"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

BABICH, B.K., prof.

Autoimmune therapy in osteoarticular tuberculosis. Vrach.delo no.7:705-709 Jl'58 (MIRA 11:9)

1. Klinika tuberkuleza kostey i sustavov (zav. - prof. B.K. Babich) Kiyevskoy gorodskoy klinicheskoy bol'nitsy im. Oktyabr'skoy revolyutsii.
(BONES--TUBERCULOSIS)

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BABICH, B.K. [Babych, B.K.], doktor med.nauk, prof.

Osteomyelitis. Nauka i zhyttia 9 no.10:41 O '59.
(MIRA 13:2)

(OSTEOMYELITIS)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

BABICH, B.K.

Theoretical principles and results of 3-stage functional therapy of osteoarticular tuberculosis. Khirurgiia 15 no.2/3: 180-185 '62.

1. Iz Klinika po kostno-stavna tuberkuloza i ortopediia na Ukrainskiia nauchno-issledovatelski institut po ortopediia - Kiev.

(TUBERCULOSIS OSTEOARTICULAR ther)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

BABICH, Boris Karlovich, prof.; GAVRILENKO, B.S., red.

[Fundamentals of compound functional treatment in osteo-articular tuberculosis] Osnovy kompleksnoi funktsional'-noi terapii pri kostno-sustavnom tuberkuleze. Kiev, Zdorov'ia, 1965. 196 p. (MIRA 18:5)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

BABICH, B.M.

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1632
AUTHOR BABIČ, B.M.
TITLE The Radiation Method of Computing the Intensity of Wave Fronts.
PERIODICAL Dokl.Akad.Nauk, 110, fasc.3, 355-357 (1956)
Issued: 12 / 1956

The development of dynamic seismology requires the computation of the intensity of the longitudinal and transversal waves in inhomogeneous media and on the occasion of the reflection of waves by a curvilinear boundary. Such computations can be carried out if their relations holding good for the characteristic varieties (of the equations describing the wave processes) are known. An important part of this method is based on the assumption that the inhomogeneous medium "in the small" may be considered to be homogeneous and the curved wave front as plane.
Let it be assumed that $t = \tau(x,y,z)$ is the equation of the wave front at the moment t. Frequently solutions of the wave equations or of equations of the elasticity theory must be investigated which are characterized by discontinuities of one or the other type.
The wave process is to be described by a scalar or vectorial function $u(x,y,z,t)$. Nothing is assumed as to the type of the discontinuities and it holds that $u = u_0(x,y,z)\, f_0(t-\tau) + u_1(x,y,z)\, f_1(t-\tau) + O(f_2(t-\tau))$ with $f_2' = f_1$, $f_1' = f_0$, $|O(f_2)| < c\,|f_2|$, $|f_1| \gg |f_2|$, $|f_0| \gg f_1$. If u_0 is known, the behavior of the solution near the wave front can be determined. The

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function $|u_o|$ is described as intensity of the wave front.
The above expression is now inserted into the wave equation with variable velocity $\Delta u - (1/a^2(x,y,z))\, u_{tt} = 0$. Thus, the thoroughly examined equations $|\nabla \tau|^2 = 1/c^2$; $2(\nabla \tau, \nabla u_o) + u_o \Delta \tau = 0$ are obtained. Analogous equations are given for the equations of the elasticity theory of an inhomogeneous medium. Next, the field of the extrema of the integrals $\int ds/a$ with $a = \sqrt{(\lambda + 2\mu)/\varrho}$ and $\int ds/b$ with $b = \sqrt{\mu/\varrho}$ are examined. Each extremum of these integrals is characterized by two parameters each. In the plane case the formulae are analogous, but the extrema of the integrals are each characterized by only one parameter. Analogous formulae can be derived on the basis of energetic formulae.
The front of the longitudinal and transversal waves can easily be determined in homogeneous and inhomogeneous media on the basis of the FERMI principle.

INSTITUTION: Leningrad State University "A.A. ŽDANOV"

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SOV/129-60-1-[illegible]

AUTHORS: Babich, B. N. (Engineer), Portnoy, K. I. (Candidate of Technical Sciences), Samsonov, G. V. (Professor, Doctor of Technical Sciences)

TITLE: Pressing and Sintering of Boride Powders

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, 1960, Nr 1, pp 31-35 (USSR)

ABSTRACT: The first investigation of the processes of pressing powders of various compositions was carried out in earlier work (Samsonov, G. V., Neshpor, V. S., D.A.N. SSSR, Vol 104, 1955). Later on G. A. Meerson developed a theory of sintering for plastic metals. In this work the authors investigate the pressing and sintering of (1) titanium and chromium boride powders, and (2) titanium and chromium boride alloys (ratio of molar concentration TiB_2:CrB_2 = 4:1). The initial titanium and boride powders were prepared by the thermal-vacuum method, and double titanium-chromium boride by homogenization of these boride

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mixtures at 1,700° C for 1 hr in a vacuum. The size of particles of all three powders ranged between 2 and 3 micron. The weight of 1 ml of powders TiB_2, CrB_2, $(Ti,Cr)B_2$ is (in grams) 0.80, 1.05, 0.97, respectively.

Pressing: The method of investigating the process of pressing consists in studying the effect of holding under pressure on density of compressed briquettes, measuring the elastic aftereffect, and studying the effect on density of intermediate grating of compressed briquettes. None of the tested plasticizers markedly improved the pressibility of briquettes, although briquette strength was at a maximum when using $FeCl_3$ solution. Fig. 1 shows the results of pressing depending on compacting pressure. The data show that TiB_2 is endowed with the best pressibility.

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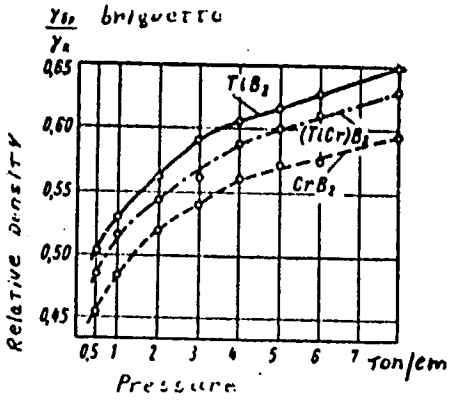

Fig. 1. Correlation between relative density and compacting pressure.

Fig. 2 shows a compacting pressure diagram in logarithmic coordinates $\log p_{sp}$-$\log\beta$, where β is relative volume $\beta = \frac{\gamma_{compact}}{\gamma_{briquette}}$, showing that

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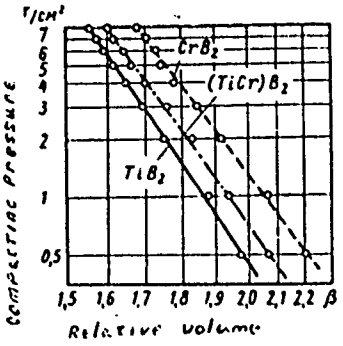

Fig. 2. Correlation between relative volume and compacting pressure.

the process of pressing is well expressed in straight lines. For TiB_2 $\log p_{sp} = -11.07 \log \beta + 3.02$; for CrB_2 $\log p_{sp} = -10.48 \log \beta + 3.25$; for $(TiCr)B_2$ $\log p_{sp} = -11.29 \log \beta + 3.24$ (p_{sp} = specific pressure). The authors conclude that the process

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of compacting titanium, chromium and titanium boride solid solution powders is described by the logarithmic relationship between relative volume and compacting pressure. Results of determining the elastic aftereffect are shown in Fig. 3. The elastic aftereffect

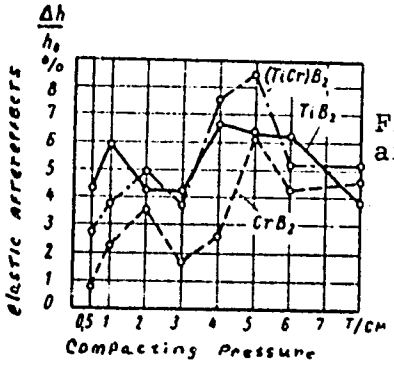

Fig. 3. Relationship between elastic aftereffect and compacting pressure.

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of the investigated materials is of major importance since the character of the relationship of aftereffect and pressure is connected with high brittleness and nonplasticity of borides. Sintering: In order to observe sintering conditions, the briquettes were compacted under a pressure of 3 ton/cm^2 and sintered in a vacuum (0.1 mm Hg) in a retort furnace with a graphite heater. To determine the optimum sintering temperature the specimens were sintered within the 1,700-2,400° C range for 1 hr. It was found that the sintering process occurs in two stages: (1) minor density increase at maximum temperatures up to 2,100-2,200° C; and (2) intensive density increase above these temperatures. TiB_2 boride and solid solution $(Ti,Cr)B_2$ were held at 2,300° C while CrB_2 was held at 2,000° C: The maximum density was obtained at a holding time of 120 min. As a result, the process of compacting boride briquettes in sintering consists in drawing particles into the pore space at temperatures of the second stage of sintering at which the forces of surface tension

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Pressing and Sintering of Boride Powders

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predominate over the strength of the particles which became plastic. The investigation shows the possibility of pressing and sintering separately, instead of using the complex and expensive method of hot pressing. There are 3 figures; 3 tables; and 12 references, 10 Soviet, 1 U.S., 1 German. The U.S. reference is: Chiotti, P., "J. Amer. Cer. Soc.", Vol 35, 1952.

