ZHUDRO, V.K., deputat Verkhovnogo Soveta SSSR, mekhanizator; LADANI, A.M., kukuruzovod, dvazhdy Geroy Sotsialisticheskogo Truda; KALYANA, K.M., okhotnitsa, Geroy Sotsialisticheskogo Truda

Work is a song. IUn.nat. no.7:3-5 Jl '62. (MIRA 15:8)
(Agricultural workers) (Chukchi Peninsula--Hunting)

TURSUNO" Akhunova, brigadir; SARTBAYEV Rakhmatally, chaban; TUTUNARU, M.K., zven'yevaya; KALYANA, K.R., okhotnik

Our country expects heroic deeds from you. IUn.nat. no.5:9 My '62. (MIRA 15:7)

1. Kolkhoz imeni Kirova Chinazskogo rayona Tashkentskoy oblasti (for Tursunoy Akhunova). 2. Kolkhoz "Chayek" Dzhumgal'skogo rayona Kirgizskoy SSR (for Sartbayev Rakhmatally). 3. Kolkhoz "Moldava" Strashenskogo rayona Moldavskoy SSR (for Tutunaru, M.K.). 4. Kolkhoz "Vozrozhdeniye" Iul'tinskogo rayona Magadanskoy oblasti (for Kalyana K.R.).

(Pioneers (Communist youth)) (Agriculture—Study and teaching)

KALYANOV, B. I.
NOZDREV, V. F. and KALYANOV, B. I.

"Investigation of Ultrasonic Velocity and Absorption in Liquids of Constatn Density by the Pulse Mehtod."

paper presented at 4th All-Union Conf. on Acoustics, Moscow, 26 May - 2 Jun 58.

KAL'YANOV, B. I.

"Absorption of Sound in the Critical Region."

"Investigation of Phenomena Accompanying the Propagation of Ultrasound and Methods to be used in Work in this Field: The Pulse Mehtod of Measuring Absorption."

report presented at the 6th Sci. Conference on the Application of Ultrasound in the investigation of Matter, 3-7 Feb 1958, organized by Min. of Education RSFSR and Moscow Oblast Pedagogic Inst. im N. K. Krupskaya.

KALYANOV, B.I.

24(1) PHASE I BOOK EXPLOITATION SOV/1627

Vsesoyuznaya akusticheskaya konferentsiya. 4th, Moscow, 1958

Doklady (Abstracts of Reports at the Fourth All-Union Acoustical Conference) Pt. 2. Moscow, Akad. nauk SSSR, 1958. 44 p. Number of copies printed not given.

Sponsoring Agency: Akademiya nauk SSSR.

Resp. Ed.: L.M. Brekhovskikh, Corresponding Member, USSR Academy of Sciences.

PURPOSE: These abstracts are intended for scientists and engineers interested in acoustics.

COVERAGE: This is a mimeographed collection of brief abstracts of papers presented at the Fourth All-Union Acoustical Conference. The subjects covered are propagation of sound in nonhomogeneous media, nonlinear acoustics, ultrasonics, acoustic measurements, electroacoustics and architectural and structural acoustics.

TABLE OF CONTENTS:

Card 1/9

KAL'YANOV, B.I.

AUTHORS: Kal'yanov, B.I., and Nozdrev, V.F. 46-4-2-14/20

TITLE: Investigation of the Frequency-Temperature Dependence of the **Coefficient of Absorption of Ultra - sound of Methyl Acetate** in the Critical Region (Issledovaniye chastotno-temperaturnoy zavisimosti koeffitsiyenta pogloshcheniya ul'trazvuka v kriticheskoy oblasti metilatsetata)

PERIODICAL: Akusticheskiy Zhurnal, 1958, Vol IV, Nr 2, pp 197-199 (USSR)

