

ZAGORSKIY, S. I.

ZAGORSKIY, S. I. --"Investigation of the Resistance of Coal to Impact Shear in Connection With Work of a Dynamic Plane," Sub 29 Oct 52 All-Union Sci Res Mining Inst. (Dissertation for the Degree of Candidate in the Technical Sciences)

SO: VECHERNAYA MOSKVA, JANUARY-DECEMBER 1952

DOLGOV, V.L.; ZAGORSKIY, S.L.

Improving the cutting tools on cutter-loader working in rock. Fiz.
mekh. svois., dav. i razr. gor. porod. no.2:72-80 '63. (MIRA 17:1)

GUBENKOV, Ye.K.; ZAGORSKIY, S.L.; LOGUNTSOV, B.M.

Grinding the cutters of coal cutter-leaders on the rocks of a
massif. Fiz. mekh. svois., dav. i razr. gor. porod. no. 2:81-87
'63.

(MIRA 17:1)

ZACORSKIY, S.L., kand.tekhn.nauk

Self-sharpening of wedge rollers during the breaking of rocks.
Nauch. soob. IGD 21:151-158 '63. (MHA 17:2)

ZAGORSKIY, T. YA

Integral Equations

Boundary problem of elliptical-parabolic type. Nauk. zap. L'viv. 12 no. 3, 1949

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

Zagorskiy, T. Ya.

Transactions of the Third All-union Mathematical Congress (Cont.) Moscow, Jun-Jul '56, Trudy '56, V. 1, Sect. Rpts., Izdatel'stvo AN SSSR, Moscow, 1956, 237 pp. Call Nr: AF 1108825

Yegorov, V. G. (Sverdlovsk). The Stability of Solution of a System of Equations Given in a Form of Total Differentials. 52-53

Zhantikov, O. A. (Alma-Ata). On the Construction of the Integral of Partial Differential Equations of the First Order for the Equation Integrals for a Calculated Countable Set of Independent Variables. 53-54

Zagorskiy, T. Ya. (L'vov). Some Mixed Problems of Parabolic Systems. 54-55

Kim, Ye. I. (Rostov-na-Donu). On a Class of Singular Integral Equations. 55

Koshelev, A. I. (Leningrad). Boundedness of Generalized Solutions of Elliptic Equations. 56

Mention is made of Bernshteyn, S. N.

Card 17/80

ZAGORSKIY, T. Ya.

USSR/ Mathematics

Card 1/1 Pub. 22 - 2/43

Authors : Zagorskiy, T. Ya.

Title : Some boundary problems for parabolic systems in the semispace

Periodical : Dok. AN SSSR 106/1, 11-14, Jan 1, 1956

Abstract : A solution is sought of some boundary problems expressed by differential equations of the parabolic type, such as, $\partial u = (\frac{\partial}{\partial t} - \Delta)u = 0$.

Formal solution is sought for the parabolic system with boundary conditions. The method of separation of variables is used. The problem is solved in the case of a semi-infinite cylinder.

Institution : L'vov Polytechnical Institute

Presented by: Academician S. L. Sobolev, October 5, 1955

AUTHOR: ZAGORSKIY T.Ya.

20-3-1/52

TITLE: Some Mixed Problems for Parabolic Systems of Differential Equations (Nekotoryye smeshannyye zadachi dlya parabolicheskikh sistem differentsial'nykh uravneniy)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 117, Nr. 3, pp. 359-362 (USSR)

ABSTRACT: In the domain γ bounded by the convex surface S of the type of Lyapunov, determine that solution of

$$(1) \quad \frac{\partial u}{\partial t} = \Delta \left(\frac{\partial}{\partial x} \right) u$$

which satisfies the conditions 1. $t=0, u=0$, 2. $\lim_{x \rightarrow y \in S} B_1 \left(\frac{\partial}{\partial x} \right) u =$

$f_1(y, t)$. Here we have

$$\Delta \left(\frac{\partial}{\partial x} \right) = \left\| \sum_{k_1 + \dots + k_n = s} a_{ij}^{(k_1, \dots, k_n)} \frac{\partial^s}{\partial x_1 \dots \partial x_n} \right\|$$

$$B_1 \left(\frac{\partial}{\partial x} \right) = \left\| \sum_{k_1 + \dots + k_n = s_1} b_{r1}^{(k_1, \dots, k_n)} \frac{\partial^{s_1}}{\partial x_1 \dots \partial x_n} \right\|$$

Card 1/3

Some Mixed Problems for Parabolic Systems of Differential Equations 20-3-1/52

$(i=1,2,\dots,N; j=1,2,\dots,N; r=1,2,\dots,\frac{sN}{2}; l=1,2,\dots,N)$.

a_{ij} and b_{rl} are constants, s positive even, s_1 positive. integral, $s_1 < s$, $x=(x_1,\dots,x_n)$, $u=(u_1,\dots,u_N)$, $f(y,t) =$

$= [f_1(y,t), \dots, f_{\frac{sN}{2}}(y,t)]$ - continuous in every point $y \in S$

for $t > 0$, $|f_j(y,t)| < ce^{\sigma t}$, $c > 0$, $\sigma > 0$.

Starting from his earlier results [Ref.3] the author seeks the solution in the form

$$(2) \quad u = \frac{1}{(2\pi)^{\frac{n-1}{2}}} \int_0^t d\tau \int_{(S)} G^y(x-y; t-\tau) \varphi(y, \tau) d_y S,$$

where ν_y is the normak of the surface in $y \in S$ and G is a certain Green's function. (2) satisfies (1) and the first condition; in order that also the second condition is satisfied,

Card 2/3

Some Mixed Problems for Parabolic Systems of Differential Equations 20-3-1/52

φ has to be chosen correspondingly. φ is chosen with the aid of the lemma:

$$\lim_{x \rightarrow z \in S} B_1 \left(\frac{\partial}{\partial x} \right) u(x, t) - B_1 \left(\frac{\partial}{\partial x} \right) u(x, t) \Big|_{x=z} + \varphi(z, t).$$

For the determination of $\varphi(z, t)$ one obtains the integral equation

$$(z, t) + \frac{1}{(2\pi)^{\frac{n-1}{2}}} \int_0^t d\tau \int_{(S)} B_1 \left(\frac{\partial}{\partial x} \right) G^{\nu} y(x-y, t-\tau) \Big|_{x=z} \varphi(y, \tau) d_y S + f(z, t)$$

which is solved by the author by successive approximation with the initial value $\varphi_0(z, t) = f(z, t)$.

3 Soviet and 3 foreign references are quoted.

ASSOCIATION: L'vov Polytechnical Institute (L'vovskiy politekhnicheskiy institut)
 PRESENTED: By S.L.Sobolev, Academician, 31 May 1957
 SUBMITTED: 31 May 1957
 AVAILABLE: Library of Congress
 Card 3/3

AUTHOR: Zagorskiy, T.Ya.

SOV-21-58-4-2/29

TITLE: Certain Boundary Problems for a System of Differential Equations of the Parabolic Type with Variable Coefficients (Nekotoryye granichnyye zadachi dlya sistemy differentsial'nykh uravneniy parabolicheskogo tipa s izmenyayushchimisya koeffitsiyentami)

PERIODICAL: Dopovidi Akademii nauk Ukrain's'koi RSR, 1958, Nr 4, pp 364-367 (USSR)

ABSTRACT: The author considers a system of differential equations of the parabolic type with variable coefficients depending on x and t :

$$\frac{\partial u}{\partial t} - A_1(x, t, D)u - A_2(x, t, D)u - \dots - A_n(x, t, D)u = 0$$

which has to satisfy certain initial and boundary conditions. Making use of the methods of Ya.B. Lopatinskiy [Ref. 1] and S.D. Eydell'man [Ref. 2] the author looks for a solution of this system, i.e., for a vector function $u = (u_1, \dots, u_N)_t$ of the height N , in the form:

$$u = \int_{\omega} d\tau \int_{\omega} G(x-y; t-\tau) \varphi(y, \tau) dy S$$

where G is Green's function, and $\varphi(y, \tau)$ is an unknown continuous vector function of the height $s \frac{N}{2}$ (s is a positive even integer), and S is a convex surface of

Card 1/2

Certain Boundary Problems for a System of Differential Equations of the
Parabolic Type with Variable Coefficients

SOV-21-58-4-2/29

Lyapunov's type. Based on his previous publications
Ref 3,4 and 5, the author reduces the problem of finding
the unknown function φ , which would satisfy the given in-
itial and boundary conditions, to a certain integral equa-
tion. The solvability of the obtained kind of equation
was proved by the author in Ref. 4. There are 5 Soviet re-
ferences.

