shown (increase of these factors reduced the boundary layers). The parameter $(x/sRe_{js})^{0.1}$, where s is the distance between the plates and x the characteristic dimension is used to take into account the effect on local evolution of heat [illegible] figures and [illegible] table.

ASSOCIATION: Institut energetiki [illegible] Litovskoy SSR ([illegible] Power and Electrical Engineering of the AS Lithuanian SSR)

SUBMITTED: April 18, 1962

HEAT EXCHANGE IN BOUNDARY LAYER (USSR)

Šlančiauskas, A., J. Žiugžda, and A. Žukauskas. Mokslas ir technika, no. 4, 1963, 34-35. S/253/63/000/004/001/001

Relationships for calculating heat exchange when the properties of a fluid are [illegible] been derived by measuring the velocity and temperature fields in [illegible]

ZHYUGZHDA, I.I. [Ziugzda, J.]; ZHUKAUSKAS, A.A. [Zukauskas, A.]

Experimental study of local heat transfer in the entrance section between parallel plates. Trudy AN Lit. SSSR. Ser. B no. 1:117-124 '63. (MIRA 17:5)

1. Institut energetiki i elektrotekhniki AN Litovskoy SSR.

MATYUKAS, A.A. [Matiukas, A.]; ZHYUGZHDA, I.I. [Ziugzda, J.]; MAKARYAVICHYUS, V.I. [Makarevicius, V.]; ZHUKAUSKAS, A.A. [Zukauskas, A.]

Using semiconductor thermistors for measuring viscous fluid flow speed. Trudy AN Lit. SSR Ser. B no.3:87-90 '63.
(MIRA 18:3)

1. Institut energetiki i elektrotekhniki AN Litovskoy SSR.

ACCESSION NR: AP4038656 S/0170/64/000/004/0003/0007

AUTHOR: Zhukauskas, A. A.; Ambrazyavichyus, A. B.; Zhyugzhda, I. I.

TITLE: Effect of the nonisothermality of a surface on the heat exchange of a plate in longitudinal flow

SOURCE: Inzhenerno-fizicheskiy zhurnal, no. 4, 1964, 3-7

TOPIC TAGS: Surface nonisothermality, heat exchange, longitudinal flow, laminar boundary layer, turbulent boundary layer, laminar flow, turbulent flow, heat transfer

ABSTRACT: The heat exchange between a nonisothermal plate and a flow of air, water, and transformer oil with a laminar and turbulent boundary was studied experimentally in the range of Re_x numbers ranging from 10 to 3×10^7. Criterial equations were derived for calculating the heat exchange between a plate and a laminar and turbulent boundary layer. It was found that in the case of a laminar boundary layer, the initial unheated segment of the plate has a substantial effect on the heat transfer. The nonisothermality of the surface has an appreciable effect on the rate of the heat exchange. Orig. art. has: 3 figures, 7 formulas, and 2 tables.

Card 1/2 Inst. Power + Electrical Engineering AS. Lit SSR

ZHUKAUSKAS, A. A.; ZHYUGZHDA, I. I.

"Experimental investigation of heat transfer and hydrodynamic resistance in the entry of a plane channel with laminar flow of viscous fluid."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

Inst Power & Electrical Engineering, AS LitSSR.

ZHUKAUSKAS, A. A.; SHLANCHYAUSKAS, A. A.; MAKARYAVICHYUS, V. Yu.; AMBRAZYAVICHYUS, A. B.

"Determination of interaction between velocity and temperature fields in a boundary layer with variable viscosity."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

Inst of Power Engineering, AS LitSSR.

ZHUKAUSKAS, A.A. [Zukauskas, A.]; AMBRAZYAVICHYUS, A.B. [Ambrazevicius, A.]; ZHYUGZHDA, I.I. [Ziugzda, I.]

Effect of the nonisothermality of a surface on heat transfer from a plate in a longitudinal flow. Inzh.-fiz. zhur. 7 no.4:3-7 Ap '64. (MIRA 17:4)

1. Institut energetiki i elektrotekhniki AN Litovskoy SSR, Kaunas.

ULINSKAS, R.V.; SHLANCHYAUSKAS, A.A. [Slanciauskas, A.]; ZHUKAUSKAS, A.A. [Zukauskas, A.]

Determining the speed of a fluid flow at the wall of a channel. Trudy AN Lit. SSR. Ser.B no.1:129-131 '65. (MIRA 18:7)

1. Institut energetiki i elektrotekhniki AN Litovskoy SSR.

L 23523-66 EWP(m)/EWT(1)/ETC(m)-6/EWA(d)/EWA(1) WW

ACC NR: AP6004535 SOURCE CODE: UR/0236/65/000/004/0139/0152

AUTHOR: Lyutikas, N. S.--Liutikas, N.; Zhukauskas, A. A. -- Zukauskas, A.

ORG: Institute for Power and Electrotechnology of the AN LitSSR (Institut energetiki i elektrotekhniki AN LitSSR)

TITLE: Determination of heat transfer in the case of laminar flow of a fluid with variable viscosity in a flat channel

SOURCE: AN LitSSR. Trudy. Seriya B. Fiziko-matematicheskiye, khimicheskiye, geologicheskiye i tekhnicheskiye nauki, no. 4, 1965, 139-152

TOPIC TAGS: convective heat transfer, fluid flow laminar flow, fluid viscosity

ABSTRACT: The article proposes an approximate analytical solution of the problem of heat transfer for the case of the forced laminar flow of an incompressible fluid in a flat channel, taking into account the dependence of viscosity on temperature. The mathematical development is based on the following assumptions: 1) the velocity distribution in the entrance section of the flat channel is parabolic; 2) the temperature of the fluid at the entrance is constant over the cross section;

Card 1/2

3) the velocity of the movement is small and the dissipation of energy can be neglected; 4) the effect of mass forces is small in comparison with the effect of viscous and pressure forces; 5) the density of the heat flux along the axis of the flat channel, determined by the heat conductivity, is small in comparison with the heat flux across the channel; and, 6) the pressure is constant over the cross section of the channel. The solution is obtained by an improved integral method for the initial thermal section and for the section of thermally stabilized flow. A polynomial of the fourth degree is used for the temperature distribution. For the isothermal problem, the local heat transfer was determined by the equation $Nu = 1.022\,(Pe \cdot h/x)^{1/3}$, and the mean heat transfer by the equation $\overline{Nu} = 1.533\,(Pe \cdot h/x)^{1/3}$. These equations are said to coincide with known exact solutions to an accuracy of 4%. Orig. art. has: 59 formulas, 5 figures, and 1 table.

SUB CODE: 20/ SUBM DATE: 22May65/ ORIG REF: 004/ OTH REF: 005

L 24404-66 EWT(1)/EWP(m)/EWT(m)/T/EWA(1) WW/DJ/GS

ACC NR: AT6006922 SOURCE CODE: UR/0000/65/000/000/0365/0368

AUTHOR: Zhukauskas, A. A.; Shlanchyauskas, A. A.; Makaryevichyus, V. I.; Ambrazyavichyus, A. B.

ORG: Power and Electrotechnical Institute AN LitSSR (Institut energetiki i elektrotekhniki AN LitSSR)

TITLE: Determination of the interaction of the velocity and temperature fields in a boundary layer with variable viscosity

SOURCE: Teplo- i massoperenos. t. II: Teplo- i massoperenos pri vzaimodeystvii tel s potokami zhidkostey i gazov (Heat and mass transfer. v. 2: Heat and mass transfer in the interaction of bodies with liquid and gas glows). Minsk, Nauka i tekhnika, 1965, 365-368

TOPIC TAGS: boundary layer theory, fluid viscosity, turbulent heat transfer

ABSTRACT: In the given case, the relationship between the temperature field and the velocities is expressed in the form of the integral:

$$\Theta = \frac{q_w w_{max}}{(t_f - t_w)\tau_w} \int_0^{\varphi} \frac{\Pr(1 + \varepsilon_\tau/\nu)\frac{q/q_w}{\tau/\tau_w}}{c_p[1 + \Pr \varepsilon_q/\varepsilon_\tau(\varepsilon_q/\nu)]} d\varphi,$$