ABSTRACT: Only one paper (Ref 1) reports the frequency dependence of the absorption coefficient α of ethyl acetate in the critical region. The present author extended this work to the frequency dependence of α in the critical region for methyl acetate. Frequency dependence of α for methyl acetate in the temperature interval -40°C to +40°C was reported in Ref 2. Measurements on methyl acetate (critical temperature 233.7°) were made at 9 frequencies in the region 5-14 Mc/s. The authors used a pulse technique (Ref 3) to measure the coefficient of absorption α. In this technique two reflectors are placed at different distances from a quartz generator. At temperatures 10-20° below the critical the pulse corresponding to the farther reflection disappears because of strong absorption and

Card 1/2

Investigation of the Frequency-Temperature Dependence of the Coefficient of Absorption of Ultra-sound of Methyl Acetate in the Critical Region

then the method of one fixed distance is used. The results of measurements in the form of dependence of α/ν^2 on frequency ν and on temperature in the critical region are given in Fig 1. The value of α/ν^2 depends greatly on frequency and the observed decrease of α/ν^2 with an increase of ν is characteristic of relaxational processes. This is also confirmed by the behavior of the product of the excess absorption and wavelength, $\mu = \alpha_{excess} \cdot \lambda$ (Fig 2). The maximum value of μ near the critical point decreases somewhat (Fig 3); the frequency corresponding to the maximum of μ is approximately 7.1 Mc/s. The results reported show that the frequency dependence of α/ν^2 which was first obtained for methyl acetate in the region -40°C to +40°C holds at temperatures up to the critical point. There are 3 figures and 5 Soviet references.

ASSOCIATION: Moskovskiy oblastnoy pedagogicheskiy Institut imeni N.K. Krupskoy (Moscow Regional Pedagogical Institute imeni N.K. Krupskaya)

SUBMITTED: November 10, 1957

Card 2/2 1. Methyl acetate—Sound—Absorption—Theory 2. Methyl acetate Temperature effects

24(1) SOV/46-5-3-18/32

AUTHORS: Kal'yanov, B.I. and Nozdrev, V.F.

TITLE: An Investigation of the Velocity and the Absorption Coefficient of Ultrasound in Ethyl Acetate at Constant Density (Issledovaniye skorosti i kosffitsienta pogloshcheniya ul'trazvuka v etilatsetate pri postoyannoy plotnosti)

PERIODICAL: Akusticheskiy zhurnal, 1959, Vol 5, Nr 3, pp 370-371 (USSR)

ABSTRACT: The velocity and absorption of ultrasound in ethyl acetate was measured in the frequency interval 10-33 Mc/s at constant density of 0.867 g/cm^3. The authors used a pulse technique with two fixed distances ℓ_1 and ℓ_2 between a quartz (radiating in two directions) and two reflectors (Ref 3). The time interval between two pulses which passed the distances ℓ_1 and ℓ_2 gave the ultrasound velocity and the difference in their amplitudes was used to deduce the absorption coefficient. The pressures developed at various temperatures under the conditions of constant density are given in a table on p 370. Measurements were carried out up to 160°C (~1000 atm). Fig 1 shows the experimental values of the ultrasound velocity in m/sec as a function of temperature; the dashed curve shows the velocity of ultrasound in ethyl acetate along the saturation line. Fig 1 shows that above 50°C the rate of fall of the velocity of ultrasound with temperature

Card 1/3

An Investigation of the Velocity and the Absorption Coefficient of Ultrasound in Ethyl Acetate at Constant Density

is decelerated, the velocity then passes through a minimum and finally starts to rise practically linearly with temperature. The main results obtained on absorption of ultrasound are listed in the table on p 370 which gives the values of $\alpha/\nu^2 \times 10^{17}$ (where ν is the frequency) as a function of temperature, pressure and frequency. Between 20 and 50°C the value of α/ν^2 rises with temperature at all frequencies, and the results in this range of temperatures are equivalent to those obtained in the study of the absorption coefficient along the saturation line. When ρ becomes const., between 60 and 160°C, the value of α/ν^2 falls with rise of temperature. At all temperatures the value of α/ν^2 decreases with rise of frequency: the frequency dependence is fairly accurately described by the well-known relaxation formula (Fig 2)

$$\alpha/\nu^2 = B + A/[1 + (\nu^2/\nu_0^2)]$$

SOV/46-5-3-18/32

An Investigation of the Velocity and the Absorption Coefficient of Ultrasound in Ethyl Acetate at Constant Density

where $\nu^0 = 14 \pm 1$ Mc/s at ϱ = const. from 60 to 160°C. There are 2 figures, 1 table and 3 references, 1 of which is Soviet, 1 English and 1 French.