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D241/D305

1.1110 2808, 2208

AUTHORS: Mukaseyev, A.A., Engineer, Rakovskiy, V.S., Candidate of Technical Sciences, Babich, B.N., and Levinskiy, Yu. V., Engineers

TITLE: Some problems of ultrasonic machining hard-melting ceramic materials

PERIODICAL: Vestnik mashinostroyeniya, no. 3, 1961, 63-66

TEXT: Cast heat resisting alloys as well as alloys based on carbides and bonded with nickel or chrome work in temperatures up to 1000°. The alloys based on carbides, nitrides, borons and silicides of rare metals are considered as the most promising by K.I. Portnoy and G.V. Samsonov (Ref. 2: Boronnye splavy, VINITI, 1960). They posses high creep resistance and hardness as well as thermal stability, but it is impossible to machine them by usual methods. Their grinding has a low efficiency, whereas anode machining produces cracks. Ultrasonic machining is, therefore, the most suitable. The main criteria of the former method are the

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Some problems of ultrasonic ...

wear of the tool and material. The accuracy of the machined profile is reduced when the wear of tool is significant. The authors determined experimentally the coefficient K which is the ratio of wear of material to that of the tool. Specimens were prepared from powders of hard melting alloys of sufficient purity and homogeneity. Specimens were obtained by hot pressing in a laboratory lever press, and their porosity varied between 0 to 25% in order to study the effect of porosity on ultrasonic machining. After shot blasting, specimens were weighed to determine their density. The ultrasonic maching was carried out on a cast iron disc and using boron carbide suspension in kerosene. To assess the wear of tool and the value of coefficient K, the concentrator was made according to the exponential law of reduction. Balls from bearings were used as a tool, and their wear proved to be minimum compared to other materials. The spherical form of the ball allowed most accurate data to be obtained. The machined blind holes were measured with a dial indicator. The amplitude of swing of the tool vibrations was 0.10-0.11 mm, and the frequency was

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Some problems of ultrasonic ...

18 - 20 Kc. The concentration of abrasive was 40-60%, which is the optimum, and its grain size - no. 150. The static load on the tool reached 400 g. The hardness of the material as well as its brittleness characterize its ability to plastic deformation. It is possible to assume that less ultrasonic energy is required for plastic deformation of harder materials and, therefore, a greater part of the power will be directed to breaking (cutting). Higher porosity of ceramics reduces the cross section of contacts between the particles, which affects the machinability. Comparison of data does not permit a relationship to be established between K and the microhardness of the material. It was noticed that specimens of the same material, but of different density possess unequal coefficients K. Alloys of W_2B, $MoSi_2$, ZrC as well as the heat resisting alloy BS-1 with a relative density from 70 to 100% were investigated. The data obtained show that higher porosity improves the ultrasonic machinability. It should be noted that the machinability of ceramics is 5-10 times greater than that of carbides. There are 1 figure, 4 tables and 6 references: 5 Soviet-

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Some problems of ultrasonic ...

bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: F.W. Glaser and W. Iwanick, Sintered titanium carbide, "Journal of Metals, vol. 4, no. 4, 1952.

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D211/D303

AUTHOR: Babich, B.N., and Bel'mer, P.F., Engineers

TITLE: On the manufacture of products from refractory compounds

PERIODICAL: Vestnik mashinostroyeniya, 41 no. 4, 1961, 49-52

TEXT: The authors give a description of properties of refractory compounds (carbides, nitrides, borides and silicides of refractory metals) and possibilities of applying them in machine parts etc. Methods of manufacturing articles from refractory compounds include cold pressing with subsequent sintering, and hot pressing. The latter is discussed in detail. A press for hot pressing produced by Odessa factory is described. Methods of working of refractory compounds are mentioned; the ultrasonic method is stated to be the most advantageous and is described in detail. There are 3 tables, 6 figures and 14 references: 13 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: J. Everhart, Materials and Methods, 40, 90, 1954.

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

NEKRASOV, Boris Vladimirovich; BABICH, B.N., red.

[Principles of general chemistry in three volumes]
Osnovy obshchei khimii. Moskva, Khimiia. Vol.1. 1965.
518 p. (MIRA 19:1)
1. Chlen-korrespondent AN SSSR (for Nekrasov).

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KIL'CHEVSKIY, N.A. [Kil'chevs'kyi, M.O.] (Kiyev); PETRENKO, M.P. (Kiyev); BABICH, D.V. [Babych, D.V.] (Kiyev)

Longitudinally radial vibrations of a system of cylindrical shells with concentrated masses in joints. Prykl. mekh. 9 no.6:677-683 '63. (MIRA 16:12)

1. Institut mekhaniki AN UkrSSR.

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ACCESSION NR: AP5000112 S/0193/64/010/006/0660/0663

AUTHOR: Kil'cheve'kyy, N. O. (Kilchevskiy, N. A.)(Kiev); Petrenko, M. P. (Kiev); Barsuk, R. P. (Kiev); Babych, D. V. (Babich, D. V. (Kiev)

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Cylindrical shells partly liquid filled

26

SOURCE: Prykladna mekhanika, v. 10, no. 6, 1964, 660-663

TOPIC TAGS: cylindrical shell, cylindrical shell vibration, liquid filled shell, oscillatory system, elasticity theory

ABSTRACT: The longitudinal and radial vibrations of a system of cylindrical shells partly filled with an inviscid incompressible liquid are investigated. The case of potential motion of the liquid is analyzed. For setting up the equations

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art. pub: 10 formulas.

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L 14050-66 EWT(d)/EWT(l)/EWP(m)/EWT(m)/EWP(w)/EWA(d)/EWP(v)/EWP(c)/ETC(m)-6/EWA(l)
ACC NR: AT6004255 IJP(c) WW/HM/EM/GS SOURCE CODE: UR/0000/65/000/000/0015/0019

58
57

AUTHORS: Stepanyuk, V. V.; Babich, D. V.

ORG: Institute of Mechanics, AN UkrSSR (Institut mekhaniki AN UkrSSR)

TITLE: Vibrations and stability of a conical triple-layered shell with fluid flow in the middle layer

26

SOURCE: AN UkrSSR. Issledovaniya po prikladnoy gidrodinamike (Research in applied hydrodynamics). Kiev, Izd-vo Naukova dumka, 1965, 15-19

TOPIC TAGS: shell, shell theory, fluid mechanics, shell vibration

ABSTRACT: The vibrations and stability of a composite triple-layered conical shell were investigated. The shell consisted of two isotropic coaxial smooth layers rigidly joined at contact points formed by a corrugated middle layer. An ideal incompressible fluid of density ρ_0 was flowing in the channels formed by the corrugation crimps and the external shells. The general rate of flow in the middle layer was constant. The analysis employs a coordinate system based upon the median surface of the middle layer. Coordinate lines are the lines of principle curvature of this surface, and the origin is at the apex of the cone. The following variables and constants are defined: h_1, h_2, h_3, and h are the thicknesses of the inner, outer, and middle layers, and the

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sheet thickness of the middle layer, respectively; E_1, E_2, and E are the respective moduli of elasticity; x and θ are linear and angular coordinates; α is the angle between the generatrix and the axis of the cone; x_0 is the distance along the generatrix from the apex of the cone to the lesser face; L is the length of the cone along the generatrix; ℓ is the length of the corrugated wave; U_0 is the velocity of the fluid on the larger face; u, v, and w are components of the translation vector; R_0 is the radius of the section of the coordinate surface at the larger face. An equivalent orthotropic smooth shell of thickness h_3 is substituted for the corrugated layer according to the method of L. Ye. Andreyev (Raschet gofrirovannykh membran kak anizotropnykh plastin, Inzh. sb. t. 21, M., Izd-vo AN SSSR, 1955). Elasticity conditions for the coordinate surface are given by S. A. Ambartsumyan (Teoriya anizotropnykh obolochek, M., FM, 1961). The solution of the problem is based upon the Bubnov-Galerkin method, with equations of motion written as

$$\left[a_1 x^2 \frac{\partial}{\partial x}\left(x\frac{\partial}{\partial x}\right)+a_2\frac{x}{\sin^2\alpha}\frac{\partial^2}{\partial\theta^2}\right]u+\frac{1}{\sin\alpha}\frac{\partial}{\partial\theta}\left[x(a_3x+a_4\operatorname{ctg}\alpha)\frac{\partial}{\partial x}+(a_5x+a_6\operatorname{ctg}\alpha)\right]v+\left[a_7x^2\frac{\partial}{\partial x}\left(x\frac{\partial^2}{\partial x^2}\right)+\frac{1}{\sin^2\alpha}\frac{\partial^2}{\partial\theta^2}\left(xa_8\frac{\partial}{\partial x}+a_9\right)+x(a_{10}+a_{11}x\operatorname{ctg}\alpha)\frac{\partial}{\partial\theta}+a_{12}x\operatorname{ctg}\alpha\right]w+x^3X=0$$

