ACCESSION NR: AT4039219

where $p_n(x)$ is the probability density of the absolutely continuous part of $F_n(x)$, and $\gamma_n(x)$ is the singular and discontinuous part. The present paper studies the asymptotic behavior (as $n \to \infty$) of the quantities:

$$C_n^{(p,q)} = \int_{-\infty}^{+\infty} |p_n(x) - \varphi(x)|^p |x|^q dx,$$

$$D_n^{(p,q)} = \int_{-\infty}^{+\infty} |F_n(x) - \Phi(x)|^p |x|^q dx; \qquad \text{(B)}$$

here $\varphi(x) = \exp(-x^2/2)/\sqrt{2\pi}$ & $\Phi(x) = \int_{-\infty}^{x} \varphi(x)\, dx$.

The authors state and prove five main theorems on this behavior. The proximate order of $C_2^{(p,0)}$, $(p \geq 1)$, under natural restrictions, has been considered by these authors in a series of earlier papers.

Card 2/3

ACCESSION NR: AT4039219

ASSOCIATION: Institut matematiki AN UzSSR (Institute of Mathematics AN UzSSR)

SUBMITTED: 29Apr63 DATE ACQ: 06Apr64 ENCL: 00

SUB CODE: MA NO REF SOV: 007 OTHER: 005

Card 3/3

SIRAZHDINOV, S. Kh.

A mathematical model for selecting the rational number of seeds in sowing. Izv. AN Uz.SSR. Ser. fiz.-mat. nauk 7 no.1: 30-33 '63. (MIRA 16:4)

1. Institut matematiki imeni V. I. Romanovskogo AN UzSSR.

(Agriculture—Mathematical models)

SIRAZHDINOV, S.Kh.; AZLAROV, T.A.

A uniform local theorem. Izv. AN Uz. SSR. Ser. fiz.-mat. nauk 7 no.2:32-37 '63. (MIRA 16:6)

1. Institut matematiki imeni V.I.Romandvskogo AN UzSSR.
(Probabilities)

ROMANOVSKIY, V.I.; SIRAZHDINOV, S.Kh., otv. red.; KISELEVA, V.N., red.

[Selected works] Izbrannye trudy. Tashkent, Nauka. Vol.2. 1964. 388 p. (MIRA 17:11)

1. Chlen-korrespondent AN Uzbekskoy SSR (for Sirazhdinov).

L 40294-65 EWT(d)/EWP(c)/EWP(v)/T/EWP(k)/EWP(l) Pf-4 IJP(c)
ACCESSION NR: AT5004661 S/3129/64/000/001/0013/0025

AUTHORS: Sirazhdinov, S. Kh. (Corresponding member AN UzSSR); Abdurakhmanov, T. Z+1

TITLE: Statistical sampling control with many attributes as N goes to infinity

SOURCE: AN UzSSR. Institut matematiki. Teoriya veroyatnostey i matematicheskaya statistika, no. 1, 1964, 13-25

TOPIC TAGS: statistical analysis, quality control

ABSTRACT: The notation is taken from that of T. Abdurakhmanov (Statisticheskiy priyemochnyy kontrol' po mnogim priznakam (publikuyetsya v nastoyashchem sbornike)).

of defectives in a batch and a sample respectively; P(P) and [illegible] as $n \to \infty$. If

$$g_n(x) = Q_n(x), \qquad (1)$$

where $g_n(x)$ and $Q_N(X)$ are respectively the unconditional distribution of x and the initial distribution of X, then $Q_N(X)$ is called a reproducible distribution. Examples of such distributions are: the rectangular distribution

Card 1/6

$$F_N(X) \to W(P). \quad (6)$$

2. If $Q_N(x)$ has the form (3) and satisfies

$$P_{ej} < P_{kj} \quad (7)$$

for $e < k$ and all $j = \overline{1,m}$, then as $n \to \infty$

$$p_n^{(j)}(x) \to \begin{cases} P_{ej} & \text{for } h_{e-1,e}^{(j)} < h^{(j)} < h_{e,e+1}^{(j)}, \\ 0 & \text{for all other } h^{(j)}, \end{cases} \quad (8)$$

where $p_n^{(j)}(x)$ is the conditional mathematical expectation of

$$\frac{X_i - x_i}{N - n}, \quad (9)$$

$h^{(j)}$ is the limit of $\frac{x_i}{n}$ as $n \to \infty$;

$$h_{ek}^{(j)} = \frac{\frac{1}{m} \ln\left(\frac{P_{kj}}{P_{ej}}\right)}{\ln\left(\frac{P_{ej} P_{kj}}{P_{kj} P_{ej}}\right)};$$

3. If the distribution of $g_n(x)$ is approximated by the continuous function $W_n(p)$ as

follows:

$$g_n(x) \approx \int_{\frac{x_1-\frac{1}{2}}{n}}^{\frac{x_1+\frac{1}{2}}{n}} \cdots \int_{\frac{x_m-\frac{1}{2}}{n}}^{\frac{x_m+\frac{1}{2}}{n}} W_n(P)\, dP_1 \ldots dP_m, \tag{10}$$

then its moments can be computed from the inequalities

$$\int_{P_1+\ldots+P_m<1} P_1^{r_1} \ldots P_m^{r_m} W_n(P)\, dP_1 \ldots dP_m \approx \tag{11}$$

$$\approx \frac{1}{n^{r_1+\ldots+r_m}} \sum_{\nu_1=0}^{r_1} \cdots \sum_{\nu_m=0}^{r_m} \beta_{r_1,\ldots,r_m} \alpha_{\nu_1,\ldots,\nu_m},$$

where $\alpha_{\nu_1,\ldots,\nu_m}$ is the factorial moment of $g_n(x)$, defined by

$$\alpha_{\nu_1,\ldots,\nu_m} = \frac{1}{n^{(\nu_1+\ldots+\nu_m)}} M\left(\prod_{i=1}^{m} x_i^{(\nu_i)}\right), \tag{12}$$

Card 4/6

and $\beta_{\nu_1,\ldots,\nu_m}$ is found from

$$x_1^{r_1}\ldots x_m^{r_m}=\sum_{\nu_1=0}^{r_1}\ldots\sum_{\nu_m=0}^{r_m}\beta_{\nu_1,\ldots,\nu_m}x_1^{(\nu_1)}\ldots x_m^{(\nu_m)}; \quad (13)$$

This assertion is not proved. 4. If only the moments of first and second order properties of the initial distribution $Q_N(x)$ are known, then $P_n^{(k)}(x)$ can be approximated using linear regression by the least squares method, and for large N the following asymptotic relation holds:

$$P_n^{(k)}(x)\sim\frac{x_k-\lambda_k P_k}{n-\lambda_k}; \quad (14)$$

where NP_k is the mathematical expectation of X_k,

$$\lambda_k=\frac{\sigma^2_{P_k}-P_k q_k}{\sigma^2_{P_k}},\quad q_k=1-P_k; \quad (15)$$

$\sigma^2_{P_k}$ is the dispersion of the portion of defectives of the k-th category in the batch. Analogously

$$P_n(x)\sim\sum_{k=1}^{m}\frac{x_k-\lambda_k P_k}{n-\lambda_k}, \quad (16)$$

L 40294-65

ACCESSION NR: AT5004661

where $P_n(x)$ is the average percent of defectives in the remainder of the batch. 5. If $Q_N(X)$ is rectangular, then n increases proportionally to $\sqrt{N}$ together with N for G_1. 6. If $Q_N(X)$ is mixed-polynomial, then n increases proportionally to ln N together with N for G_1. The case m = 1 has been treated by others. Orig. art. has: 46 formulas.

ASSOCIATION: Institut matematiki, AN UzSSR (Institute of Mathematics, AN UzSSR)

SUBMITTED: 00 ENCL: 00 SUB CODE: MA

NO REF SOV: 002 OTHER: 001

Card 6/6

SIRAZHDINOV, S.Kh.

Tashmukhamed Alievich Sarymsakov, 1915- ; on his 50th birthday. Izv. AN Uz.SSR. Ser. fiz.-mat. nauk 9 no.5:84-85 '65. (MIRA 18:11)

SIRAZHDINOV, S.Kh.; SHAFRAYDAROVA, N.