Card 1/2

L 24404-66
ACC NR: AT6006922

$$\tau = (\mu + \rho\varepsilon_\tau)\frac{du}{dy}$$

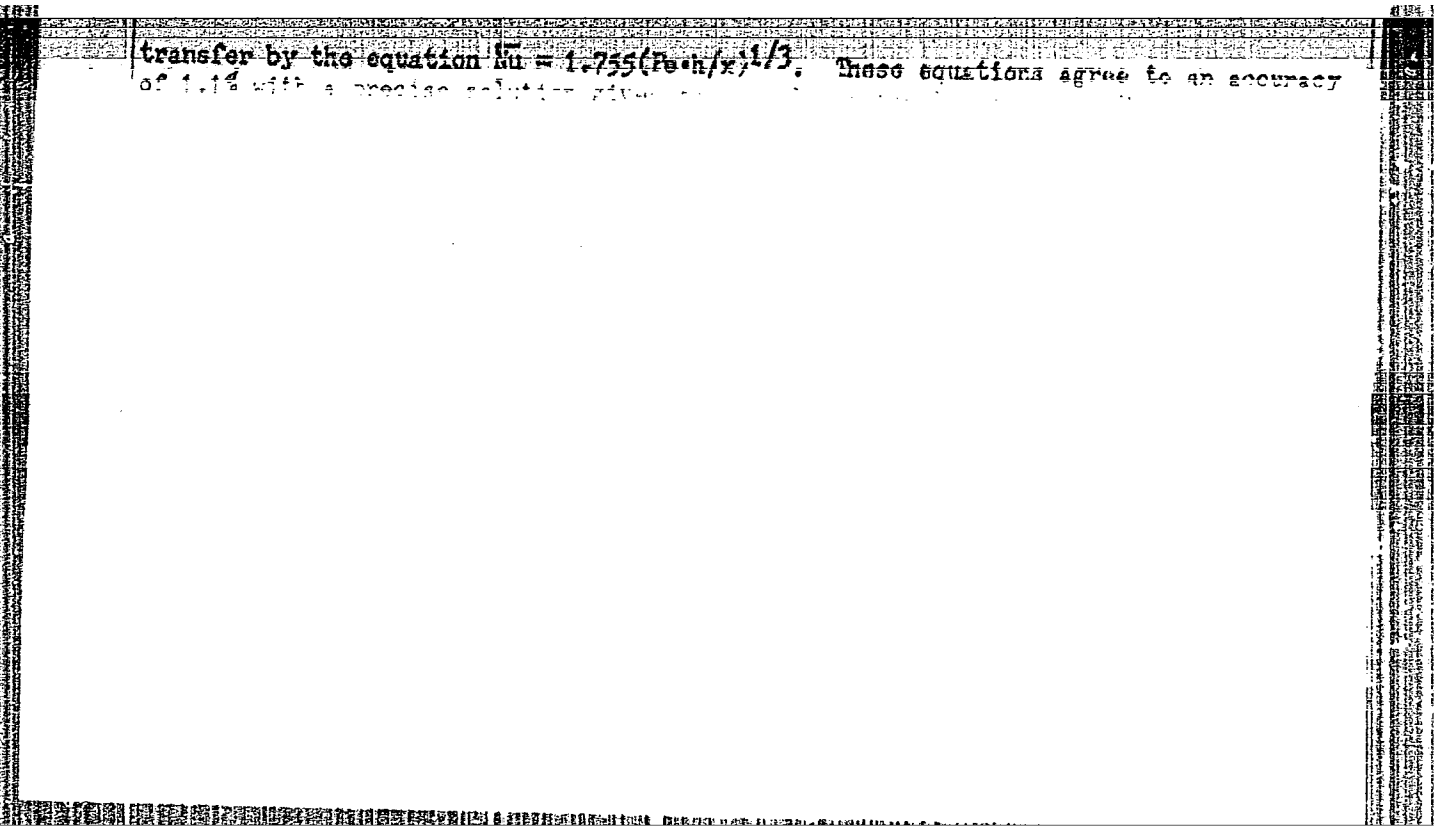
$$q = (\lambda + \rho c_p \varepsilon_q)\frac{dt}{dy}.$$

Experiments were made to determine the distribution of the velocities and the temperatures in the boundary layer on a plate. The experiments were carried out under isothermal conditions, with heating and cooling water and of transformer oil, in a Reynolds number range from 3×10^5 to 6×10^6. Curves are given showing the resulting deformation of the velocity field under heat transfer conditions, and the turbulent velocity profiles with heating of the liquid. A final curve shows the results of a calculation of the temperature profile in transformer oil, with and without taking into account the change in viscosity. By taking the change of viscosity into account good agreement is obtained between experimental and theoretical data. Orig. art. has: 2 formulas and 3 figures.

SUB CODE: 20/ SUBM DATE: 09Nov65/ OTH REF: 003

Card 2/2 UVR

ABSTRACT: The article presents an approximate analytical solution for the problem of [illegible] flow of an incompressible



transfer by the equation $Nu = 1.755(Re \cdot h/x)^{1/3}$. These equations agree to an accuracy

ZHUKAUSKAS, A.A. [Zukauskas, A.]

Some problems involving convective heat transfer in an incompressible fluid. Trudy AN Lit. SSR. Ser. B no.3: 155-162 '65. (MIRA 19:1)

1. Institut energetiki i elektrotekhniki AN Litovskoy SSR.

LYUTIKAS, N.S.; ZHUKAUSKAS, A.A. [Zukauskas, A.]

Determination of heat transfer during laminar flow of a liquid with variable viscocity in a flat channel. Part 1: At constant wall temperature. Trudy AN Lit. SSR. Ser. B. no. 4:139-152 '65 (MIRA 19:2)

1. Institut energetiki i elektrotekhniki AN Litovskoy SSR.
Submitted May 22, 1965.

ZHuKAUSKAS 16(0) 23(2) PHASE I BOOK EXPLOITATION SOV/3365

Akademiya nauk Azerbaydzhanskoy SSR

Tezisy dokladov Soveshchaniya po vychislitel'noy matematike i primeneniyu sredstv vychislitel'noy tekhniki (Outlines of Reports of the Conference On Computational Mathematics and the Use of Computer Techniques) Baku, 1958. 55 p. 400 copies printed.

Additional Sponsoring Agencies: Akademiya nauk SSSR. Vychislitel'nyy tsentr, and Akademiya nauk SSSR. Institut avtomatiki i telemekhaniki.

No contributors mentioned.

PURPOSE: This book is intended for pure and applied mathematicians, scientists, engineers and scientific workers, whose work involves computation and the use of digital and analog electronic computers.

COVERAGE: This book contains summaries of reports made at the Conference on Computational Mathematics and the Application of Computer Techniques. The book is divided into two main parts. The first part is devoted to computational mathematics and contains 19 summaries of reports. The second section is devoted to computing techniques and contains 20 summaries of reports. No personalities are mentioned. No references are given.

SECTION OF COMPUTING TECHNIQUES

Card 5/7

S/259/63/000/004/001/030
A001/A101

AUTHOR: Zhukauskas, K.

TITLE: Automatic plotting of curves by numerical data

PERIODICAL: Referativnyy zhurnal, Astronomiya, no. 4, 1963, 19 - 20, abstract 4.51.211 ("Byul. Astron. observ. Vil'nyussk. un-ta", 1960, no. 2, 17 - 29, Lithuanian and English summaries)

TEXT: The author reports on a [illegible] automatic computer. It [illegible]

S/269/63/000/004/001/030
A001/A101

Automatic plotting of curves by numerical data

block-diagram of the converter is presented and specific features of its design and other accessories devised with them are briefly described.

A. Bolsova

[Abstracter's note: Complete translation]

Card 2/2

ZHUKAUSKAS, K. K.

ZHUKAUSKAS, K. K.: "The general school in Lithuania during the period of of the first bourgeois-democratic revolution (1905-1907)." Min Education RSFSR. Moscow State Pedagogical Inst imeni VI. I. Lenin. Moscow. 1956. (DISSERTATION FOR THE DEGREE OF CANDIDATE IN PEDAGOGICAL SCIENCE.)

Knizhnaya letopis'
No. 35, 1956. Moscow

33582
S/194/61/000/012/094/097
D271/D301

9,4110 (1003, 1144, 1331)

AUTHOR: Zhukauskas, K. P.

TITLE: Calculating parameters of a symmetrical trigger circuit from its voltage excursions, in the zero and first approximations

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 12, 1961, 27, abstract 12K179 (Tr. Vses.soveshchaniya po vychisl. matem. i primeneniyu sredstv. vychisl. tekhn. Baku, AN Azerb SSR, 1961, 228-239)

TEXT: A graphical method for calculating active elements of a classical symmetrical trigger circuit with cathode coupling. In the zero approximation the following assumptions are made: 1) No current flows in the cut-off tube; 2) when grid is positive, there is no potential difference between grid and cathode; 3) grid current does not cause voltage drop on the cathode resistance. The starting data in the calculation are the supply voltage E_a and voltages on the anodes of the cut-off U_1 and switched-on tube U_2.

Card 1/3

Calculating parameters of ...

The type of tube is chosen and from its characteristics the grid voltage E_{go} is determined which is necessary for a reliable cut-off when anode voltage is U_1. The cathode voltage is then found

$$U_{ko} = E_{go}\, U_2/(U_2 - kU_1) \quad .$$

where k is the reliability coefficient dependent on the tolerance p (in percent) of resistors which are used: $k = 1 + p/100$. Further, using tube characteristics the anode current of the conducting tube I_a is determined for anode voltage $(U_1 - U_{ko})$ and zero grid voltage. The resistance of the anode-grid arm of the divider is found by the formula

$$\rho = \frac{(E_a - U_1)(U_2 - U_{ko}) - (E_a - U_2)(U_1 + U_{ko} - E_{go})}{I_{a1}(E_a - U_2)}$$

Card 2/3

Calculating parameters of ...

and the resistance of the grid-ground arm by the formula

$$r = \rho(U_{ko} - E_{go})/(U_1 - U_{ko} + E_{go})$$

Finally, the remaining parameters are determined:

$$R_a = \rho(E_a - U_2)/(U_2 - U_{ko}) \text{ and } R_k = U_{ko}/I_{a1}$$

The calculation gives good results only when anode voltage excursions are small; this is explained by the incorrectness of the assumption (2). In the first approximation, condition (2) is not assumed and, besides, the shunting effect of the cut-off tube is taken into account. Analytical relations obtained in this case are more complex, but more accurate parameter values are obtained when anode excursions are large. 11 references. [Abstractor's note: Complete translation.]