ASSOCIATION: L'vovskiy politekhnicheskij institut (L'vov Polytechnic In-
stitute)

PRESENTED: By Member of the AS UkrSSR, B.V. Gnedenko

SUBMITTED: September 16, 1957

NOTE: Russian title and Russian names of individuals and insti-
tutions appearing in this article have been used in
transliteration.

1. Mathematics--Applications 2. Differential equations
--Applications 3. Functions--Applications 4. Integral
equations--Applications

Card 2/2

ACC NR: AR6021230

SOURCE CODE: UR/0271/66/000/003/A027/A027

AUTHOR: Zagorskiy, V. T.; Birin, G. D.; Sobstel', G. M.

TITLE: The maximum power of a frequency converter

SOURCE: Ref. zh. Avtomat telemekh i vychisl tekhn, Abs. 3A220

REF SOURCE: Mezhevuz, sb. tr. Zap.-Sib. sovet po koordinatsii i planir. nauchno-issled. rabot po tekhn. i yestestv. naukam, vyp. 4, 1965, 116-121

TOPIC TAGS: frequency converter, semiconductor device, transistorized circuit

ABSTRACT: To increase the output power of a frequency converter using direct-coupled transistors, the following recommendations are made: a) operate the converter with singular input-to-output frequency ratios to assure a uniform transistor loading with average current; b) to reduce switching losses and losses during operation in transistors, a compound transistor circuit should be used in series with a semiconductor diode, and to reduce losses in the second transistor due to deep saturation, a resistance should be used in its collector circuit, and c) use pulsed transistor overloading to preserve their nominal average loading. [Translation of abstract] Bibliography of 6 titles. V. L.

SUB CODE: 09

Card 1/1

UDC: 62-52:621.314.26

L 23120-66

ACC. NR. AF6018863

SOURCE CODE: UR/0288/65/0110/002/0027/0035

AUTHOR: Zagorskij, V. T.; Pukovkin, A. K.; Nedel'skiy, N. M.

ORG: Institute of Automation and Electrometry, Siberian Section, AN USSR, Novosibirsk
(Institut avtomatiki i elektrometrii Sibirskogo otdeleniya AN SSSR)

TITLE: Certain problems of automation of thermal power generator control

SOURCE: AN SSSR. Sibirskoye otdeleniya. Isslediya. Seriya tekhnicheskikh nauk,
no. 2, 1965, 27-35TOPIC TAGS: power plant, gas turbine engine, automatic control design, automation
equipment

ABSTRACT: With the increase in the power of individual power-producing units, the problem of control of thermal power generators became considerably more complex. The situation will become especially critical with the development of combined gas-turbine devices which are presently in the design stage (combined gas-turbine engines, *sovmennyye ustanovki i tsikly* (Combined Gas-Turbine Devices and Cycles), Energoizdat, 1962). The usual approaches to automatic control design cannot be used here because the characteristics of the generating object and the relationship between its parameters during the start and stop of operation are quite unknown. Consequently, the automation of the control of such new objects must be established on the basis of generalised data concerning the existing thermal generator devices and

Card 1/2

UDC: 621.4-546:621.4-544

L 29120-66

ACC NR: AP6018863

those under construction, taking case, at the same time, of the possible deviations of the parameters of real equipment from their generalized values. Consequently, the authors give a detailed generalized analysis of the underlying premises and peculiarities of automation of the process of starting and stopping of the above-mentioned devices. A control system is proposed starting (and stopping) the operation of thermal power generator objects with a special control system.

SUB CODE: 13 / SUBM DATE: 29Oct64 / ORIG REF: 008 / OTH REF: 001

Card 2/2

ZAGORSKIY, Ya.T.

Using electrolytic capacitors in measuring circuits. Izv. tekh.
no.2:48-50 F '65. (MIRA 18:6)

ZAGORSKIY, T. Ya.

Mixed problem for general parabolic systems in a half-space.
Dokl. AN SSSR 158 no.1:37-40 S-O '64 (MIRA 17:8)

1. L'vovskiy politekhnicheskiy institut. Predstavleno akademi-
kom I.N.Vekun.

ACCESSION NR: AR4031073

S/0044/64/000/002/B098/B098

SOURCE: Referativnyy zhurnal. Matematika, Abs. 2B383

AUTHOR: Zagorskiy, T. Ya.

TITLE: The theory of the mixed (boundary value) problem for parabolic systems

CITED SOURCE: Sb. Teor. i prikl. matem.. L'vov, L'vovsk. un-t, vy*p. 1, 1958, 82-98

TOPIC TAGS: parabolic system, mixed boundary value problem, variable coefficient boundary condition

TRANSLATION: This article is a continuation of previous articles by the author (RZhMat, 1956, 8845; 1958, 8865, 1963, 3B285), concerning the mixed (boundary value) problem for parabolic systems, and it contains a construction of a solution for a parabolic system with derivatives of various orders and with variable coefficients for lower derivatives, which depend on spacial coordinates and on time. The author considers boundary conditions with variable coefficients and he investigates problems of uniqueness. M. Khudyakova

Card 1/2

ACCESSION NR: AR4031073

DATE ACQ: 19Mar64

SUB CODE: MM

ENCL: 00

Card 2/2

ZAGORSKIY, Teodor Yakovlevich; IGNAT'YEV, M.A., dotsent, otv.red.;
KVITKO, I.S., red.; MALYAVKO, A.V., tekhn.red.

[Mixed problems for systems of differential equations with
partial derivatives of the parabolic type] Smeshannye zadachi
dlya sistem differentsial'nykh uravnenii s chastnymi proizvodnymi
parabolicheskogo tipa. L'vov, Izd-vo L'vovskogo univ., 1961.
112 p. (MIRA 15:4)

(Differential equations, Partial)

ЗАГОРСКИЙ, В.Т.; ПУДОВКИН, А.К.; НЕДЕЛ'СКИЙ, Н.М.

Some problems in the automation of the control of electrical
power units. Izv. SO AN SSSR no.6. Ser. tekhn. nauk no.2:27-
35 '65. (MIRA 1800)

1. Institut avtomatiki i elektronetrii Sibirskogo otdeleniya
AN SSSR, Novosibirsk.

ACCESSION NR: AP4007458

S/0286/63/000/024/0028/0028

AUTHOR: Zagorskiy, V. T.; Sobstel', G. M.

TITLE: Static frequency converter. Class 21, no. 159218

TOPIC TAGS: frequency converter, static frequency converter, transistorized commutator converter, bridged transistorized commutator, transistorized commutator

ABSTRACT: The patent describes a static frequency converter based on a reverse amplifier with two magnetic amplifiers and a transistorized commutator. For reducing size and weight and improving efficiency, the commutator is made with four transistors connected in a bridge arrangement with a load on its diagonal, while the two free sides of the bridge are connected to the output terminals of each of the magnetic amplifiers. (see Enclosure 01).

SUBMITTED: 07Dec62

DATE ACQ: 20Jan64

ENCL: 01

SUB CODE: SD

NO REF SOV: 000

OTHER: 000

Card 1/4

ZAGORSKIY, V.T.; SHELOMANOVA, S.S.

Selection of the relationship of parameters of differentiating
devices with inertial transducers. Trudy Inst. avtom. i
elektrometr. SO AN SSSR no.10:56-61 '65.

