

VITMAN, F. F. and BREKHOVSKIY, S. M.

"Structural physical factors and basic scientific problems in the strengthening of glasses and sitalls."

(Physicotechnical Institute, Academy of Sciences USSR)

At the Division of Physical Chemistry and Technology of Inorganic Materials, Acad. Sci. USSR, a scientific council on the problem of sitalls has been established. The Council is a coordinating body for basic scientific research on sitalls, glass, fiber glass, stoneware, refractory and superrefractory materials, and coatings. The purpose of the Council is primarily to contribute to the improvement of the strength and impact resistance of existing materials. In 1963, the council held two sessions.

(Steklo i keramika, no. 6, 1964, 48-49)

L 21421-65 EWG(j)/EWP(e)/EWT(m)/EWP(b)/EWA(h)/EWA(1) Pg-4/Peb ASD(m)-3/
AFEIR/ESD(gs)/ESD(t) WH
ACCESSION NR: AP5001262

S/0072/64/000/012/0001/0006

AUTHOR: Brekhovskikh, S. M. (Candidate of technical sciences)

TITLE: The atomic-ionic structure of glass 15

SOURCE: Steklo i keramika, no. 12, 1964, 1-6

TOPIC TAGS: ceramic, ceramic research, glass, glass fabric, glass crystallization, ceramic radiation effect

ABSTRACT: The submicrostructure of glass is studied to determine the distribution of atoms and ions in elemental structural cells. This process required new methods of study, as defects in the atomic structure are not such as to make x-ray scatter technique applicable. Earlier work by the author (Steklo i keramika, 1957, No. 10) in conjunction with Viktorova, Zelentsov, and Zelentsova, showed that the proper method for structure determination is to study the kinetics of formation and destruction of centers of pigmentation, paramagnetic centers, and centers of luminescence in irradiated glass. Absorption bands were found to be sharply defined with maxima in the zones of 220-230, 330-350, 450-460, and 620-650 μ . Spectral positioning of a NaCl crystal was plotted as reference for position plots of three glass types, and a commentary is given upon the significance of plot fluctuations for identifying electrons. Gamma radiation was used in the tests. A second method

Card 1/4

L 21421-65
ACCESSION NR: AP5001262

used was the method of electron paramagnetic resonance (EPR), which identifies the absence of unpaired electrons by the absence of resonant absorption. Additional plots were made showing thermoluminescence and destruction of centers of pigmentation for a number of irradiated glass types. The analysis led to representation of vitriform structural images in two dimensional form (see Figs. 1 and 2 on the Enclosures) for both SiO_2 and $\text{Na}_2\text{O}\cdot\text{SiO}_2$ vitriforms and crystals. A discussion of temperature effects on structure is given. The author expresses hope that further research might be conducted along the methods here presented. Orig. art. has: 5 figures.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 02

SUB CODE: 1E

NR REF SOV: .004

OTHER: 004

Card 2/4

L 21421-65
ACCESSION NR: AP5001262

ENCLOSURE: 01

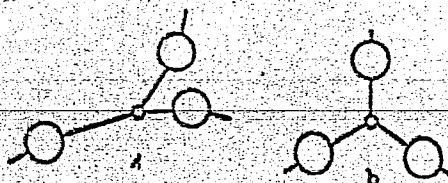


Fig. 1. Schematic planar representation of structure.
A - SiO_2 vitriform; B - SiO_2 crystal; small black circles -
Si atoms; large white circles - O atoms.

Card 3/4

L 21421-65
ACCESSION NR: AP5001262

ENCLOSURE: 02

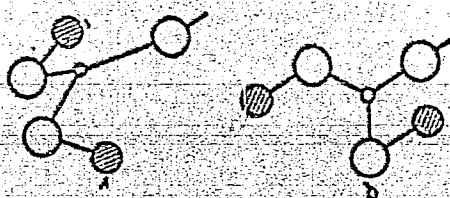


Fig. 2. Schematic planar representation of structure.
A - vitriform $\text{Na}_2\text{O SiO}_2$; B - $\text{Na}_2 \text{SiO}_2$ crystal; small
black circles - Si atoms; large white circles - O atoms;
large shaded circles - Na atoms.

Card 4/4

L 12975-65 EWG(j)/ENP(a)/EPA(s)-2/ENT(m)/EPF(c)/EPF(n)-2/EPA(w)-2/ENP(j)/EPA(bb)-2/
 EWP(b)/EWA(h)/EWA(z) Pc-1/Pq-1/Pr-1/Pt-10/Pu-1/Pab-10/Feb GG/RM/WH
 ACCESSION NR: AP4043551 S/0020/64/157/004/0938/0939

AUTHOR: Brekhovskikh, S. M.; Landa, L. M.; Chubkina, N. I.

TITLE: Change in phase composition in gamma-irradiated sitalls 15 B

SOURCE: AN SSSR. Doklady*, v. 157, no. 4, 1964, 938-939

TOPIC TAGS: sitall, pyroceram, lithium aluminosilicate, beta encryptite, alpha quartz, glass crystallization, gamma irradiation, solid phase transition

ABSTRACT: A new gamma-irradiation effect — an increase in the crystalline phase at the expense of the vitreous phase — has been detected in transparent sitalls [pyrocerams] of the lithium-aluminosilicate system. Two sitalls of similar composition containing a crystalline phase found by the authors to be β -encryptite were irradiated with 10^2-10^5 r from a Co^{60} source. Comparative x-ray diagrams of irradiated and nonirradiated samples showed a radiation-induced increase in the β -encryptite phase and the appearance of a "new" phase, α -quartz. The latter presumably existed in nonirradiated samples in a quantity undetectable by x-rays. The observed increase in both crystalline

Card 1/2

I 12975-65

ACCESSION NR: AP4043551

phases is believed to result from the growth of existing crystals. The mechanism of this phase transition is not yet clear. Origl art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 10Mar64

ATD PRESS: 3097

ENCL: 00

SUB CODE: MT,SS

NO REF SOV: 000

OTHER: 000

Card 2/2

ACC NR: AR6032304 SOURCE CODE: UR/0081/66/000/013/B066/B066

AUTHOR: Brekhovskikh, S. M.; Solinov, V. F.

TITLE: The Faraday effect in diamagnetic glasses

SOURCE: Ref. zh. Khimiya, Part I, Abs. 13B528

REF SOURCE: Steklo. Tr. in-ta stekla, no. 2(127), 1965, 58-61

TOPIC TAGS: faraday effect, glass, diamagnetic glass, paramagnetic glass, ferromagnetic glass

ABSTRACT: The Faraday effect depends on the atomic number of the element of the oxide-modifier in Mendeleev's periodic system. This is due to the nature of the diamagnetic substance. The more electrons the atom of the oxide modifier contains, the higher the induced orbital moment of the atom: $\Delta P_n = \sum_{i=1}^n \Delta P_{ni}$, where ΔP_{ni} is the orbital moment of the electron; and therefore, the Faraday effect is also more pronounced. The Faraday effect increases directly with the percentage of the oxide-modifier. The magnitude of the Faraday effect in diamagnetic glasses probably has a limit which is connected with using limits of oxide-modifiers with a large atomic number of the element Z in glass production.