Card 3/3

LIESIS, V.I. [Liesis, V.]; ZHUKAUSKAS, K.P. [Zukauskas, K.]

Modeling the nervous system. Part 1: Properties of a nervous system from neuroid elements. Trudy AN Lit. SSR. Ser. B. no. 4: 165-174 '65. (MIRA 19:2)

1. Institut fiziki i matematiki AN Litovskoy SSR. Submitted June 2, 1965.

L 17766-63 EWT(d)/FCC(w)/BDS ASD/ESD-3/APGC/IJP(C) Po-4/Pk-4/Pe-4/Pq-4 GG

ACCESSION NR: AT300[illegible]

AUTHORS: Zhukauskas, K. P.; Petkyavichyus, I. Yu.

TITLE: Electronic voltage-to-code and code-to-voltage [illegible] BESM-[illegible] computer

[illegible]

[illegible] BESM [illegible]

[illegible]

from standard blocks of the BESM-[illegible]

Card 1/2

L 17766-63
ACCESSION NR: AT3001893

synchronized by a separate stable pulse generator. The maximum sequence fre-

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 11Apr63 ENCL: 00

SUB CODE: CP NO REF SOV: 006 OTHER: 000

Card 2/2

L 18217-63 EWT(d)/FCC(w)/BDS ASD/ESD-3/APGC/IJP(C)/SSD Pg-4/Pk-4/
Po-4/Pq-4 GG
ACCESSION NR: AT3001880 S/2906/62/000/000/0132/0135

AUTHOR: Zhukauskas, K. P. 15

TITLE: Calculation of the errors of voltage-to-code and code-to-voltage translators 16

SOURCE: Kombinirovannyye vychislitel'nyye mashiny; trudy II Vsesoyuznoy konferentsii-seminara po teorii i metodam matematicheskogo modelirovaniya. Moscow, Izd-vo AN SSSR, 1962, 132-135

TOPIC TAGS: computer, translator, voltage, code, error, calculation

ABSTRACT: This theoretical paper examines the error performance of a voltage-to-code or code-to-voltage translator employed in computing equipment which operates on the principle of the comparison of an input voltage with a voltage the values of which are proportional to corresponding binary numbers. During the intervals between translation cycles, the output voltages are stored on capacitors (see paper by the author and I. Yu. Petkyavichus in the same sbornik, pp. 174-185). I. Translation of code into voltage. The error for the ith point is viewed as the sum of 5 component errors comprising the error due to incomplete charge of the memory capacitor, the leakage error of the memory capacitor, the approximation

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L 18217-63
ACCESSION NR: AT3001880

error, the discreteness error, and the error due to the nonlinearity of the comparison voltage. The first two errors, namely, the charge and the leakage error, are expressed in terms of the charge and leakage time, the charge-line resistance, and the capacitance. The approximation error is expressed in terms of the first derivative of the translated quantity. The maximal discreteness error is expressed in terms of the amplitude of the range of values of the translated quantity and the number of digits available to comprehend it. II. Translation of voltage into code. Here the total translation error consists of components depending on the derivative of the function in the point measured, the nonlinearity of the binarily-commutated scale of the comparison voltage, the sensitivity of the measuring organ, and the discreteness of the scale divisions. The detailed characteristics of each of these errors are discussed, and a definitive formula for the total error of translation of voltage into code is compiled. Orig. art. has 17 numbered equations.

ASSOCIATION: none

SUBMITTED:	00	DATE ACQ:	11Apr63	ENCL:	00
SUB CODE:	CP, MM	NO REF SOV:	000	OTHER:	000

Card 2/2

L 24502-66 EWT(1)
ACC NR: AP6004537 SOURCE CODE: UR/0236/65/000/004/0165/0173

42
B

AUTHOR: Lesis, V. I. (Liesis, V.); Zhukauskas, K. P. (Zukauskas, K.)

ORG: Institute of Physics and Mathematics, Academy of Sciences Lithuanian SSR (Institut fiziki i matematiki Akademii nauk Litovskoy SSR)

TITLE: Simulation of a nervous system. 1. Properties of a system made up of nerve-like elements

SOURCE: AN LitSSR. Trudy. Seriya B. Fiziko-matematicheskiye, khimicheskiye, geologicheskiye i tekhnicheskiye nauki, no. 4, 1965, 165-173

TOPIC TAGS: bionics, neuron, nervous system, electronic simulation

ABSTRACT: The authors consider the characteristics of variation in the number of excited quasineural elements in a network consisting of 512 such elements communicating with each other through a random system of stimulating interconnections. An analysis of the spontaneous activity of the network shows a periodic variation in the number of excited elements in the form of undamped oscillations when the states of the elements and the interconnections are determined by uniformly distributed random numbers. The period of the steady-state natural oscillations of the network is exactly equal to the refracting period of the quasineurons if it is assumed that the duration of the refracting period for all quasineurons is identical. If all parameters of the network

Card 1/2

are constant, a variation in the initial degree of excitation may change the form of the steady-state oscillations of the system. The spontaneous activity of the network is essentially different from the operation of a network subjected to periodic excitation from an external source. The periodic oscillations generated in the network in this case have a complex shape which depends on the relationship between the recurrence frequency of the excitation and the refracting period of the quasineurons. If rhythmic spontaneous oscillations are set up in the network, their period is independent of the number of interconnections and the threshold value of the quasineurons. When only some of the quasineurons are subjected to periodic excitation, there is a transition process in the network followed by periodic oscillations which are a superposition of the excitation frequency on the frequencies of the normal modes in the system. Orig. art. has: 5 figures, 1 table, 3 formulas.

SUB CODE: 06, 09/ SUBM DATE: 02Jun65/ ORIG REF: 001/ OTH REF: 005

ACCESSION NR: AT4041510 S/2010/63/003/01-/0179/0183

AUTHOR: Zhukauskas, K. P.

TITLE: The analytical approximation of numerical atomic wave functions

SOURCE: AN LitSSR. Litovskiy fizicheskiy sbornik, v. 3, no. 1-2, 1963, 179-183

TOPIC TAGS: wave function, atomic wave function, atomic theory, numerical wave function, wave function approximation, wave function extremum, s-function

ABSTRACT: According to P. O. Lowdin (Phys. Rev., 90, 120, 1953 and 103, 1746, 1956), any arbitrary numerical atomic wave function will approximate the sum

$$f_{n,l}(r) \sim \sum_k A_k r^{n_k} \exp(-\beta_k r). \qquad (1)$$

An interpolation method is introduced in this paper which permits one to determine the coordinates of any extremum (f_{el}, r_{el}) of the wave function from the knowledge of 2 points on both sides of the extremum. A similar method is introduced for location of the points of inflection and the values of the first derivative of the wave function at those points from the knowledge of 4 points on the curve. The method of successive approximations is then

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ACCESSION NR: AT4041510

used to obtain a close agreement between the numerical wave function (1) and its analytic approximation. The method is based on the requirement that the numerical wave function and its analytic approximation, as well as their first derivatives, coincide at all extremums and at all points of inflection. This permits the evaluation of the coefficients A_k and B_k for all wave functions except the s-functions. Due to the fact that the first derivative of an s-function at the origin is not zero, an additional interpolation term is introduced into (1) to obtain a close agreement between the numerical s-function and its analytic approximation near the origin. "The author expresses his deep gratitude to Academician of the Academy of Sciences of the Lithuanian SSR Prof. A. P. Jucys (Yutsis) for his invaluable suggestions during the preparation of this article." Orig. art. has: 24 equations.

ASSOCIATION: Institut fiziki i matematiki Akademii nauk Litovskoy SSR (Institute of Physics and Mathematics, Academy of Sciences of the Lithuanian SSR.)

SUBMITTED: 00 ENCL: 00

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

Card 2/2

YUTSIS, A.P. [Jucys, A.]; ZHUKAUSKAS, K.P. [Zukauskas, K.]

Generalization of the recurrent relations between Clebsch-Gordan coefficients. Trudy AN Lit. SSR. Ser. B no.2:3-8 '63. (MIRA 17:10)

1. Institut fiziki i matematiki AN Litovskoy SSR i Vil'nyusskiy gosudarstvennyy universitet.

ZHUKAUSKAS, K.P.

BR

PHASE I BOOK EXPLOITATION SOV/5962

Vsesoyuznoye soveshchaniye po vychislitel'noy matematike i primeneniyu sredstv vychislitel'noy tekhniki, Baku, 1958.

Trudy (Transactions of the All-Union Conference on Computer Mathematics and Applications of Computers) Baku, Izd-vo AN Azerbaydzhanskoy SSR, 1961. 254 p. 500 copies printed.