Uniform local theorem on distributions. Izv. AN Uz. SSR. Ser.fiz.-mat. nauk 9 no.6:30-36 '65.
(MIRA 19:1)

1. Institut matematiki imeni Romanovskogo AN UzSSR. Submitted March 1, 1965.

L 26784-66 EWT(d) IJP(c)

ACC NR: AP6017453 SOURCE CODE: UR/0166/65/000/006/0030/0036

AUTHOR: Sirazhdinov, S. Kh.; Shakhaydarova, N.

ORG: Institute of Mathematics im. V. I. Romanovskiy, AN UzSSR (Institut matematiki AN UzSSR)

TITLE: Uniform local limit theorem for densities

SOURCE: AN UzSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 6, 1965, 30-36

TOPIC TAGS: function, mathematics

ABSTRACT: A sequence $\xi_1, \xi_2, \ldots, \xi_n, \ldots$ of identically distributed random variables having the density function $P(x)$ and finite dispersion is considered. The mathematical expectation of ξ_1 is zero and dispersion is unity. Under the conditions $P(x) \leq A$, $x (-\infty, +\infty)$ the random variable ξ_1 has a finite absolute moment of the third order.

Two theorems are proved. The results refine previously published local limit theorems for densities and in the given form can be applied to series schemes. The two theorems are proved in detail. Orig. art. has: 9 formulas. [JPRS]

SUB CODE: 12 / SUBM DATE: 01Mar65 / ORIG REF: 004

Card 1/1 cc

L 28903-66 EWT(d)/T IJP(c)

ACC NR: AP6019171 SOURCE CODE: UR/0166/66/000/001/0030/0039

18
B

AUTHOR: Sirazhdinov, S. Kh.; Orazov, G.

ORG: Institute of Mathematics im. V. I. Romanovskiy, AN UzSSR (Institut matematiki AN UzSSR)

TITLE: Refinement of a theorem of H. Robbins

SOURCE: AN UzSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 1, 1966, 30-39

TOPIC TAGS: distribution function, asymptotic behavior

ABSTRACT: Let $\xi_1, \xi_2, \ldots, \xi_n$ be a sequence of independent, equally distributed random variables with distribution function $F(x) = P(\xi_j < x)$; ν a random variable, taking the values 1, 2, 3, ..., which is not dependent on ξ_j; and let the distribution function of quantity ν be regarded as dependent on parameter λ, so that the distribution

$$\zeta_\nu = \xi_1 + \xi_2 + \ldots + \xi_\nu \qquad (1)$$

will depend on parameter λ. Let the following designations be introduced:

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L 28903-66
ACC NR: AP6019171

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$$\omega_k = P(\nu = k),\quad a = M\nu = \sum_1^\infty \omega_k k,\quad \beta = M\nu^2 = \sum_1^\infty \omega_k k^2$$

$$\gamma^2 = D\nu = \sum_1^\infty \omega_k (k-a)^2 = \beta - a^2,\quad \theta(t) = Me^{i(\nu-a)/\gamma} =$$

$$= \sum_1^\infty \omega_k e^{i(k-a)t/\gamma}$$

$$a = M\xi_j = \int_{-\infty}^{\infty} x\,dF(x),\quad b = M\xi_j^2 = \int_{-\infty}^{\infty} x^2 dF(x),$$

$$c = M\xi_j^3 = \int_{-\infty}^{\infty} x^3 dF(x)$$

$$v^2 D\xi_j = \int_{-\infty}^{\infty} (x-a)^2 dF(x)\quad (0 < v^2 < \infty),$$

$$f(t) = Me^{it\xi_j} = \int_{-\infty}^{\infty} e^{itx}\,dF(x)$$

Card 2/5

Then for random variable (1) it is possible to write

$$M\zeta_\tau = a\alpha_\tau, \quad D\zeta_\tau = \alpha\sigma^2 + a^2\gamma^2 = \sigma^2. \qquad (2)$$

The authors deal with the normalized random variable

$$\eta_\tau = \frac{\zeta_\tau - M\zeta_\tau}{\sqrt{D\zeta_\tau}} = \frac{\xi_1 + \xi_2 + \ldots + \xi_\tau - a\alpha_\tau}{\sigma}$$

with the characteristic function

$$\psi(t) = Me^{it\eta_\tau} = \sum_1^\infty \omega_k e^{-ita\alpha/\sigma} f^k(t/\sigma).$$

The following conditions are introduced

for $\lambda \to \infty$

$\sigma^2 \to \infty$, $\gamma = o(\sigma^2)$, (A)

$\gamma^2 = O(\alpha)$. (B)

On the basis of (2), if (A) and (B) are observed, then $\alpha \to \infty$. H. Robbins showed that (A) always occurs if, say, the random variable $(\gamma - \alpha)/\delta$ possesses a limiting distribution function $G(x)$ such that $G(x) > 0$ for any bounded x (for $\lambda \to \infty$). Robbins was investigating the asymptotic behavior of characteristic function (3) and proved, given condition (A), the validity of the correlation

$$\psi(t) = \theta(\delta t)\, e^{-\lambda^2 (1-\delta^2)/2} + o(1),$$

when $\lambda \to \infty$. Here

$$\delta = \frac{a\gamma}{\delta} = \left(\frac{a^2\gamma^2}{a^2\gamma^2 + av^2}\right)^{1/2}.$$

The present article considers the closeness of these characteristic functions which make it possible, given certain supplementary conditions, to evaluate the closeness of the corresponding distribution functions.
The authors outline the proof of the following theorem: If conditions (A) and (B) are satisfied and ξ_j have finite third moments, then, given

$$|t| \leq T_\lambda = C_1 a^{1/6}.$$

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ACC NR: AP6019171

the following relation is valid:

$$\int_{|t|\leq T_1} \left| \left[\psi(t) - \theta(\delta t) e^{-i\gamma(t-t^{(0)})} \right] / t \right| dt = O\left(\alpha^{-\frac{1}{\delta}} \ln \alpha \right),$$

Several corollaries of the theorem are considered. Orig. art. has: 26 formulas. [JPRS]

SUB CODE: 12 / SUBM DATE: 13Jun65 / ORIG REF: 003 / OTH REF: 001

Card 5/5 CC

ANTONOVSKIY, M.Ya.; BOLTYANSKIY, V.G.; SARYMSAKOV, T.A.;
SIRAZHDINOV, S.Kh., prof., otv. red.

[Topological semifields]Topologicheskie polupolia. Tashkent, Izd-vo SamGU. 1960. 48 p. (MIRA 16:4)
(Topology)

L 4436-66 EWT(m)/EPF(n)-2/EWP(t)/EWP(b) DIAAP/IJP(c) JD/JG

ACC NR: AP5021100 UR/0056/65/049/002/0410/0413

AUTHOR: Kim Khi San,; Pikel'ner, L. B.; Sirazhet, Yh.; Sharapov, E. I.

TITLE: Radiation widths of intermediate nuclei

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 2, 1965, 410-413

TOPIC TAGS: zinc, molybdenum, niobium, rubidium, line width, nuclear resonance, nuclear spin

ABSTRACT: The radiation widths of a number of neutron resonances of zinc, molybdenum, niobium, and rubidium isotopes were investigated with the OIYaI (Joint Institute of Nuclear Research) pulsed reactor by transmission, radiative neutron capture, and self-indication techniques. The use of different measuring techniques is claimed to result in greater accuracy and in a larger number of radiation widths, compared with the usually employed measurement of transmission only. Several previously unknown resonances were detected for zinc, at 288 ev (Zn^{64}) and 328 ev (Zn^{66}), and more accurate values of the spin and radiation widths were obtained for other resonances. A maximum was observed in the dependence of the radiation widths on the neutron number N at N = 43 -- 44, and a minimum at N = 38 -- 40. It is also concluded that the appreciable variation in the radiation widths from nucleus to nucleus are associated with the neutron number. "We thank I. M. Frank and F. L. Shapiro for their interest in the work and useful advice, V. S. Zolotarev and his co-workers for furnishing the isotopes,

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L 4436-66

ACC NR: AP5021100

3

and K. P. Lomov and I. I. Shelontsev for help with the measurement and computer calculations." Orig. art. has: 1 figure and 1 table.

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: 03Mar65 ENCL: 00 SUB CODE: NP

NR REF SOV: 005 OTHER: 005

Card 2/2

TOROPOV, N.A.; SIRAZHIDDINOV, N.A.