Card 1/2

ACC NR: AR6032304

The most promising trend in the synthesis of glass with a larger Faraday effect is the synthesis of paramagnetic and ferromagnetic glasses, which have a higher magnetic moment. [Translation of abstract]

SUB CODE: 07/

Card 2/2

L 11155-67 EWT(m)/EWP(e) WH

ACC NR: AP6034217

SOURCE CODE: UR/0368/66/005/004/0539/0541

AUTHOR: Brekhovskikh, S. M.; Romanov, B. Ye. 41

ORG: none

TITLE: Thermoluminescence of glasses of commercial compositions

SOURCE: Zhurnal prikladnoy spektroskopii, v. 5, no. 4, 1966, 539-541

TOPIC TAGS: thermoluminescence, gamma ray, cerium, optic glass, glass, commercial glass

ABSTRACT: The optical absorption and thermoluminescence of irradiated optical glasses have been investigated for the following commercial grades: K-8, K-108, LK-7, TF-1, and ZhS-17, as well as some window-glass grades manufactured at the Saratov Plant. All the glasses containing cerium except the K-108, are considerably less transparent to light under the effect of gamma rays (10^6-10^7 p). All glasses, except the heat resistant LK-7 glass and the TF-1 flint, were found to have an intensive high-temperature thermoluminescence. Orig. art. has: 2 figures and 1 table. [Based on authors' abstract]

SUB CODE: 03, 20/SUBM DATE: 30May65/ORIG REF: 003/OTH REF: 002/

Card 1/1 *ml*

UDC: 539.12.04

L 61723-63 EWP(a)/EPA(s)-2/EWT(m)/EPF(c)/EWP(1)/EPF(n)-2/EPA(w)-2/EWP(j)/T/EWP(b)
 Pc-4/Pq-4/Pr-4/Pt-7/Pu-4 VV/CG/RM/WH

ACCESSION NR: AP5018931

UR/0363/65/001/006/0947/0951
 666.1:542.65

AUTHOR: Brekhovskikh, S. M.; Grinshteyn, Yu. I.

TITLE: The effect of thermal neutron exposure on certain properties of heat-resistant pyrocerams

SOURCE: AN SSSR. Investiya. Neorganicheskiye materialy, v. 1, no. 6, 1965, 947-951, and insert facing p. 858

TOPIC TAGS: neutron bombardment, pyroceram, pyroceram radiation damage, pyroceram strength, pyroceram hardness, thermal expansion, dielectric constant, thermal neutron, neutron hardening

ABSTRACT: This is a report on the first attempts to determine the effects of radiation on various pyrocerams, including heat-resistant. Samples, enclosed in aluminum containers, were subjected to doses varying from 10^{16} to 10^{19} thermal neutrons/cm² within the experimental channels of nuclear reactors at no more than 40C. Tests showed that pyroceram (sitall) IV-23 can be used within neutron fields up to integral fluxes of $5 \cdot 10^{18}$ thermal neutrons/cm². Sitall Zh-3 remained undamaged even after integral doses of 10^{19} thermal neutrons/cm². The observed changes in micro-

Card 1/2

L 61723-65

ACCESSION NR: AP5018931

hardness have different characteristics for small and for large doses. These changes and changes in other parameters measured (density, mechanical strength, dielectric properties, coefficient of thermal expansion, and phase composition) often exhibit extrema at doses which depend on the composition of the material. The authors also observed the so-called "neutron hardening" of pyrocerams, which might cause destruction of the sample. They assume that the changes in coefficients of thermal expansion are due not only to the changes in phase composition but also to the appearance of stresses. In conclusion, the radiation effects on sital IV-23 are discussed on the basis of the theory of thermal maxima. Orig. art. has: 4 formulas, 5 figures, and 1 table. [08]

ASSOCIATION: none

SUBMITTED: 11Feb65

ENCL: 00

SUB CODE: MT, NP

NO REF SOV: 000

OTHER: 005

ATD PRESS: 4061

awm
Card- 2/2

L 53801-55 EWG(j)/EWT(1)/EWP(e)/EWT(m)/EWP(1)/EEC(b)-2/T/EWP(b)/EWA(h)/
 EWA(1) P4-4/P4b/Pi-4 IJP(c) GG/WR
 ACCESSION NR: AP5013865

UR/0368/65/002/004/0374/0376

AUTHOR: Brekhovskikh, S. M.; Ianda, L. M.

TITLE: Radiation optical stability of quartz glass ✓

37
B

SOURCE: Zhurnal prikladnoy spektroskopii, v. 2, no. 4, 1965, 374-276

TOPIC TAGS: optical glass, quartz glass, radiation endurance, optical stability, color center, discoloring

ABSTRACT: The authors investigated the effect of γ radiation and protons on the optical transmission of two brands of quartz glass (KI and KV), in view of the fact that in many optical investigations quartz glass is the only suitable material. The KV contains far fewer impurities than KI. Both glasses were exposed to γ rays from Co^{60} with exposure doses of 10^4 , 10^5 , 10^6 , and 10^7 r and with $\sim 1.75 \times 10^{13}$, 2×10^{14} , and 10^{15} protons of energy 4.8×10^6 eV in the cyclotron of the Tomsk Polytechnic Institute. The light transmission of the samples was measured with the SF-10 instrument in the visible part of the spectrum, SF-4 in the ultraviolet, and IF-16 for the integral light transmission at wavelength 0.55μ . The KV glass did not

Card 1/2

L 53801-65

ACCESSION NR: AP5013865

change its transmission even at a 10^7 r dose, whereas the KI became completely opaque at that dose. A similar situation arises following proton bombardment. The endurance of the glass varies with the wavelength of the light. The results are interpreted from the point of view of discoloring and coloring action of the radiation at different wavelengths, and the difference in the color centers produced by the various impurities in the glass. Orig. art. has: 4 figures. [02]

ASSOCIATION: None

SUBMITTED: 17Sep64

ENCL: 00

SUB CODE: 0P

NO REF SOV: 002

OTHER: 000

ATD PRESS: 4022

Am
Card 2/2

00005-02 EWP(l)/EWP(e)/EPA(a)-2/EWT(m)/EPP(c)/EWP(i)/EPP(h)-2/EPA(w)-2/37
EWP(j)/T/EEC(b)-2/EWP(b) IJP(c) WW/GG/RM/WH B

ACCESSION NR: AP5019650

UR/0072/65/000/008/0015/0017
666.11.065,5

AUTHOR: Brekhovskikh, S. M. (Candidate of technical sciences); Grinshteyn, Yu. L. (Engineer)

TITLE: The effect of neutron irradiation on crystalline vitreous materials

SOURCE: Steklo i keramika, no. 8, 1965, 15-17

TOPIC TAGS: radiation damage, crystal defect, sital, radiation resistance, thermal neutron, F center