Sponsoring Agency: Akademiya nauk Azerbaydzhanskoy SSR. Vychislitel'nyy tsentr.

Eds.: A.A. Dorodnitsyn, S.A. Aleskerov, and K.F. Shirinov; Ed. of Publishing House: A. Til'man; Tech. Ed.: T. Ismailov.

PURPOSE: The book is intended for mathematicians and other specialists interested in computer theory and uses for computers.

COVERAGE: The book contains the texts of 24 papers presented at the All-Union Conference on Computer Mathematics and Applications of Computers held in Baku, 3-8 Feb 1958. The "Resolution"

Card 1/6

of the conference, consisting of proposals for accelerating the development of computer mathematics and computer engineering, is also included.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress (Q476.V8 1958)

SUBJECT: Mathematics
Computers and Computer Engineering

IS/dmp/bmc
6-6-62

ZHUKAVIN, I.D.

Work of veterinary experts on the "Sampurskii" State Farm. (MIRA 16:6)
Veterinariia 39 no.1:14-15 Ja '63.

1. Glavnyy veterinarnyy vrach sovkhoza "Sampurskiy" Uvarovskogo proizvodstvennogo upravleniya Tambovskoy oblasti.
(Uvarovo region--Veterinary medicine)

ZHUKAYEV, M.A., mashinist elektrovoza

Some remarks on the VL23 electric locomotive. Elek. i tepl.tiaga 3 no.2:24-25 F '59. (MIRA 12:4)

1. Depo Nikopol', Stalinskaya doroga.
(Electric locomotives)

ZHUKAYEVA, V.A.; NIKONOVA, A.S.; BUKINA, N.V.

Determination of metal impurities in lubricating oils.
Zav.lab. 27 no.7:855 '61. (MIRA 14:7)

1. Kolomenskiy teplovozostroitel'nyy zavod imeni V.V.Kuybysheva.
(Lubrication and lubricants--Spectra)

L 32167-66 EWT(m)/T/EWP(e)/EWP(t)/ETI IJP(c) WH/JD

ACC NR: AP6011323 (A) SOURCE CODE: UR/0363/66/002/003/0524/0528

AUTHOR: Toropov, N. A.; Zhukauskas, R.-S. M.; Aleynikov, F. K.

ORG: Institute of Chemistry and Chemical Technology, Academy of Sciences, LitSSR (Institut khimii i khimicheskoy tekhnologii Akademii nauk LitSSR)

TITLE: Formation and recrystallization of quartzitic phases during crystallization of the SiO_2-Al_2O_3-MgO system

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 3, 1966, 524-528

TOPIC TAGS: glass, silicon dioxide, silica, alumina, ~~magnesia~~ magnesium oxide, crystallization, heat effect, quartz crystal, thermal stability, titanium dioxide

ABSTRACT: The effect of temperature on formation and recrystallization of quartz-like phases during the crystallization of K-1 to K-9 glasses with various silica and titanium dioxide contents was studied. The individual oxide component in glass samples was (in wt %) 27.69 to 42.02 for Al_2O_3, from 10.96 to 16.63 for MgO, 41.35 to 61.35 for SiO_2, and from 0 to 15.0 for TiO_2. The glass samples (K-1 to K-9) of various compositions were prepared by fusing mixtures of oxides in platinum crucibles at 1550°C for 4 hrs. The glass samples were subjected to thermal differential

UDC: 661.1:542.65

Card 1/2

L 32167-66

ACC NR: AP6011323

and x-ray analysis. It was found that an increase in SiO_2 content in glass leads to increased thermal stability of the quartzlike phase. Low SiO_2 content is reflected in low content of the quartzlike phases. No quartzlike phase could be detected by x-ray analysis for glasses containing 41.35 wt % SiO_2. Introduction of TiO_2 to glasses resulted in greater contents of quartzlike phases and in an extension of the lower limit of these phases to 800-850°C (while for TiO_2-free glasses this lower limit was equal to 1000°C). Orig. art. has: 3 figures and 2 tables.

SUB CODE: 11,07/ SUBM DATE: 11Jun65/ ORIG REF: 003/ OTH REF: 009

Card 2/2

L 2h35h-66 EWP(e)/EWT(m) WW
ACC NR: AP6007259 SOURCE CODE: UR/0363/66/002/002/0357/0362

AUTHOR: Toropov, N.A.; Zhukauskas, R.-S.M.; Aleynikov, F.K.

ORG: Institute for Chemistry and Chemical Technology AN LitSSR (Institut khimii i khimicheskoy tekhnologii AN LitSSR)

TITLE: The structural transformations of synthetic cordierite

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 2, 1966, 357-362

TOPIC TAGS: cordierite, crystal structure, silicate

ABSTRACT: The test samples were of cordierite synthesized from glass in a heat treatment of from 0.5 to 120 hours, at temperatures from 1100 to 1460°C. The heat treatment was done in a Silit furnace in platinum crucibles, with subsequent air cooling. Glasses of three composition were investigated: a stoichiometric cordierite composition, a composition with 10 weight % more silicon dioxide, and a composition with 10 weight % less silicon dioxide. X-ray investigations were carried out on a URS-50I unit. Results are shown in graphic and tabular form. As the result of prolonged heat treatment at 1400°C a lower rhombic form was obtained from the higher hexagonal cordierite. On raising the temperature up to 1460°C, the reverse transition was

Card 1/2 UDC: 548.19

L 24354-66

ACC NR: AP6007259

obtained with ordering of the structure of the cordierite. The process of transition from the high to the lower cordierite was observed electromicroscopically. It was established that the polymorphous transition with formation of rhombic cordierite is accompanied by partial amorphization of the crystal structure which proceeds at a high rate in a narrow temperature interval. The rhombic modification of cordierite is stable in the temperature range up to 1440°C. Orig. art. has: 4 figures and 2 tables.

SUB CODE: 07,11/ SUBM DATE: 29Jun65/ ORIG REF: 008/ OTH REF: 005

Card 2/2

S/032/61/027/007/005/012
B110/B203

AUTHORS: Zhukayova, V. A., Nikonova, A. S., and Bukina, N. V.

TITLE: Experience gained in the determination of metal impurities in lubricating oils

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 7, 1961, 855

TEXT: The method described for determining metal impurities in lubricating oils is the modified and completed testing process developed by Ye. V. Il'ina and K. I. Taganov (Informatsionno-tekhnicheskiy listok LDNTP, No 97, 1956). After 45 min shaking, 4 g of oil is filled in a porcelain pot, mixed with ~50 mg of graphite powder prepared from spectroscopically pure carbon electrodes annealed for 50 sec, 1 cm^3 of benzine with nickel oleate, and then, dropwise, with 1 cm^3 of benzine with barium oleate. Ni serves as standard, Ba as stabilizer of the arc discharge. The mixture is burnt in the pot, and the ash annealed at 800°C. After cooling in the exsiccator, graphite powder is added and filled up to 200 mg (enrichment coefficient = 20). After 10-min mixing

Card 1/3

Experience gained in the determination ...

in the agate mortar, the mixture is pressed into the crater of the lower graphite electrode. The analysis is conducted by an ИСП-28 (ISP-28) spectrograph with three-lens condenser and three-stage reducer, ДГ-1 (DG-1) generator, and 10 amperes. The spectroscopically pure graphite rod electrodes (6 mm diameter) are burnt with 10 a for 10 sec. The 5 mm long end of the upper electrode is 3 mm in diameter, the lower electrode has a 3 mm deep crater (diameter 3 mm). A special device is used for grinding the electrodes. The analysis is conducted by the method of three standards. The bands lie as follows: Cu = 3082.16; Mn = 2949.20; Sn = 3175.02; Al = 3082.16; Fe = 2966.90; Si=2881.58; Pb = 2833.07; and Cr = 3015.19 Å. Reference line: Ni = 3080.76 Å. The stahdards are prepared from three mixtures: (I) $SnCl_2$ = 100; Al_2O_3 = 118; CuO = 78.2; Fe_2O_3 = 892; SiO_2 = 134; MnO_2 = 100; PbO = 67.5; Cr_2O_3 = 29.2 mg, and graphite powder = 481 mg. (II) 100 mg of (I) and 900 mg of graphite powder. (III) 200 mg of (II) and 800 mg of graphite powder. 50, 150, and 500 mg of (III), 288 mg of (II), and 96 and 288 mg of (I) are filled into six pots. All pots are mixed with 6 g of pure oil, 15 cm^3 of benzine with nickel oleate, and 15 cm^3 with barium oleate, and heated in a muffle furnace at 800°C. The

Experience gained in the determination ...

substance is filled up with graphite powder to 3000 mg, and mixed in an agate mortar for 30 min. Thus, six standards with Sn, Al, Cu, Mn, Pb, and Si of from 0.001 to 0.3%, Fe from 0.01 to 3%, and Cr from 0.00033 to 0.1% were obtained. This method is, therefore, suited for industrial conditions; because of its time-consuming determinations it is, however, not one of the quick analytical methods. [Abstracter's note: Essentially complete translation.]

ASSOCIATION: Kolomenskiy teplovozostroitel'nyy zavod im. V. V. Kuybysheva (Kolomna Locomotive Works imeni V. V. Kuybyshev)

Card 3/3

ZHUKOVSKIY, N. E.