ASSOCIATION: Moskovskiy oblastnoy pedagogicheskiy institut im. N.K. Krupskoy (Moscow Regional Pedagogical Institute imeni N.K. Krupskaya)

SUBMITTED: February 25, 1959

Card 3/3

KAL'YANOV, B. I.

PHASE I BOOK EXPLOITATION SOV/4342

Vserossiyskaya konferentsiya professorov i prep. avateley pedagogicheskikh institutov.

Primeneniye ul'traakustiki k issledovaniyu veshchestva; trudy konferentsiy, vyp. 9 (Application of Ultrasonics in the Study of Substances, No. 9) Moscow, Izd. MOPI, 1959. 245 p. Errata slip inserted. 1,000 copies printed.

Eds.: V. F. Nozdrev, Professor, and B. B. Kudryavtsev, Professor.

PURPOSE: This collection of articles is intended for scientists specializing in ultrasonics, and for those interested in the application of ultrasonics to the study of the properties of materials, and to the quality control of machined parts and structural elements.

COVERAGE: The collection constitutes the transactions of the All-Russian Conference of Professors and Teachers of Pedagogical Institutes. The articles report on recent theoretical and experimental investigations in the field of ultrasonics and discuss the application of ultrasonics to the study of

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Application of Ultrasonics (Cont.) SOV/4342

Sobolev, V. D. [Kurskiy ped. in-t (Kursk Pedagogical Institute)]. Problem of [Calculating] Heat Capacities From the Boundary Curve 29

Kal'yanov, B. I. [Tambovskiy ped. in-t (Tambov Pedagogical Institute)]. Investigation of Speed and Absorption Coefficient of Ultrasonics in Ethylacetate at Constant Density 35

Zalivskiy, V. N. [MOPI imeni N. K. Krupskoy (Moscow Oblast' Pedagogical Institute imeni N. K. Krupskaya)]. Investigation of Absorption of Ultrasonic Waves in an Ethyl Acetate-Acetic Acid Mixture by the Pulse Method 45

Sapkevich, A. A. Frequency Dependence of Coefficient of Absorption and Dispersion of Speed of Sound in Gases and Liquids, Obtained on the Basis of Molecular-Kinetic Concepts 57

Application of Ultrasonics (Cont.) SOV/4342

materials and to the quality control of machined parts and structural elements (defectoscopy). No personalities are mentioned. References accompany most of the articles.

TABLE OF CONTENTS:

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Kal'yanov, B.K.

1. Following are titles and authors of some of the papers to be presented at subject Congress:

[redacted](cont'd)

KUDRYAVTSEV, B. B., and BALYAN, S. A., Laboratory for Molecular Acoustics, Moscow Oblast Institute for Pedagogics - "The relationship between viscosity and velocity of sound in a liquid"

MAKAROV, V. I., and KISTVIN, S. N., State University of Moscow - "Study of sound dispersion in solid bodies, plates, and shells by means of an optical process in a dark field"

MALYUZHINETS, G. D., Acoustics Institute, USSR Academy of Sciences, Moscow - (1) "The Sommerfeld integrals and curve tests in cuneate areas"; (2) "Development of curve phenomena presentations"

MIKHAYLOV, L. G., Leningrad Electrical Engineering Institute im. V. I. Ulyanov-Lenin - "Absorption of ultra-short waves with frequencies of up to 1000 MHz in crystals"

NAUGOL'NYKH, K. K., and ROMANENKO, E. V., Acoustics Institute, USSR Academy of Sciences, Moscow - "The propagation of spherical and cylindrical waves of finite amplitude"

NOZDREV, V. F., Laboratory for Molecular Acoustics, Moscow Oblast Institute for Pedagogics - "Physical bases for the technical application of molecular acoustics of small amplitudes"