Effect of rare-earth oxides on the kinetics of magnesium aluminate formation in the solid phase. Uzb. khim. zhur. 7 no.5:38-42 '63. (MIRA 17:2)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta.

ACCESSION NR: AP4036974 S/0078/64/009/005/1300/1302

AUTHOR: Toropov, N. A.; Sirazhiddinov, N. A.

TITLE: The MgAl sub 2 O sub 4 -LaAlO sub 3 system

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 5, 1964, 1300-1302

TOPIC TAGS: MgAl sub 2 O sub 4 LaAlO sub 3 system, phase diagram, x ray analysis, microstructure, binary system, simple eutectic, magnesium aluminate containing system, lanthanum aluminate containing system

ABSTRACT: The phase diagram of the $MgAl_2O_4$-$LaAlO_3$ system was constructed (fig. 1) from x-ray and microstructural studies (photographs are included in the article). The system has a diagram of a binary system of the simple eutectic type without the formation of intermediate chemical compounds or solid solutions. Orig. art. has: 3 figures.

ASSOCIATION: None

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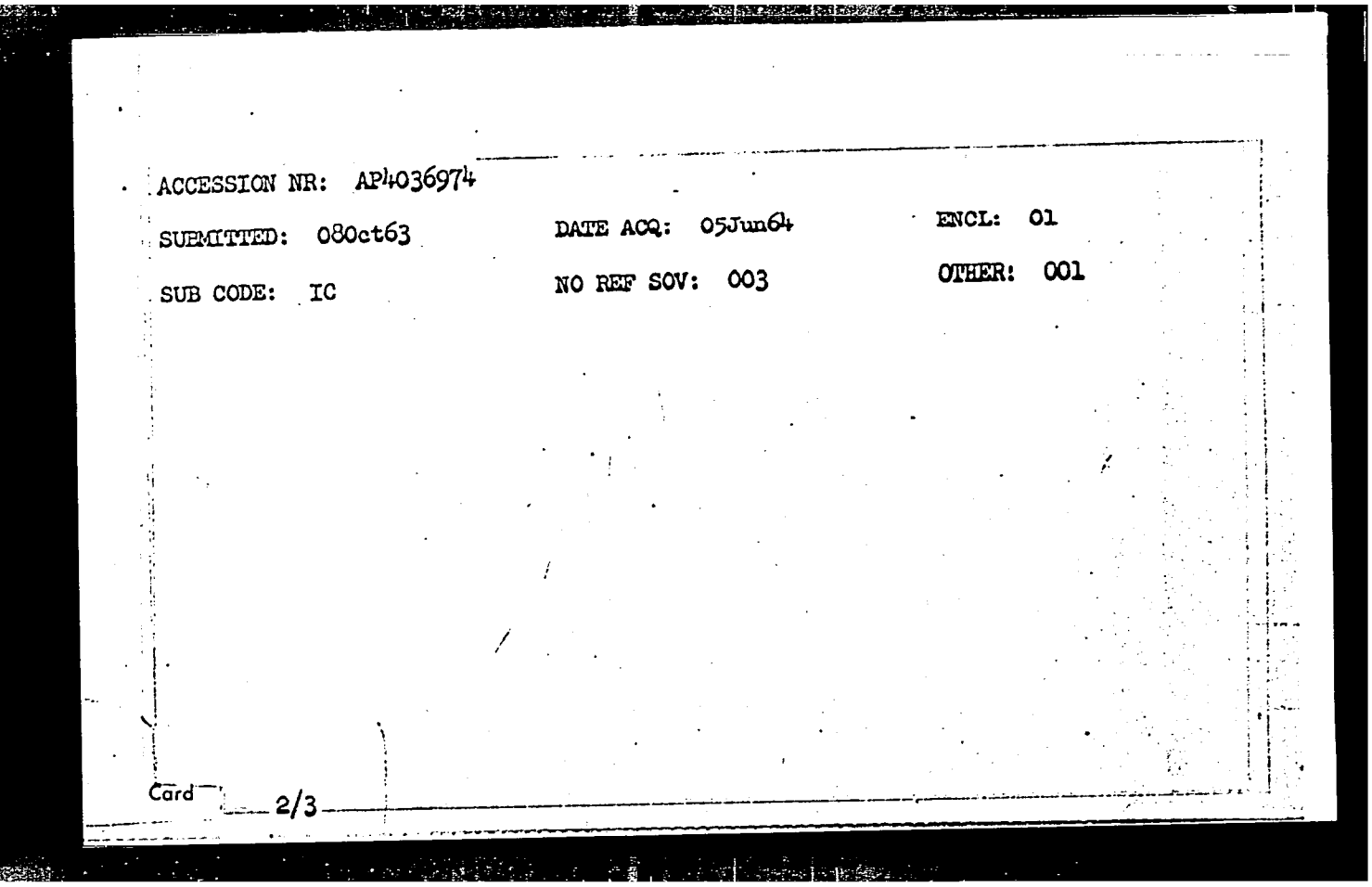

ACCESSION NR: AP4036974

SUBMITTED: 080ct63 DATE ACQ: 05Jun64 ENCL: 01

SUB CODE: IC NO REF SOV: 003 OTHER: 001

Card 2/3

ACCESSION NR: AP4036974

ENCLOSURE: 01

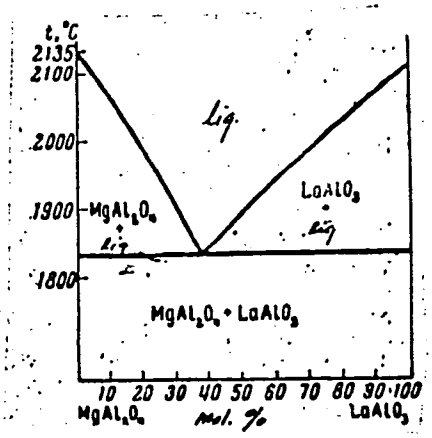

Fig. 1. Phase diagram of the system $MgAl_2O_4$-$LaAlO_3$

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Card

L 00393-66 EWP(e)/EWT(m)/EPF(c)/ EWP(i)/EWP(t)/EWP(b) IJP(c) JD/GS/WH
ACCESSION NR: AT5013397 UR/0000/65/000/000/0193/0201

AUTHOR: Toropov, N. A.; Sirazhiddinov, N. A. 22 B+1

TITLE: Vitrification and crystallization in the system magnesium oxide - alumina - silica

SOURCE: AN SSSR. Institut khimii silikatov. Strukturnyye prevrashcheniya v steklakh pri povyshennykh temperaturakh (Structural transformations in glass at high temperatures). Moscow, Izd-vo Nauka, 1965, 193-201

TOPIC TAGS: glass crystallization, vitrification, spinel, cordierite

ABSTRACT: The authors studied the regions of vitrification and sequence and character of crystallization in samples of the spinel-silica system and several samples, the composition of which were located in the ternary field of primary crystallization of the magnesia-alumina spinel. Particular attention was given to the identification of metastable phases formed first which are chiefly responsible for the structure and properties of glass-crystalline products. X-ray diffraction and optical analysis were used to identify the crystallization products, and the change in the microstructure of these crystalline phases as a function of temperature and composition was studied. In samples containing

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less than [illegible] containing over 35% SiO_2, the [illegible] above 1000C a quartz structure which decompose[s] spinel-cordierite, the polymorphic transformation of cordierite occ[urs] 1000C, at temperatures which vary over a certain range depending upon the composition. [illegible] art. has: 4 figures.

ASSOCIATION: none

SUBMITTED: 21Dec64 ENCL: 00 SUB CODE: MT

NO REF SOV: 005 OTHER: 001

KC
Card 2/2

L 52066-65 EWP(e)/EPA(s)-2/EWT(m)/EWP(i)/EPA(w)-2/T/EWP(b) Pab-10/Pt-7
WH
ACCESSION NR: AP5014087 UR/0363/65/001/004/0614/0618

30
26
B

AUTHOR: Toropov, N. A.; Sirazhiddinov, N. A.