Teoreticheskaia mekhanika. Dop. v. kachestve uchebn. posobi ia dlia vysshn. uchebn. zavedenii. Moskva, Gostekhizdat, 1950. 811 p.

Theoretical mechanics.

MH

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

ZHUKEVICH, K. I.

Cand Tech Sci - (diss) "Study and foundation for the basic parameters of cultivators intended for continuous treatment of soil." Minsk, 1961. 16 pp; (Academy of Agricultural Sciences Belorussian SSR, Belo Scientific Research Inst of Farming); 220 copies; price not given; (KL, 7-61 sup, 236)

M

USSR/Cultivated Plants - Ornamental.

Abs Jour : Ref Zhur Biol., No 12, 1958, 53908

Author : Zhukovich, K.S.

Inst : Kiev University

Title : Irises in the Ornamental Nursery

Orig Pub : Nauk. zap. Kiivs'k. un-t, 1957, 16, No 1, 41-44

Abstract : No abstract.

Card 1/1

ROKOTYAN, Ye.S., doktor tekhn.nauk, prof.; ZHUKEVICH, STOSHA, Ye.A.; SOLOV'YEV, O.P.; LYAMIN, G.N.; SAPOZHNIKOV, A.Ya.; LIPUNIN, V.A.; KOGOS, A.M.; ISTOMIN, A.V., retsenzent; KARPMAN, M.A., nauchn. red.; PODCHUFAROVA, S.I., red.; KOGAN, F.L., tekhn. red.

[Modern rolling mills abroad] Sovremennye prokatnye stany za rubezhom. Moskva, 1962. 419 p. (MIRA 16:8)

1. Moscow. TSentral'nyy institut nauchno-tekhnicheskoy informatsii mashinostroyeniya.

(Rolling mills)

AZARENKO, B.S., kand. tekhn. nauk; AFANAS'YEV, V.D., kand. tekhn. nauk; BROVMAN, M.Ya., inzh.; VAVILOV, M.P., inzh.; VEICHIK, A.B., inzh.; GOLUBKOV, K.A.; GUBKIN, S.I., akademik [deceased]; GUREVICH, A.Ye., inzh.; DAVYDOV, V.I., kand. tekhn. nauk; DROZD, V.G., inzh.; YERMOLAYEV, N.F., inzh.; ZHUKEVICH-STOSHA, Ye.A., inzh.; KIRILIN, N.M., kand. tekhn. nauk; KOVYNEV, M.V., inzh.; KOGOS, A.M., inzh.; KOROLEV, A.A., prof.; KUGAYENKO, M.Ye., inzh.; LASKIN, A.V., inzh.; LEVITANSKIY, B.A., inzh.; LUGOVSKIY, V.M., inzh.; MEYEROVICH, I.M., kand. tekhn. nauk; OVCHAROV, M.S., inzh.; PASTERNAK, V.I., inzh.; PERLIN, I.L., doktor tekhn. nauk; POKEDIN, I.S., kand. tekhn. nauk; ROKOTYAN, Ye.S., doktor tekhn. nauk; SAF'YAN, M.M., kand. tekhn. nauk; SMIRNOV, V.V., kand. tekhn. nauk; SMIRNOV, V.S.; SOKOLOVSKIY, O.P., inzh.; SOLOV'YEV, O.P., inzh.; SIDORKEVICH, M.A., inzh.; TRET'YAKOV, Ye.M., inzh.; TRISHEVSKIY, I.S., kand. tekhn. nauk; KHENKIN, G.N., inzh.; TSELIKOV, A.I.; GOROBINCHENKO, V.M., red. izd-va; GOLUBCHIK, R.M., red. izd-va; RYMOV, V.A., red. izd-va; DOBUZHINSKAYA, L.V., tekhn. red.

[Rolling; a handbook] Prokatnoe proizvodstvo; spravochnik. Pod red. E.S.Rokotiana. Moskva, Metallurgizdat. Vol.1. 1962. 743 p. (MIRA 15:4)

1. Akademiya nauk BSSR (for Gubkin). 2. Chlen-korrespondent Akademii nauk SSSR (for Smirnov, TSelikov).
(Rolling (Metalwor))—Handbooks, manuals, etc.)

ZHUKEVICH-STOSHA, Ye.A., SOFINSKIY, P.I.

Mills for lateral-spiral rolling of balls (comparison of designs). Kuz.-shtam. proizv. 1 no.2:13-17 F '59. (MIRA 12:10)
(Rolling (Metalwork))

ZHUKEVICH, K.S. [Zhukevych, K.S.]

Irises in the ornamental plant nursery of the Botanical Garden.
Nauk zap. Kyiv. un. 16 no.1:41-44 '57. (MIRA 11:6)
(Kiev--Iris)

ZHUKEVICH-STOSHA, Ye.A., inzhener; SOLOV'YEV, O.P., inzhener.

Flying shears for continuous billet mills. Vest. mash. 36 no.9: 11-17 S '56. (MLRA 9:10)

(Shears (Machine tools))

ZHUKEVICH-STOSHA, YE. A.

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PHASE I BOOK EXPLOITATION SOV/5985

Rokotyan, Ye. S., Doctor of Technical Sciences, ed.

Prokatnoye proizvodstvo; spravochnik (Rolling Industry; Handbook) v. 1. Moscow, Metallurgizdat, 1962. 743 p. Errata slip inserted. 9250 copies printed.

Authors of this volume: B. S. Azarenko, Candidate of Technical Sciences; V. D. Afanas'yev, Candidate of Technical Sciences; M. Ya. Brovman, Engineer; M. P. Vavilov, Engineer; A. B. Vernik, Engineer; K. A. Golubkov, Engineer; S. I. Gubkin, Academician, Academy of Sciences USSR; A. Ye. Gurevich, Engineer; V. I. Davydov, Candidate of Technical Sciences; V. G. Drozd, Engineer; N. F. Yermolayev, Engineer; Ye. A. Zhukevich-Stosha, Engineer; N. M. Kirilin, Candidate of Technical Sciences; M. V. Kovynov, Engineer; A. N. Kogon, Engineer; A. A. Korolev, Professor; M. Ye. Kuguyenko, Engineer; A. V. Leskin, Engineer; B. A. Levitanskiy, Engineer; V. M. Lugovskoy, Engineer; I. M. Mayorovich, Candidate of Technical Sciences; M. S. Ovcharov, Engineer; V. I. Pasternak, Engineer; I. L. Perlin, Doctor of Technical Sciences; I. S. Pobodin, Candidate of Technical Sciences; Ye. S. Rokotyan, Doctor of Technical Sciences; M. N. Saf'yan, Candidate of Technical Sciences; V. V. Smirnov, Candidate of Technical Sciences; V. S. Smirnov, Corresponding Member, Academy of Sciences USSR; O. P. Sokolovskiy,

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Rolling Industry; Handbook

SOV/5985

Engineer; O. P. Solov'yov, Engineer; M. A. Sidorkovich, Engineer; Ye. M. Trot'yakov, Engineer; I. S. Trishevskiy, Candidate of Technical Sciences; G. N. Khenkin, Engineer; and A. I. Tselikov, Corresponding Member, Academy of Sciences USSR. Introduction: A. I. Tselikov, Corresponding Member, Academy of Sciences USSR; Ye. S. Rokotyan, Doctor of Technical Sciences; and L. S. Al'shevskiy, Candidate of Technical Sciences.

Eds. of Publishing House: V. M. Gorobinchenko, R. M. Golubchik, and V. A. Rymov; Tech. Ed.: L. V. Dobushinskaya.

PURPOSE: This handbook is intended for technical personnel of metallurgical and machine-building plants, scientific research institutes, and planning and design organizations. It may also be useful to students at schools of higher education.

COVERAGE: The fundamentals of plastic deformation of metals are discussed along with the theory of rolling and drawing. Methods of determining the power consumption and the forces in rolling with plane surface or grooved rolls are

Card 2/10

ZHUKEVICH-STOSHA, Ye.A., inzh.; SOLOV'YEV, O.P., inzh.

Trends in the design of continuous billet mills. Stal' 20 no.6:530-534 Je '60. (MIRA 14:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metalloobrabotki i mashinostroyeniya.
(Rolling mills)

ZHAVORONKOV, V.A., kand. tekhn. nauk; ZHUKEVICH-STOSHA, Ye.A., inzh.

Basic parameters of iron mill rolls for transverse-spiral rolling of corrugated shapes. [Trudy] MVTU no.84:106-117 '58. (MIRA 12:5)

(Rolls (Iron mills))

AUTHORS: Zhukevich-Stosha, Ye.A., and Solov'yev, O.P., Engineers SOV/133-59-4-14/32

TITLE: A Continuous Billet Mill 850/700/500 mm (Nepreryvnyy zagotovochnyy stan 850/700/500)

PERIODICAL: Stal', 1959, Nr 4, pp 336-341 (USSR)

ABSTRACT: A description of the first continuous billet mill 850/700/500 mm designed and built in the USSR which was put into operation at the beginning of 1958 is given. The mill was planned for rolling blooms 300 x 300 mm weighing 7.2 tons into square billets from 60 x 60 to 150 x 150 mm and blooms 250 x 300 mm into flat billets 75 x 285 mm. The distribution of rolling equipment is shown in Fig 1. Of special features of the mill equipment the following are mentioned: vertical stands with upper drive (Fig 2); high speed flying shears for cutting billets of a cross-section of up to 100 x 100 mm at a velocity of 5.2 m/sec (Fig 5) and a billet manipulator

Card 1/2

SOV/133-59-4-14/32

A Continuous Billet Mill 850/700/500 mm

between the 850 mm stands (Fig 4). There are 5 figures.