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$$\frac{x}{\sin\alpha}\left[(b_1x+b_2\operatorname{ctg}\alpha)x\frac{\partial}{\partial x}+(b_3x+b_4\operatorname{ctg}\alpha)\right]\frac{\partial}{\partial\theta}u+$$
$$+(b_5x^2+b_6x\operatorname{ctg}\alpha+b_7\operatorname{ctg}^2\alpha)x^2\frac{\partial^2}{\partial x^2}+\frac{1}{\sin^2\alpha}(b_8x^2+$$
$$+b_9x\operatorname{ctg}\alpha+b_{10}\operatorname{ctg}^2\alpha)\frac{\partial^2}{\partial\theta^2}+x^2(b_{11}x+b_{12}\operatorname{ctg}\alpha)\frac{\partial}{\partial x}+$$
$$+x(b_{13}x+b_{14}\operatorname{ctg}\alpha)\Big]v+\frac{\partial}{\partial v}\left[\frac{x^2}{\sin\alpha}(b_{15}x+b_{16}\operatorname{ctg}\alpha)\frac{\partial^2}{\partial x^2}+\right.$$
$$+\frac{x^2}{\sin\alpha}(b_{17}x+b_{18}\operatorname{ctg}\alpha)\frac{\partial^2}{\partial\theta^2}+\frac{x}{\sin\alpha}(b_{19}x+$$
$$\left.+b_{20}\operatorname{ctg}\alpha)\frac{\partial}{\partial x}+\frac{x\operatorname{ctg}\alpha}{\sin\alpha}(b_{21}x+b_{22}\operatorname{ctg}\alpha)\right]w+x^4Y=0$$
$$\left[c_1x^2\frac{\partial}{\partial x}\left(x\frac{\partial^2}{\partial x^2}\right)+\frac{x}{\sin^2\alpha}\left(xc_2\frac{\partial}{\partial x}+c_3\right)\frac{\partial^2}{\partial\theta^2}+\right.$$
$$\left.+x^2(xc_4\operatorname{ctg}\alpha+c_5)\frac{\partial}{\partial x}+x(xc_6\operatorname{ctg}\alpha+c_7)\right]u+$$
$$+\frac{\partial}{\partial\theta}\left[\frac{x^2}{\sin\alpha}\frac{\partial^2}{\partial x^2}(xc_8+c_9\operatorname{ctg}\alpha)+\frac{x}{\sin\alpha}\frac{\partial}{\partial x}(xc_{10}+\right.$$
$$\left.+c_{11}\operatorname{ctg}\alpha)+\frac{1}{\sin\alpha}(x^2c_{12}\operatorname{ctg}\alpha+xc_{13}+xc_{14}\operatorname{ctg}^2\alpha+\right.$$

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$$+c_{15}\operatorname{ctg}\alpha)\Big]v+\Big[x^4c_{16}\frac{\partial^4}{\partial x^4}+c_{17}\frac{x^2}{\sin^2\alpha}\frac{\partial^4}{\partial x^2\partial\theta^2}+$$
$$+c_{18}\frac{x}{\sin^4\alpha}\frac{\partial^4}{\partial\theta^4}+c_{19}x^3\frac{\partial^3}{\partial x^3}+c_{20}\frac{x^2}{\sin^2\alpha}\frac{\partial^3}{\partial x^2\partial\theta}+$$
$$+\frac{1}{\sin^2\alpha}(xc_{21}+c_{22}\operatorname{ctg}\alpha)\frac{\partial^3}{\partial\theta^3}+x^2(c_{23}+c_{24}x\operatorname{ctg}\alpha)\frac{\partial^2}{\partial x^2}+$$
$$+\frac{1}{\sin^2\alpha}(c_{25}+c_{26}x\operatorname{ctg}\alpha)\frac{\partial^2}{\partial\theta^2}+x(c_{27}+c_{28}x\operatorname{ctg}\alpha)\frac{\partial}{\partial x}+$$
$$+x\operatorname{ctg}\alpha(c_{29}+x\operatorname{ctg}\alpha c_{30})\Big]w+x^4Z=0\ ,$$

where a_n, b_m, and c_k are constants related to conditions of elasticity. The authors conclude that: 1) the frequency of shell vibration decreases continuously with increasing rate of flow; 2) the shell loses stability through divergence at supercritical rates of flow; 3) the amplitude of vibration increases or decreases depending on the direction of flow. Orig. art. has: 8 equations and 1 figure. [04]

SUB CODE: 20, 13/ SUBM DATE: 26Aug65/ ORIG REF: 006/ ATD PRESS: 4196

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Card 4/4

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

NEVEROV, V.A. [Nevierov, V.A.]; AKIMOVA, N.A. [Akymova, N.A.]; BABICH, D.D. [Babych, D.D.]; VINOGRADOVA, T.V. [Vynohradova, T.V.]

Economic utilization of waste gases from the direct synthesis of phenyltrichlorosilanes. Khim. prom [Ukr.] no.1:56-57 Ja-Mr '65. (MIRA 18:4)

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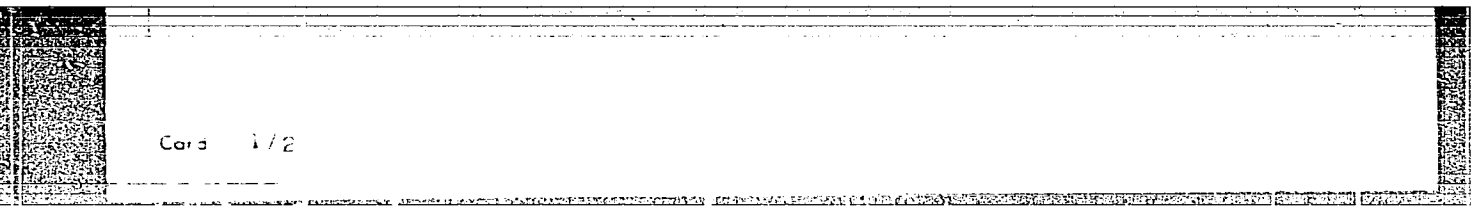

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ACCESSION NR: AP5010920

ASSOCIATION: none

Card 2/2

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

L 52181-65 EWT(m)/EPF(c)/EWP(j)/T/EWA(c) Pc-4/Pr-4 JW/RM

ACCESSION NR: AP5015486 UR/0286/65/000/008/0020/0020
547.419.5

AUTHOR: Namerkin, N. S.; Vdovin, V. M.; Babich, E. D.

TITLE: A method for producing tris-(silyl)-substituted amines. Class 12, No. 170057

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 8, 1965, 20

TOPIC TAGS: chlorosilane, amine, cyclic hydrocarbon, organosilicon compound

ABSTRACT: This Author's Certificate introduces a method for producing tris-(silyl)--substituted amines. Disilazanes are interacted with chlorosilicacyclobutane derivatives.

ASSOCIATION: none

SUBMITTED: 17Mar64 ENCL: 00 SUB CODE: GC, OC

NO REF SOV: 000 OTHER: 000

Card 1/1

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

L 51683-65 EWT(m)/EPF(c)/EPR/EWP(j)/T Pc-4/Pr-4/Ps-4 RPL MW/RM

ACCESSION NR: AP5010164 UR/0020/65/161/002/0358/0361

AUTHORS: Nametkin, N. S. (Corresponding member AN SSSR); Vdovin, V. M.; Grinberg, P. L.; Babich, E. D.

TITLE: Carbon-combining derivatives of silicon cyclobutanes

SOURCE: AN SSSR. Doklady, v. 161, no. 2, 1965, 358-361

TOPIC TAGS: cyclic compound, butane, organic synthesis, silicon organic polymer, organo metallic compound

ABSTRACT: A number of carbon-function silicon cyclobutanes were synthesized, including those with the functional group in one of the radicals R in the for[illegible] and also spiro silicon [illegible]

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

L 51883-65
ACCESSION NR: AP5010164

tion. It is thus possible to produce copolymerization of n-styrylmethyl silicon cyclobutane with styrene and methyl methacrylate aided by dinitryl of isobutyric

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

ASSOCIATION: Institut neftekhimicheskogo sinteza im. A. V. Topchiyeva Akademii nauk SSSR (Institute of Petroleum Chemistry Synthesis, Academy of Sciences SSSR)

SUBMITTED: 22Sep64 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 004 OTHER: 003

Card 2/2

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

NAMETKIN, N.S.; VDOVIN, V.M.; GRINBERG, P.L.; BABICH, E.D.

Carbofunctional derivatives of silicacyclobutanes. Dokl. AN SSSR 161 no.2:358-361 Mr '65. (MIRA 18:4)

1. Institut neftekhimicheskogo sinteza im. A.V.Topchiyeva AN SSSR.
2. Chlen-korrespondent AN SSSR (for Nametkin).

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

BIRYUKOV, I.P.; VORONKOV, M.G.; BABICH, E.D.; ARKHIPOVA, T.N.; VDOVIN, V.M.; NAMETKIN, N.S.

Nuclear quadrupole resonance of 1,1-dichloro and 1-methyl-1-chloro-1-silacycloalkanes. Dokl. AN SSSR 161 no.6:1336-1338 Ap '65. (MIRA 18:5)

1. Institut organicheskogo sinteza AN LatvSSR i Institut neftekhimicheskogo sinteza im. A.V.Topchiyeva AN SSSR.
2. Chlen-korrespondent AN SSSR (for Nametkin).