(MIRA 18:8)

ZAGORSKIY, Ya.T.; ~~SHEREMETIY~~, E.V.; SHTAMBERGER, G.A.

Universal wide-band d.c.device. Priborostroenie no.10:12-14
0 '63. (MIRA 16:11)

L 47096-66 EWT(1)

ACC NR: AR6016015

SOURCE CODE: 0271/66/000/001/A019/A019

INVENTOR: Zagorskiy, V. T.; Birin, G. D.; Sobstel', G. M.

40 B

TITLE: Controlled frequency converters using high-power elements with a key characteristic

SOURCE: Ref. zh. Avtomat. telemekh. i vychisl. tekhn., Abs. 1A130

REF SOURCE: Mezhev. sb. tr. Zap. -Sib. sovet po koordinatsii i planir. nauchno-issled. rabot po tekhn. i yestestv. naukam, vyp. 4, 1965, 110-115

TOPIC TAGS: frequency converter, thyristor, transistor

ABSTRACT: Controlled frequency converters (CFC) using high-power elements with a key characteristic (transistors or thyristors) are investigated. The CFC circuits in question have no intermediate a. c. to d. c. conversion for further inversion. The power section of the CFC is designed as a reversible bridge circuit (3 single-phase CFC using bridge circuits). The circuit operation is

Card 1/2

UDC: 62-52:621.314.26

L 47096-66

ACC NR: AR6016015

described. The use of this circuit permits exclusion of short-circuit currents, in the CFC groups and virtually currentless switching between the groups; it is possible therefore to avoid the use of reactors. Switching losses equal about one half as numerous as in CFCs using intermediate conversion (rectification). The absence of reactive elements in the power circuit makes it theoretically possible to obtain an unlimited range of frequency variations. Orig. art. has: 4 illustrations, and a bibliography of 7 titles. T.R. Translation of abstract [DW]

SUB CODE: 09/

hs

Card 2/2

L 44788-66 EWT(1)

ACC NR: AP6030584

SOURCE CODE: UR/0413/66/000/016/0065/0065

INVENTOR: Zagorskiy, V. T.

ORG: none

TITLE: Semiconductor frequency converter Class 21, No. 184967

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 65

TOPIC TAGS: semiconductor device, frequency converter

ABSTRACT: This Author Certificate introduces a semiconductor frequency converter based on a direct-coupled thyristor circuit. It consists of a master oscillator, a supply voltage polarity indicator, a load current direction indicator, and a switching unit with a switching capacitor (see Fig. 1). To increase both the output frequency range and the

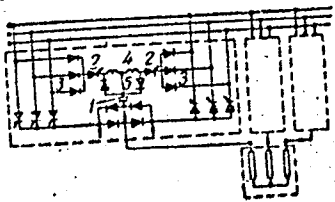


Fig. 1. Frequency Converter

- 1 - Switching capacitor; 2 - controlled rectifiers; 3 - rectifier bridge; 4 - reactors;
- 5 - power diodes.

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UDC: 621.314.27:621.315.592.004

T. 44788-66

ACC NR: AP6030584

reliability, one of the capacitor plates is connected to the converter phase output, and the other to the power line through two silicon rectifiers, a three-phase rectifier bridge, and reactors shunted by parallel opposing diodes. Orig. art. has: 1 figure. [JR]

SUB CODE: 09/ SUBM DATE: 22Oct64/ ATD PRESS: 5079

Card 2/2 blg

L 13881-66 EWT(1)

ACC NR: AP6030583

SOURCE CODE: UR/0413/66/000/016/0065/0065

INVENTOR: Zagorskiy, V. T.; Birin, G. D.; Sobstel', G. M.

ORG: none

TITLE: Semiconductor frequency converter. Class 21, No. 184966. [announced by Institute of Automation and Electrometry, SO AN SSSR (Institut avtomatiki i elektrometrii SO AN SSSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 65

TOPIC TAGS: frequency converter, semiconductor device

ABSTRACT: This Author Certificate introduces a semiconductor frequency converter with a direct-coupled master oscillator circuit (see Fig. 1). To increase the output

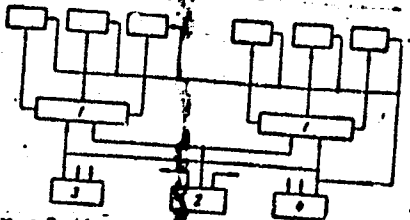


Fig. 1. Frequency converter

- 1 - Control block; 2 - master oscillator;
- 3 - load current direction indicator;
- 4 - supply voltage polarity indicator;

power of the converter by returning the idle current to the power supply line, a supply voltage polarity indicator and a load current direction indicator are used.

Card 1/2

UDC: 621.314.26: 621.315.592.004

L 43881-66

ACC NR: AP6030583

These indicators control the off-duty factor of the pulses produced by transistors acting as power elements. To reduce switching losses, power diodes are connected in series with the transistors. Org. art. has: 1 figure. [JR]

SUB CODE: 09/ SUBM DATE: 03Aug63/ ATD PRESS: 5075

Card 2/2 mjs

ZAGORSKIY, Ya.T.

Effective method for increasing the response of an electronic
autocompensator. Izv. tekh. no. 10:11-13 0 '65. (MIRA 18:12)

ZAGORSKIY, Ya. I.

Increasing the precision of measuring amplifiers. Izv. SO
AN SSSR no.6. Ser. tekhn. nauk no.2:49-53 '65.

(MIRA 18:11)

1. Institut avtomatiki i elektrometrii Sibirskogo otdeleniya
AN SSSR, Novosibirsk.

L 1698-66 EWT(1)/EWA(h)
ACCESSION NR: AP5021075

UR/0288/65/000/002/0049/0053
621.375.4.621.375.084:6

AUTHOR: Zagorskiy, Ya. T.

309
15

TITLE: On increasing the accuracy of measuring amplifiers 25

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya tekhnicheskikh nauk, no. 2, 1965, 49-53

TOPIC TAGS: electronic amplifier, amplifier design, solid state amplifier, audio amplifier

ABSTRACT: A comparative analysis was made of two multistage amplifiers consisting of k stages, each with gain A . The first was provided with negative feedback β for each individual stage and overall positive feedback. The second had only overall negative feedback. The results showed that the relative accuracy of the first amplifier was higher than that of the second by a factor of $1/(1 - A\beta)^{k-1}$. A high-accuracy amplifier of the first type was constructed (see Fig. 1 of Enclosure). It consists of two amplifier stages separated by an emitter follower for impedance matching. The measurement error of the amplifier does not exceed 0.5% in an ambient temperature range of -50 to 65C, even when the gain instabilities of individual

Card 1/3

L 1698-66

ACCESSION NR: AP5021075

ENCLOSURE: 01

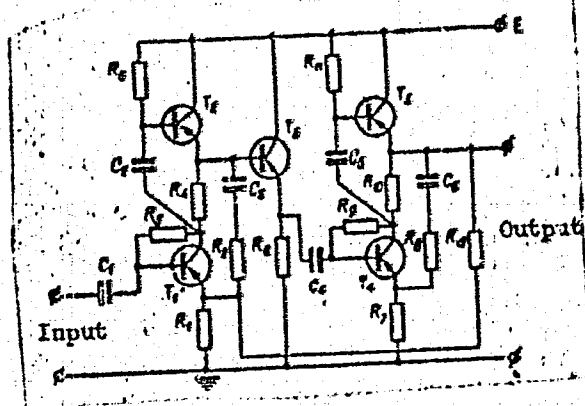


Fig. 1. Measuring amplifier

mlb
Card 3/3

L 1698-66

ACCESSION NR: AP5021075

stages reach 50%. The amplifier voltage gain is 5×10^3 . It has a flat frequency response in the band of 0.05 cps to 30 kc. The noise level, referred to the input, does not exceed 3-5 uv. The amplifier input impedance may be increased to 10-20 Mohm by a cathode follower circuit employing a 6S6B tube. Orig. art. has: 4 figures and 13 formulas. [BD]

ASSOCIATION: Institut avtomatiki i elektrometrii Sibirskogo otdeleniya AN SSSR, Novosibirsk (Institute of Automation and Electrometry of the Siberian Department, AN SSSR.