ASSOCIATION: TsKBMM - TsNIITMASh

Card 2/2

L 8855-66 EWT(d)/EWT(m)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(l)/EWA(h)/EWA(c) JD/HW

ACC NR: AP5026482 SOURCE CODE: UR/0286/65/000/019/0009/0009

INVENTOR: Zhukevich-Stosha, Ye. A.; Solov'yev, O. P.; Ritman, R. I.; Shaver, A. B.; Azimov, S. K.; Brovman, M. Ya.; Iskel', L. G.; Kurbatov, I. V.

ORG: none

TITLE: Planetary rolling mill. Class 7, No. 175025

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1965, 9

TOPIC TAGS: tube, tube rolling, rolling mill, metal rolling

ABSTRACT: This Author Certificate introduces a planetary rolling mill (based on Author Certificate No. 124398). For rolling tubes with variable cross section, the mill is equipped with a gear which meshes with the gears of the planetary rolls. The gear is turned by an auxiliary drive and a device which moves the mandrel during rolling, both of which are controlled by a copying attachment. Orig. art. has: 1 figure. [AZ]

SUB CODE: 13/ SUBM DATE: 29Jan64/ ATD PRESS: 4152

Card 1/1 UDC: 621.771.064

ZHUKHOVITSKAYA, V.P.

Calculation and comparison of quartz controlled self-oscillators. Nauch.dokl.vys.shkoly; radiotekh.i elektron. no.1:123-133 '59. (MIRA 12:10)

1. Kafedra radioperedayushchikh ustroystv Moskovskogo energeticheskogo instituta.
(Oscillators, Crystal)

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Analysis of the ions emitted by incandescent glass. M. S. Kosman, V. S. Zhubharev, and S. I. Kaliteevskii. *Uchenye Zapiski Leningrad. Gosudarst. Univ., Ser. Fiz. Nauk* 1940, 30 (in Russian). —Intensities of the ions were detd. as a function of the current intensity i flowing through a coil creating an axial magnetic field H, by Bush's formula $i^2 = (H\rho)^2/cf$, where c = const. of the coil, f = focal distance. The main accelerating anode is a Cu tube, innerly coaxial with the coil. With an accelerating potential of 40 v., c = 30,000 gauss cm., f = 10 cm., ions from incandescent Mo glass gave 3 max., one low at i = 11.2 amps. and 2 high max. at 15 and 18 amps., the 1st persistent, the 2nd vanishing after a few hrs. The first two max. were found again, with about the same ratio of heights, under 10 v. (i = 4.8 and 6.3 amps.), 15 v. (6 and 8 amps.) and 20 v. (7.2 and 9.4 amps.). From $i_1^2/i_2^2 = m_1/m_2$, assuming for the 2nd max. m_2 = 39 = K, the mass m_1 corresponding to the first max. is found to agree with Na. A hint of a third max., under 10 v., 10 amps., gives m = 100 (Mo); the nonpersistent max. at 40 v., 18 amps., corresponds to m = 60 (Ni impurity?). The magnetic spectrograph described is an inexpensive simple app. permitting sepn. of masses differing by 2-3 at. units. N. Thon

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

ZHUKHIN, V.A., prof., zasluzhennyy deyatel' nauki BASSR; BUYEVICH, L.V., kand.med.nauk

Work of the Ufa Society of Pathoanatomists and Legal Medical Experts for 1957-1958. Arkh.pat. 21 no.9:83-85 '59. (MIRA 14:8)

1. Predsedatel' Nauchnogo meditsinskogo obshchestva patologoanatomov i sudebnykh medikov Ufy (for Zhukhin) 2. Sekretar' Nauchnogo meditsinskogo obshchestva patologoanatomov i sudebnykh medikov Ufy (for Buyevich).

(UFA--PATHOANATOMICAL SOCIETIES)
(UFA--MEDICAL JURISPRUDENCE)

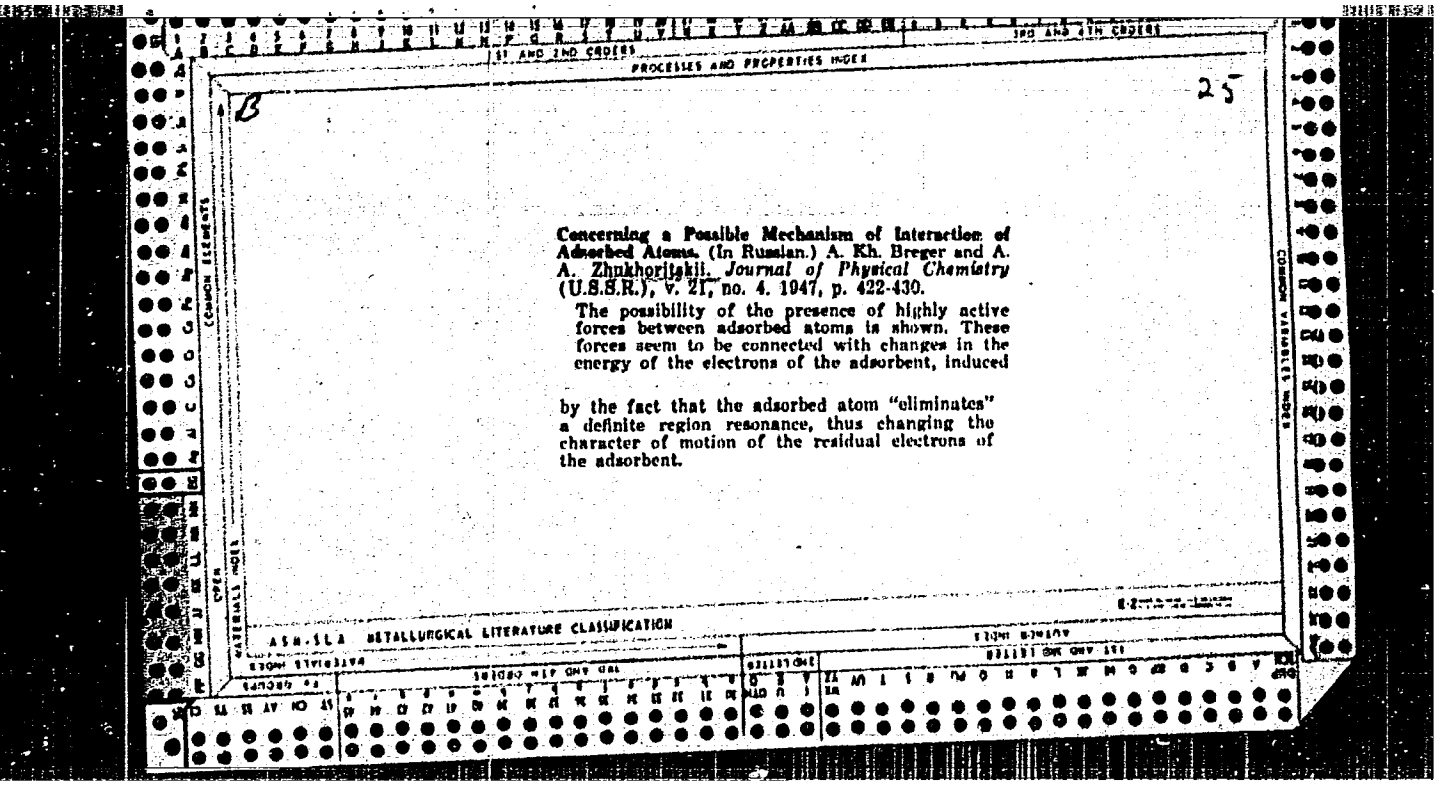
ZHUKHIN, V.A., prof., zasluzhennyy deyatel' nauki BASSR; FEOFANOVA, A.A., kand.med.nauk

Work of the Ufa Society of Pathoanatomists and Specialists in Forensic Medicine during the period 1954-1956. Arkh.pat. 20 no.1: 84-87 '58. (MIRA 13:12)

1. Predsedatel' Pravleniya Nauchnogo meditsinskogo obshchestva patologoanatomov i sudebnykh medikov g. Ufy (for Zhukhin). 2. Uchenyy sekretar' Nauchnogo meditsinskogo obshchestva patologoanatomov i sudebnykh medikov g. Ufy (for Feofanova).
(UFA--PATHOANATOMICAL SOCIETIES)

ZHUKHIN, V.A., prof. (Ufa)

Review of L.D. Khlopina's "Morphological changes in denervated tissue and the development of trophic ulcer of neurogenic etiology." Arkh. pat. 21 no.5:77-79 '59. (MIRA 12:12)
(ULCERS) (NERVOUS SYSTEM)



PROCESSES AND PROPERTIES INDEX

B

25

Concerning a Possible Mechanism of Interaction of Adsorbed Atoms. (In Russian.) A. Kh. Breger and A. A. Zhukhoritskii. *Journal of Physical Chemistry* (U.S.S.R.), v. 21, no. 4. 1947, p. 422-430.