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

ACC NR: AP7002937 SOURCE CODE: UR/0020/66/171/006/1345/1347

AUTHOR: Namotkin, N. S. (corresponding member AN SSSR); Vdovin, V. M.; Babich, E. D.; Arkhipova, T. N.

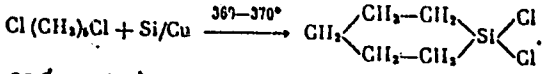
ORG: Institute of Petrochemical Synthesis im. A. V. Topchiyev, Academy of Sciences, SSSR (Institut neftekhimicheskogo sinteza Akademii nauk SSSR)

TITLE: Synthesis of certain 1,1-substituted derivatives of 1-silacyclohexane

SOURCE: AN SSSR. Doklady, v. 171, no. 6, 1966, 1345-1347

TOPIC TAGS: organosilicon compound, cyclohexane, polysiloxane

ABSTRACT: 1,1-Substituted 1-silacyclohexane was prepared by "direct synthesis" as follows:



The product (obtained in 23% yield) was then used to prepare linear polysiloxanes. The compounds obtained are shown in Table 1. A greater thermal-oxidative stability of silacyclohexane derivatives as compared to that of dialkyl ones was observed. Orig. art. has: 1 figure and 1 table.

Card 1/2 UDC: 546.287

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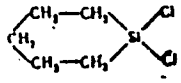
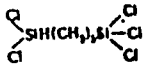
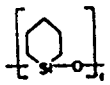
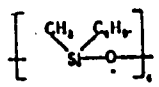
"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

ACC NR: AP7002937

Table 1

Compound	B.P., °C/mm Hg	n_D^{20}	d_4^{20}	Cl, %		Mol. weight	
				calc.	found	calc.	found
	167—168	1,4670	1,1457	42,0	42,0	169	167
	112—115/5	—	—	58,2	57,10	303,5	309
	225—230/6	MP 65°	—	—	—	456	451
	230—235/7	1,4295	—	—	—	—	—

SUB CODE: 07/ SUBM DATE: 16Mar66/ ORIG REF: 006/ OTH REF: 005

Card 2/2

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

SOV/124-58-3-3079

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 3, p 76 (USSR)

AUTHORS: Guseynov, G. P., Babich E. S.

TITLE: The Displacement of Gas-containing Petroleum by Water and the Assessment of the Residual Amount of Petroleum Saturation in the Displacement Zone (Vytesneniye gazirovannoy nefti vodoy s uchetom ostatochnoy neftenasyshchennosti v zone vytesneniya)

PERIODICAL: Tr. Azerb. n.-i. in-ta po dobyche nefti, 1956, Nr 3, pp 106-113

ABSTRACT: The article considers the flow through three zones: 1) petroleum with a free gaseous phase, 2) intermediate, which contains petroleum and water, but where free gas does not exist and where the permeability for water has a constant value, and 3) edge water which spreads all the way to the influence contour. Equations of equilibrium and a formula for the pressure have been obtained in terms of the petroleum saturation. The article presents tables and graphs giving the results of calculations for a circular stratum having different values of the residual petroleum saturation in the intermediate zone. Bibliography: 5 references.

Card 1/1

V. L. Danilov

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

PIRVERDYAN, A.M.; BABICH, E.S.; BABICH, Yu.A.

Approximate method for calculating fluid flow toward a circular array of wells operating under original pressure. Izv. vys. ucheb. zav.; neft' i gaz no.6:55-60 '58. (MIRA 11:9)

1. Azerbaydzhanskiy industrial'nyy institut im. M. Azizbekova, Azerbaydzhanskiy nauchno-issledovatel'skiy institut dobychi nefti i gaza i AN Azerbaydzhanskoy SSR.
(Oil field flooding)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

BABICH, E.S.; PIRVERDYAN, A.M.; SUBBOTIN, M.A.

Hydrodynamic study of the process of tar injection into the well bottom zone. Trudy AzNII DN no.10:389-398 '60. (MIRA 14:4)
(Oil fields—Production methods)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

NIKITIN, Petr Ivanovich, kand. geol.-miner. nauk; OVNATANOV, Suren Tomasovich; AMBARTSUMOVA, Aida Tatevosovna; BABICH, El'vira Sergeyevna; GOL'DINA, Lilya Iosifovna; LUNINA, Aleksandra Grigor'yevna; STANKOVICH, Yu.V., red.; BAGIROVA, S., tekhn.red.

[Development of a multilayered pool of the Balakhany series in the Peschanyy-More oil field] Razrabotka mnogoplastovoi zalezhi balakhanskoi svity neftianogo mestorozhdeniia Peschanyi-more. Baku, Azerneshr, 1962. 51 p. (MIRA 17:4)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

AZIMOV, B.A.; AMBARTSUMYAN, A.P.; BABICH, Yu.A.; BABICH, E.S.; GASANOVA, S.A.; GUKASOVA, Ye.K.; KUTUZOV, A.I.; MAMEDOV, G.A.; PIRVERDYAN, A.M.

Additional data on the problems of the development of the series "break" in the Neftyanyye Kamni field obtained by electric modeling methods. Azerb.neft.khoz. 41 no.8:26-29 Ag '62. (MIRA 16:1)

(Neftyanyye Kamni region--Oil well drilling, Submarine)
(Geological modeling)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

BABICH, E.S.

New method for determining the efficiency of artificial stimulation. Izv. AN Azerb. SSR. Ser. geol.-geog. nauk i nefti no.2:77-82 '63. (MIRA 17:10)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

BABICH, E.S.; PIRVERDYAN, A.M.

Partial case of fluid flow in a reservoir with a slighly permeable roof (bottom). Izv. vys. uch. zav.; neft' i gaz 5 no.9:89-92 '62. (MIRA 17:5)

1. Azerbaydzhanskiy institut nefti i khimii im. M.Azizbekova i Azerbaydzhanskiy nauchno-issledovatel'skiy institut mnogoletnikh nasazhdeniy.

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

BABICH, F. I.

Apparatus for drip transfusion of blood and blood substitutes. Khirurgiia, Moskva no.4:74-75 Apr. 1952. (CLML 22:2)

1. Of the Central Clinical Hospital (Head of First Surgical Division -- Prof. G. A. Rikhter), Ministry of Ways of Communication USSR.

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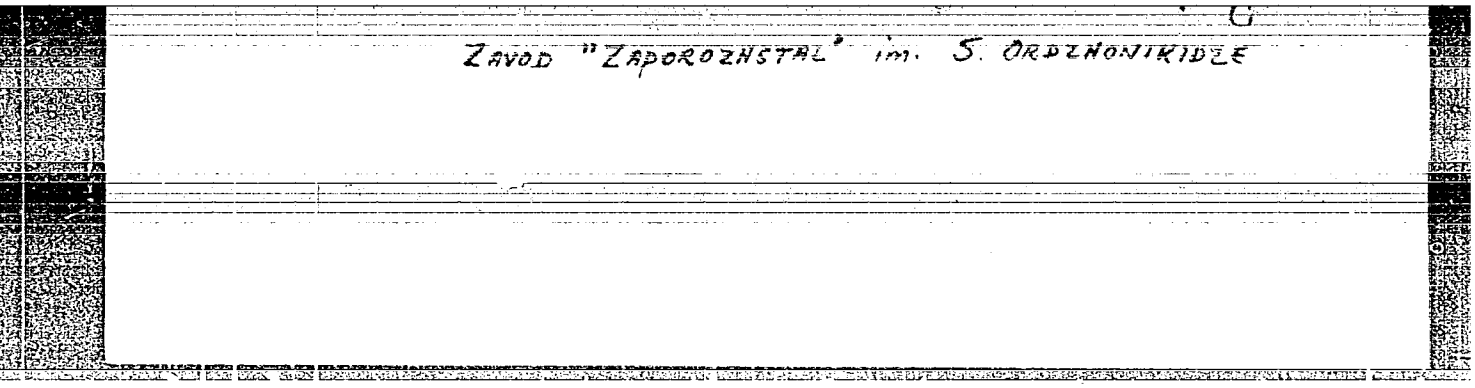