NOZDREV, V. F., BELINSKAYA, L. G., and BELINSKIY, B. A. - "Study of supersonic wave absorption in the esters of acetic acid at high frequencies"

NOZDREV, V. F., KAL'YANOV, B. K., and SHIRKEVICH, M. G. - "Studies of supersonic wave absorption in liquids at high temperatures and pressures"

NOZDREV, V. F., KOSHKIN, N. I., and GORBUNOV, M. A. - "Study of the system of liquid-proof bodies by means of ultra-acoustical methods"

NOZDREV, V. F., YAKOVLEV, V. F., PEREPECHKO, Yu. G., and SHIRKEVICH, A. A. - "Dispersion of ultrasonic sound in thin gases"

POLYAKOVA, A. L., Acoustics Institute, USSR Academy of Sciences, Moscow - "Absorption of ultimate amplitude sound waves in relaxing media"

RIMSKIY-KORSAKOV, A. V., Acoustics Institute, USSR Academy of Sciences, Moscow - "Statistical properties of broad-casting signals"

ROY, N. A., and FROLOV, D. P., Acoustics Institute, USSR Academy of Sciences, Moscow - *

ROZENBERG, L. D., Acoustics Institute, USSR Academy of Sciences, Moscow - "Studies of the physical processes in industrial applications of supersonic sound"

SAMOYLOVA, I. K., Sechenov Institute of Evolutionary Physiology, USSR Academy of Sciences, Leningrad - "Preceding masking of short tone signals"

SLAVIN, I. I., and ILYASHUK, Yu. M., Laboratory for Combating Noise, Institute for Labor Protection, Leningrad - "The Soviet system of standards for industrial noise and the Soviet Union's experiences with the system"

Hungary

HORZSY, D., Szekesfehervar - "Contribution to the theory of sound radiation"

SZILARD, J., Budapest - "Ultrasound intensity measurement by compensated calorimeter"

Poland

KUCZERA, F., OPILSKI, A., and SZYMA, S., Chair of Physics, Higher School of Agriculture, Olsztyn - "Concerning a new acoustic method of determining intermediate molecular forces in liquids and liquid mixtures"

Germany (Democratic Republic)

JACOB, K. P., Institute for Theoretical Physics, University of Rostock - "The significance of sound velocity measurements for the physics of ternary solutions"

* "Generation of sound by spark discharges in water"

Excerpts from the Program and Information Circular, reports to be submitted for the Third Intl. Congress on Acoustics, IUPAP, Stuttgart, GFR, 1-8 Sep 1959

1-8 Sep 1959

KAL'YANOV, B. I., Cand Phys-Math Sci -- (diss) "Research into the propagation of ultrasonic waves in organic liquids under increased pressures and temperatures by impulse method." Moscow, 1960. 11 pp; (Ministry of Education RSFSR, Moscow Oblast' Pedagogical Inst im N. K. Krupskaya); 150 copies; price not given; (KL, 22-60, 130)

KHLYAMOV, B. I.

(17)

PHASE I BOOK EXPLOITATION SOV/5207

Vsesoyuznaya konferentsiya professorov i prepodavateley pedagogicheskikh institutov

Primeneniye ultrazvukovykh i radiotekhnicheskikh metodov issledovaniya veshchestva (Utilization of Ultrasonics for the Investigation of Matter) Moscow, Izd. MOPI, 1960. 247 p. 1,000 copies printed. (Series: Its Trudy, vyp. 11)

Ed. (Title page): V.F. Nozdrev, Professor and B.D. Kudryavtsev, Professor.

PURPOSE: This collection of articles is intended for physicists specializing in the physics of ultrasound.

COVERAGE: The collection of articles constitutes the transactions of the VII Conference on the Applications of Ultrasonics to the Study of Materials, which was held at the Moscow Oblast Pedagogical Institute imeni N.K. Krupskaya. Individual articles of the collection discuss various problems in the wave mechanics of ultrasound, the absorption and the propagation mechanics of ultrasonic waves in various media, the operating principle and design of generators and receivers of ultrasonic waves, the speed of sound and methods for its determination. Other articles deal with the applications of ultrasonics to investigations of the properties of materials. No personalities are mentioned. References accompany

Card 4/7

KAI'YANOV, B.I.