ABSTRACT: Crystalline samples of sitals S-343, S-1214, Zh-3, and IV-23 were sealed in aluminum containers and exposed to fluxes of 10^{16} , 10^{18} and 10^{19} thermal neutrons/cm² in a reactor. The temperature of the reactor cavity remained below 400C. The irradiated samples were tested for density, hardness, and dielectric properties. The opaque white sitals turned various shades of grey and brown on irradiation; the intensity of coloration increased with irradiation. The transparent sital S-343 turned blue with complete loss of transparency at 10^{18} neutrons/cm². Except for sital IV-23, whose density increased at 10^{18} neutrons/cm², no noticeable changes in density were observed. The microhardness of the majority of the sitals changed

Card 1/3

I 60853-65

ACCESSION NR: AP5019650

only some 10-15%. Sitals S-1214 and Zh-3 can be used for parts exposed to sliding friction in an intensive neutron flux. Significant changes in microhardness take place in boron-containing sital IV-23 on irradiation. The nature of changes in dielectric properties of the sitals investigated differs, depending on the irradiation dose (measurements were taken at 10^5 , 10^6 and 10^7 cps). While the sense of the change remains the same at all frequencies, the magnitude of the changes at higher frequencies decreases; sital IV-23 shows a high degree of stability. Unlike sital S-343, sital IV-23 retains the induced changes in microhardness, even on annealing above 500C. This indicates the irreversible nature of the changes. Most of the radiation-induced changes in IV-23 are localized in the surface layer, the site of the majority of nuclear events. The results obtained are preliminary in character; clarification of the mechanism of radiation-induced changes will involve comparison of changes in a number of properties, among them elasticity, mechanical strength and electrical conductivity. A higher density of nuclear events can be achieved by increased doses of irradiation, or by incorporation in the sitals of isotopes with higher thermal-neutron capture cross sections, e.g., by the use of boron-containing starting materials enriched with B^{10} . Any evaluation of the radiation stability of sitals must be made with a given set of functional requirements in mind. Orig. art. has: 5 figures and 2 tables. [VS]

Card 2/3

L 60853-65

ACCESSION NR: AP5019650

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MT, NP

NO REF SOV: 001

OTHER: 003

ATD PRESS: 4063

Card

ilk
3/3

BREKHOVSKIKH, S.M.; LANDA, I.M.

Optical radiation resistance of quartz glass. Zhur.prikl. spekt.
2 no.4:374-376 Ap '65. (MIRA 18:8)

BREKHOVSKIKH, S.M., kand. tekhn. nauk; GINSHTEYN, Yu.L., inzh.

Effect of neutron irradiation on crystallized glass materials.
Stek. i ker. 22 no.8:15-17 Ag '65. (MIRA 18:9)

L 62767-65 EP (a)/EPF (n)-2/ET (m)/EWP (l)/EWP (h)/EWP (e) Pq-4/Pr-4/Pu-4
ACCESSION NR: AP5018091 G3/IAJ/WH UR/0020/65/163/001/0164/0165

AUTHOR: Brekhovskikh, S. M.; Landa, L. M.; Viktorova, Yu. N.; Shelyubskiy, V. I.

TITLE: Optical radiation stability of quartz glass irradiated with gamma-rays at various temperatures 23

SOURCE: AN SSSR. Doklady, v. 163, no. 1, 1965, 164-165 5 6

TOPIC TAGS: optical radiation stability, quartz glass, color center, F center, temperature dependence

ABSTRACT: The effect of temperature on the radiation-induced discoloration of quartz glasses KI and KRL has been studied in the virtual absence of literature on this subject. The optical radiation stability (ORS) of the glass specimens was studied at room temperature. The ratio of the light transmission of the irradiated glass to the initial transmission in the visible part of the spectrum (P_c), which is characteristic for ORS, was determined for different doses of irradiation (see Table 1 of the Enclosure). Table 2 illustrates the ORS at low temperatures. The transmission was measured 10 sec, 60 min, and 24 hr after taking the specimens out of the Dewar vessel; the results remained constant. In the case of KI glass, the effect of temperature was perceived visually: specimens irradiated at room temperature were black-violet, and those irradiated at 90K were light-smoky.

Card 1/4

1 62767-65

ACCESSION NR: AP5018091

The observed dependence of the discoloration on the temperature of irradiation can be explained by the shift of the dynamic equilibrium between the formed and decaying color centers. It is assumed that the number of F-centers formed decreases with decreasing temperature, while the radiation destruction of these centers does not depend on the temperature. The constant, P_c after low doses of irradiation can be explained by a decrease in the effect of radiation annealing due to the diminishing number of color centers and an increase in their stability. Orig. art. has:
2 tables.

][BN]

ASSOCIATION: none

SUBMITTED: 07Dec64

NO. REF SOV: 001

ENCL: 02

SUB CODE: MT, NP

OTHER: 008

ATD PRESS: 4056

Card 2/4

82267-55
ACCESSION NR: AP5018091

ENCLOSURE: 01

Table 1. ORS at room temperature

Irradiation dose, r (Co ⁶⁰)	KI glass		KRL glass	
	T, %	P _c	T, %	P _c
Initial	92	—	92	—
10 ⁴	87	0.95	92	1
10 ⁵	40	0.43	92	1
10 ⁶	2	0.02	92	1
10 ⁷	0	0	92	1

*) T - Light transmission measured on IP-16 device.

Card 3/4

62767-65

ACCESSION NR: AP5018091

ENCLOSURE: 02

Table 2. ORS at low temperatures

Irradiation temperature, °K	KI glass, dose 10^4 r		KI glass, dose 10^6 r		KRL glass, dose 10^6 r	
	T, %	P_c	T, %	P_c	T, %	P_c
90	87	0.95	68	0.74	91	1
200	88	0.95	21	0.2	91	1
300	87	0.95	2	0.02	92	1

Card 4/4

L 11846-66 EWT(m)/EPF(n)-2/EWP(e)/EWP(b) GG/WB/GS
ACC NR: AT6000506 SOURCE CODE: UR/0000/65/000/000/0365/0368 68

AUTHOR: Brekhovskikh, S. M.; Grinshteyn, Yu. L.; Landa, L. M.; Chubkina, N. I. 67
ORG: None 44 44 44 44

TITLE: The influence of nuclear radiation on the structure and phase transition in glassceramics 44 19,85

SOURCE: Vsesoyuznoye soveshchaniye po stekloobraznomu sostoyaniyu. 4th, Leningrad, 1964. Stekloobraznoye sostoyaniye (Vitreous state); trudy soveshchaniya, Leningrad, Izd-vo Nauka, 1965, 365-368 44

TOPIC TAGS: irradiation effect, crystallization, ceramics, nuclear radiation, ionizing radiation, glass product, gamma ray, neutron
ABSTRACT: Glassceramics, representing a mixture of at least two phases, one of which is metastable, is quite susceptible to induced crystallization under the influence of ionizing radiation. The authors investigated Li₂O-Al₂O₃-SiO₂ systems with a composition close to spondumene, crystallized at 710°. Transparent samples were irradiated by 10² to 10⁵ rad doses of 60Co γ-rays and by 10¹⁶ to 10¹⁹ neutr/cm² of thermal neutrons. Results are in the form of x-ray ionization curves with the curves of nonirradiated β-eucryptite or eucryptite-like solid solution serving as the standard. Results show that whereas gamma rays cause an
Card 1/2

L 11846-66

ACC NR: AT6000506

additional crystallization of ^bquartz, small doses of neutrons reduce the amount of the basic crystallization phase, probably causing some crystallization of silicon dioxide. A brief attempt is made to explain this behavior. Orig. art. has: 3 figures.

