley sposoba neiskazhennoy modeli).

PERIODICAL: Geodeziya i Kartografiya, 1957, Nr 12, pp. 28 - 40 (USSR).

ABSTRACT: The more accurate form obtained in the Laboratory for Aeromethods AN USSR for the method of the model is given here. The investigations referred to the case of a determination of the "banks" (increased height) of many points lying on a stereopair, on a stereocomparator without correcting device. The largest part of the conclusions obtained here also applies to other cases where this method of the non-distorted model is employed. The strict theoretical foundation of this method is only set forth in the doctor's dissertation by G. V. Romanovskiy "Analytical methods for the photogrammetric point-determination" which was hitherto not yet published. Some formulae from this dissertation are given here. Only formulae which are not to be found in any publication and whose derivation was carefully checked by the authors of the present paper are given. At first the linear interpolation of the $y$-value is given. Then the orientation of the aerial photographs is investigated on the apparatus and it is shown

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Precise Determination of the Details in the Method of the Non-Distored Model. 6-12-4/14

that it is more expedient in the first approximation to replace the standard formula:

$\Delta q = \frac{f^2}{I} (\varphi_a - \varphi_b)$ by a more accurate one with whose aid the $\Delta q$ may at once be obtained. This formula is derived here. Then the influence of the error of orientation is investigated. It is shown that a comparison of the calculations of permissible errors of orientation indicates that in the work according to the method recommended here the demands made on the accuracy of orientation may be reduced by the 3 to 6-fold amount. When the reduction-points are selected in a manner that the parallax of each of them does not too much differ from the parallax of the support lying next, and when the method given here is employed for the construction of the $\varphi$-diagrams and those of geodetical orientation, it is possible to restrict oneself to only one orientation considerably more often than it is otherwise customary. In the last chapter the determination of the parallactic coefficient is given. The derivation of the necessary accuracy in determinations of $H_o$ and p is given, as well as recommendations for attaining this accuracy. $H_o$ is the flight

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Precise Determination of the Details in the Method of the Non- 6-12-4/14
Distores Model.

altitude above the starting point from which the increased heights are begun to be read. p - is the longitudinal parallax. The parallactic coefficient $k = H_0 : p$.

There are 2 tables, and 2 Slavic references.

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PHASE I BOOK EXPLOITATION SOV/4315
SOV/7-3-9

Akademiya nauk SSSR. Laboratoriya aerometodov

Trudy, tom 9 (Transactions of the Laboratory of Aerial Methods, USSR Academy of Sciences, vol. 9) Moscow, AN SSSR, 1960. 357 p. Errata slip inserted. 1,700 copies printed.

Resp. Ed.: V.V. Sharkov, Candidate of Geography; Ed. of Publishing House: D.M. Kudritskiy; Tech. Ed.: N.Ye. Zendel'.

PURPOSE: This volume is intended for geographers, geologists, geodesists, and photogrammetrists.

COVERAGE: This collection of 23 articles contains studies of the earth's surface, structure, and geological formations by means of aerial photography. The authors discuss the principles, methods and techniques used in aerial surveying to determine such factors as the petrographic composition of the soil through the measurement of the spectral brightness of surfaces, the geological structure of underwater areas through recorded photographic images, the geological composition and geomorphological structure of underlying layers through the analysis of surface plant coverings, the trends and characteristics of recent tectonic movements through the study of surface features traced photographically


Tolchel'nikov, Yu.S. Natural Factors Affecting the Tone of the Soil Images of Plowed Massifs on Aerial Photographs 101

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RAMM, N. S.