RUSS I BOOK EXPLOITATION SOV/5207

Vsesoyuznaya konferentsiya professorov i prepodavateley pedagogicheskikh institutov.

Primeneniye ultrazvukovoy i radiovolnovoy tekhniki. (Utilization of Ultrasonics for the Investigation of Matter) Moscow, Izd. MGPI, 1960. 267 p. 1,000 copies printed. (Series: Its Trudy, vyp. 11)

Ed. (Title page): V.F. Nozdrev, Professor and B.B. Kudryavtsev, Professor.

PURPOSE: This collection of articles is intended for physicists specializing in the physics of ultrasound.

COVERAGE: The collection of articles constitutes the transactions of the VIII Conference on the Applications of Ultrasonics to the Study of Materials, which was held at the Moscow Oblast Pedagogical Institute imeni N.K. Krupskaya. Individual articles of the collection discuss various problems in the wave mechanics of ultrasound, the absorption and the properties mechanics of ultrasonic waves in various media, the operating principle and design of ultrasonic emitters and receivers of ultrasonic waves, the speed of sound and methods for its determination. Other articles deal with the applications of ultrasonics to investigations of the properties of materials. No personalities are mentioned. References accompany

AVAILABLE: Library of Congress (QC244.V82)

JA/dwm/gmp

KAL'YANOV, B.I.

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PHASE I BOOK EXPLOITATION SOV/5469

Soveshchaniye po kriticheskim yavleniyam i flyuktuatsiyam v rastvorakh. Moscow, 1960.

Kriticheskiye yavleniya i flyuktuatsii v rastvorakh; trudy soveshchaniya, yanvar' 1960 g. (Critical Phenomena and Fluctuations in Solutions; Transactions of the Conference, January 1960) Moscow, Izd-vo AN SSSR, 1960. 190 p. 2,500 copies printed.

Sponsoring Agencies: Akademiya nauk SSSR. Otdeleniye khimicheskikh nauk. Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova. Khimicheskiy fakul'tet.

Responsible Ed.: M. I. Shakhparonov, Doctor of Chemical Sciences, Professor; Ed. of Publishing House: E. S. Dragunov; Tech. Ed.: S. G. Tikhomirova.

PURPOSE : This collection of articles is intended for scientific personnel concerned with chemistry, physics, and heat power engineering.

Card 1/9

Critical Phenomena and Fluctuations SOV/5469

COVERAGE: The book contains 24 of the 26 reports read at the Conference on Critical Phenomena and Fluctuations in Solutions organized by the Chemical Division of Moscow State University, January 26-28, 1960. The reports contain results of investigations carried out in recent years by Soviet physicists, chemists, and heat power engineers. The Organizing Committee of the Conference was composed of Professor Kh. I. Amirkhanov, A. Z. Golik, I. R. Krichevskiy (Chairman), V. K. Semenchenko, A. V. Storonkin, I. Z. Fisher, and M. I. Shakhparonov (Deputy Chairman). References accompany individual articles.

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Critical Phenomena and Fluctuations SOV/5469

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Card 8/9

AVAILABLE: Library of Congress (QD545.S73)

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10-28-61

Card 9/9

KAL'YANOV, B.I.

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PHASE I BOOK EXPLOITATION SOV/5644

Vserossiyskaya konferentsiya professorov i prepodavateley pedagogicheskikh institutov

Primeneniye ul' trakustiki k issledovaniyu veshchestva. vyp. 10. (Utilization of Ultrasonics for the Investigation of Materials. no. 10) Moscow, Izdvo MOPI, 1960. 321 p. 1000 copies printed.

Eds.: V. F. Nozdrev, Professor, and B. B. Kudryavtsev, Professor.

PURPOSE: This book is intended for physicists and engineers interested in ultrasonic engineering.

COVERAGE: The collection of articles reviews present-day research in the application of ultrasound in medicine, chemistry, physics, metallurgy, ceramics, petroleum and mining engineering, defectoscopy, and other fields. No personalities are mentioned. References accompany individual articles.