SUB CODE: 11, 20 / SUBM DATE: 22May65 / ORIG REF: 005

JW
Card 2/2

ACC NR: AT6000496 EWP(e)/EWT(m)/EPF(n)-2/EWP(b)/EWA(h) GG/WH

SOURCE CODE: UR/0000/65/000/000/0266/0269

AUTHOR: Brekhovskikh, S. M.; Viktorova, Yu. N.; Zelentsov, V. V.; Zelentsova, S. A.
ORG: none

TITLE: Effect of the chemical nature of certain elements on the radiation-optical resistance of irradiated glass 5,44

93 B+1

SOURCE: Vsesoyuznoye soveshchaniye po stekloobraznomu sostoyaniyu. 4th, Leningrad, 1964. Stekloobraznoye sostoyaniye (Vitreous state); trudy soveshchaniya, Leningrad, Izd-vo Nauka, 1965, 266-269

TOPIC TAGS: optic property, glass property, gamma irradiation

ABSTRACT: The dependence of the radiation-optical resistance on the position of a variable element in the periodic system is studied in glasses of the system $4SiO_2 \cdot Na_2O \cdot 0.5MeO$ (or $0.25 Me_2O$). As a rule two absorption bands, at $400 - 450$ and $600 - 650 \mu\mu$, appear in the spectra as a result of γ -radiation. The first band can be ascribed to the F-center which represents a quasi-ion $[Me^+ + \bar{e}]$. The intensity of this band is directly related to the position of Me in the periodic system. The smaller the electronegativity of Me, the greater the probability of the localization of a migrating secondary electron near it and the more intense

Card 1/2

ACC NR: AT6000496

the absorption band. All glasses containing elements of groups I and II as the third component have similar spectra, with smaller absorption at $400\text{ m}\mu$ for glasses with Mg and Ca. The absorption in the $600\text{ m}\mu$ region indicates, in all probability, the presence in the glass of oxygen vacancies and the formation of free oxygen atoms. Elements of group III differ appreciably more chemically than those of groups I and II; therefore their spectra substantially differ from one another. For elements of group IV an increase of radiation-optical resistance is observed with a decrease of ion radius only for the first three elements. For glasses containing elements of group V the radiation-optical resistance increases by a factor of 3.3 on replacing $\text{SrO}(4d^0)$ by $\text{ZrO}_2(4d^2)$ and $\text{Nb}_2\text{O}_5(4d^3)$, which is associated with a decrease of the ion radius from Sr to Nb. Glasses containing elements of group VI are governed by the same rule. Orig. art. has: 3 figures.

SUB CODE: 11, 18 / SUBM DATE: 22May65 / ORIG REF: 002 / OTH REF: 001

Card 2/2

HW

KUZNETSOV, Oleg Andreyevich; GOLUB', Boris Ivanovich;
EREKHOVSKIKH, Vadim Fedoseyevich; MIKHEL'SON, A.I., red.

[Automatic temperature control in industry; survey of
foreign engineering] Avtomaticheskii kontrol' temperatury v
promyshlennosti; obzor zarubezhnoi tekhniki. Moskva,
GOSINTI, 1962. 92 p.
(MIRA 17:7)

BREKHOVSKIKH, V.F.

Experimental determination of the total radiation of germanium.
Inzh.-fiz. zhur. 7 no.5:66-69 My '64. (MIRA 17:6)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy
institut redkometallicheskooy promyshlennosti, Moskva.

L 7906-66 EWT(1)/EPA(s)-2/EPF(n)-2/T/EWP(t)/EWP(b)/EWA(c)/EWA (1)/EWT(s)
ACC NR: AP5025775 IJP(c) JD/WW/GG SOURCE CODE: UR/0363/65/001/009/1447/1448

AUTHOR: Uglov, A. A. ; Brekhovskikh, V. F.

ORG: Giredmet

TITLE: The effect of the possible anisotropy of the heat conductivity coefficient on the temperature field of a single crystal of germanium

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 9, 1965, 1447-1448

TOPIC TAGS: germanium single crystal, heat conductivity, crystal anisotropy, temperature distribution

ABSTRACT: If it is assumed that the heat conductivity coefficient λ_{1} in the direction of growth is different from the heat conductivity coefficient λ_{2} in the plane of growth, a formula can be derived to describe the temperature distribution over a single crystal:

Card 1/3

UDC:546.289:548 55

L 7906-66

ACC NR: AP5025775

$$\frac{t-t_c}{t_0-t_c} = Bi \sum_{n=1}^{\infty} \frac{J_0(s_n \rho)}{J_0(s_n) (s_n^2 + Bi^2)} \left\{ 2 \exp(-s_n^2 \cdot Fo_2) + \right.$$

$$\left. + \exp\left(\frac{1}{2} Pe \cdot \xi\right) \left[\exp\left(-\xi \sqrt{s_n^2 \frac{a_2}{a_1} + \frac{Pe^2}{4}}\right) \times \right.$$

$$\times \operatorname{erfc}\left(\frac{\xi}{2\sqrt{Fo_1}} - \sqrt{s_n^2 \cdot Fo_2 + \frac{Pe^2 \cdot Fo_1}{4}}\right) + \exp\left(\xi \sqrt{s_n^2 \frac{a_2}{a_1} + \frac{Pe^2}{4}}\right) \times \right.$$

$$\times \operatorname{erfc}\left(\frac{\xi}{2\sqrt{Fo_1}} + \sqrt{s_n^2 \cdot Fo_2 + \frac{Pe^2 \cdot Fo_1}{4}}\right) \left. \right] - \exp\left(\frac{Pe \cdot \xi}{2} - s_n^2 \cdot Fo_2\right) \times \left.$$

$$\times \left[\exp\left(-\frac{Pe \cdot \xi}{2}\right) \operatorname{erfc}\left(\frac{\xi}{2\sqrt{Fo_1}} - Pe \sqrt{Fo_1}\right) + \right.$$

$$\left. + \exp\left(\frac{Pe \cdot \xi}{2}\right) \operatorname{erfc}\left(\frac{\xi}{2\sqrt{Fo_1}} + Pe \sqrt{Fo_1}\right) \right] \left. \right\} \quad (1)$$

Card 2/3

L 7906-66

ACC NR: AP5025775

Here s_n are roots of the equation

$$s \cdot J_1(s) = BIJ_0(s) \quad (2)$$

$$Bi = \frac{\alpha r_0}{\lambda_2}, \quad Fo_1 = \frac{a_1 \tau}{r_0^2}, \quad Fo_2 = \frac{a_2 \tau}{r_0^2}, \quad Pe = \frac{v r_0}{a_1}$$

α_1 is the heat conductivity coefficient in the direction of growth; α_2 is the heat conductivity coefficient in the plane of growth. Calculations show that, under the assumed conditions, the possible temperature deviations in comparison with the isotropic case do not exceed 20% in the temperature region 1210-900 K. Therefore, the anisotropy of the heat conductivity coefficient in the different crystallographic directions, at high temperatures, does not exceed 20%. It is concluded that the possible anisotropy of the heat conductivity coefficient of germanium does not have a noticeable effect on the temperature field of single crystals grown by the Czochralski method. Orig. art. has: 2 formulas and 1 figure

SUB CODE: SS, MM, IC/ SUBM DATE: 04May65/ ORIG REF: 004/ OTH REF:002

Card ^{21W} 3/3

L 29852-66 EWT(d)/EWT(1) IJP(c) WW

ACC NR: AP6012683

SOURCE CODE: UR/0170/66/010/004/0520/0522

AUTHOR: Uglov, A. A.; Brekhovskikh, V. F.