The possibility of the presence of highly active forces between adsorbed atoms is shown. These forces seem to be connected with changes in the energy of the electrons of the adsorbent, induced by the fact that the adsorbed atom "eliminates" a definite region resonance, thus changing the character of motion of the residual electrons of the adsorbent.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

L 32761-66 EWT(1)/EWT(m)/T JK/JT/GW

ACC NR: AP6028243 SOURCE CODE: UR/0220/66/035/002/0302/0306

AUTHOR: Zhukhova, A. I.; Kozlova, V. Kh.

ORG: Institute of Microbiology, AN SSSR, Moscow (Institut mikrobiologii AN SSSR)

TITLE: Resistance of some strains of microorganisms to ultraviolet radiation

SOURCE: Mikrobiologiya, v. 35, no. 2, 1966, 302-306

TOPIC TAGS: UV radiation, radiation dosimetry, microbiology, astrobiology

ABSTRACT: As part of a program to discover microorganisms capable of withstanding the physical and chemical conditions characteristic of Mars, the authors performed experiments to: (1) find species resistant to ultraviolet radiation, (2) determine the dose that the individual species could tolerate, and (3) get some idea of the thickness of the screen needed to protect the cells from the destructive effect of the rays. Of the 28 strains investigated (Torula nigra, Bac. megaterium, Asp. niger, Asp. oryzae, Mucor plumbeus, Bac. simplex, Rhodotorula rubra, R. colostri, Tirotrix scaber, Bac. myoides, Bac. rubifaciens, Torulopsis glutinis, Bac. subtilis, Serratia marcescens, Flavobacterium aurantiacum, etc.), the nonpigmented spore forms of the bacteria and the nonspore-forming yeasts possessing intense red or black pigment were the most resistant to ultraviolet. The authors devises a way of obtaining monolayer bacterial preparations to study the penetrability of ultraviolet through the bacterial cells. A screen consisting of a single layer of Rhodotorula

Card 1/2 UDC: 576.8.095.14

L 37761-66

ACC NR: AP6028243

colostri cells was found to reduce the bactericidal effect of ultraviolet radiation four-fold. The authors concluded from their experiments that microbial activity in the top layers of the Martian "soil" is quite possible. Orig. art. has: 2 tables. [JPRS: 36,932]

SUB CODE: 06 / SUBM DATE: 08Feb65 / ORIG REF: 002 / OTH REF: 003

Card 2/2

ACC NR: AP7008670 SOURCE CODE: UR/0153/66/009/006/0980/0984

AUTHOR: Khitrov, V. A.; Zhukova, G. P.

ORG: Chemistry Department, Voronezh State Pedagogical Institute (Kafedra khimii, Voronezhskiy gosudarstvennyy pedagogicheskiy institut)

TITLE: Inhibition of corrosion of 1Kh18N9T stainless steel in hydrochloric acid solutions by admixtures of "penoreagent"

SOURCE: IVUZ. Khimiya i khimicheskaya tekhnologiya, v. 9, no. 6, 1966, 980-984

TOPIC TAGS: corrosion inhibitor, hydrochloric acid, corrosion rate

ABSTRACT: The aim of the work was to determine the corrosion and electrochemical characteristics of 1Kh18N9T steel in HCl solutions of various concentrations at 20-80°C, and to try to increase the corrosion resistance of the steel by introducing "penoreagent" (PR), one of the waste products in the production of synthetic rubber. The composition of PR includes alcohols (hexanol, octyl alcohol and C_6 and C_8 unsaturated alcohols), higher aldehydes (caproaldehyde and capryl aldehyde), butyl alcohol, certain hydrocarbons, tars, etc. Gravimetric and photocolorimetric tests showed 1Kh18N9T steel to be attacked in HCl solutions, and more so at higher temperatures. At low acid concentrations, pitting corrosion occurs. At the boiling point, the corrosion is uniform. At all electrolyte concentrations and temperatures, nickel and chromium ions pass into solution in much greater quantities than iron, apparently

Card 1/2 UDC: 620.197.3

ACC NR: AP7008670

because of a strong deformation of atoms in the steel solid solution. Values of the effective activation energy calculated from the corrosion data and temperature coefficients of the steel lead to the conclusion that the controlling step of the process is chemical. PR was found to be an effective inhibitor of pitting corrosion for 1Kh18N9T steel. The introduction of PR decreases the effective activation energy, apparently because of the formation of a protective film and adsorption of PR on the metal surface. Orig. art. has: 3 figures and 3 tables.

SUB CODE: 11,13/ SUBM DATE: 01Feb65/ ORIG REF: 007

Card 2/2

BARANOVA, W.Z.; ZHUKOVA, I.G.; DEBORIN, G.A.

Interrelationship between the phospholipids from the membranes of Micrococcus lysodeikticus and serum albumins in the monolayer at the boundary line water-air. Dokl. AN SSSR 165 no.2:431-434 N '65. (MIRA 18:11)

1. Institut biokhimii im. A.N. Bakha AN SSSR. Submitted January 14, 1965.

ZHUKOVA, M.N., prof.; PETROVA, T.M., kand.med.nauk

Aneurysm of the abdominal aorta simulating urological diseases. Urologiia no.6:51-53 '64. (MIRA 18:11)

1. Urologicheskaya klinika (zav. - prof. M.N.Zhukova) Instituta usovershenstvovaniya vrachey, Leningrad.

DRABKIN, A.Ye.; ZHUKOVA, N.N. [deceased]; Prinimali uchastiy GOLUBINSKAYA, M.A.; NIKITINA, N.V.

Removing hydrogen sulfide from gas with arsenite-arsenate solutions. Trudy VNIIT no.12:189-197 '63. (MIRA 18:11)

ZHUKOVA, P.G.

Karyological characteristics of some plant species of Vrangel' Island. Bot. zhur. 50 no.9:1320-1322 S '65. (MIRA 18:10)

1. Botanicheskiy institut imeni Komarova AN SSSR, Leningrad.

MOSHKOVSKIY, Sh.D.; SHUYKINA, E.Ye.; DEMINA, N.A.; TIBURSKAYA, N.A.; VRUBLEVSKAYA, O.S.; ZHUKOVA, T.A.; ZAHEZHANSKIY, V.I.; Prinimali uchastiye: BAGRAMYAN, M.G.; IL'YASOVA, S.I.

Methodology of the detection of asymptomatic carriers of quartan malaria. Med. paraz. i paraz. bol. 34 no.2:184-188 Mr-Ap '65. (MIRA 18:11)

1. Otdel protozoologii Instituta meditsinskoy parazitologii i tropicheskoy meditsiny imeni Ye.I. Martsinovskogo Ministerstva zdravookhraneniya SSSR, Moskva.

ZHUKOVA, V.A. [Zhukova, V.O.]

Mechanism of the effect of ganglionic blocking agents on diuresis. Fiziol. zhur. [Ukr.] 11 no.6:823-826 N-D '65. (MIRA 19:1)

1. Kafedra farmakologii Donetskogo meditsinskogo instituta. Submitted March 18, 1965.

LUKASHEV, K.I.; ZHUKHOVITSKAYA, A.L.; ZAMYATKINA, A.A.

Heavy metals in the surface waters of the Pripet Polesye in the White Russian S.S.R. Dokl. AN BSSR 9 no.3:183-186 Mr '65.
(MIRA 18:6)

1. Laboratoriya geokhimicheskikh problem AN BSSR.

LUKASHEV, K.I.; ZHUKHOVITSKAYA, A.L.; ZAMYATKINA, A.A.

Some features of the formation of the chemical composition of river waters of the Polesye lowland in the White Russian S.S.R. Dokl. AN BSSR 7 no.7:470-473 Jl '63. (MIRA 16:10)

1. Institut geologicheskikh nauk AN BSSR.

LUKASHEV, K.I. [Lukashou, K.I.]; ZHUKHOVITSKAYA, A.L. [Zhukhavitskaia, A.L.] Zamyatkina, A.A.

Hydrogeochemical characteristics of the internal waters of the Pripet fault depending on the lithological composition of enclosing rocks. Vestsi AN BSSR. Ser. fiz.-tekh. nav. no.2:64-71 '62. (MIRA 18:4)

LUKASHEV, K.I.; MARKOVA, A.P.; ZHUKHOVITSKAYA, A.L.

Chemical composition of brines of Devonian sediments of the Strelichevo pool (well R-1). Dokl.AN BSSR 4 no.12:523-526 D '60. (MIRA 14:2)

1. Institut geologicheskikh nauk BSSR.
(Khoyniki District--Oil field brines)

LUKASHEV, K.I.; MARKOVA, A.P.; ZHUKHOVITSKAYA, A.L.