SUBMITTED: 18Jul64

ENCL: 01

SUB CODE: EC

NO REF SOV: 005

OTHER: 000

ATD PRESS: 4096

Card 2/3

ZAGORSKIY, Ye.I.

Make a correct choice of a type of anode grounding. Stroi.
truboprov. 8 no.5:39 My '63. (MIRA 16:5)

1. Trest No.8 Gosgazproma SSSR.
(Electric currents--Grounding)

ZAGORSKIY, Ye. I.

Change the organization of work in the construction of
communication lines. Stroil. truboprov. 8 no.4:4-5 Ap '63.
(MIRA 16:4)

1, Trest No. 8, Krasnodar.

(Pipelines—Communication systems)

ZAGORSKIY, Yu.M.

Morphology of changes in the central nervous system and various
divisions of the peripheral nervous system of animals in
hyperoxemia. Arkh.pat. 22 no.3:27-34 '60. (MIRA 13:12)
(NERVOUS SYSTEM) (NERVES, PERIPHERAL)
(BLOOD-OXYGEN CONTENT)

ACCESSION NR: AP4020575

S/0057/64/034/003/0469/0473

AUTHOR: Zagorodnov, O.G.; Bolotin, L.I.; Bakhtin, V.D.

TITLE: Measurement of high-frequency fields in a plasma waveguide

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.3, 1964, 469-473

TOPIC TAGS: plasma, plasma waveguide, field distribution, field strength, field distribution measurement, field strength measurement, electric probe, electron beam field measurement

ABSTRACT: The longitudinal component of the high frequency electric field in a plasma waveguide was measured. The mercury vapor plasma was contained in a 7-cm diameter glass tube and was excited at 120 Mc by an external electrode at one end. The measurements were performed over a range of plasma densities yielding phase velocities from slightly greater than 0.7c to slightly less than 0.1c. No external magnetic field was applied. The radial distribution of the longitudinal electric field was determined with an electric probe that was movable radially within the plasma. Standing waves were produced by a reflector, and the probe was moved in a plane of maximum electric field. The field amplitude was found to reach a maximum at a radius

Card 1/3

ACC.NR. AP4020575

somewhat less than that of the tube. This is presumably due to a decrease in the electron density, and hence in the Langmuir frequency, as the wall of the tube is approached. The measurements were otherwise in good agreement with simple theoretical expectations, and it is concluded that the plasma density within the plasma waveguide can be determined by measurements of the electric field strength distribution outside it. The absolute value of the longitudinal electric field was determined by the deflection of a beam of electrons traversing the waveguide in a direction perpendicular to its axis. The measurements were performed with traveling waves in the waveguide, a suitable load being employed to prevent standing wave formation. Electrons of 10-keV energy were used; these traversed the waveguide in about one-tenth of a wave period. The electron beam deflection was calibrated at low frequency with the aid of a parallel plate capacitor, the distribution of the field between the plates of which approximated that of the field in the waveguide. The results of the measurements were expressed in terms of an equivalent shunt resistance and are presented graphically as a curve showing the equivalent resistance as a function of the phase velocity. Abstracter's note: The authors state that the equivalent shunt resistance approaches zero as the phase velocity increases, but their curve does not substan-

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Card

ACC.NR: AP4020575

tiate this, and it seems doubtful. The authors also state that the equivalent shunt resistance is considerably smaller than the theoretical value at the lower phase velocities, and they account for this as a result of collision frequencies comparable with (although smaller than) the wave frequency. / "In conclusion, we consider it our pleasant duty to express our gratitude to Ya.B.Faynberg for his interest in the work and for valuable suggestions." Orig.art.has: 7 formulas and 5 figures.

ASSOCIATION: none

SUBMITTED: 02Jul62

DATE ACQ: 31Mar64

ENCL: 00

SUB CODE: PH

NR REF SOV: 004

OTHER: 004

Card 3/3

KARAVANOV, A.G., prof.; VOLCHEK, V.M.; ZAGORODNYAYA, V.G.

Celomic cysts of the pericardium. Khirurgiia no.9:44-48 '62.
(MIRA 15:10)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. A.G. Karavanov) Kalininskogo meditsinskogo instituta na baze Oblastnoy klinicheskoy bol'nitsy (glavnyy vrach - zasluzhennyy vrach RSFSR A.A.Sokolov).

(CYSTS) (PERICARDIUM—TUMORS)

VOSKRESENSKIY, M.N., kand.med.nauk; ZAGORODNYAYA, V.G., vrach-rentgenolog;
MALUNEYEVA, Z.A., vrach-rentgenolog; ABAKUMOV, A.I., zasluzhennyy
vrach RSFSR.

Diagnosis and treatment of primary osteosarcoma. Trudy KMI
no.10:397-400 '63. (MIRA 18:1)

1. Iz kafedry rentgenologii i meditsinskoj radiologii (sopolnyayu-
shchiy ob'yazannosti zav. kafedroy M.N.Voskresenskiy) Kalininskogo
oblastnogo onkologicheskog. dispansera (glavnyy vrach zasluzhennyy
vrach RSFSR T.N.Mikhireva) i Kalininskoy oblastnoy bol'nitsy No.1
(glavnyy vrach zasluzhennyy vrach RSFSR A.A.Sokolov).

ZAVADOVSKAYA, N.V.; ZAGORODNYAYA, V.G.

Case of intestinal tuberculosis with stenosed sigmoid. Probl.
tub. no.4:89 '64. (MIRA 18:11)

1. Kafedra fakul'tetskoy khirurgii (zav. - prof. V.S. Senenov)
Kalininskogo meditsinskogo instituta.

ZAGORODNYUK, D.

Two norms. Mast. ugl. 5 no. 5:8-9 My '56.

(ILRA 9:8)

1. Zaboyschik shakhty "Kochegarka" Stalinsloy oblasti.
(Donets Basin--Coal mines and mining)

ZAGORODNIUK, D.A. [Zahorodniuk, D.A.], inzh.-mekhanik-kontroler

Using the reducing gear of MTZ-2 tractors for MTZ-5L tractors.
Mekh. sil'. hosp. 11 no.11:15 N '60. (MERL 13:11)

1. Lipovetskaya rayonnaya traktornaya stantsiya, Vinnitskoy oblasti.
(Tractors--Transmission devices)

SABADASHEV, V.P.; ZAGORODNYUK, V.T.

Noncontact device for controlling a.c. contactors.

Trudy NPI 124:11-18 '62. (MIRA 15:11)

(Electric contactors) (Electric relays)

ZAGORODNYUK, V.T., kand.tekhn.nauk

Program control systems for automotive units for boring blast holes.
Bul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch. i tekhn.inform. 18
no.4:51-52 Ap '65. (MIRA 18:6)

SOV/144-59-8-8/14.