TITLE: Mechanism of formation of cordierite from agalmatolite and magnesium oxide in the solid state

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 4, 1965, 614-618

TOPIC TAGS: synthetic cordierite, agalmatolite, mullite, refractory

ABSTRACT: To synthesize cordierite, the authors used agalmatolite from the Aktau deposit (Uzbek SSR) to find whether it would be possible to use the kaolinite--diaspore-pyrophyllite rocks of this deposit in the industry of the Central Asia Economic Region. Magnesium oxide was added to the agalmatolite in the amount of 13.7% to produce the composition of cordierite. X-ray diffraction analysis of the solid-state processes combined with optical investigations and differential thermal analysis made it possible to interpret the mechanism of dissociation of agalmatolite and the reaction of formation of cordierite in the solid state. The following equations represent the processes taking place at 600-1350°C:

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$$6(Al_2O_3\cdot 2{,}5SiO_2\cdot 2H_2O) \xrightarrow{620^\circ C} 6(Al_2O_3\cdot 2{,}5SiO_2)+12H_2O \quad (1)$$

$$6(Al_2O_3\cdot 2{,}5SiO_2) \xrightarrow{605^\circ} 6\gamma\text{-}Al_2O_3+15SiO_2 \xrightarrow{1000^\circ} 2(3Al_2O_3\cdot 2SiO_2)+11SiO_2\ (\text{amorph.}) \quad (2)$$

$$2(3Al_2O_3\cdot 2SiO_2)+11SiO_2+6MgO \xrightarrow{>1000^\circ} 3(2MgO\cdot 2Al_2O_3\cdot 5SiO_2) \quad (3)$$

$$\Sigma 6(Al_2O_3\cdot 2{,}5SiO_2\cdot 2H_2O)+6MgO = 3(2MgO\cdot 2Al_2O_3\cdot 5SiO_2)+12H_2O \quad (4)$$

where the overall reaction (4) includes the dehydration of agalmatolite (1), dissociation into free oxides and mullite formation (2), and subsequent formation of cordierite (3). The process of formation of ordered and disordered structures was studied by the ionization method of recording of x rays in the range of angles $2\theta = 29\text{-}30^\circ$. The nature of the structural changes in cordierite synthesized from agalmatolite was found to be similar to that of structural transformations in cordierites synthesized from glass and pure oxides in the solid phase, with the exception of the rate, which was faster in the case of agalmatolite. The cordierite has excellent thermal and mechanical properties and can be used as a refractory and structural material wherever a high resistance to thermal shock is required. "The chemical analysis was performed by O. N. Solov'yeva at the analytical laboratory

L 52066-65
ACCESSION NR: AP5014087 2

of the Institute of Silicate Chemistry." Orig. art. has: 3 figures and 2 tables.

ASSOCIATION: Leningradskiy tekhnologicheskiy institut imeni Lensoveta (Leningrad Technological Institute)

SUBMITTED: 15Dec64 ENCL: 00 SUB CODE: MT, IC

NO REF SOV: 004 OTHER: 008

mc
Card 3/3

L 23298-66 EWP(e)/EWT(m)/EWP(j)/T/ETC(m)-6 WW/RM/WH

ACC NR: AP6013352 (A) SOURCE CODE: UR/0363/66/002/004/0738/0740

AUTHOR: Toropov, N. A.; Sirazhiddinov, N. A.

ORG: Institute of the Chemistry of Silicates im. I. V. Grebenshchikov, Academy of Sciences SSSR (Institut khimii silikatov Akademii nauk SSSR)

TITLE: Dependence of microhardness of pyroceramic materials on morphology of crystalline phases in the spinel-silica system

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 4, 1966, 738-740

TOPIC TAGS: pyroceram, sitall, high strength material, glass crystallization, aluminosilicate glass, crystal structure

ABSTRACT: A microphotographic study has been made of the crystal phases formed at different crystallization (annealing) temperatures in magnesium aluminosilicate glasses of different composition to ascertain the effect of morphology of crystal phases on the strength of pyroceramic materials. Earlier, this effect was not studied experimentally and its role in the strength of pyrocerams was considered negligible in a theoretical study. Glass formulations were selected on the basis of their homogeneity and fine cyrstalline structure. Microphotographs of the same glass annealed at different temperatures showed differences in the size, form, and orientation of the primary dendritic spinel crystals and in the appearance of the secondary quartz-like and cordierite phases. A clear correlation was shown between

UDC: 666.1:542.65

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L 23298-66

ACC NR: AP6013352

microhardness, as a measure of strength of crystallized glass, and morphology of the crystals. Tabulated data showed that the highest microhardness (1400 kg/mm^2) was in the pyroceram sample with the finest dendritic spinel crystal structure and interdendritic distribution of cordierite crystals. The increase in strength was due to the dendritic structure, which was the most favorable for formation of strong intercrystalline bonds and for a minimum of crystal defects. The conclusion was made that the morphology of the crystals is one of the main factors of development of high-strength pyroceramic materials. Orig. art. has: 2 figures and 1 table. [JK]

SUB CODE: 11/ SUBM DATE: 28May65/ ORIG REF: 002/ OTH REF: 001/ ATD PRESS: 4236

Card 2/2

[illegible], P., [illegible], N.V.

Geochemical characteristics of gases of the Mubarek oil and gas region. Neftegaz. geol. i geofiz. no.4 [illegible] '65.

(MIRA 18:7)

1. Institut geologii i razrabotki neftyanykh i gazovykh mestorozhdeniy AN UzSSR.

SIRAZITDINOV, B.G.

Rotating amplifier with a lateral field in automatic control systems.
Trudy LPI no.194:105-142 '58. (MIRA 11:11)
(Rotating amplifiers) (Automatic control)

17.2855

28954
S/146/61/004/003/003/013
D217/D301

AUTHORS: Sirazitdinov, B.G., and Zubkov, D.I.

TITLE: A reversible follow-up system for remote transmission of force and displacement

PERIODICAL: Izvestiya vysshukh uchebnykh zavedeniy. Priborostroyeniye, n. 4, no. 3, 1961, 34 - 46

TEXT: In the present article the authors analyze some design aspects of a follow up system which is actually the basic component of an electro-mechanical manipulator. The follow up system is based on an amplidyne, whose theoretical analysis is made using the approximate differential equation of an amplidyne.

$$(T_1 p + 1)\cdot(T_2 p + 1)\cdot T_3 p + 1)\cdot e_{ampl.} = K_3 e_{el.c.} \quad (1)$$

where $e_{ampl.}$ - amplidyne output e.m.f.; $e_{el.c.}$ - voltage at the input of the electronic circuit; k_3 static voltage gain of the

Card 1/4

A reversible follow-up ...

amplidyne and output electronic stage, T_1, T_2, T_3 - time constant of the electronically controlled amplidyne and $p \equiv d/dt$. The analysis shows that in static operation the accuracy of reproducing a constant angle θ_{10} depends on the magnitude of the moment (force) developed at the executive start, and on friction moment M_{TP2} of all moving components associated with one motor M_2 and that this accuracy decreases with the increase of the above factors. Professor T.N. Sokolov [Abstractor's note: No other data given] has suggested a method for compensating for friction and for moments of inertia by introducing into the system a signal proportional to the difference of moments (forces) M_1 and M_2; M_1 being the force applied by the operator to the common shaft. The system then becomes one, in which the operator transmits the force not directly to the slow shaft, but through a coil spring whose deformation is applied through a transducer to the amplifier of the additional compensating channel. It is shown that the range of force trans-

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mitted in the above system will depend on the ratio of the gain of command and execution transducers of the deformation transducers, and that the compensation applies only to those of the static and dynamic friction forces which actually exist at the mechanical linkage after the respective deformation transducers. The experiments carried out with an experimental reversible follow-up system showed that in a manipulator with compensation the most exacting requirements have to be made with respect to the spring deformation transducers, one of which is as an exact zeroing as possible. As a result of many trials a transducer was designed for measuring the deformation with a zero return accuracy $\delta < 10"$ which corresponds to a change in the 'no-zero' of the sensing device in the transducer of ± 10 mV. The maximum useful signal from this element was 2.5 V. The sensing element (whose output voltage is proportional to the deformation of the spring) was a small dimension linear transformer type ЛТ-386 (LT-386) having a scope $K_\theta = 4 \frac{\text{volt}}{\text{degree}} \approx 230 \frac{\text{volt}}{\text{rad}}$ and the minimum value of the 'no-zero"

Card 3/4

A reversible follow-up ...

of 20 to 50 mV. The sensing element was rigidly coupled to the stator of the variable transformer LT-386, whose rotor was tightly coupled to the shaft. The deformation element was a flat spring, with regulated tension, which could provide a dead-zone of action if necessary. Although the linkage cables were replaced by shaft, the stability of the system was good and corresponded to the specific requirements. There are 6 figures and 4 Soviet-bloc references. [Abstractor's note: The article was recommended by the Kafedra matematicheskikh i schetno-reshayushchikh priborov i ustroystv (Department of Mathematical and Computing Instruments and Installations)].