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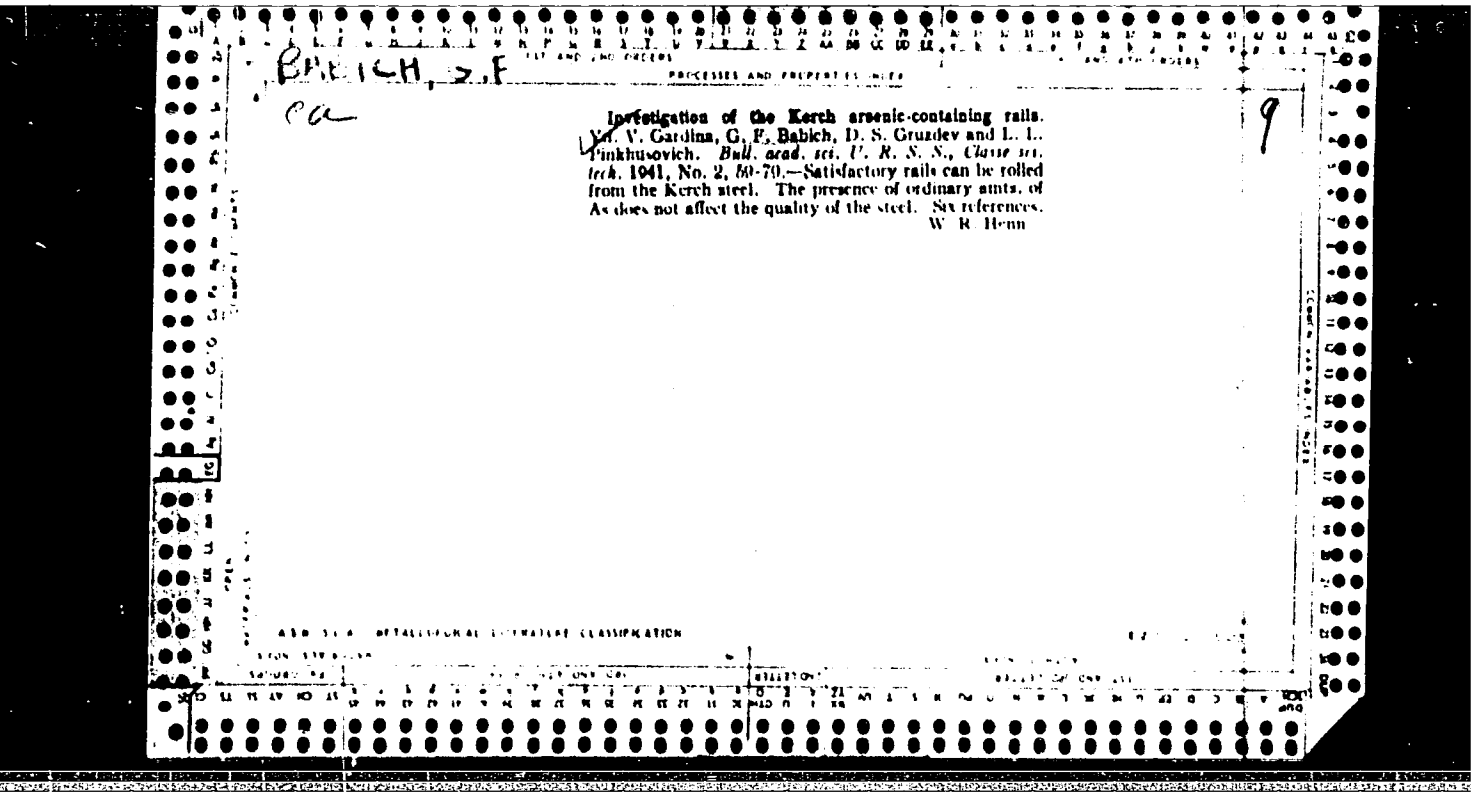

Investigation of the Kerch arsenic-containing rails. Yu. V. Gardina, G. F. Babich, D. S. Grudev and L. L. Pinkhusovich. *Bull. acad. sci. U. R. S. S., Classe sci. tech.* 1941, No. 2, 59-70.—Satisfactory rails can be rolled from the Kerch steel. The presence of ordinary amts. of As does not affect the quality of the steel. Six references.
W. R. Henn

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

BARICH, G.I., inzh. (Borovichi Novgorodskoy oblasti); LEVIN, G.L., inzh. (Borovichi Novgorodskoy oblasti)

Adjustment of the gas control unit of a boiler system. Energetik. 13 no.7:11-13 Jl '65. (MIRA 18:8)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

L 27890-65 EWT(d)/EWP(1)/EED-2 Po-4/Pq-4/Pae-2/Pg-4/Pk-4/Pl-4 IJP(c) BB/GG/GS/BC
ACCESSION NR: AT5003949 S/0000/64/000/000/0248/0257

AUTHOR: Mayorov, F. V.; Genis, Ya. G.; Bavich, G. Kh.

TITLE: Combined control computer 16

SOURCE: Nauchno-tekhnicheskoye obshchestvo priborostroitel'noy promyshlennosti. Nauchno-tekhnicheskoye soveshchaniye. 3d, Moscow, 1962. Vychislitel'naya tekhnika dlya avtomatizatsii proizvodstva (Computer technology for the automation of production); trudy soveshchaniya. Moscow, Izd-vo Mashinostroyeniye, 1964, 248-257

TOPIC TAGS: control computer, digital computer, incremental computer, real time computer

ABSTRACT: The author describes a real-time system combining an arithmetical digital computer and an incremental computer with variable increment intervals. Such a system can be used to carry out simultaneously uncorrelated calculations (processing and sorting of data) and follow with high accuracy a continuously varying process. The use of an incremental computer in lieu of a digital differential analyzer makes it possible to control long-duration processes without the need for correcting null drift. The main algorithm and its modifications for the

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L 27890-65
ACCESSION NR: AT5003949

operations of addition, multiplication, division, extraction of roots, integration, and differentiation are given. The block diagrams of the incremental computer and of the arithmetic digital computer are briefly described. The main

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ASSOCIATION: None

SUBMITTED: 01Sep64 ENCL: 00 SUB CODE: DP

NR REF SOV: 001 OTHER: 004

Card 2/2

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

ACCESSION NR: AP5002687 S/0260/64/000/006/0103/0116

AUTHOR: Babich, G. Kh. (Moscow); Kovalyuk, Yu. V. (Moscow)

TITLE: Dynamic properties of incremental computers

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 6, 1964, 103-116

TOPIC TAGS: incremental computer, control computer, digital computer

ABSTRACT: The dynamic properties of incremental digital computers are considered. As these computers handle limited increments, cases are possible when the actual input

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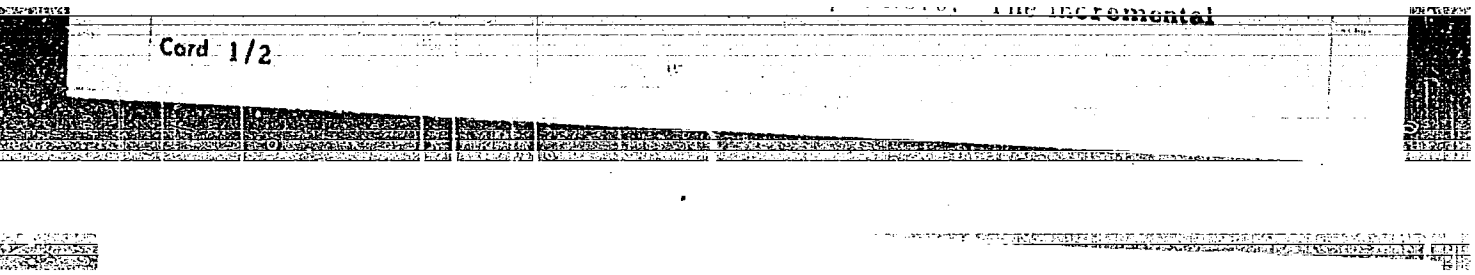

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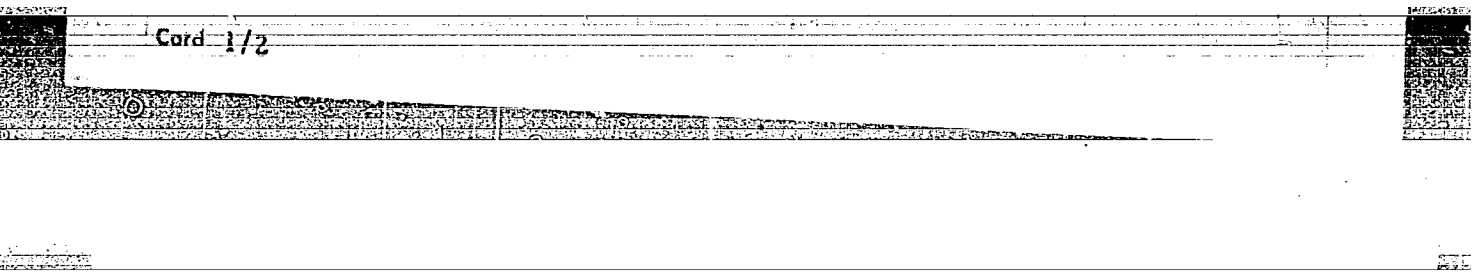

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

L 04950-67 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l)

ACC NR: AP6025416 SOURCE CODE: UR/0103/66/000/007/0164/0171

AUTHOR: Babich, G. Kh. (Moscow); Kovachich, Yu. V. (Moscow)

35
B

ORG: none

14

TITLE: The speed of response of incremental control devices with multidigit increments

SOURCE: Avtomatika i telemekhanika, no. 7, 1966, 164-171

TOPIC TAGS: automatic control design, digital computer system, computer coding

ABSTRACT: Incremental digital computers represent one of the specialized control devices. Since the usual coding of increments by means of the unitary code limits in an essential manner the speed of response of machines, the authors discuss the methods for increasing the speed of response of incremental control devices by a rational structure selection. The frequency method is used to establish a recommended selection of criteria for the number of incremental digits as a function of the formula used for the numerical integration. The description of the block diagram with multidigit increments, illustrating the principles of operation of individual blocks, is also given. An analysis of the data on the relative consumptions of transistors in multidigit and standard devices shows that an increase in the number of digits

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

ACC NR: AP6025416

requires only a 10 — 15% increase in the number of transistors. Orig. art. has: 14 formulas, 1 table, and 5 figures.