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AVAILABLE: Library of Congress (QC 244. V82 1960)

JA/rsm/jk
1/5/62

S/058/61/000/009/049/050
A001/A101

AUTHORS: Nozdrev, V.F., Kal'yanov, B.I., Shirkevich, M.G.

TITLE: Ultra-acoustic studies in organic liquids at a constant density near critical state

PERIODICAL: Referativnyy zhurnal. Fizika, no. 9, 1961, 294, abstract 9Zh437 (V sb. "Kritich. yavleniya i fluktuatsii v rastvorakh", Moscow, AN SSSR, 1960, 93 - 101)

TEXT: The authors measured the velocity c of ultrasound and absorption α in methyl alcohol at ~6 Mc and in ethyl acetate at 10-33 Mc at a constant density. It follows from the measurement results that at ρ = const, T = const, function c = c(p) (p is pressure) has a minimum and function $\alpha/\nu^2 = \varphi(p)$ has a maximum at the pressure of saturated vapor. At ρ = const near the saturation line, there is a pretransition region in which $\Delta c/\Delta T$ and $\Delta \alpha/\Delta T$ change their signs. On the basis of experimental results, heat capacity of methyl alcohol is determined. In the subcritical region at the pressure of saturated vapor, c_p,

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S/058/61/000/009/049/050
A001/A101

Ultra-acoustic studies ...

c_v, and c_p/c_v show discontinuities. In ethyl acetate relaxation frequency ($\sim$14 Mc) does not change in the temperature range from 20 to 160°C if ρ = const. Dispersion is calculated to be $c_\infty - c_0 = 0.1 - 0.2$ m/sec.

L. Zarembo

[Abstracter's note: Complete translation]

Card 2/2

24.1800 1482, 2607

27643
S/194/61/000/002/032/039
D216/D302

AUTHOR: Kal'yanov, B.I.

TITLE: Determining ultra sound velocity from periodic variation of phase relationships of two sound pulses

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 2, 1961, 12, abstract 2 E98 (V sb. Primeneniye ul'traakust. k issled. veshchestva, no. 11, M., 1960, 173-179)

TEXT: The pulse method of determining the velocity of ultra sound from the pulse time delay difference gives errors ~ 3 - 5%. Pulse repetition frequency and phase methods are more accurate. The first of these methods gives a high instrumental accuracy, but exhibits systematical errors due to the distortion of the leading edge of the pulses. These errors are absent in the phase method; moreover, the interference is often used between the pulse from the receiver crystal and the reference pulse so that the phase relation-

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Determining ultra sound...

ships are measured between interference signals. The following method of measurement is described: two reflectors are placed at both sides of the quartz, one of which can be moved about without going out of parallel and the displacement of it is measured. The quartz radiates in both directions in the given liquid. The reflected pulses are received by the same quartz, detected and applied to the vertical deflection plates of a CRO. When one of the reflectors is being displaced, the amplitude of pulse at the CRO screen goes through a maximum. The velocity of ultra sound can be determined from the number of extrema and from the path length. The experiments were carried out at a frequency of 12 Mc/s. The accuracy of velocity determination is 0.2 - 0.3% and can be increased up to 0.1%. 2 figures. 10 references.

Card 2/2

KAL'YANOV, D. G.

Kal'yanov, D. G. - "Key problems in the agrotechnology of perennial grasses in correct crop rotation in the steppes of the Ukrainian SSR", Trudy Dnepropetr. s.-kh. in-ta, Vol. 11-111, 1948, p. 225-59, - Bibliog: 18 items.

SO: U-3261, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 12, 1949).

KAL'YANOV, D. G.

Kal'yanov, D.G. "Methods of combating the Jerusalem artichoke in order to eliminate the contaminat on of the fields and the possibility of cultivating it in fodder-crop rotation", Trudy Dnepropetr. s. -kh. in-ta. Vol. II-III, 1948, p. 261-69

SO: U-3261, 10 April 53, (Letopis'zhurnal 'nykh Statey, No. 12, 1949

KAL'YANOV, D. G.