ASSOCIATION: Leningradskiy politekhnicheskiy institut im. M.I. Kalinina (Leningrad Polytechnic Institute im. M.I. Kalinin) [Abstractor's note: Taken from first page of article]

SUBMITTED: January 5, 1961

Card 4/4

16.9000

S/146/61/004/006/008/020
D201/D301

AUTHOR: Sirazitdinov, B. G.

TITLE: Stability of a typical automatic control system

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye, v. 4, no. 6, 1961, 57-66

TEXT: In the present article the author analyzes the stability of automatic control systems by considering what is said to be a typical control system shown in a figure. The system is actually a follow-up system with a large negative power amplifier, output voltage and motor velocity feedbacks. The notation used is as follows: θ_D, θ_o - angles of rotation of the driving and output shaft respectively; TA 1, TA 2, TA 3 - stages of electron tube amplification; Ampl - amplidyne; MS-motor stage; e_{ampl}, U_{ampl} - the e.m.f. and voltage at the Ampl. output; k_{o1} - the negative Ampl. voltage feedback factor; k_{o2}, T'_o - coefficients of the motor stage voltage and

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acceleration feedback respectively; $\bar{\gamma}$ - a coefficient determining the positive feedback of the motor stage current. For generalization, an adjustable inertialess velocity feedback is envisaged. A transverse field amplidyne is assumed as the power amplifier, although the analysis is valid for other types of power amplifiers as well. Experimental designing carried out under the leadership of Professor T. N. Sokolov at the Department of Mathematical and Analogue Computer Instruments and Equipment of the Leningrad Polytechnic Institute im. M. I. Kalinin, of follow-up systems with d.c. and a.c. motors has shown that a typical circuit as given in the figure may be used as a criterion of quality for may other circuits. The analysis is made in the linear plane only. Experiment has shown that the operation of a high quality system is basically affected by the characteristics of the double internal feedback circuit (output to input of TA 2 and TA 3). This is so because its instability may result in the instability of the whole system, etc. The stability of the inner feedback circuit is, therefore, considered using the Hurwitz criterion of stability "in the small" and optimum and maximum values of feedback factors k_{o1} and k_{o2} are de-

termined analytically for various time constant ratios of the circuit. The analysis shows that the operation of the system as a whole is fundamentally affected by the characteristics of the power amplifier. Of most importance, in particular, is the fact that in practice the differential equation of the power amplifier is at least of the third order. This also results in a limited output stage velocity feedback which may be applied. It is stated in conclusion that some of the qualitative and quantitative aspects of the results obtained will be considered in the next article. This article was recommended by the Kafedra matematicheskikh i sshetnoveshayushchikh priborov i ustroystv (Department of Mathematics and Computer Equipment and Instruments). There are 6 figures, 1 table and 1 Soviet-bloc reference.

ASSOCIATION: Leningradskiy politekhnicheskiy institut im. M. I. Kalinina (Leningrad Polytechnic Institute im. M. I. Kalinin)

SUBMITTED: April 25, 1961

Card 3/3

SIRAZITDINOV, B.G.

Specified investigation of characteristics of a standard automatic control system. Izv.vys.ucheb.zav.; prib. 5 no.1: 47-61 '62. (MIRA 15:2)

1. Leningradskiy politekhnicheskiy institut imeni M.I. Kalinina. Rekomendovana kafedroy matematicheskikh i schetno-reshayushchikh priborov i ustroystv.

(Automatic control)

S/146/62/005/002/003/004
D201/D307

9.3240

AUTHOR: Sirazitdinov, B.G.

TITLE: Stability of the typical automatic control system I for the case of an 'oscillating' power amplifier

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Priboros-troyeniye, v. 5, no. 2, 1962, 75 - 81

TEXT: The present article is a continuation of an earlier work, in which the author analyzed a system with a heavy negative inertialess power amplifier and output stage feebacks. The case is considered, in which the power amplifier of the analyzed system is described by an approximate linearized equation; the conditions of stability of the inner circuits of such a system are reduced to the simplest possible form, suitable for both qualitative and quantitative assessment of stability, of properties of these circuits and of the system as a whole. It is shown that the results obtained previously apply also to the present case. The relationships obtained are generalized in such a

Card 1/2

L 13112-63 BDS/EWT(d) AFFTC/APGC/ASD Pg-4/Pk-4/Pl-4/Po-4/Pq-4
IJP(C)/BC S/146/63/006/002/003/010

74
72

AUTHOR: Sirazitdinov, B. G.

TITLE: The effect of certain small parameters on the stability of a typical automatic control system 1 (internal circuit)

PERIODICAL: Izv. Vuz., Priborostroyeniye, v. VI, no. 2, 1963, 14-29

TEXT: In a series of earlier publications [Izv. Vuz., Priborostroyeniye, nos. 1 and 2, 1962, and Trudy LPI im. M. I. Kalinina (Trans. of the Leningrad Polytechnic Institute imeni M. I. Kalinin), Radiophysics Section, no. 194, 1958] the author discussed problems of the stability of the internal circuit of the class of systems investigated. There it was shown that apart from "small" parameters of the power amplifier, the system may contain other, additional sources of inertial lag. In the present article the author considers the effect of these additional parameters on the stability of the internal circuit of the systems studied, attention again being concentrated on establishing the qualitative laws of this effect. A second problem investigated is the nature of the change in the regions of stability of the internal circuit as a function of the degree of compensation of the power amplifier for the case where the latter is a dynamoelectric amplifier.

Card 1/2 Leningrad Polytechnic Inst.

SIRAZITDINOV, N.I., inzh.; Prinimali uchastiye: SHTERNOV, M.M., kand.tekhn. nauk; FURMAN, Ya.B., inzh.

Mastering the production of lightweight sections at the Magnitogorsk Metallurgical Plant. Stal' 20 no. 7:624-628 Jl '60. (MIRA 14:5)

1. Magnitogorskiy metallurgicheskiy kombinat (for Sirazitdinov).
2. Starshiy kalibrovshchik Magnitogorskogo metallurgicheskogo kombinata (for Shternov).
(Magnitogorsk--Rolling (Metalwork)) (Girders)

SIRAZITDINOV,N.M.; VOZNESENSKIY,A.V.

Grinding gear teeth 0,1 mm and larger modules. Stan. i instr. 26 no.10:32 O'55. (MLRA 9:1)
(Gear cutting)

SIRAZITDINOV, N.M.

Making involute master cams for the grinding of rams. Stan.i instr. 31 no.3:32 Mr '60. (MIRA 13:6)
(Grinding and polishing)

SIRAZHDINOV, S.KH.; ABDUAKHMANOV, T.

Multitest statistical sampling inspection control for N → ∞.
Teor. veroiat. i mat. stat. no.1:13-25 '64.
(MIRA 18:6)

SIRAZITDINOV, Ye.G., asst.; PETROVA, Ye.A., asst.

Modeling actuating mechanisms for automatic control systems. Izv. vys.ucheb.zav.; prib. no.3:63-72 '58. (MIRA 12:2)

1. Leningradskiy politekhnicheskiy institut im. M.I.Kalinina.
(Automatic control) (Engineering models)

SIRAZNEV, T.G.