53
B

ORG: Institute for the Rare Metals Industry, Moscow (Institut redkometallicheskoy promyshlennosti)

TITLE: The temperature field in a two-layer plate heated by a surface source

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 10, no. 4, 1966, 520-522

TOPIC TAGS: temperature distribution, heat transfer

ABSTRACT: The problem is formulated as follows: it is necessary to find the solution of the equations

$$\frac{1}{a_1} \frac{\partial t_1}{\partial \tau} = \frac{\partial^2 t_1}{\partial z^2} \quad (1)$$

in the region $\tau > 0, h \geq z \geq 0,$

$$\frac{1}{a_2} \frac{\partial t_2}{\partial \tau} = \frac{\partial^2 t_2}{\partial z^2} \quad (2)$$

in the region $\tau > 0, \infty \geq z \geq h$

Card 1/2

UDC: 536.21

L 29852-66

ACC NR: AP6012683

$$-\lambda_1 \frac{\partial t_1}{\partial z} = q_0 \text{ at } z=0, \quad (3)$$

$$t_1 = t_2 \text{ at } z=h, \quad (4)$$

$$\lambda_1 \frac{\partial t_1}{\partial z} = \lambda_2 \frac{\partial t_2}{\partial z} \text{ at } z=h, \quad (5)$$

$$t_1 = t_2 = 0 \text{ at } \tau=0, \quad (6)$$

$t_2(z, \tau)$ is bounded at $z \rightarrow \infty$
The article proceeds to a formal solution of the above system of equations. Orig. art. has: 14 formulas.

SUB CODE: 20/ SUBM DATE: 28Oct65/ ORIG REF: 001.

Card 2/2 *RV*

AL'TSHULER, V.M., kand. geogr. nauk; ANTROPOVA, L.V., st. inzh.;
BUKHTEYEV, V.G., st. inzh.; VOLODINA, Z.G., ml. nauchn.
sotr.; RZHONSNITSKIY, V.B., kand. geogr. nauk; SELITSKAYA,
Ye.S., kand. geogr. nauk; FUKS, V.R., kand. geogr. nauk;
BREKHOVSKIKH, Yu.B., red.; TIMONOV, V.V., red.

[Study of tidal phenomena in a heterogeneous sea] Issledovanie prilivnykh iavlenii v neodnorodnom more. Leningrad, Gidrometeoizdat, 1965. 183 p. (MIRA 18:8)

1. Leningradskoye otdeleniye Gosudarstvennogo okeanograficheskogo instituta (for Al'tshuler).
2. Murmanskoye upravleniye gidrometeorologicheskoy sluzhby (for Antropova).
3. Leningradskiy gidrometeorologicheskiy institut (for Bukhteyev).
4. Gosudarstvennyy okeanograficheskiy institut (for Volodina, Selitskaya).
5. Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova (for Rzhonsnitskiy, Fuks).

BREKHOVSKIY, S.M.; GRINSHTEYN, Yu.L.

Effect of irradiation by thermal neutrons on some properties
of heat-resistant pyrocerams. Izv. AN SSSR. Neorg. mat. 1
no.6:947-951 Je '65. (MIRA 18:8)

PRIKHOD'KO, I., traktorist; BREKHUN, A., traktorist; BREKHUN, M., traktorist

You need know-how to raise a crop. Sel'.makh. no.3:7-8 '62.

(MIRA 15:3)

(Collective farms)

PRIKHOD'KO, I., traktorist; BREKHUN, A., traktorist; BREKHUN, M., traktorist

You need know-how to raise a crop. Sel'.mekh. no.3:7-8 '62.
(Collective farms) (MIRA 15:3)

253. REPLACEMENT OF COAL PITCH FOR BRIQUETTING BY HEAVY PETROLEUM
REFINERY RESIDUES. Zvanigorodskii, G.Z., Brekhunenko, F.F. and Krokhin, V.N.
(Nauch. Rabot. Vsesoyuz. Nauch.-Issled. Uspol. Inst. (Trans. All-Union Coal
Inst., U.S.S.R., 1953, (9), 111-134) abstr. in Ref. Zh. Khim. (Ref. J. Chem.,
Moscow), 1956, (10), 30070). Experiments are recorded and manufacturing
arrangements are proposed. The binder must be mixed with the coal in the
liquid state. Lean coal in sizes up to 6 mm should be prepared to 4% moisture
and preheated to 50-50°C. A briquetting pressure should be 200-300 atm.
Addition of 20% "fat steam" and "oaking steam" coals produced briquettes with
good thermal stability. Briquettes with petroleum binder are highly water-
resistant.

Lab. BIKETIROVANIYA UGLEY

BREKHUNENKO, F.F., zasluzhennyy agronom UrkSSR.

For stable yield of winter wheat. Zemledelie 27 no.1:82-83
Ja '65. (MIRA 18:3)

1. Odnogodichnaya shkola pri Luganskom sel'skokhozyaystvennom
institute.

BREKHUNENKO, F.F., inzh.

Using bitumen in briquetting Angren lignites. Sbor.inform. po oboz.
1 brik. ugl. no.2:32-34 '57. (MIRA 11:5)
(Angren Basin--Lignite)

BREKHUNENKO, F.F., zasluzhennyy agronom Ukrainskoy SSR.

Crop rotations with a short cycle. Zemledelie 4 no.6:36-38 Je '56.
(MLRA 9:8)

1. Pokrovskaya mashinno-traktornaya stantsiya, Voroshilovgradskoy oblasti.

(Rotation of crops)

BREKHUNENKO, F.F., zaslushennyy agronom USSR.

Sowing corn with Sudan grass. Zemledelie 6 no.3:90-91 Nr 158.
(Corn (Maize)) (Sudan grass) (MIRA 11:4)

BREKHUNENKO, F. F., inzh.

Improvement of the technological process in the Kumertau
briquet plant. Obog. i brik. ugl. no.24:19-25 '62.
(MIRA 15:10)

(Bashkiria--Briquets(Fuel))

RABEK, T. I.; LINDEMAN, J.; BREKIESZ, B.

The new chelate carboxyl cation exchange resin and its specific adsorption. *Bul chim PAN* 9 no.9:555-560 '61.

1. Laboratory No. 10, Institute of Organic Chemistry, Polish Academy of Sciences. Presented by T. Urbanski.

BREKHMAN, M.I.; DUBINSKIY, N.M.