AUTHORS: Sabadashev, V.P. (Cand. Tech. Sci., Docent) and
Zagorodnyuk, V.T. (Assistant)

TITLE: Design of a Phase-sensitive Circuit with Variconds

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,
Elektromekhanika, 1959, Nr 8, pp 79-85 (USSR)

ABSTRACT: Variconds are capacitors with siegnette-ceramic dielectric. In the circuit of Fig 1, which works on the principle of adding and subtracting pulses, type VK1-B devices are used. The load resistance R_H is assumed to be much less than the reactance of either capacitor. The effective value of the load current, as a function of the phase shift between the capacitor currents is Eq (4). The instantaneous values of the currents may be found using the approximate relation between charge and voltage as suggested in Ref 1. The coefficients α and β in this relation (Eq (5)) are given in Table 1 for three types of varicond. The separate expressions for capacitor current are Eqs (8) and (9) and the square of the load current is Eq (11). The three terms of this equation, which must be integrated, are processed in different ways. The first suffers a change of variable $y = \tan z$ and is then

Card 1/3

SOV/144-59-8-8/14

Design of a Phase-sensitive Circuit with Variconds

treated as a rational function, Eq (14). The second is evaluated by the approximation given in Ref 2. The third is treated like the first, Eq (15). The final expression for load current is Eq (16). Charge-voltage curves for several types of capacitor are given in Fig 2, while Fig 3 compares calculated (curve 1) and measured (curve 2) values of capacitor current versus phase angle. Table 2 gives values of the function $N_1(\delta)$ which appears in Eq (16). The phase-detection characteristics for VKL-B units at various voltages are in Fig 4, the discrepancy between theory and experiment being about 4%. Analogous results for VKL-2 and VKL-3 units are summarized in Table 3, where the errors are 5-7%. The detection characteristics depend on the peak currents in the capacitors and differ from the sinusoidal curves described in Ref 3 for linear capacitors.

Card
2/3

SOV/144-59-8-8/14
Design of a Phase-sensitive Circuit with Variconds

There are 4 figures, 3 tables and 3 Soviet references.

ASSOCIATION: Kafedra avtomaticheskikh i izmeritel'nykh ustroystv, Novocherkasskiy politekhnicheskiy institut (Chair of Automatic and Measuring Apparatus, Novocherkassk Polytechnical Institute) (Saidashev)
Kafedra gornoy elektromekhaniki, Novocherkasskiy politekhnicheskiy institut (Chair of Mining Elektromechanics, Novocherkassk Polytechnical Institute) (Zagorodnyuk)

Card 3/3

SUBMITTED: December 28, 1958

ZAGORODNYUK, V.T.; STASHINOV, Yu.P.

Analysis of a potentiometric bridge for a relay-type servomechanism.

Trudy NPI 115:35-45 1961.

(MIRA 15:4)

(Potentiometer) (Electricity in mining) (Servomechanisms)

ZAGORODNYUK, V.T.

Phase-sensitive bridge network using variconds. Trudy NPI
115:55-61 '61. (MIRA 15:4)
(Bridge circuits) (Automatic control)
(Electricity in mining)

ZAGORODNYUK, V.T., inzh.

Automatic control of rigs for drilling holes. Izv. vys. ucheb.
zav.; gor. zhur. 5 no.1:144-150 '62. (MIRA 15:4)

1. Novocherkasskiy ordena Trudovogo Krasnogo Znameni politekhnicheskiy
institut imeni S.Ordzhonikidze. Rekomendovana kafedroy gornoy
elektrotekhniki Novocherkasskogo politekhnicheskogo instituta.
(Boring machinery) (Automatic control)

30(1)

AUTHORS: Zagorodnyuk, Ya.F.; Turtsevich, E.S. SOV/26-59-2-38/53

TITLE: Profuse Tillering of Winter Wheat (Moshchnoye kushcheniye ozimoy pshenitsy)

PERIODICAL: Priroda, 1959, Nr 2, p.111 (USSR)

ABSTRACT: The authors describe the phenomenon of a profuse growing of side-shoots from low-lying buds in young crops of winter wheat observed in autumn 1957 in the Cherkasskaya gosudarstvennaya sel'skokhozyaystvennaya opytnaya stantsiya (Cherkasskaya State Agricultural Experimental Station). The authors explain this phenomenon by the especially favorable interplay of cultivation method and weather conditions. The seed had been sown into bare fallow enriched with 25 tons of manure and mineral fertilizer. The sowing day of 5 September 1957 represented the best possible date in this region. The month of September 1957 had a precipitation of 34.4 mm which is nearly twice the

Card 1/2

ZAGORODNYUK, Ya. F.; TURSEVICH, E.S.

Profuse tillering of winter wheat. Priroda 48 no.2:111 F '59.
(MIRA 12:3)

1. Cherkasskaya oblastnaya opytnaya stantsiya.
(Wheat)

1. ZAGORODNIYUK, V.^D; AFANAS'EV, N.
^
2. USSR (600)
4. Drying Apparatus
7. "US-1" all-purpose drier, N. Afanas'ev, V. Zagorodniyuk, Sel'stroi. 8 no. 2, 1953.

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

ZAGORODNYUK, V.D.

[Drying on collective farms] Sushil'noe khoziasstvo v kolkhozakh.
Minsk, Gos.izd-vo BSSR, 1954. 93 p. (MLBA 10:8)
(Drying apparatus)

SHAKHANOV, S.G., inzhener; ZAGORODNYUK, V.D., inzhener; CHERNYAK, I.,
redaktor; TRUKHANOVA, A., tekhnicheskiiy redaktor

[Safety engineering and fire prevention measures in collective farm
construction] Tekhnika bezopasnosti i protivopozharnye meropriyatia
na stroitel'stve v kolkhozakh. Minsk, Gos. izd-vo BSSR, 1956. 82 p.
(Fire prevention) (MIRA 10:1)
(Collective farms)

ZAGRODNYI, A.D.; OLEYNICHENKO, I.A.

Improving the technology of stoping operations in chamber
systems of mining. Met. i gornorud. prom. no. 4:41-44 J1-Ag
'63. (MIRA 16:11)

ZAGRODNYI, B.M. [Zahorodnyi, B.M.]

Work practices of the "Maiak" Clothing Factory in Lvov. Let.
prom. no.2:50-52 Ap-Je '63. (MIRA 16:7)

1. Tsentral'noye byuro tekhnicheskoy informatsii L'vovskogo
soveta narodnogo khozyaystva.
(Lvov—Clothing industry—Management)

14-57-7-15366

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 7,
p 182 (USSR)

AUTHORS: Zagorodnyy, G. P., Mirnaya, A. M.

TITLE: Potato Crops in the Dagestan Plain (K voprosu ob
urozhaynosti kartofelya v ploskostnom Dagestane)

PERIODICAL: Tr. Dagestansk. s.-kh. in-ta, 1956, Vol 9, pp 3-8

ABSTRACT: This paper describes experimental studies on the
effect of fertilizers on the potato crop in the
climate and soils on the plains of Dagestan. The
Dagestan Agricultural Institute conducted experimental
studies in crop rotation. This study presents tables
showing crops of potato varieties Mozhestik and Lorkh,
and includes a bibliography of seven titles.

Card 1/1

No name

ZAGORODNYI, G. P. Doc Agr Sci -- (diss) "~~the~~ System of ^{the} fertilization of
plants in vegetable crop rotation applicable to conditions of the Dagestan
Plane." Mos, 1957. 29 pp; 1 sheet of ^{Dagestan} charts (Mos Order of Lenin Agr
Acad im K. A. Timiryazev), 110 copies (KL, 14-58, 115)

ZAGORODNYI, G.P.

J-4

USSR/Soil Cultivation. Organic Fertilizers.

Abs Jour: Ref Zhur-Biologiya, No 1, 1958, 1269.

Author : Zagorodnyy, G.P.
Inst : Dagestan Agricultural Inst
Title : Manure as a Plant Nutritive in Irrigation.

Orig Pub: Tr. Dagestansk. s.-kh. in-ta, 1956, 9, 30-35.

Abstract: Both passing irrigation water through natural troughs filled with manure and using trench sprinklers require excessive labor input and result in uneven distribution of the nutritive elements on the field. It is proposed that a hole with a volume of up to 3 cubic meters be dug not far from the irrigating ditches and that in this hole one ton of manure be mixed with one cubic meter of water. Then the irrigation waters can be passed through this mixture. When manure was used in a dose of 4-5 T/hectare, a grain harvest of 18.4 centners/hectare was

Card : 1/2

-5-

USSR/Soil Cultivation. Organic Fertilizers.

J-4

Abs Jour: Ref. Zhur-Biologiya, No 1, 1958, 1269.

achieved (as against 10.6 centners/hectare in the control).
The technical basis of this method is described and the labor
expenditure is calculated; as a method it is rated very highly
on the basis of four years of observations.