SUB CODE: 09/ SUBM DATE: 20Jan66/ ORIG REF: 005/ OTH REF: 003

Card 2/2

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

BABICH, I. A.

587 KORABLEV, I. I., BABICH, I. A. i ROZOV, S. A. Pchelovodstvo. kiev. gossel'khozizdat USSR. 1954. 576 s. s ill. 21 sm. 100.000 ekz. 11r. 6 k. V per. - Na pereplete avt. ne ykazany.- /54-54605/ p (638.1)

SO: Knizhnaya Letopis, Vol. 1, 1955

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

KUTUZOV,D.S., gornyy inzhener; ALBOROV,Z.B., gornyy inzhener; BABICH,I.A., gornyy tekhnik

Improving the system of a mass breaking down of ore. Gor.zhur. no.5:6-8 My '55. (MLRA 8:7)
(Mining engineering)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

1. B'BICH, I.A.
2. USSR (600)
4. Bee Culture
7. Successful wintering of bees. Pchelovodstvo 29. no. 11. 1952.

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

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

USSR / Farm Animals. Honeybee. Q-7

Abs Jour : Ref Zhur - Biol., No 14, 1958, No 64579

Author : Babich, I. A.; Golovnaya, I. T.
Inst : Ukrainian Experimental Station of Apiculture
Title : Management of Honeybees with Two Queens in One Beehive as a Method of Increasing the Production of Bee Colonies.

Orig Pub : Sb. nauchn. tr. Ukr. opytn. st. pchelovodstva, 1957,vyp.1, 27-38

Abstract : In the experimental groups (10 families each), all year around two queens were kept in each horizontal beehive of 20-24 frames. The families were united only during the main harvesting period. As compared with one-queen families, in the experimental ones the strength was increasing 61.7 - 65.9% faster, and they were collecting 69.5 - 90.5% more honey and 56.7 - 97.2% more beeswax.

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

KUTUZOV, D.S., gornyy inzh.; ALBOROV, Z.B., gornyy inzh.; BABICH, I.A., gornyy tekhnik

Practice of breaking of ore with chamber charges in the Leninogorsk Mine. Gor. zhur. no.4:13-15 Ap '60. (MIRA 14:6)

1. Leninogorskiy polimetallicheskiy kombinat.
(Blasting)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

KUTUZOV, D.S.; BABICH, I.A.

Improvement of scraper haulage. Gor. zhur. no.5:25-27 My '65.
(MIRA 18:5)

1. Glavnyy inzh. Leninogorskogo polimetallicheskogo kombinata (for Kutuzov). 2. Nachal'nik proyektno-konstruktorskogo otdela Leninogorskogo polimetallicheskogo kombinata (for Babich).

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

SHTIBEN, V.D.; BABICH, I.K.

[Catalog of bacteria pathogenic for man] Opredelitel' bakterii, patogennykh dlia cheloveka. Izd. 2-oe., perer. i dop. Moskva, Medgiz, 1955. 206 p. (MLRA 10:8)
(BACTERIA, PATHOGENIC)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

БАБИЧ, І. Л.

KONDILENKO, I.I. [Kondylenko, I.I.]; BABICH, I.L. [Babych, I.L.]

Frequency dependence of the line intensities of Raman spectra for various forms of molecular vibrations. Nauk povid. KDU no.1:28-29 '56. (MIRA 11:4)

(Raman effect) (Spectrum, Molecular)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

BABICH, I.Z.

PRIKHOT'KO, A.F.

24(7) 3 PHASE I BOOK EXPLOITATION SOV/1365

L'vov. Universytet

Materialy X Vsesoyuznogo soveshchaniya po spektroskopii. t. 1: Molekulyarnaya spektroskopiya (Papers of the 10th All-Union Conference on Spectroscopy. Vol. 1: Molecular Spectroscopy) [L'vov] Izd-vo L'vovskogo univ-ta, 1957. 499 p. 4,000 copies printed. (Series: Its: Fizychnyy zbirnyk, vyp. 3/8/)

Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po spektroskopii. Ed.: Lazer, S.L.; Tech. Ed.: Saranyuk, T.V.; Editorial Board: Lavistsrg, G.S., Academician (Resp. Ed., Deceased), Neporent, B.S., Doctor of Physical and Mathematical Sciences, Fabelinskiy, I.L., Doctor of Physical and Mathematical Sciences, Fabrikant, V.A., Doctor of Physical and Mathematical Sciences, Kornitskiy, V.G., Candidate of Technical Sciences, Mayskiy, S.M., Candidate of Physical and Mathematical Sciences, Klimovskiy, L.K., Candidate of Physical and Mathematical Sciences, Miliyanchuk, V.S., Candidate of Physical and Mathematical Sciences, and Glauberman, A. Ye., Candidate of Physical and Mathematical Sciences.

Card 1/30

Fominov, I.S. Study of Ion Solvation in Alcohol--Aqueous Solutions by Means of Absorption Spectra 213

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Kondilenko, I.I., and L.L. Rabichev. Dependence of the Intensity of Raman Lines on the Exciting-light Frequency for Various Forms of Molecular Vibrations 218

Bobovich, Ya. S., and V.M. Fivovarov. Intermolecular Interaction and Intensities in Raman Spectra 223

Sokolovskaya, A.I., and P.A. Bazhulin. Effect of Temperature on Raman Spectra in Liquids 225

Mikhaylov, G.V. Effect of Temperatures on the Raman Spectrum of Isopentane 227

Card 15/30

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

BABICH, I.L.

S/185/60/005/004/011/021
D274/D306

AUTHORS: Kondilenko, I.I. and Babych, I.L.

TITLE: Study of intensity of Raman-scattering lines over a wide temperature interval

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 5, no. 4, 1960, 532-538

TEXT: In literature, there is considerable disagreement of results relating to the temperature dependence of Raman-line intensity. In this article, the results are given of an experimental study of the temperature dependence of Raman-line intensity for CCl_4, C_6H_6, chloroform and carbon sulfide. A diagram of the apparatus used is shown. The spectra were recorded by the photoelectric spectrometer DFS-4. The light source was the mercury lamp PRK-4. The temperature around the lamp was stabilized, as it was found that temperature fluctuations near the lamp greatly affect the experimental results. Each experiment was repeated at least 7-8 times. The authors

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

Study of intensity...

consider that the experimental conditions yielded sufficient accuracy of intensity measurements over the entire temperature range. Tables are given with the results of measurements. The temperatures were: for CCl_4: 20-165°C, for C_6H_6: 20-180°C, for chloroform: 20-120°C, and for carbon sulfide: -110 to 100°C. It was found that by heating, the intensity decreases considerably not as a result of trivial reasons, but owing to the lower scattering capacity of the molecules themselves. In contrast to the results of other authors, it was found that in several experiments the intensity of lines which correspond to symmetrical valence fluctuations, decrease faster with temperature than the intensity of lines corresponding to deformation fluctuations. A detailed study of the temperature dependence showed that, in general, the intensity decreases faster at the beginning with increasing temperature, and then slows down. Special precautions were taken in the experiments with carbon sulfide. The results obtained confirm the conjecture that the decrease in line intensity with increasing temperature, is due to intermolecular interaction. The effect of this interaction is explained. The authors,

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however, are of the opinion that it is too early to draw definite conclusions as to the reasons for the anomalous change in line intensity at higher temperatures; further experiments are required. There are 6 figures, 3 tables and 10 references: 9 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: J.H.B. George, Proc. Phys. Soc., v. 64, 780, 1951.

ASSOCIATION: Kyyivs'kyy derzhavnyy universytet (Kiyev State University)

SUBMITTED: November 23, 1959

Card 3/3

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

S/185/62/007/007/005/010
I048/I248

AUTHORS: Babich, I.L., Kondilenko, I.I., and Strizhevskiy, V.L.

TITLE: Investigation of the scattering power of molecules in the liquid state during Raman scattering of light

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v.7, no.7, 1962, 742-748

TEXT: The relationship $K = \frac{I}{C}$, where I is the intensity of the scattered light and C the molar concentration of the scattering substance in the medium was studied using CCl_4, toluene, methanol, 1,2-dichloroethane, and the methyl esters of boric,

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

S/185/62/007/007/005/010
I048/I248

Investigation of the ...

acetic, and formic acids as the scattering substances and various organic substances as the solvent medium. Fermi-resonance and resonance-free lines were studied by I.L. Babich et al.'s method [4] (Opt. i spektr. 9, 677, 1962). K decreased with increasing C in the following systems: CCl_4-benzene (459 cm^{-1}), CCl_4-toluene (459 cm^{-1}), methanol-chloroform (2994 cm^{-1} and 2832 cm^{-1}), 1,2 -dichloroethane-chloroform (2957 cm^{-1} and 2870 cm^{-1}); K was practically independent of C in the systems: CCl_4-chloroform (459 cm^{-1}) and toluene-benzene (at $C < 8$ moles/l., 786 cm^{-1}); K increased with increasing C in the systems CCl_4-methanol (459 cm^{-1}), toluene -CCl_4 (1004 cm^{-1}). K is independent of C when both components have similar molecular structures. The ratio I_1/I_2, where I_1 is the overtone and I_2 the fundamental intensity in the Fermi resonance lines

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

S/185/62/007/007/005/010
I048/I248

Investigation of the...

increased with C in methanol-chloroform, methanol-CCl_4, methanol-H_2O, chloroform-methanol, and methyl borate-CCl_4 systems. Here I_1/I_2 (I_{2938}/I_{2838}) was >1 within the C range $\sim$ 2 - 12 moles/l, which is the first such case reported. I_1/I_2 increases steadily with increasing C and, in the pure substances, the components of the Fermi resonance splitting become almost identical. The ratio I_1/I_2 decreased with increasing C in solutions methyl formate, methyl acetate, and 1,2-dichloroethane. There are 5 figures.