Chronicle. All-Union Competition for the Best Students-paper Concerning Chemistry and Chemical Technology for the Scholastic Year 1957-1958 SOV/153-2-2-31/31

tekhnologicheskiy institut legkoy promyshlennosti (Moscow Technological Institute for Light Industry) V. N. Gorodilov; "Study of the Cathodical Polarisation at the Precipitation of Chromium From Sulphide-solutions" by the Fifth-year-student of the Ural'skiy politekhnicheskiy institut (Ural Polytechnical Institute) V. G. Petropavlovskiy; "Gold Extraction From Watery Cyanide-solutions" by the Fifth-year students of the Moskovskiy khimiko-tekhnologicheskiy institut imeni D. I. Mendeleyeva (Moscow Chemical-technological Institute imeni D. I. Mendeleyev) A. V. Ochkin, V. A. Borisov, and N. Brak; "Some Investigations of the Vulcanisates of Rubbers Containing Carboxyl" by the Fourth-year-students of the Yaroslavskiy tekhnologicheskiy institut. (Yaroslavl' Technological Institute) G. I. Komarova and T. A. Shchadricheva; "Investigation of the Cathodic and Anodic Processes at Gold-plating" by the Fifth-year-student of the Leningradskiy tekhnologicheskiy institut im. Lensoveta (Leningrad Technological Institute imeni Lensovet) N. A. Nosova; "Spectral Determination of Molybdenum and Tungsten in Tri-hetero-polyacids" by the Third-year-student of the Kishinevskiy gosudarstvennyy universitet (Kishinev State University) V. A. Dagayev; "Capture of Dichlorine-ethane by Bone-fat in Foam-condition" by the Fourth-year-students of the Kazanskiy khimiko-tekhnologicheskiy institut (Kazan' Chemical-technological Institute) L. I. Tashina, R. A. Nurutdinov, and T. G. Siraznev. Taken collectively, the competition has shown a high standard of the scientific research work in the circles of the Studencheskoye Nauchnoye obshchestvo (Scientific-student.-societies) of many universities.

Card 4/5

Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1959, Vol 2, Nr 2, pp 303-304 (USSR)

SIRAZUTDINOV, A.

Depending on the scientific and technical community. NTO 2 no.2:17-18 F '60. (MIRA 13:5)

1. Predsedatel' Gosudarstvennogo nauchno-tekhnicheskogo komiteta Soveta Ministrov Kazakhskoy SSR, Alma-Ata.
(Kazakhstan--Technological innovations)

SHAG TDI [illegible], A. [illegible]., BAYAYEV, N. T., and MUSIN, A. Ch.

"Violations of the Rules Governing Technical Exploitation During the Working of Lead Deposits," Razvedka i Okhrana Nedr, No. [illegible], pp 49-53, 1954.

SO: W-31 [illegible], Sep 55

SIRAZUTDINOV, D.M.

Techniques of nonferrous metal production in Kazakhstan. TSvet. met. 33 no.9:8-12 S '60. (MIRA 13:10)
(Kazakhstan--Nonferrous metals--Metallurgy)

GRINMAN Isaak Grigor'yevich. Prinimali uchastiye: SAKBAYEV, Zh.M.; BLYAKH, G.I.; SHAGI-SULTAN, I.Z.; SIRAZUTDINOVA, Zh.A.; SHTEYN, N.S.; YERMAGAMBETOV, S.B.; KOZLOV, G.S.[deceased]; IVANOV, L.G.; OSHCHENSKIY, V.M.; DZHASYBEKOVA, E.K.; NURGALIYEVA, Kh. PRESNYAKOV, A.A., doktor tekhn. nauk, otv. red.; ALEKSANDRIYSKIY, V.V., red.

[Automation of nonferrous metal ore dressing processes] Avtomatizatsiia protsessov obogashcheniia rud tsvetnykh metallov. Alma-Ata, Izd-vo AN Kaz.SSR, 1964. 213 p. (MIRA 17:10)

1. Laboratoriya elektroniki i avtomatiki Instituta yadernoy fiziki AN Kaz.SSR (fo all except Grinman, Presnyakov, Aleksandriyskiy).

BORODIN, A.I.; SIRAZUTDINOVA, Z.M.

Developing the method of technological evaluation of the warp yarn for weaving. Nauch.-issl.trudy TSNIKHBI za 1958 gs95-115. (MIRA 16:1)

(Yarn--Testing)

BORODIN, A.I. SIRAZUTDINOVA, Z.M.

Yarn strength and its resistance to dynamic loads on the "DIP" apparatus. Nauch.-issl.trudy TSNIIKHBI '60 [publ. '62]:55-76. (MIRA 18:2)

POPA, C., ing.; SERBANESCU, I., ing. SIRB, Gh., ing.

Use of spherical discard heads in casting steel parts.
Metalurgia constr mas 15 no.8:503-505 Ag '63.

SIRBILADZE, Akakiy Luarsabovich; SKURIKHIN, I.M., kand. tekhn. nauk, retsenzent; AGABAL'YANTS, G.G., prof., spets. red.; ZYABREVA, S.M., red.

[Fundamentals of the technology of brandy making] Osnovy tekhnologii kon'iaka. Moskva, Pishchevaia promyshlennost', 1965. 74 p. (MIRA 18:3)

USSR,

Changes of amino acids and peptides during formation and aging of wine. G. I. Beridze, E. N. Bezinger, M. G. Sirbiladze, and E. B. Kuvaeva. *Biokhim. Vinodeliya, Akad. Nauk S.S.R., Sbornik* 4, 187–210(1953).—The changes of nitrogenous substances were compared during manufg. of Kakhetia wines by 3 different technological methods. Total N (I), amino N (II) (van Slyke), free amino acid N (III) (ninhydrin method), peptide N (IV) (detd. by the difference of III before and after hydrolysis of a wine sample with 20% H_2SO_4), proline N (V) (detd. by the difference between III and II), and individual amino acids (by using a 2-way paper-chromatography technique with water-satd. phenol and a collidine-α-picoline mixt. as the 1st and 2nd solvent, resp.) were detd. in grape musts during alc. fermentation and in wine up to 385 days aging. Fermentation was done with and without the presence of grape seeds and peels. Some of the results (which refer to 2 grape crops grown under different climatic conditions with the resulting sugar concn. of the grapes 16.0 and 21.9%, resp.) represent paper-chromatographic sepns. of amino acids present in the wine before and after its hydrolysis. The amts. of II and III originally present in must (150.7–237.8 and 124.5–232.6 mg./l., resp.) rapidly decrease during the fermentation (12.4–70.2 and 65.8–146.1 mg./l., resp.), reaching these min. after 1–2 or 4–6 days of the fermentation depending on the technological method used. During this time the amts. of sugar decrease to 3.5–3%; of the free amino acids, only proline is present in a detectable amt. after 3–5 days. As the fermentation proceeds, other amino acids are found: γ-aminobutyric acid, alanine, and later on (when an increase of III is taking place), aspartic acid, glutamic acid, proline, valine, and leucine; beside these, addn. spots are present at the places where aspartic acid, glutamic acid, serine, and glycine and lysine are located. After hydrolysis the lysine spot disappears (characteristic for all wine samples analyzed); other spots disappear also, followed usually by a more intense ninhydrin color of the neighboring spots. This indicates the presence of peptides. The amt. of IV decreases during the

G. I. BERIDZE

first 4-6 days of the alc. fermentation (from 31.9 to 0 mg./l.) owing to the growth of the wine yeasts; during weak fermentation and progressive loss of the yeast cells the amt. of IV again increases, reaching in some cases the value of 84.5 mg./l. (at the 26th day). To the end of an active fermentation (4th day) wines contain as much as 97.8–121.2 mg. V/l.; however, the amt. of V rapidly decreases on wine aging, and, after 385 days, it can be as low as 3.8–11.3 mg./l. Different wines produced in Georgia to the time of consumption contain I 105.8–374, II 33–96, and III 52.2–112.2 mg./l., resp.

E. Wierbicki

SIRBILADZE, M. G., BERIDZE, G. I., and KURDGELASHVILI, M. V. (USSR)

"Changes in the Amino Acid Composition of Various Types of Wines under the Influence of Radioactive Cobalt."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 Aug 1961

BERIDZE, G.I.; SIRBILADZE, M.G.

Composition of the nitrogen substances in Georgian wines. Biokhim. vin. no.7:102-118 '63. (MIRA 16:4)

1. Institut sadovodstva, vinogradarstva i vinodeliya Gruzinskoy SSR.

(Georgia—Wine and wine making—Analysis) (Nitrogen)

SIRBIL'DZE. N. Ya.