Card : 2/2

-6-

TSITSIN, N.V., akademik; ZAGORODNYI, L.S.; SILEVA, M.H.

Greening seed potatoes before winter storage. Priroda 49
no.5:94-95 Hy '60. (MIRA 13:5)

1. Glavnyy botanicheskiy sad AN SSSR, Moskva.
(Seed potatoes)

ZAGORODNYI, N.

Zagorodnyy, N. - "A patriot (Concerning Hero Of Socialist Labor ⁵¹, Sharanov,
miner, Karaganda)," sketch, Kazakhstan, 13, 1949, p. 123-35

So: U-3566, 15th arch 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

ZAGORODNIY, P.I., vrach-nevropatolog (Leningrad)

Bromides. Zdorov'e 6 no.5:31 My '60.
(BROMIDES)

(ICIRA 13:6)

ZAGORODNYI, P.I., vrach-nevrapatolog (Leningrad)

Misuse of television. Zdorov'e 5 no.6:30 Je '59.

(MIRA 12:11)

(TELEVISION--HYGIENIC ASPECTS)

ZAGORODNYI, P.I., vrach-nevropatolog

Poisoned love. Zdorov'e 5 no.9:27-28 S '59. (MIRA 12:11)
(ALCOHOLISM)

ZAGORODNYI, Petr Ivanovich; NEMAN, M.I., red.; BOGACHEVA, Z.I.,
tekhn.red.

[Fight against alcoholism] V bor'be s alkogolizmom. Moskva.
Gos.izd-vo med.lit-ry, 1959. 33 p. (MIRA 13:1)
(ALCOHOLISM)

ZAGORODNYI, P.Ye. (Leningrad).

Arteriography in endarteritis obliterans. Khirurgia no.6:49-55 Je '53.
(MIRA 6:8)
(Arteries--Diseases) (Radiography)

ZAGORODNYI, V.G.

Drusites of the northwestern part of the Kola Peninsula (Pechenga District). Vop. geol. i min. Kol'. poluos. no.4:41-48 '63.
(MIRA 16:10)

ZAGORODNYI, Vladimir Georgiyevich; MIRSKAYA, Diana Dmitriyevna;
SUSLOVA, Svetlana Nikolayevna; TOCHILIN, M.S., doktor
geol.-miner. nauk, otv. red.

[Geology of the Pechenga and volcanic sedimentary series]
Geologicheskoe stroenie Pechengskoi osadochno-vulkanoger-
noi serii. Moskva, Izd-vo "Nauka," 1964. 206 p.
(MIRA 17:6)

ZAGORODNYI, V.I. [Zahorodni, V.I.], kand.ekon.nauk

Socialism abolishes taxation. Nauka i zhyttia 10 no.71
4-6 J1 '60. (MIRA 13:7)

(Income tax)

TIKHOMIROV, V.N.; ZAGORODNYIA, G.Yu.; STAROBOGATOV, Ya.I.; SHVEINHIKOVA, N.K.

Juncus nacer S.P. Gray in Moscow Province. Nauch.dokl.vyu.shkoly;
biol.nauki no.2:121-124 '60. (MIRA 13:4)

1. Rekomendovana biologicheskoy laboratoriyey Moskovskogo gosudarst-
vennogo universiteta im. M.V. Lomonosova.
(MOSCOW PROVINCE--SEDGES)

ZAGORODSKAYA, M.M. (Kiyev, 62 ul. Shcherbakova, d.12)

Echinococcus in the pleura. Klin.khir. no.11:83-84, N '62.
(MIRA 16:2)

1. Kafedra rentgenologii (zav. - prof. A.Ye. Rubashova) Kiyev-
skogo instituta usovershenstvovaniya vrachey.
(PLEURA--HYDATIDS)

ZAGORODSKAYA, M. M.

Zagorodskaya, M. M.

"Some anatomical-physiological aspects of the pericardium in X-ray representation." Khar'kov Medical Inst. Khar'kov, 1956. (Dissertation For the Degree of Candidate in Medical Sciences).

Krizhnaya letopis'
No 34, 1956, Moscow.

ZAGORODSKAYA, M.M.

Using radioactive phosphorus (P^{32}) for determining the absorption
ability of the heart sac. *Fiziol.skur.[Ukr.]* 2 no.6:81-85 H-D '56.
(MLPA 10:2)

1. Kiyv's'kiy institut udoskonalennya likariv, kafedra rentgenologii.
(PERICARDIUM) (PHOSPHORUS--ISOTOPES)

USSR/Morphology of Man and Animals - Vascular System.

S-5

Abs Jour : Ref Zhur Biol., No 6, 1958, 26495

Author : Zagorodskaya, M.M.

Inst : -

Title : Anatomic Peculiarities of the Pericardium on X-Rays.

Orig Pub : Vracheb. delo, 1957, No 1, 45-48.

Abstract : A study was made on 7 cadavers that were newborn and 9 embryos from 6 to 8 months of age. From 0.5 to 3 ml. of uroselectan were injected into the pericardial sac. In 6 cases the pericardium reduplicated the shape of the heart without revealing the cardio-diaphragmatic sinuses. In 10 cases these sinuses were large and became apparent as additional triangular shadows which were larger on the left. A study of 1100 people, ranging from 6 months to 70 years of age, revealed that in 89.1% of cases the pericardium reduplicated the shape of the heart chambers. In the remaining 120 people

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USSR/Morphology of Man and Animals - Vascular System.

8-5

Abs Jour : Ref Zhur - Biol., No 6, 1958, 26495

(10.9%) homogeneous dark areas, triangular in shape, with sharp external contours (rectilinear, concave and, more rarely, convex) were observed. The intensity of the indicated dark area was less than that of the heart; during inspiration transmitted pulsations were revealed. Multiaxial studies as well as the studies during the various phases of respiration permitted differentiation between the heart shadow and that of pericardial fatty deposits, reduplication of the mediastinal pleura, inferior vena cava, etc.

Card 2/2

ZAGORODSKAYA, M.M. [Zahorods'ka, M.M.]

On the movement and location of fluid in the pericardiac cavity
[with summary in English]. Fiziol. zhur. [Ukr]. 4 no.4:472-477
Jl-Ag '58 (MIRA 11:10)

1. Kiyevskiy institut usovershenstvovaniya vrachey, kafedra rentgenologii
i radiologii.

(PERICARDIUM)
(BODY FLUIDS)

ZAGORODSKAYA, M.M.

Calcification along the coronary sulcus of the heart. Vest.rent. 1
rad. 33 no.4:69-71 J1-Ag '58 (MIRA 11:8)

1. Iz kafedry rentgenologii i radiologii (zav. - chlen-korrespondent
AN USSR prof. A.A. Gorodetskiy) Kiyevskogo instituta usovershenstvovaniya
vrachey (dir. - dots. V.D. Bratus').
(PERICARDITIS, ADHESIVE, case reports
calcification along coronary sulcus (Rus))

ZAGORODSKAYA, M.M., kand. med. nauk

X-ray diagnosis of the dextroposition of the aorta. Vrach.
delo no.2:136-137 F'64 (MIRA 17:4)

1. Kafedra rentgenologii (zav. - prof. A. Ye. Rubasheva)
Kiyevskogo instituta usovershenstvovaniya vrachey.

CHUKOVA, N.S.; ZAGORODSKAYA, M.M.

X-ray diagnosis of tuberculosis of the large bronchi. Zhur. ush.,
nos. 1 gor. bol. 24 no.1:60-66 Ja-F '64. (MIRA 18:3)

1. Iz kafed' v rentgenologii (zav.- prof. A.Ye. Rubasheva)
Kiyevskogo Instituta usovershenstvovaniya vrachey.

ZAGORODSKAYA, M.M. [Zahorods'ka, M.M.]