ASSOCIATION: Kievskiy universitet (The University of Kiev)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

S/051/62/013/005/004/017
E039/E420

AUTHORS: Babich, I.L., Kondilenko, I.I., Strizhevskiy, V.L.

TITLE: Intermolecular interaction and Fermi resonance in Raman spectra

PERIODICAL: Optika i spektroskopiya, v.13, no.5, 1962, 642-648

TEXT: There has been no systematic study of this problem to date; hence a theoretical study is made and compared with experimental data. The effect of the interaction of molecules with the surrounding medium is investigated by examining the Fermi resonance lines in Raman spectra of different concentrations of methanol in water, chloroform and carbon tetrachloride. As CCl_4 has resonance lines these are also studied. It is shown that the concentration dependence of the intensities of the components of the Fermi resonance doublet are different. The ratio of intensities of the 2944 and 2832 cm^{-1} lines increases with concentration up to $\sim$ 5 to 10 moles/litre and then remains substantially constant. The potential energy of interacting molecules is examined assuming dipole-dipole interactions (valid only if size of molecules is small compared with distance between

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them). A divergence from this approximation is expected when the interaction of separate elements of a molecule begin to play a significant role. The magnitude of this effect is indicated by the change in optical activity of the molecules when in solution due to strong interactions and the formation of associations. In the case when intermolecular interactions are absent resonance still occurs due to intramolecular effects. This effect contributes to the levelling off of the intensity ratio of the Fermi lines. As this ratio is shown to be 0.4 to 0.8 experimentally the resonance of isolated molecules is not small. In view of the simplifying assumptions made in the theory the agreement with experiment is only qualitative. There are 3 figures.

SUBMITTED: September 21, 1961

Card 2/2

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

BABICH, I.I. [Babych, I.I.]; KOVALENKO, T.I.

Molecular interaction and shift of molecular vibration frequencies in Raman spectra. Ukr. fiz. zhur. 8 no.11:1270-1271 N '64. (MIRA 17:9)

1. Kiyevskiy gosudarstvennyy universitet im. Shevchenko.

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

L 52708-65 EWT(l)/EWT(m)/EPF(n)-2/EWG(m)/EPA(w)-2/EWP(t)/EWP(b) Pz-6/Po-4

ACCESSION NR:

AUTHOR:

TITLE: Determination of the electron temperature

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

thermoelectric diode by spectral methods

SOURCE: Optika i spektroskopiya, v. 18, no. 5, 1965, 931-933

TOPIC TAGS: cesium plasma, electron temperature, spectroscopy, thermionic energy conversion, thermionic diode, discharge mode, arc mode

ABSTRACT: Spectrometric methods were used because of the difficulties of using the probe method for measuring the electron temperature in a diode with an electrode spacing of only a few millimeters. Studies of intensity distributions were made in

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L 52708-65
ACCESSION NR: AP5012639

measurements, which led to values corresponding to electron temperatures T_e = 2500K, indicated a linear n_e/i dependence. The experiments made with the spectrometer showed that at i_0 = 1 amp/cm^2 the plasma radiation was similar to those of a normal arc discharge spectrum in cesium vapor. The [illegible] of the principal series of 8,93 Å and the secondary series of [illegible] were clearly visible. Measurements made at [illegible] amp/cm^2 [illegible] temperature of 2300K. This value did not change at $i = 1/2\, i_0$ = [illegible] amp/cm^2, the point at which the combined mechanism of thermal charge generation on the cathode and volume ionization by collisions should start acting. It is emphasized that the Maxwellian velocity distribution of the electrons and the observed uniformity of the temperatures of slow and relatively fast electrons may help to explain the nature of phenomena in discharge plasma not only in a close-spaced diode but also in the case of regular arc discharge instruments. "The authors thank I. I. Kondilenko for making available to [illegible]

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

BABICH, I.N.; DAVYDOV, I.A.

More attention should be given to raw pelts. Leg.prom. 14 no.8: 13-15 Ag '54. (MLRA 7:8)

1. Direktor Moskovskoy mekhovoy fabriki No.1 (for Babich) 2.Nachal'nik proizvodstvennogo otdela (for Davydov).
(Hides and skins)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

BABICH, I.Ya.; VOLOSHINA, L.G.; NOVAK, B.S.

Rapid method for determining tannins in extracts, syntans, and juices. Kozh.-obuv.prom. 6 no.3:24-27 Mr '64. (MIRA 17:4)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

L 2141-66 EWT(d)/EWT(m)/EWP(w)/T/EWP(t)/EWP(b) JD/EM

ACC NR: AP5024938 SOURCE CODE: UR/0198/65/001/009/0124/0127

AUTHOR: Babich, I. Yu. (Kiev); Kaminskiy, A. A. (Kiev)

ORG: Institute of Mechanics, AN UkrSSR (Institut mekhaniki AN UkrSSR)

TITLE: On critical loads causing advance of a crack at the edge of an elliptic hole

SOURCE: Prikladnaya mekhanika, v. 1, no. 9, 1965, 124-127

TOPIC TAGS: crack development, crack advance

ABSTRACT: The development of cracks in the zone of stress concentration around an elliptic hole is studied. The problem of equilibrium cracks of brittle origin formed at the edge of the hole is discussed as a two-dimensional problem of the theory of elasticity for an infinite plane weakened by an elliptic hole with a crack of given length ℓ formed at its vertex. It is assumed that the solid remains elastic up to the instant of rupture, and that there is no loading by external forces either at the edge of the hole or at the edges of the crack. Constant tensile forces normal to the edges of the crack are applied at infinity. Expressions are derived by using the conformal mapping from which the stress distribution around the point of the crack and the value of the critical loading P_{cr} (at which the crack starts to advance) can be determined. These expressions contain a parameter

$$m = \frac{a-b}{a+b},$$

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ACC NR: AP5024938

where a and b are the semiaxes of the ellipse, so that these formulas can be used for a horizontal crack (m = 1), an elliptic hole (m = 0.5), a circular hole (m = 0), and a very narrow vertical ellipse (m = -1). The dependence of the critical loading on a parameter $\lambda = l/R$ (where $R = (a + b)/2$) is shown in Fig. 1 for all these cases.

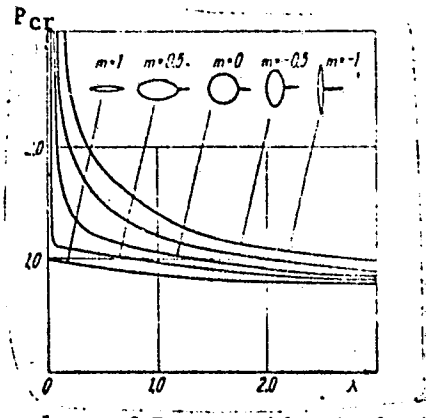

Fig. 1. $P_{cr} = f(\lambda)$

For m = 1, the values of P_{cr} are identical with those obtained by A. A. Griffith, and for m = 0, they are in good agreement with those obtained by O. L. Bowie. Orig. art. has: 2 figures and 15 formulas. [VK]

SUB CODE: AS/ SUBM DATE: 29Mar65/ ORIG REF: 005/ OTH REF: 001/ ATD PRESS: 4122

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

L 13855-66 EWT(d)/EWT(m)/EWP(w)/EWP(v)/EWP(k)/EWA(h)/ETC(m) IJP(c) WW/EM

ACC NR: AP6002344 SOURCE CODE: UR/0198/65/001/012/0120/0122

AUTHORS: Mokhbaliyev, S. A. (Kiev); Dabich, I. Yu. (Kiev)

ORG: Institute of Mechanics, AN UkrSSR (Institut mekhaniki, AN UkrSSR)

TITLE: Concentration of forces in a spherical shell around a square opening

SOURCE: Prikladnaya mekhanika, v. 1, no. 12, 1965, 120-122

TOPIC TAGS: shell, spherical shell, stress analysis, stress computation, shell theory