22676. SIRBILADZE. N. Ya. Opsonicheskiy paradoks - Novvy fenomen immuno-reaktsii. Trudy (Tbilis. gos. med. in-t), T. V, 1948, S. 51-52 - Na gr z. yaz. - rezyume na rus. yaz.

SO: LETOPIS' No. 20, 1949

[illegible], . . Ya.

"The Problem of the Antagonistic Activity of the Intestinal Bacterium in Relation to Perfringens." Cand Med Sci, Tbilisi State Medical Inst, Tbilisi, 1954. (RZhBiol, No 5, Mar 55)

SO: Sum. No. 670, 29 Sep 55--Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

SIRBILADZE, N.Ya.; RALISHVILI, L.T.; DROZDOVA, Ye.; MYL'NIKOVA, T.A.; KARCHKHADZE, R.G.

Production of pyrogen-free antidiphtheria and antitetanus therapeutic sera. Nauch. osn. proizv. bakt. prep. 10:196-205 '61. (MIRA 18:7)

1. Tbilisskiy institut vaktsin i syvorotok.

E

Country : USSR
Category: Virology. Bacterial Viruses (Phages)

Abs Jour: Ref Zhur-Biol., No 23, 1958, No 103515

Author : Sirbiladze, N. Ya.
Inst : -
Title : The Characteristics of Anaerobic Phages

Orig Pub: Sb. Bakteriofagiya. Tbilisi, Gruzmedgiz, 1957, 373-378

Abstract: Experiments on the isolation of the phages active against causal agents of anaerobic infections from sewage, water of the Kura River, dung and hospital material showed that these phages are encountered much less often than phages of aerobic cultures. In phages of anaerobic cultures passed through the human body there is noted an increase in the rate of

Card : 1/2

SIRBU, C.

In the proportion of 98%. Constr Bac 17 no.7921, 3 '65.

SIRBU, C.

The beneficiaries are satisfied. Constr Buc 17 no.800:3 8 My '65.

SIRBU, Crina

The team works for export. Constr Buc 17 no.801:1 15 My '65.

SIRBU, C.; AURELIAN, Z.

At the Tandarei Plant for Tiles and Bricks. Constr Buc 17 no. 802:3 22 My '65.

OLTEANU, Gh., dr., candidat in stiinte veterinare; CIRONEANU, I., dr.; CRISTESCU, M., dr.; ALMASAN, H., biolog, candidat in stiinte biologice; SIRBU, E., dr.; LUPU, A., dr.; NESTEROV, V., dr.

Trichinellosis in domest'c and wild animals in the Rumanian People's Republic. Microbiologia (Bucur.) 10 no.3:257-264 My-Je '65.

SIRBU, E. I-3

RUMANIA/Plant Physiology - Water Regime.

Abs Jour : Ref Zhur - Biol., No 6, 1958, 24663

Author :
Inst :
Title : The Study of Physiological Processes in Tomatoes During Irrigation.

Orig Pub : An. Univ. "C.I. Parhon". Ser. shtiint. natur., 1956, No 11, 183-189

Abstract : The suction force (by Shardakov's ripple method), the osmotic pressure of the cell sap (by the crioscopic method), the transpiration intensity (with the aid of cobalt paper), and the opening degree of stomata were studied in leaves of irrigated and non-irrigated tomatoes (Rutgers variety) during the vegetation period. The suction force of tomato leaves grew in the course of the day reaching a maximum at 2 p.m., and afterwards somewhat decreasing. The suction force was lower in irrigated plants than in non-

Card 1/2

STOENESCU, A.; CIRONEANU, I.; SIRBU, E.; VISAN, C.; MINASCURTA, C.; BRETEANU, E.; MOLDOVAN, T.

Observations on the distribution, incidence, economic importance and control of bovine hypodermatosis in the Rumanian People's Republic. Wiad. parazyt. 11 no.1:296-304 '65.

VOLOSCEANU, D.I.; SIRBU, Elena, assistante medicale du laboratoire.

Contribution to the study of methods of preservation of the viability and pathogenicity of Trepanoma pallidum pathogene at low temperatures. Arch. roum. path. exp. microbiol. 22 no.4:943-950 S-D'63

1. Travail de l'Institut "Dr.I.Cantacuzino", Laboratoire de la Syphilis experimentale.

SIRBU, Carina

Improvement in designing the service complexes.
Constr Buc 17 no.785:2 23 Ja '65

SIKBU, Orina

Contemporary images in old Pemba. Constr Rue 17 no.789:2 20 F '65.

SIRBU, Crina

School constructions. Constr Buc 17 no.786:3 30 Ja '65.

SIRBU, C.

Panels veneered with ceramics and insulation in expanded polystyrene. Constr Bul 17 no.793:4 20 Mr '65.

L 36910-66 EWT(m)/EWP(k)/EWP(h)/EWP(l)
ACC NR: AP6027836 SOURCE CODE: RU/0018/66/000/002/0075/0083

AUTHOR: Segal, Hugo; Sirbu, Grigore

ORG: none

TITLE: Determination of the operating characteristics of hoisting machine brakes [This paper was presented at the Mechanics Conference of the ARPR held in September 1965]

SOURCE: Constructia de masini, no. 2, 1966, 75-83

TOPIC TAGS: hoisting equipment, mechanical engineering

ABSTRACT: The authors describe the construction of a device for the testing of hoisting machine brakes and discuss the evaluation of the obtained test results. The device was successfully used in studies on 200, 300 and 400-millimeter brakes at the Gh. Gheorghiu-Dej Polytechnic Institute. Orig. art. has: 16 figures and 4 formulas. [JPRS: 36,559]

SUB CODE: 13 / SUBM DATE: none / ORIG REF: 001 / SOV REF: 002
OTH REF: 002

Card 1/1 MT UDC: 621.86/.87-592

SIRBU, Ioan, corespondent; VARTAN, I., economist; TOROK, Francise

From the mountain to the sea. Constr Bue 16 no.745:4 18 Ap '64.

SIKOV, Ivan

On labor protection themes. Constr Buc 17 no.784:4 16 Ja '65.

1. Chairman of the Trade-Union Committee of Construction Site Group No.4, Arad of the Regional Trusts for Housing Construction, Banat.

COUNTRY : Rumania
CATEGORY : Farm Animals. Horses. G-2

ABS. JOUR. : RZBiol., No. 4, 1959, No. 16662

AUTHOR : Ionescu. D.; Sirbu, I.
INST. : Bucharest Institute of Agronomy.
TITLE : Biometrical Studies of Horses of the Rumanian Mountain Breed.

ORIG. PUB. : Analele lucrar. stiint. Inst. agron. Iasi Bucuresti, 1957, 185-201

ABSTRACT : As a result of studying the Rumanian West Carpathian Mountain horse it was established that it is 126.36 cm tall at the withers, has a diagonal body length of 129.04 cm, a chest circumference of 148.18 cm, a metacarpus circumference of 16.10 cm. In 47.06 percent the basic color is bay, in 26.47 percent black, in 13.73 percent chestnut, and in 9.8 percent gray. These horses are of a sturdy constitution, have a lively temperament, and are well

CARD: 1/2

S/081/62/000/009/075/075
B171/B144

T.

AUTHORS: Solomon, Ozias, Cituă, Ion, Sîrbu, Irina

TITLE: On the preparation of the polymers of furfuryl alcohol

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 9, 1962, 707, abstract 9R83 (Bull. Inst. politehn. Bucureşti, v. 21, no. 4, 1959, 87-100)

TEXT: The polycondensation of furfuryl alcohol (I) in an aqueous solution (75°C) in the presence of 1-1.5% H_3PO_4, has been investigated. The time needed for forming an emulsion before the start of the reaction is 30 min if (1) contains no furfural and if the molar ratio of (I) and water is 3 : 1. Heating is continued for 20 min, producing a polymer with a viscosity of 200-250 cp. The introduction of formaldehyde in the reaction (the molar ratio of (I) and CH_2O being 1 : 0.6) increases the rate of the polycondensation (15 min.), as well as the viscosity of the polymer (500 cp). In the present case, the purity of (I) has no effect on the rate of emulsification. The polymers are characterized by a high

Card 1/2

R/003/60/011/005/010/023
A125/A026

AUTHORS: Bebeşel, P.; Sîrbu, I.