Changes in the organs of the thoracic cavity in acute
leukemia in children. Ped. Akush. i gin. 24 no.6:21-24
'62. (MIRA 17:4)

1. Kafedra rentgenologii (zaveduyushchiy - prof. A.Ye.
Rubashova [Rubashova, A.IE.]) Kiyevskogo instituta usover-
shenstvovaniya vrachey (rektor - dotsent M.N. Umovist).

ZAGORODSKAYA, M.M.; PAVLOVSKAYA, M.A.

Clinical radiographic characteristics of inflammatory suppurative
processes in cystic lung. Vrach. delo no.6:148-149 Je '51.
(MIRA 15:1)

1. Kafedra rentgenologii (zaveduyushchiy - prof. A.Ye.Rubasheva)
Kiyevskogo instituta usovershenstvovaniya vrachey.
(RADIOGRAPHY) (LUNGS DISEASES)

ZAGORODSKAYA, M.M.

Clinical and radiological characteristics of mitro-aortal heart defects.
Vrach. delo no.10:77-84 0 '61. (MIRA 14:12)

1. Kafedra rentgenologii (zav. - prof. A.Ye. Rubasheva) Kiyevskogo
instituta usovershenstvovaniya vrachey.
(HEART--VALVES--DISEASES)

ZAGORODSKAYA, M.M.

Roentgenkymographic investigation of the heart of persons who have been affected with myocardial infarct. Vrach.delo no.12:1247-1250 D '59. (MIRA 13:5)

1. Kafedra rentgenologii (sav. - prof. A.Ye. Bubasheva) Kiyevskogo instituta usovershenstvovaniya vrachey.
(HEART--RADIOGRAPHY) (HEART--INFARCTION)

SALAZHOV, Ye.I.; ZAGORODNOV, M.V.; MUSTAFAYEV, G.A.; SHAROV, A.H.

Biological properties of the strain of foot-and-mouth disease viruses of the SAT-1 type. Veterinarika 41 no.5:25-27 by '64.
(MIRA 18:3)

1. Gosudarstvenny nauchno-kontrol'nyy institut veterinar'nykh preparatov.

STLOROV, S.I., inzh.; ZAGORODNIUK, V.T., kand. tekhn. nauk

Selection and automatic switching of conditions of rotary bearing
in salt. Izv. vys. ucheb. zav.; ger. zhur. 8 no.1:133-135 '65.

(MIRA 18:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut soliannyy pro-
myshlennosti (for Sidorov). 2. Novocheerkasskiy ordena Trudovogo
Krasnogo Znameni politekhnicheskiiy institut imeni S. Ordzhonikidze
(for Zagorodnyuk). Rekomendovana kafedroy gornoy elektromekhaniki
i avtomatizatsii proizvodstvennykh protsessov v gornoy promyshlen-
nosti Novocheerkasskogo ordena Trudovogo Krasnogo Znameni politekhnicheskogo instituta imeni S. Ordzhonikidze.

TANKHEL'SON, Grigoriy Vul'fovich; ZAGORSKAYA, Yelena Petrovna; BILYANSKIY,
Milya Khaimovich; KOGAN, H.D., nauchnyy red.; FOMICHEV, A.G.,
red.; KRASOVA, H.V., tekhn.red.

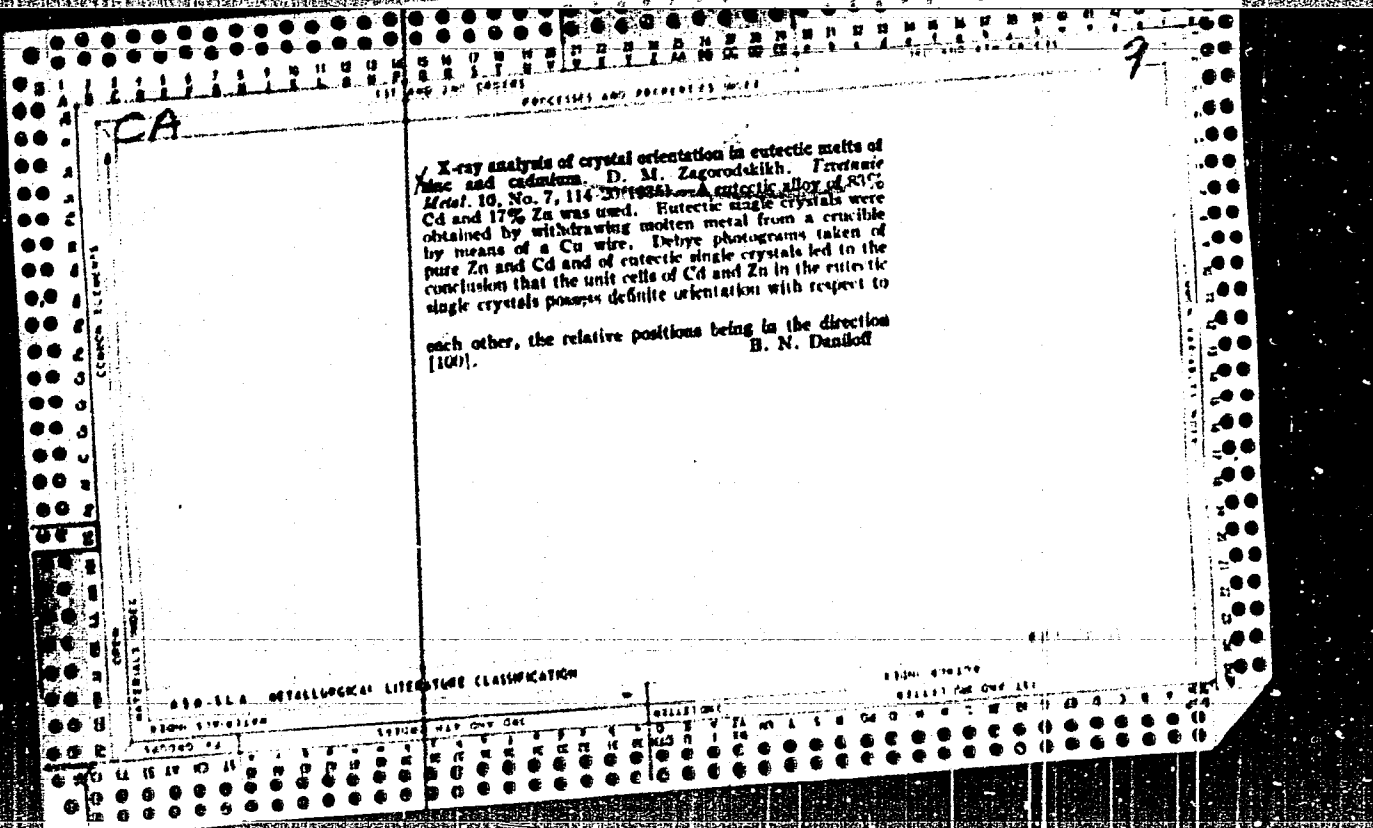
[Reinforced concrete floating docks] Zhelzobetonnye plavuchie
doki. Leningrad, Gos.soiuznoe izd-vo sudostroit.promyshl., 1960.
195 p. (MIRA 14:4)

(Dry docks)

ZAGORSKAYA, Ye. P., kand. tekhn. nauk

Some shortcomings in anchoring and mooring equipment. *Sudostroenie*
26 no.9:15-17 S'60. (MIRA 13:10)

(Ships--Equipment and supplies)