Automatic odorization unit. Neft. i gaz. prom. no.2:74-77
Ap-Je '63. (MIRA 17:11)

1. Ukrainskiy gosudarstvennyy institut po proyektirovaniyu
predpriyatiy po dobyche prirodnykh gazov.

BERG, A.I., glav. red.; TRAPEZNIKOV, V.A., glav. red.; TSYPKIN, Ya.Z., doktor tekhn. nauk, prof., red.; VORONOV A.A., prof., red.; AGEYKIN, D.I., doktor tekhn.nauk red.; GAVRILOV, M.A., red.; VENIKOV, V.A., doktor tekhn. nauk, prof., red.; SOTSKOV, B.S., red.; CHELYUSTKIN, A.B., doktor tekhn. nauk, red.; PROKOF'YEV, V.N., doktor tekhn. nauk, prof., red.; IL'IN, V.A., doktor tekhn. nauk, prof., red.; KITOV, A.I., doktor tekhn. nauk, red.; KRINIT'SKIY, N.A., kand. fiz. mat. nauk, red.; KOGAN, B.Ya., doktor tekhn. nauk, red.; USHAROV, V.B., doktor tekhn. nauk, red.; LERNER, A.Ya., doktor tekhn. nauk, prof., red.; FEL'DBAUM, A.A., doktor tekhn. nauk, prof., red.; SHREYDER, Yu.A., kand. fiz.-mat. nauk, red.; KHARKEVICH, A.A., akademik, red. [deceased]; TIMOFEYEV, P.V., red.; MASLOV, A.A., dots., red.; TRUTKO, A.F., inzh., red.; LEVIN, G.A., prof., red.; LOZINSKIY, M.G., doktor tekhn. nauk, red.; NETUSHIL, A.V., doktor tekhn. nauk, prof., red.; POPKOV, V.I., red.; ROZENBERG, L.D., doktor tekhn. nauk, prof., red.; LIFSHITS, A.L., kand. tekhn. nauk, red.; AVEN, O.I., kand. tekhn. nauk, red.; BLANN, O.M. [Blunn, O.M.], red.; BROYDA, V., inzh., prof., red.; BREKKL', L. [Brockl, L.] inzh., knad. nauk, red.; VAYKHARDT, Kh. [Weichardt, H.], inzh., red.; BOCHAROVA, M.D., kand. tekhn. nauk, st. nauchn. red.

[Automation of production processes and industrial electronics]
Avtomatizatsiia proizvodstva i promyshlennaya elektronika; entsiklopediia sovremennoi tekhniki. Moskva, Sovetskaia entsiklopediia.
Vol.4. 1965. 543 p. (TRA 18:6)

BREKSON, G.D.

Dedusting the fuel feed channels in the Ural Mountain region
electric power plants. Prom. vent. no.9:120-124 '60.

(MIRA 16:11)

FRKSON, V.G.

Sampling device with an electronic pulse generator. Bum.prom.
38 no.1:24-25 Ja '63. (MIRA 16:2)

1. Upravleniye derevoobrabatyvayushchey i bumazhnoy promyshlen-
nosti Sverdlovskogo soveta narodnogo khozyaystva.
(Woodpulp industry—Electronic equipment)

BREL', A. (Moskva)

Lighted pointer for dials. Radio no.3:23 Mr '56.
(Electric apparatus and appliance) (MLRA 9:6)

BREL', F.D.

Changes in the cytogram under the influence of ultraviolet rays in patients with chronic tonsillitis. Vop.otorin. 21 no.6:71-74 N-D '59. (MIRA 13:4)

1. Iz loringologicheskogo otdeleniya 1-y Moskovskoy gorodskoy klinicheskoy bol'nitsy imeni N.I. Pirogova.
(TONSILLITIS, blood)
(ULTRAVIOLET RAYS)

BREL', F. D., Cand Med Sci (diss) -- "Ultraviolet irradiation of the palatine tonsils in the treatment of chronic tonsillitis". Moscow, 1960. 15 pp
(Acad Med Sci USSR), 200 copies (KL, No 14, 1960, 136)

BRELIH, M.

Yugoslavia as a prospective exporter of electric power. p. 249.
(Elektroprivreda, Vol. 10, No. 5/6, May/June, 1957, Beograd, Yugoslavia)

SO: Monthly List of East European Accessions (EEAL) Lc. Vol. 6, No. 8, Aug 1957. Uncl.

BRELJH, MILOS.

TECHNOLOGY

BRELJH, MILOS. Yugoslav water resources as a European power reserve. Beograd, Jugoslaviija, 1958. 28 p.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 3
March 1959 Unclass.

BRELIH, Savo; TOVORNIK, Danica

Bird lice (Malophaga) of Yugoslavia. Pt.3. Biol vest 11:
97-106'63.

1. Prirodoslovni muzej v Ljubljani, Zavod SRS za zdravstveno
varstvo.

~~BRELIH, Savo~~

Lizards (Reptilia, Lacertidae) of the Gulf of Quarnero. Biol
vest 11:107-113 '63.

1. Prirodoslovni muzej v Ljubljani.

BRELIH, Savo

Seven new subspecies of the species *Lacerta* (*Podarcis*)
Sicula Raf. (*Lacertidae*, *Reptilia*) from the Rovinj-
Porec region. *Biol vest* 9:71-91 '61.

1. Prirodoslovni muzej v Ljubljani.

*

BRELJH, Savo; TOVORNIK, Danica

Contribution to the knowledge of the bird lice (Mallophaga)
of Yugoslavia. I. Biol vest 9:93-107 '61.

1. Prirodoslovni muzej v Ljubljani. Zavod Ljudske republike
Slovenije za zdravstveno varstvo.

BRELIH, Savo; TOVORNIK, Danica

Mallophaga of Yugoslavia. Pt.2. Biol vest no.10:85-100
'62.

1. Prirodoslovni muzej v Ljubljani i Zavod IRS za zdravstveno
varstvo.

TOVORNIK, Danica; BRELIH, Savo

Biologic studies in the endemic areas of tick-borne encephalitis in Slovenia up to 1963. Biol inst 12:115-120 '64.

Mallophaga of Yugoslavia. Pt. 4. Ibid.:121-127

1. Virus laboratory of the Institute of Health Protection of Slovenia, Ljubljana (for Tovornik). 2. Museum of Natural Sciences of Slovenia, Ljubljana (for Brelih). Submitted July 31, 1964.

BREN, A.V.

Rationalization of the method of gastric acidity determination. Klin.
med., Moskva 30 no.8:88 Aug 1952. (GIML 23:2)

1. Candidate Medical Sciences. 2. Of the Surgical Division (Scientific
Supervisor -- Prof. A. D. Ochkin), Clinical Hospital imeni Botkin (Head
Physician -- S. A. Chesnokov), Moscow.

~~BREM, A. V.~~

Rational method of determination of bile pigments in urine. Klin. Med.,
Moskva 31 no.6:88 June 1953. (GML 25:1)

1. Tayshet.

BREM, A.V.

Efficient method for taking washings from the hands [of workers]
and equipment in food establishments. Lab. delo 8 no.2:52-53 F '62.
(MIRA 15:2)

1. Adygeyskaya oblastnaya sanitarno-epidemiologicheskaya stantsiya,
Maykop.

(FOOD INDUSTRY_MICROBIOLOGY)

BREMAN, E.B.