TITLE: Radiometric Titrations by Using ^{110}Ag Radioactive Isotope /9

PERIODICAL: Revista de Chimie, 1960, Vol. 11, No. 5, pp. 288 - 291

TEXT: After a brief introduction on development and different methods of titration, the authors present the operation method and the results obtained at the titration of some anions and cations, by using a titrated solution of silver nitrate traced with ^{110}Ag. Radiometric titrations with a solution of silver nitrate have been performed before (Refs. 3 and 4), but the establishment of the titre of the silver nitrate solution has been performed according to the procedure of Mohr or Volhard. The authors worked out a silver nitrate solution with a very high specific activity and the establishment of the titre has been performed radiometrically. The recommended titration excludes the utilization of an indicator for the deceleration of the equivalent point and some errors connected to the visual observation of the indicating turn point. The silver nitrate solution, which is titrated, is the indicator itself. Potassium iodate was used as titrating agent. Sodium chloride can also be used. The reaction is

Card 1/2

R/003/60/011/005/010/023
A125/A026

Radiometric Titrations by Using ^{110}Ag Radioactive Isotope

$KIO_3 + AgNO_3 \longrightarrow AgIO_3 + KNO_3$ and the calculation formula is:

$$T_{Ag} = \frac{N \cdot T \cdot 107,880}{n \cdot 214,000} \text{ (mg)},$$

in which N is the number of cm^3 of added KIO_3 titrated solution, T is the titrate of the KIO_3 solution in mg and n is the cm^3 of $AgNO_3$ found in the equivalence. The titration can be performed either by taking a known volume of silver nitrate solution and titrating it with potassium iodate, or vice versa, titrating the solution with silver nitrate. Operation method, reactives and apparatus are explained. The authors performed the following titrations with titrated silver nitrate solution: 1) Radiometric titration of cyanogen is performed classically by using one of the procedures by Volhard or Liebig (Ref. 7). 2) Radiometric titration of oxalic ions. 3) Titration of sulfoamides. These methods briefly described by the authors belong to the isotopic phase of titration. A fourth method, belonging to the "titration in the non-isotopic phase" is the radiometric titration of lead. Brief reference is made to general principles and operation methods. There are 4 figures, 4 tables and 9 references: 3 English, 3 Rumanian, 2 Soviet and 1 French.

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1. Laboratorul de preparare radioizotopi I.F.A., Bucuresti.

(Alkaloids) (Strychnine) (Radioisotopes)
(Chemical tests and reagents)

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ACCESSION NO: AP5014776 RU/0011/64/008/004/0166/0167 9 B

AUTHOR: Sirbu, M. (Engineer); Duma, M. (Engineer); Cleja, V. (Engineer)

TITLE: Industrial telemechanics, automation and railway telemechanics

SOURCE: Automatica si electronica, v. 8, no. 4, 1964, 166-167

TOPIC TAGS: electric industry, electric engineering, automation, automation equipment, railway equipment, electric equipment

Abstract: A survey of the achievements of the Rumanian electrotechnical industry with regard to the development of telemechanical and automation equipment, starting from the telemeasurement devices developed in 1956-57 (televoltmeters, teleammeters, etc.) to the remote control devices using pulse codes and built exclusively with transistors introduced in 1961 to 1963. In the field of railway mechanization a number of achievements are mentioned including the construction of devices with electromagnetic relays for the electrodynamic centralization of the stations and transistorized telemechanical equipment for the remote control of dispatching activities at up to 20 stations from a single post.

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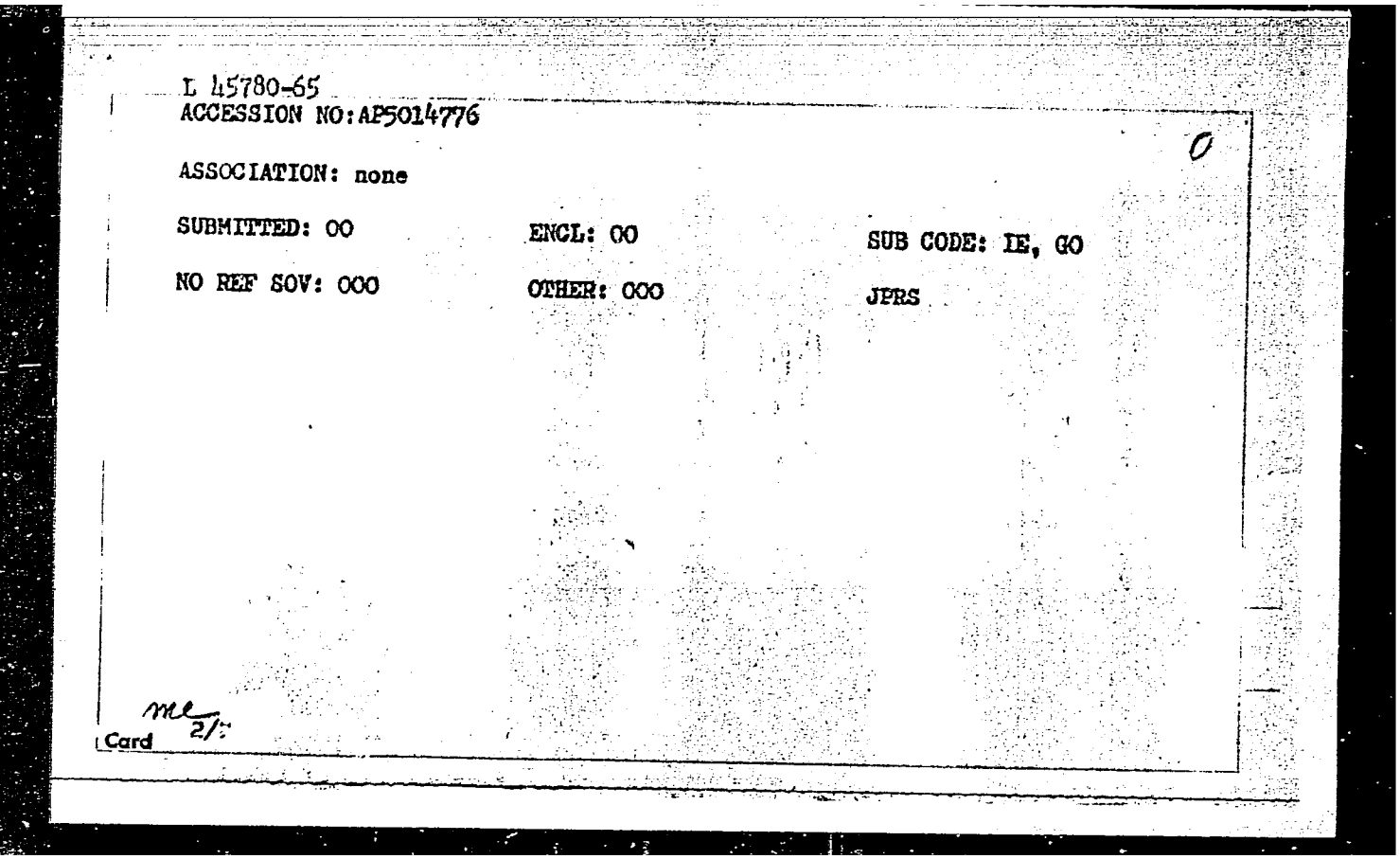

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ACCESSION NO: AP5014776

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ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: IE, GO

NO REF SOV: 000 OTHER: 000 JPRS

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Inst :

Title : Chemico-Technological Study of Peat in RPR. Report II. Mechanical Treatment and Processes of Chemico-Technological Treatment of Peat in RPR.

Orig Pub: Studii si cercetari energ., 1956, 6, No 3, 265-279.

Abstract: It was found in the laboratory study on briquetting that the strength of briquete does not increase noticeably with the rise of pressure above 1500 kg

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per sq. cm. The optimum moisture in peat, producing strongest briquets depends on the granulometric composition of peat and changes together with it. The temporary resistance to bending of briquets produced was 27 - 34 kg per sq.cm; 5% crumbs or more was produced, when briquets were dropped from a height of 3 m on a cement floor. The briquets disintegrated when immersed in water. In the extraction of peat with a mixture of alcohol and benzene (1 : 1), the yield of the extract varied between 3.8 and 18.5% of the combustible mass depending on the character of peat. See RZhKhim, 1957, 66968 for report I. - N. Bogdanov.

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