USSR/Mathematics - Topology, Neighborhood Jul/Aug 53

"Geometry of Neighborhoods, Uniform Geometry, and Topology," N. S. Ramm and A. S. Shvarts, Ivanovo State Pedagog Inst

Mat Sbor, Vol 33 (75), No 1, pp 157-180

Continuation of V. A. Yefremovich's work ("Non-equivalence of Euclidean and Lobachevskian Spaces," Usp Mat Nauk, Vol 4, No 2 (30), 1949). Demonstrate almost all of the results of Yu. M. Smirnov's work ("Spaces of Neighborhoods," Mat Sbor, Vol 31 (73),

271T86

1952) by other, often simpler, ways. Further, investigate the interconnection of a number of infinitesimal concepts with the concept of neighborhood permits one to simplify considerably the proof of the principal theorems of bicompact extensions. Presented 17 Sep 52.

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, N.S.; KHADZHETLASHE, F.M.

Some features in the stereophotogrammetric processing of aerial photographs in cases of exposure through two mediums. Geog.sbor. no.7:155-175 '55.
(Aerial photogrammetry) (MLRA 9:1)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAMM, N. S.

RAMM, N. S.: "Methods of projective geometry in investigating the theory of a photogrammetric model. Min Higher Education USSR. Leningrad Order of Lenin and Order of Labor Red Banner Mining Inst. Leningrad, 1956.
(Dissertation for the Degree of Candidate in Technical Sciences).

SO: Knizhnaya letopis', No 23, 1956

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[Shoemaker's handbook] Spravochnik obuvshchika. Vol.1. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po legkoi promyshl. 1958. 540 p. (MIRA 12:4)

1.Gosudarstvennaya Ordena Lenina i Ordena Trudovogo Krasnogo Znameni obuvnaya fabrika "Skorokhod" imeni Ya.Kalinina (for Zakharov, Blagovestov, Strongina, Shmidt, Zuyev, Kosarev, Stepanov, Ramm, Pevzner, Veynberg, Turbin, Smirnova, Bugoslavskaya, Gamova, Khanin).
(Shoe manufacture)

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HAMM, [illegible]N.

Modified [illegible] and possibility [illegible]
Kozh. obuv. prom. 6 no.9:34-36 [illegible] '64.

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**Tanning with Anthracene K.** S. Ramm. *Kozhevenno-Obuvnaya Prom. S. S. S. R.* 13, 102-4(1934).—Anthracene K contains: $H_2O$ 35.5-36.5, tannides 36.1-34.6, non-tanning substances 63.9-64.3, and ash 51.1-54.2%. The hides after the application of the above substance and after washing but before vegetable tanning contained ash 3.2, fat 0.49, solubles 5.7, hide substance 63.7, combined tannides 11.5%, tanning factor 18.1. The "Anthracene K" alone did not produce satisfactory tanning results and a final vegetable tanning had to be applied in addn. The compn. of the final leather obtained by the above tanning as well as the procedure is described.

A. A. Boehtlingk

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**Synthetic tans from peat tars.** S. Ramm and V. Peresadin. *Koshevenno-Obuvnaya Prom.* 13, 725-9(1934).—Acidic shale oil b. below 280° was sulfonated with 200% $H_2SO_4$ at about 45°, condensed with $CH_2O$ and neutralized with NaOH. In tanning on lab. and semi-production scale the product had an effect similar to that of "anthracene K." Sulfonation of the phenol fraction from peat tar and condensation with 25% formalin yielded a synthetic tan which produced a leather far superior in quality to that tanned with "anthracene K." A similar tan was prepd. from phenols condensed with sawdust in the presence of small amounts of HCl and sulfonated. A detailed description of the operations is given. A. A. B.

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BC

B-II-10

**Synthetic tans from peat tars.** S. Rahm and V. Prokopin (Kosh.-Ghevn. Prom., 1934, 13, 725—729).—

Acid shale oil (b.p. < 200°) is sulphonated (45°), condensed with $CH_2O$, and neutralized with NaOH. The product acts similarly to "anthracene-K." Better tanning was obtained when the PhOH fraction of peat tar was sulphonated and condensed with $CH_2O$. A similar tan was obtained by condensation of PhOH and sawdust in presence of HCl and sulphonating the product. Ch. Abs. (p)

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