Acroparesthesia of the hands in pregnancy and its treatment.
Sov. med. 28 no.6:121-123 Ja '65. (MIRA 18:3)

1. Kafedra obshchey khirurgii (zav.- doktor med. nauk prof.
Ya. M. Bune) Rizhskogo meditsinskogo instituta.

BREMANIS, E.B. (Riga, ul. Gauyas, d. 14-a, kv.1); BERZIN', Yu.E. [Berzins, J.]
kand. med. nauk.

Ligament of the carpus and its surgical treatment. Ortop., travm.
i protez. 27 no. 1:66-68 Ja '66 (MIRA 19:1)

1. Iz kafedr obshchey khirurgii (zav. - prof. Ya. M. Bune)
i nervnykh bolezney (zav. - prof. A.S. Pentsik) Rizhskogo
meditsinskogo instituta. Submitted May 5, 1965.

BREMANIS, E.V.

Syndrome of the carpal canal and its treatment with hydrocortisone acetate. Zhur.nevr. i psikh. 63 no.12:1780-1783 '63.

(MI^{PA} 18:1)

1. Ilyepayskaya rayonnaya bol'nitsa (glavnyy vrach B.A.Graudums)
Priekule, Latvyskoy SSR.

BREMBOROVICH, G. [Bremborowicz, G.]; KRZHIVIN'SKA, F. [Kryzwinska, F.]

Evaluation of the state of the intrauterine fetus based on the data of estrogen excretion with the urine. Akush. i gin. 40 no.4: 134-135 J1-Ag '64. (MIRA 18:4)

1. 1-ya klinika akusherstva i ginekologii Meditsinskoy akademii (rukovoditel' - prof. V.Mikhailkevich [W. Michalkiewicz], Poznan'.

MALAKHOV, S.G.; SEREDA, G.A.; BRENDAKOV, V.F.; POLYAKOVA, T.V.; PERVUNINA, R.I.;
SVISHCHEVA, V.I.; CHURKIN, V.N.

Radioactive fallout on the territory of the U.S.S.R. in 1963. Atom.
energ. 19 no.1:28-35 J1 '65. (MIRA 18:7)

PROCESSES AND PROPERTIES INDEX

11-F

ca

Effect of protracted malnutrition (predominantly carbohydrate) on accumulation of ascorbic acid in organs.
 L. M. Bremner and B. A. Lavrov (Acad. Med. Sci., Moscow) *Bull. Exptl. Biol. Med.* 23, 43-5 (1947).
 In guinea pigs on scurvyogenic diet for 15-18 days, followed by an essentially carbohydrate diet, growth is sharply retarded. After 61 days the animals were divided into 2 groups, 1 of which was given a sharply reduced amt. of hay, the other receiving about 30 g. daily; the latter group showed gradual loss of scurvy symptoms, while in the 1st subgroup this occurred in but 11 of 18 animals, while the vitamin C levels on autopsy in liver, kidneys, and suprarenals were substantially below normal, comparable with initial scurvy levels. G. M. Kosolapoff

ASAC-51A METALLURGICAL LITERATURE CLASSIFICATION

11-11-11

11-11-11

BREMENER, L.M.
BREMENER, L.M. (Moskva)

A lesson on the subject "Utilization of calcium salts in
agriculture". Khim. v shkole 13 no.1:55-59 Ja-F '58. (MIRA 10:12)
(Agricultural chemicals)

BREMENER, L.M.

Teaching of the materialistic concepts in chemistry classes. Khim.
v shkole 16 no.1:33-36 Ja-F '61. (MIRA 14:1)
(Chemistry—Study and teaching)
(Materialism—Study and teaching)

BREMENER, M. M. Prof.

"Skin Tuberculosis," Fel'dsher i Akusher, No.1, 1948

BREMNER, M. M.

PK 47/49T76

USSR/Medicine - Progress

Mar/Apr 49

Medicine - Dermato-Venereology

"Review of Soviet Medical Survey Report No 1,
'Skin and Venereal Diseases,'" Prof M. M. Brem-
ner, 1 p

"Vest Venerol i Dermatol" No 2

Very favorable review claims new report will
fully satisfy demands of scientific and practi-
cal dermatologists. It is a contribution to
further success in Soviet medical science.

47/49T76

BREMNER, M. M.

37625

lecheniye tuberkuleza kozhi streptomitsinom. vestink venero-
logii i dermatologii, 1949, No. 6, s40-42.

SOV Letopis' Zhurnal'nykh Statey, Vol 37, 1949

1. BREMENER, M. M.
2. USSR (600)
4. Medicine
7. Skin hygiene, 3-e izd. Moskva, Medgiz, 1951.

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

BREMENER, M.M., prof.; GARVEY, N.N., red.; KARASIK, N., tekhn.
red.

[Skin hygiene] Gigiena kozhi. 4 izd., stereotipnoe. Mo-
skva, Medgiz, 1951. 45 p. (MIRA 15:7)
(SKIN—CARE AND HYGIENE)

BRENNER, M.M.

Problems of economics in geological prospecting for petroleum
and gas. Sov.geol. 4 no.10:85-99 0 '61. (MIRA 14:11)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.
(Prospecting)

FRANCO, S. M.

FRANCO, S. M. Protection of food products from poisonous bacteria. Moscow, 1939. 11 p. (51-46955)

UG/47.B65

BREMENER, S.M.

"Hygiene of the food industry (and the principles of the physiology of nutrition)."
reviewed by A. Tereshkovich
Fig. i san. no.1, 1952

DRUMENNER, S.M.

Lechebnoe pitanie; materialy dlia san.-prosvet. raboty (Therapeutic diet; material for sanitary education work). Pod red. i s predisl. O.P. Molchanovoi. Moskva, 1954. 86 p. (TSentr. in-t san. prosveshcheniia M-va zdravookhraneniia SSSR)

SO: Monthly List of Russian Accessions, Vol 7, No 9, Dec 1954

BREMNER, S.M. (Moscow).

Supplying vitamin C requirements to pregnant and nursing mothers.
Fel'd.i akush. no.3:37-40 Mr '54. (MLRA 7:3)
(Vitamins) (Pregnancy) (Lactation)

BREMNER, S.
SOKOLOVSKIY, V.P.

"Therapeutic diet." ~~S.M. Bremner~~, Reviewed by V.P. Sokolovskii.
Vop.pit. 4 no.1:59-60 Ja-F '54. (MLRA 8:3)
(DISEASE IN DIET) (BREMNER, S.M.)

BREMNER, S.H. (Yalta)

Organization of differentiated therapeutic nutrition in tuberculosis.
Vop. pit. 13 no.6:40-44 N-D '54. (MLRA 8:1)
(TUBERCULOSIS, therapy,
diets)
(DIETS, in various diseases,
tuberc.)

BREMNER, Solomon Mikhaylovich, kandidat meditsinskikh nauk; KROPKOV,
F.G., professor, redaktor; LUCHKINA, N.N., redaktor; TOLMACHEVA,
A.V., redaktor; SUDAK, D.M., tekhnicheskii redaktor

[Hygiene in public catering with fundamentals in anatomy and
physiology] Gigiena obshchestvennogo pitaniia (s osnovami ana-
tomii i fiziologii). Izd. 2-e, dop. i perer. Moskva, Gos.izd-vo
torgovoi lit-ry, 1955. 280 p. (MIRA 9:2)

(FOOD HANDLING) (ANATOMY) (PHYSIOLOGY)

USSR/Medicine - Nutrition

BREMENER, S.M.