ABSTRACT: The authors solve the problem of the concentration of stresses around a square opening in a spherical shell. Use is made of the basic integral equation set forth by G. N. Savin (Kontsentratsiya napryazheniy okolo otverstiy v obolochkakh. Sb. Teoriya plastin i obolochek, Izd-vo AN UkrSSR, K, 1962). The stressed condition of a spherical shell undergoing a uniform internal pressure of intensity p is given by the integral form

$$U(\xi, \eta) = f(\xi, \eta) - i\lambda \int_0^{\xi} \int_0^{\eta} K(\xi, \eta, t, \tau) U(t, \tau) d\tau dt;$$

$$f(\xi, \eta) = \psi_0(\xi) + \psi_0^*(\eta) + X\psi_1(\xi) + Y\psi_1^*(\eta);$$

$$K(\xi, \eta, t, \tau) = \left(e^t - \frac{1}{3} e^{-3t}\right)\left(e^{\tau} - \frac{1}{3} e^{-3\tau}\right);$$

$$X = e^{\xi} + \frac{1}{9} e^{-3\xi}; \quad Y = e^{\eta} + \frac{1}{9} e^{-3\eta},$$

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where $\psi_0(\xi)$; $\psi_0^*(\eta)$; $\psi_1(\xi)$; $\psi_1^*(\eta)$ are arbitrary holomorphic functions in the region considered. These functions obey the relationships

$$\psi_0(\xi) = \psi_0^*(\eta); \quad \psi_1(\xi) = \psi_1^*(\eta)$$

in the case of force symmetry and geometrical symmetry. Boundary conditions are: 1) at the edge of the opening ($\rho = \rho_0 = 0$),

$$T_0 = -p_0 h; \quad S_0 = 0; \quad G_0 = 0; \quad \tilde{Q}_0 = -p_0 h \frac{r_0}{R}\left(\frac{53}{54} - \frac{14}{81}\cos 4\theta\right);$$

and 2) at infinity ($\rho = \rho_1$),

$$T_0 = 0; \quad S_0 = 0; \quad G_0 = 0; \quad \tilde{Q}_0 = 0,$$

where $p_0 = pR/2h$; R and h are the radius and thickness of the shell. An approximate solution of the integral system is given by a system of successive approximations

$$U(\xi, \eta) = f(\xi, \eta) - \int_0^{\xi}\int_0^{\eta} |i\lambda + \lambda^2 (X - X_1)(Y - Y_1)| f(t, \tau)\, dY_1 dX_1,$$

and according to the second boundary condition

$$\psi_0(\xi) = \sum_{k=1}^{\infty} a_k e^{-4k\xi}; \quad \psi_1(\xi) = \sum_{k=1}^{\infty} b_k e^{-4k\xi}.$$

These considerations lead to infinite systems of linear algebraic equations for the forces described. A particular case of a shell with given dimensions is worked out,

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ACC NR: AP6002344

and the coefficient of force concentration is solved and plotted in the x - y plane. Orig. art. has: 10 equations and 1 figure.

SUB CODE: 20/ SUBM DATE: 20May65/ ORIG REF: 006

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APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

BABICH, K.

Active public worker. Voen. znan. 37 no.9:20 S '61. (MIRA 14:9)

1. Instruktor oblastnogo komiteta Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu, g. Zaporozh'ye.
(Zaporozh'ye--Shooting contests)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

BABICH, K. (g.Zaporozh'ye)

His own affair. Kryl. rod. 15 no.12:19 D '64.

(MIRA 18:3)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

BABICH, Kh. Kh.

Sugar Machinery

Raising the productivity of vacuum apparatuses. Sakh. prom. 26 No. 6, 1952.

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

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

KUDRYA, S.V.; BABICH, Kh.Kh.

Experiment in sugar beet drying in the Kupyansk Sugar Factory. Sakh. prom. 37 no.8:46-48 Ag '63. (MIRA 16:8)

1. Khar'kovskiy sovet narodnogo khozyaystva (for Kudrya).
2. Kupyanskiy sakharnyy kombinat (for Babich).
(Kupyansk—Sugar factories)
(Sugar beets—Drying)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820015-2

S/524/62/018/000/002/002
A006/A101

AUTHORS: Starodubov, K. F., Academician of AS UkrSSR, Babich, K. V., Candidate of Technical Sciences

TITLE: High-speed annealing of "08" (rimming) steel wire

SOURCE: Akademiya nauk Ukrayins'koyi RSR. Instytut chornoyi metalurhiyi. Trudy. v. 18, 1962. Metallovedeniye i termicheskaya obrabotka stali i chuguna, 86 - 91

TEXT: For the purpose of determining the possibility of reducing the time of softening heat-treatment for 08 steel wire, the authors studied the effect of the heating rate, the temperature and cooling rate upon the structure and mechanical properties of this wire, drawn with varying reduction (61, 85, 90, 94 and 97.5%) and having different diameters (4.0; 2.47; 2.04; 1.58 and 1 mm). The steel contains (in %): C 0.05 - 0.07; Mn 0.36; Si 0.1; P 0.018 and S 0.017. Experimental thermal treatment of the wire was conducted with the use of the electric resistance method on a unit where the heated wire specimens acted as the operational resistance. The specimen temperature was measured with a

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High-speed annealing of "08" (rimming) steel wire

chromel-alumel thermocouple welded onto the specimen. The thermocouple pulse was recorded by oscillograph МПО-2 (MPO-2). The oscillograms obtained were used to determine the temperature of heating the specimen as a function of the heating time and the current passing through the specimen. On the basis of these data, graduation curves were plotted showing the temperature dependence of the specimen upon the heating time at a given current value passing through the specimen. It was established that 08 steel wire of over 2 mm in diameter with less than 90% total deformation can be heat-treated for softening under the following conditions: heating at a rate of up to 700 degrees/sec to a temperature not below 700 - 750°C with subsequent air-cooling. Wire of less than 2 mm in diameter, obtained by drawing with over 90% total reduction can be heated at a rate up to 1,000 degrees/sec to temperatures not below 750 - 800°C with subsequent cooling at a rate which is below that of cooling in quiet air (cooling may be performed in a forehearth). Overheating in high-speed preheating to over 700 - 800°C does not impair the mechanical properties of the wire during thermal treatment. Extended chilling in air of wire, 1.6 - 4.0 mm in diameter, i.e., lowering its temperature at the moment of cooling down to 650 - 700°C, causes higher ultimate strength and reduced ductility. Chilling to temperatures below 650 - 700°C re-

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A006/A101

High-speed annealing of "08" (rimming) steel wire

duces strength and increases ductility of the wire. Chilling in air from a temperature of 800 - 1,000°C of wire, 1 mm in diameter, with its further cooling in water, reduces its strength and raises ductility. There are 1 table and 1 figure.

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RABICH, L. A. and GELLER, E. R.

K biol[illegible] (Linnaeus, 1758) - "Works on Helminthology" on the 75th Birthday of K. I. Skryabin Izdat, Akad. Nauk, USSR, Moskva, 1953, page 133 Chair of Zoology, Ul'yanov State Pedagogical Inst.

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BABICH, L. A.

Using sulfur dioxide for reducing the alkalinity of feed water.
Sakh.prom. 30 no.12:40-41 D '56. (MLRA 10:1)

1. Petrovskiy sakharnyy zavod.
(Sulfur dioxide) (Feed-water purification)

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BABICH, L.G.

Determining tail shapes of the comet 1947n (1947 XII). Soob.GAISH no.99:42-43 '56. (MIRA 10:3)
(Comets--1947)

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SAKHAROV, A.A., [illegible]; [illegible], T.V., [illegible]; [illegible], E.V., [illegible]; DUBOV, B.G., [illegible]; BABICH, L.S., [illegible]

Improving the construction of high-capacity open-hearth furnaces of the Cherepovets metallurgical plant. Stal' 25 no.8:694-697 Ag '65. (MIRA 18:8)

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SOV/137-58-11-23041

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 11, p 173 (USSR)

AUTHORS: Balezin, S. A., Babich, L. V.

TITLE: Inhibition of Steel Corrosion Processes in Carbon (Russian Original shows Hydrocarbon. Trans. Note) Tetrachloride (Tormozheniye protsessov korrozii stali v cheterekhkhloristom uglevodorode)

PERIODICAL: Uch. zap. Mosk. gos. ped. in-ta, 1957, Vol 99, pp 67-76

ABSTRACT: The effect of the water content of CCl_4 on the corrosion (Cor) of St-20 grade steel at 18-20°C was investigated. It is established that Cor of steel in CCl_4 containing no water begins only 10-12 hours after the beginning of the experiment and ceases after approximately 16 days. In the presence of water the incubation (Russian Original shows "induction" at this point only; Trans. Note) period is absent, as well as the retardation of the rate of Cor in time. To decrease Cor in moist CCl_4, additions of silica gel, phosphoric anhydride, $CaCl_2$, and certain individual organic compounds were investigated. Silica gel inhibits corrosion for six months. Phosphoric anhydride increases the incubation period to 30 days and then decreases Cor to one-tenth. Among the individual organic compounds the best

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inhibitors proved to be orthobenzoic and thiosalicylic acids and pyrocathechin. The inhibiting effect of these compounds is 180, 203, and 9,180 respectively; the incubation period becomes 150, 43, and 45 days. The inhibiting action of these compounds is related to their adsorption by the metallic surface and to the combining of the water in the CCl_4 with the polar group of the compound.

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BABICH, L.V.; BALEZIN, S.A.

Kinetics of iron and steel dissolution in sulfuric acid. Uch. zap. MGPI no.146:277-287 '60. (MIRA 15:4)
(Solution (Chemistry)) (Sulfuric acid)

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