Grasses

Causes of destruction of perennial grasses and relation to sowing periods., Korm. baza,3 No. 1, 1952.

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

1. KAL'YANOV, D. G.

2. USSR (600)

4. Jerusalem Artichoke

7. Longevity of Jerusalem artichoke when cultivated in one spot. Trudy Dnepr sel'khoz. inst. 4 1951.

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

KAL'YANOV, D.G.

Grasses - Ukraine

Perennial grasses for crop rotation in lowlands and irrigated areas in the steppe zone of the Ukrainian S.S.R. Sov.agronl 10 no. 10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December 1952 ~~1953~~. Unclassified.

KAL'YANOV, D. G.

Grasses - Ukraine

Perennial grasses and grass mixtures for field and forage crop rotations in the steppe zone of the Ukrainian S.S.R. Korm. baza 4, No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Uncl.

KAL'YANOV, E., starshiy leytenant

Depths are subject to the strong. Voen.znan. 39 no.9:11-12 S '63. (MIRA 16:10)

KAL'YANOV, F.V., inzh.; BOGOMOLOV, Yu.A., inzh.

Tractor operations meter for determining the engineering and economic indices of tractor-driven units. Trakt. i sel'khozmash. no.7:14-15 Jl '65. (MIRA 18:7)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktornyy institut (for Kal'yanov). 2. Podmoskovnaya nauchno-issledovatel'skaya ispytatel'naya stantsiya Gosudarstvennogo soyuznogo nauchno-issledovatel'skogo traktornogo instituta (for Bogomolov).

KAL'YANOV, G. S.

KAL'YANOV, G. S.

Irrigation Farming

Technological and utilitarian indexes of an electric sprinkler system. Sel'khozmashina, no. 7, 1952.

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

KAL'YANOV, G. S.

3

5.9-131

551.573

Kal'yanov, G. S. Isparenie iskusstvennogo dozhdia pri dozhdevanii v usloviiakh Zavolzh'ia. [Evaporation of artificial rain during sprinkling in the Trans-Volga region.] *U.S.S.R. Ministerstvo Sel'skogo Khoziaistva i Zagotovok, Dostizhenie Nauki i Peredovogo Opyta v Sel'skom Khoziaistve*, No. 5:16-19, May 1933. 2 figs. DLC—Up to 30% of the sprinkling water is lost to evaporation in the air. Experimental results are presented showing dependence on temperature, humidity, and wind speed. Diurnal course of evaporation losses is discussed. *Subject Headings:* 1. Evaporation 2. Sprinkling.—*A.A.*

graphs 1

KAL'YANOV, G.S., kandidat tekhnicheskikh nauk.

Water losses in sprinkler watering. Gidr. i mel. 6 no.11:12-18 N '54. (MLRA 7:11)

(Irrigation)

KAL'YANOV, G.S., kandidat tekhnicheskikh nauk.

Ways of improving the uniformity of sprinkler irrigation.
Sel'khozmashina no.7:3-7 Jl '54. (MLRA 7:7)
(Sprinkler irrigation)

KAL'YANOV, G.S., kandidat tekhnicheskikh nauk

Consumption of power in sprinkler irrigation. Sel'khozmashina no.8:10-11 Ag'55. (MLRA 8:11)
(Sprinkler irrigation)

KAL'YANOV, G.S., kandidat tekhnicheskikh nauk.

Calculating the operating efficiency of sprinkling machines. Sel'khozmashina no.5:11-13 My '56. (MLRA 9:8)
(Sprinklers)

KAL'YANOV, K.G.

Guniting of gas conduits in underjet coke ovens. Koks i khim. no.10: 24-26 '62. (MIRA 16:9)

1. Koksokhimmontantsiya.
(Coke ovens--Maintenance and repair)

KAL'YANOV, K.G.