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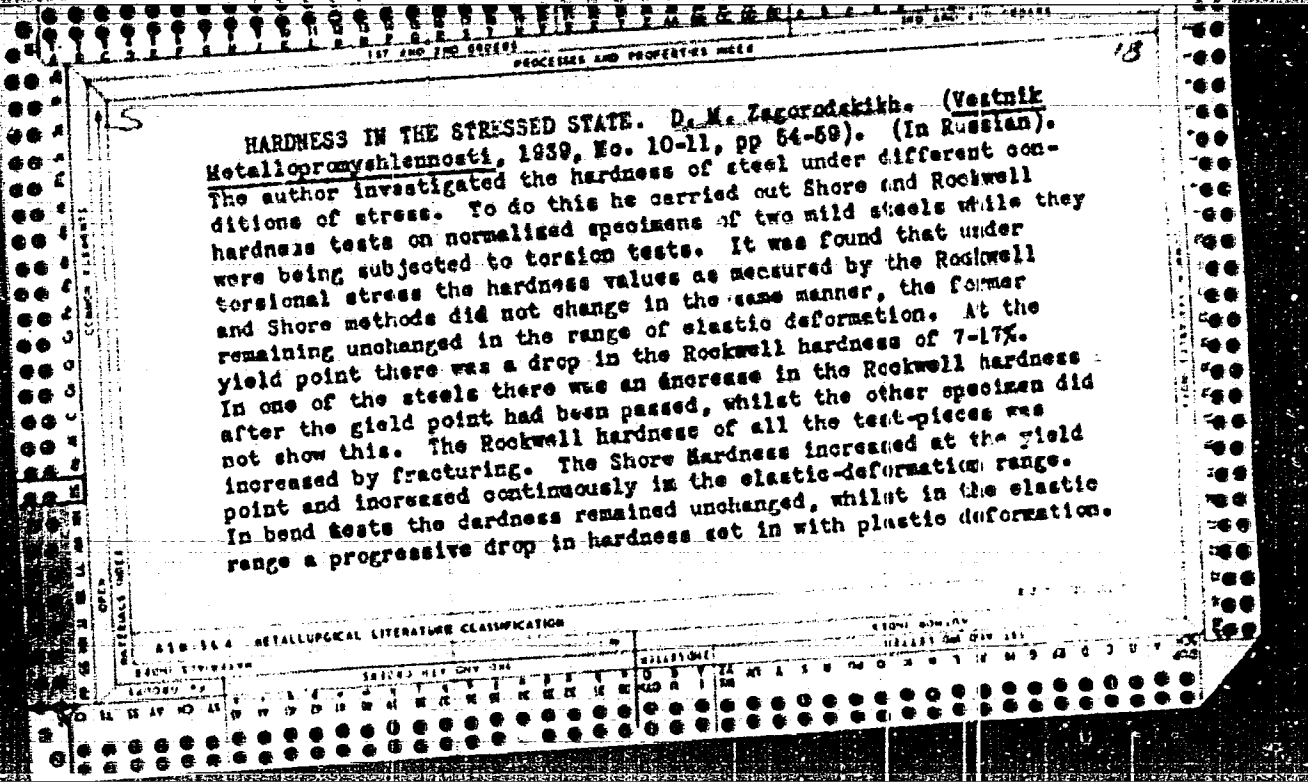
9

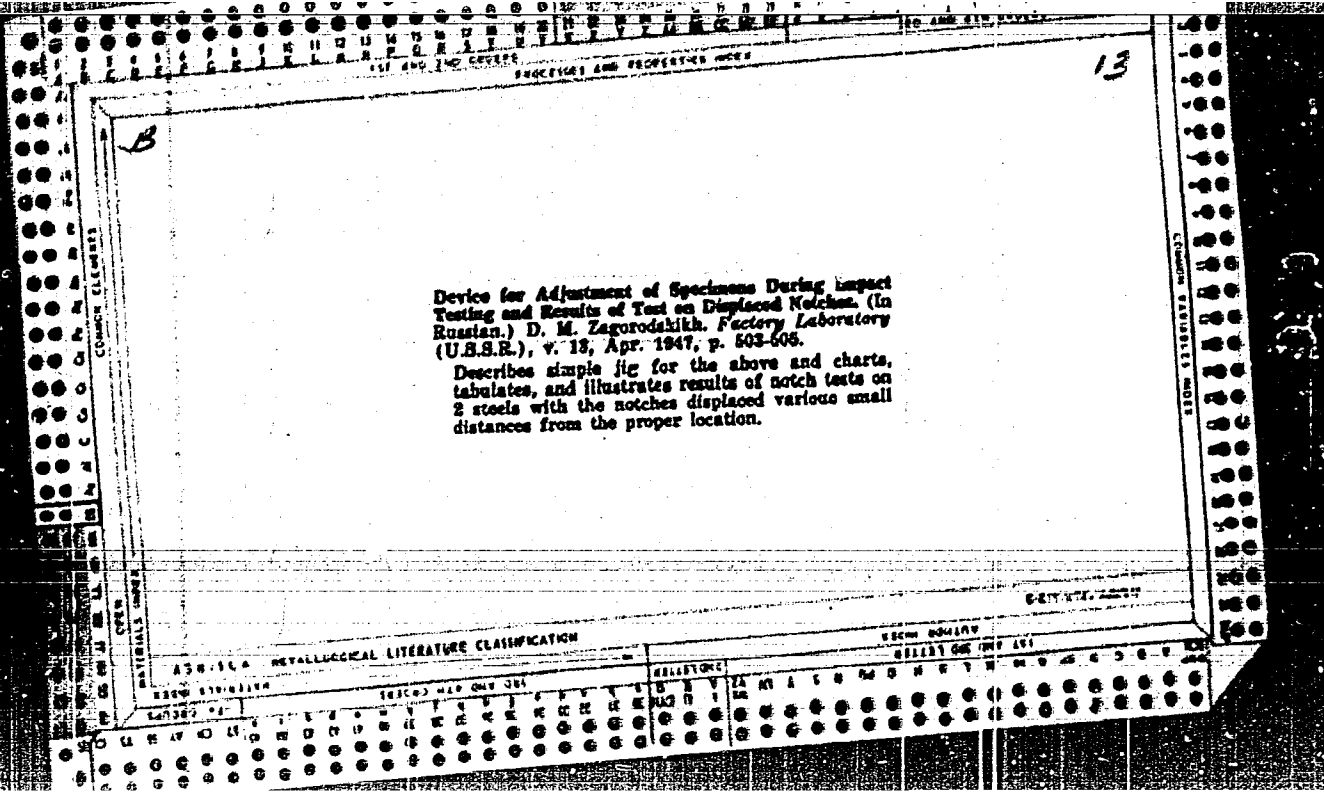
PROCESSING AND PROPERTY NOTES

Quenching after Hot Deformation. D. M. Zagorodskikh. (Vostnik Metallopramyshlennosti, 1939, No. 6, pp. 71-79). (In Russian). The experiments to investigate the effect of hot deformation prior to quenching were carried out on spring steel of the following composition: Carbon 0.38%, silicon 0.34%, manganese 1.21%, sulphur 0.06%, and phosphorus 0.07%. In the experiments two test pieces were simultaneously heated to temperatures of 870-1070° C. One of the test pieces was then forged down some 60% by a single blow (without change in temperature), and both were then quenched together in water at 15° C. It was found that the average hardness of all deformed test pieces was less than that of the unworked ones. The microstructure of quenched forged test pieces consisted of finer acicular martensite than that of undeformed specimens. In addition, the former showed trochantite inclusions. There was no difference in the Debye X-ray diagrams.

ASB-55A METALLURGICAL LITERATURE CLASSIFICATION

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Viscous, brittle, and boundary cracks in impact tests.
 D. M. Zagorodskikh. *Zhur. Tekh. Fiz.* (J. Tech. Phys.)
 17, 388-40 (1947).—Steel samples with 8-mm. semicircular
 notches show 2 types of cracks, viscous and brittle.
 The former are relatively superficial, penetrating no deeper
 than 1 mm., and are seen to turn around the grains and
 their fragments. Brittle cracks only appear in samples
 with a sharp notch. These pass mostly through the grains,
 occasionally changing their direction by 90°, continue
 towards inclusions of MnS, and end within a ferrite grain.
 A 3rd type of crack runs along the boundary between de-
 formed and nondeformed parts, following grains of in-
 cluded MnS. N. Thom

ASTM-B14 METALLURGICAL LITERATURE CLASSIFICATION