Chemical characteristics of Paleozoic brines of the Chervonnaya Sloboda prospect (well No.1). Dokl. AN BSSR 5 no.12:561-563 D '61. (MIRA 15:1)

1. Institut geologicheskikh nauk AN BSSR.
(Chervonnaya Sloboda region--Brines) (Petroleum geology)

PAVLYUCHENKO, M.M.; ZHUKHOVITSKAYA, A.L.

Absorption spectra of cobalt perchlorate in aqueous and nonaqueous solutions. Uch.zap. BGU no.29:102-113 '56. (MIRA 11:11)
(Cobalt perchlorate--Spectra)

ZHUKHOVITSKAYA, V.P.

Quartz-crystal oscillators. Nauch.dokl.vys.shkoly; radiotekh. i elektron. no.1:136-149 '58. (MIRA 12:1)

1. Kafedra radioperedayushchikh ustroystv Moskovskogo energeticheskogo instituta.

(Oscillators, Crystal)

FUKS, I.M.; VALEYEVA, F.N.; POPKOVA, F.V.; VOLKOVA, L.P.; BELOGOLOVSKAYA, T.A.; ROMASHKEVICH, I.K.; Prinimali uchastiye: MOROZOVA, L.M.; DASHEVSKAYA, S.I.; VAKHMINA, L.S.; KARAVAYEVA, G.V.; IVANOVSKIY, A.K.; ZHUKHINA, G.Ye.; SOLOV'YEVA, G.M.; ANDRIYANOVA, M.V.; AKHMETOVA, V.M.; NEMIROVSKAYA, M.Ye.; MUSORINA, L.S.; KALASHNIKOVA, Ye.I.; PESHKO, A.P.; IVANOVA, N.V.; ALKESEYEVA, N.I.; SADOVNIKOVA, G.N.

Study on the possibility of reducing the diphtheria vaccine dose in revaccination of 9 to 12 year-old schoolchildren. Zhur. mikrobiol., epid. i immun. 41 no.11:103-107 '65. (MIRA 18:5)

1. Ufimskiy institut vaktsin i syvorotok imeni Mechnikova.

ZHUKHOVITSKAYA, V.P., Cand Tech Sci (diss) "Design and comparison of quartz autogenerators." Mos, 1959. 15 sheets (Mos Order of Lenin Power Engineering Inst), 150 copies. Printed by duplicating machine (KL,27-59, 120)

ZHUKHOVITSKAYA, V.P.

Crystal-controlled self-oscillator with feedback coupling. Nauch. dokl.vys.shkoly; radiotekh. i elektron. no.3:100-111 '58.
(MIRA 12:11)

1. Kafedra radioperedayushchikh ustroystv Moskovskogo energeticheskogo instituta.
(Oscillators, Electron)

9 (2, 3) SOV/162-59-1-15/27

AUTHOR: Zhukhovitskaya, V.P.

TITLE: The Calculation and Comparison of Quartz-Stabilized Self-Oscillators

PERIODICAL: Nauchnyye doklady vysshey shkoly, Radiotekhnika, i elektronika, 1959, Nr 1, pp 123-133

ABSTRACT: The author discusses the calculation of quartz-stabilized self-oscillators, if frequency, frequency instability and power dissipation of the quartz are given, and establishes conditions for comparing different types of quartz-stabilized self-oscillators. Existing methods of calculating quartz-stabilized self-oscillators are very complicated and overloaded with superfluous details. The author mentions the papers of Ye.I. Kamenskiy [Ref 4], S.I. Yevtyanov, Ye.I. Kamenskiy, V.A. Yesin [Ref 5] and B.K. Shembel' [Ref 6], who obtained comparatively simple formulas suitable for engineering calculations. However, the calculation of self-oscillators is based in all papers on a

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circuit analysis. The operating conditions of a self-oscillator, its frequency, frequency instability, power dissipation by the quartz are calculated according to selected parameters. In case the calculation results do not agree with the required values, the calculation must be repeated with different parameters. The method of calculating quartz-stabilized self-oscillators, suggested by the author, is based on the synthesis of the oscillator parameters, using given data of frequency, frequency instability and power dissipation by the quartz. The author explains the requirements for such calculations. She lists the results of a comparison of three types of single-tube self-oscillators having the quartz: a) in the feedback circuit, as shown in Fig 1; b) in the oscillatory circuit, as shown in Fig 2; and c) between the anode and the grid, as shown in Fig 3. The comparison is based on a 6Zh4 tube with a power dissipation by the quartz of 0.03 watts. The sta-

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bilization coefficients and the operating conditions of the quartz-stabilized self-oscillators of the aforementioned types are listed in Table 2. The self-oscillator having the quartz between the grid and the anode, Fig 3, provides the highest frequency stability and contains less components than the other versions. There are no parasite oscillations on a frequency different from that of the quartz. The frequency stability of the oscillator having the quartz in the tank circuit, Fig 2, is somewhat lower than that of the oscillator in Fig 3. The advantages of the oscillator circuit, Fig 2, are the lesser influence of higher anode current harmonics and the possibility to use high numbers of mechanical harmonics of the quartz. The self-oscillator having the quartz in the feedback circuit has a frequency stability by one order lower than that of the oscillator in Fig 3. Its advantages are greater voltage amplitudes in the anode circuit

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and a lesser influence of higher grid and anode current harmonics. The author expresses her gratitude to Professor S.I. Yevtyanov for his supervision of this work. There are 3 circuit diagrams, 2 tables, 13 references, 9 of which are Russian, 2 German, 1 English and 1 Polish.

ASSOCIATION: Kafedra radioperedayushchikh ustroystv Moskovskogo energeticheskogo instituta (Chair of Radio Transmitters of the Moscow Power Engineering Institute)

SUBMITTED: July 30, 1958

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9(2)

AUTHOR: Zhukhovitskaya, V.P. SOV/162-58-3-14/26

TITLE: A Self-Oscillator With a Quartz Crystal in the Feedback Circuit (Avtogenerator s kvartsem v tsepi obratnoy svyazi)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Radiotekhnika i elektronika, 1958, Nr 3, pp 100-111 (USSR)

ABSTRACT: The author investigates a one-tube self-oscillator with a quartz crystal in the feedback circuit working close to the series resonance frequency. The relations for calculating the static conditions of a self-oscillator were investigated according to the theory of self-oscillators developed by S.I. Yevtyanov [Ref 4], whereby only single-frequency oscillations were considered. Further, the author established the dependances of the frequency and the control resistance on the tuning of the anode circuit and investigated parasite oscillations. The author arrived at the following conclusions: 1) When changing the parameters of a self-oscillator, the smallest fre-

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quency changes are observed close to the series resonance frequency, if the anode circuit is tuned to resonance. Here also, a maximum control resistance and stable operating conditions are obtained. 2) The author recommends formulae for determining the resistance of the divider r_c, for the parameters of the anode circuit and the quartz crystal. 3) The calculation of the operating conditions should be performed in accordance with the general theory of self-oscillators [Ref 4]. The peculiarity of the calculation consists in determining the current magnitude flowing thru the quartz and comparing it with the permissible values. Finally, the author expresses gratitude to Professor S.I. Yevtyanov for supervising the work. There are 2 circuit diagrams, 6 graphs, 1 table and 6 references, 1 of which is German, 1 American and 4 Soviet.

A Self-Oscillator With a Quartz Crystal in the Feedback Circuit SOV/162-58-3-14/26

ASSOCIATION: Kafedra radioperedayushchikh ustroystv Moskovskogo energeticheskogo instituta (Chair of Radio Transmitting Equipment of the Moscow Institute of Power Engineering)

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AUTHOR: Zhukhovitskaya, V. P.

TITLE: Two-tube oscillator with a quartz crystal in the feedback loop

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 2, 1962, abstract 2-7-159y (Tr. Mosk. energ. in-ta, 1961, no. 34, 138-160)

TEXT: Results are reported for a theoretical study of a two-tube oscillator with a quartz crystal in the feedback loop. A method is proposed for calculating parameters and the operational conditions of the oscillator. Frequency stabilities of one- and two-tube oscillators are compared. 12 references. [Abstracter's note: Complete translation.]

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IDEL'SON, L.I.; ZHUKOVSKAYA, Ye.D.

Erythropoietic effect of cobalt in anemia. Probl. gemat. i perel. krovi 10 no.1:3-10 Ja '65. (MIRA 19:1)

1. Gruppa chlena-korrespondenta AMN SSSR prof. P.I. Yegorova na baze TSentral'noy klinicheskoy bol'nitsy Ministerstva putey soobshcheniya, Moskva.

ZHUKHOVITSKAYA, Z.V., kand.sel'skokhozyaystvennykh nauk

Boron increases the effectiveness of weeding. Zashch. rast. ot vred. i bol. 7 no.3:31 Mr '62. (MIRA 15:11)

1. Belorusskiy institut zemledeliya, Minsk.
(Minsk Province---Flax) (Boron) (Weed control)

ZHUKHOVITSKAYA, Z.V., kand.sel'skokhoz.nauk

Application of herbicides to flax as related to the variety of weedspecies. Zashch.rast.ot vred.i bol. 5 no.2:25-27 F '60. (MIRA 15:12)

1. Belorusskiy nauchno-issledovatel'skiy institut zemledeliya.
(Flax--Herbicides)