FD-3291

Card 1/1

Pub. 141 - 6/19

Author : Bremener, S. M., Fedotova, L. V.

Title : Experiment on combatting loss of appetite in patients suffering from tuberculosis of the lungs

Periodical : Vop. pit., 26-30, Jul/Aug 1955

Abstract : Selection of favorite dishes, changes in eating schedule, and certain other measures were found to be effective in increasing the appetite of patients suffering from tuberculosis of the lungs. Use of vegetable juices, and small amounts of natural grape wine also helped. Surgical treatment (thoracoplasty, collapsing of the lungs) lowered the tuberculin intoxication and often improved the appetite. One table; no references.

Institution : Clinic of Therapeutic Nutrition (Head - Cand Med Sci S. M. Bremener)
Inst of Climatotherapy of Tuberculosis, Ministry of Health USSR, Yalta

Submitted :

USSR/Medicine - Therapeutic Diets

FD-1766

Card 1/1 Pub 141-13/15

Author : Sokolovskiy, V. P. (Reviewer)

Title : Review of "Lechebnoye Pitaniye" (Therapeutic Nutrition) by S. M. Bremener

Periodical : Vop pit., 59-60, Jan/Feb 1955

Abstract : Purpose of book is to aid the physician in teaching dietary nutrition to patients in sanitariums and polyclinics. Suggests themes for lectures, private conversations with patients, etc. Reviewer points out some of the shortcomings of the book, but still endorses it as a much needed work. Published Moscow, 1954.

Institution: --

Submitted : --

15 REF. ATAN, SDT.

BRENMAN, S.M. (Kalinigradskaya oblast')

Clinical aspects and pathogenesis of Sulfanilamide polyneuritis.

Zhur. nevr. i psikh. 55 no.10:745-747 '55 (MLRA 8:11)

(SULFANILAMIDE, injurious effects,
polyneuritis)

(POLYNEURITIS, etiology and pathogenesis,
sulfanilamide)

BREMENER, S.M.

"Diet for patients with tuberculosis undergoing sanitary and climatological therapy." E.G.Kesel'brener, V.K.Dargevich. Reviewed by S.M.Bremener. Vop.pit. 15 no.4:58-60 J1-Ag '56. (MLRA 9:9)
(DIET IN DISEASE) (TUBERCULOSIS)
(KESEL'BRENER, E.G.) (DARGEVICH, V.K.)

~~BREMNER, S.M.~~ PLAVNIK, M.S.

Vitamin C metabolism in tuberculosis in pregnant and nursing women
[with summary in French]. Probl.tub. 36 no.5:69-75 '58 (MIRA 11:8)

1. Iz Nauchno-issledovatel'skogo instituta vitaminologii Ministerstva
zdravookhraneniya SSSR (dir.-deystvitel'nyy chlen AMN SSSR prof.
B.A. Lavrov) i rodil'nogo doma No22 (glavnyy vrach L.V. Ostrovitina).

(PREGNACY, in var.dis.

tuberc., vitamin C metab. in (Rus))

(LACTATION, in var dis.

(Rus))

(TUBERCULOSIS,

in pregn. & lactation, vitamin C metab. in (Rus))

(VITAMIN C, metabolism

in tuberc. in pregn. & lactation (Rus))

BREMNER, Solomon Mikhaylovich

[Vitamins] Vitaminy. Moskva, Medgiz, 1959. 171 p.
(VITAMINS)

(MIRA 13:8)

BREMENER, S.H., prof. (Moskva)

Vitamin B₁₂ or cyanocobalamine. Fel'd. i akush. 24 no.5:
29-32 My¹59. (MIRA 12:8)

(CYANOCOBALAMINE)

BREMENER, S.M.; GORDON, R.I.; KIRZHNER, L.S.; KURASHEVA, D.B.; RASKIN, I.M.
(Moskva)

Use of vitamin B₁₂ in Botkin's disease. Klin.med. 38 no.12:190-
106 D '60. (MIRA 14:2)

1. Iz klinicheskogo otdela Gosudarstvennogo nauchno-issledovatel'-
skogo instituta vitaminologii Ministerstva zdravookhraneniya SSSR
(rukovoditel' - deystvitel'nyy chlen AMN SSSR prof. M.S. Vovsi
[deceased]) i Gorodskoy infektsionnoy klinicheskoy bol'nitoy No.2
(zaveduyushchaya chetvertym korpusom D.B. Kurasheva).
(CYANOCOBALAMINE) (HEPATITIS, INFECTIOUS)

BREMENER, Solomon Mikhailovich, kand. med. nauk; CHERVYAKOVA, L.S., red.;
MEDRISH, D.M., tekhn. red.

[Hygiene of nutrition; with principles of anatomy and physiology]
Gigiena pitania; s osnovami anatomii i fiziologii. Izd.3. dop. i
perer. Moskva, Gos.izd-vo torg. lit-ry, 1962. 327 p.

(MIRA 15:7)

(ANATOMY, HUMAN) (NUTRITION) (FOOD HANDLING—HYGIENIC ASPECTS)

BREMENER, S.M.; VELIKOVSKAYA, M.M.; ZUYEVA, Z.V.; LANINA, N.V.;
TARNOPOL'SKAYA, P.D.

Use of vitamin B₆ and B₁₂ in compound treatment of stomach
and duodenal ulcer. Vest. AMN SSSR 18 no.2:85-87 '63.

1. Nauchno-issledovatel'skiy institut vitaminologii Ministerstva
zdravookhraneniya SSSR. (MIRA 17:5)

BREMENER, S.M.; ALFEROVA, V.A.; PIPKO, A.S.; ROGOVA, K.P.; SELETSKAYA, R.Ya.

Effect of some antibiotics on the metabolism of vitamins B₆, B₁₂,
PP and C chronic cholecystitis patients. Antibiotiki 9 no.7:661-667
Jl '64. (MIRA 18:3)

1. Klinicheskoye otdeleniye otdela po klinicheskomu izucheniyu
vitaminov Nauchno-issledovatel'skogo instituta vitaminologii,
Moskva.

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Abs Jour: Ref Zhur-Biol., No 9, 1958, 38398.

Author : Yanson, N. Ya., Bremer, G. E.

* Inst : ~~Not given.~~

Title : Cultivation of Yeasts on Molasses Waste Liquor.

Orig Pub: Spirt. prom-st, 1957, No 3, 36-37.

Abstract: Conditions were specified for cultivating fodder yeasts on waste liquor of alcohol distilleries, from which the sedimented yeasts were separated after precipitation. Saccharomyces yeasts, as well as Torulopsis utilis, were cultivated under laboratory conditions in vertical glass tubes 1.2 m long and 25 mm in diameter; to the lower end of each tube a Gooch filter was attached, through which air was blown. The yield of Sac-

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MILERSKIY SPIRTOY ZAVOD.

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