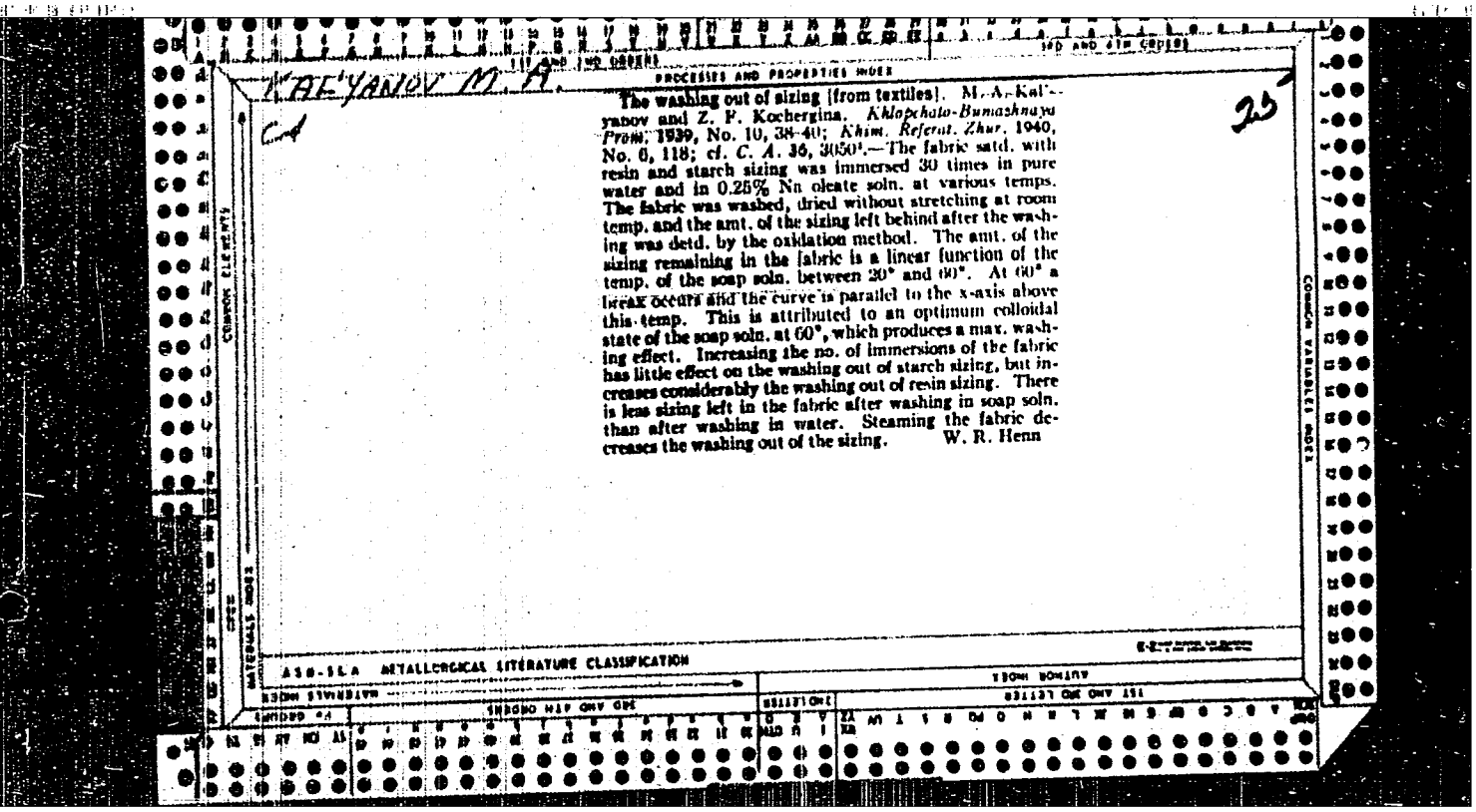
Effect of the type of door lining on the strength of coke-oven brickwork. Koks i khim. no.6:22-28 '60. (MIRA 13:7)

1. Koksokhimstantsiya.
(Coke ovens)

KAL'YANOV, K.G.

Method of temperature measurement on the brickwork surface of the coking chamber. Koks i khim. no.12:29-33 '62. (MIRA 16:1)

1. Koksokhimstantsiya.
(Coke ovens) (Temperature--Measurement)



KAE'YANOV M. A.

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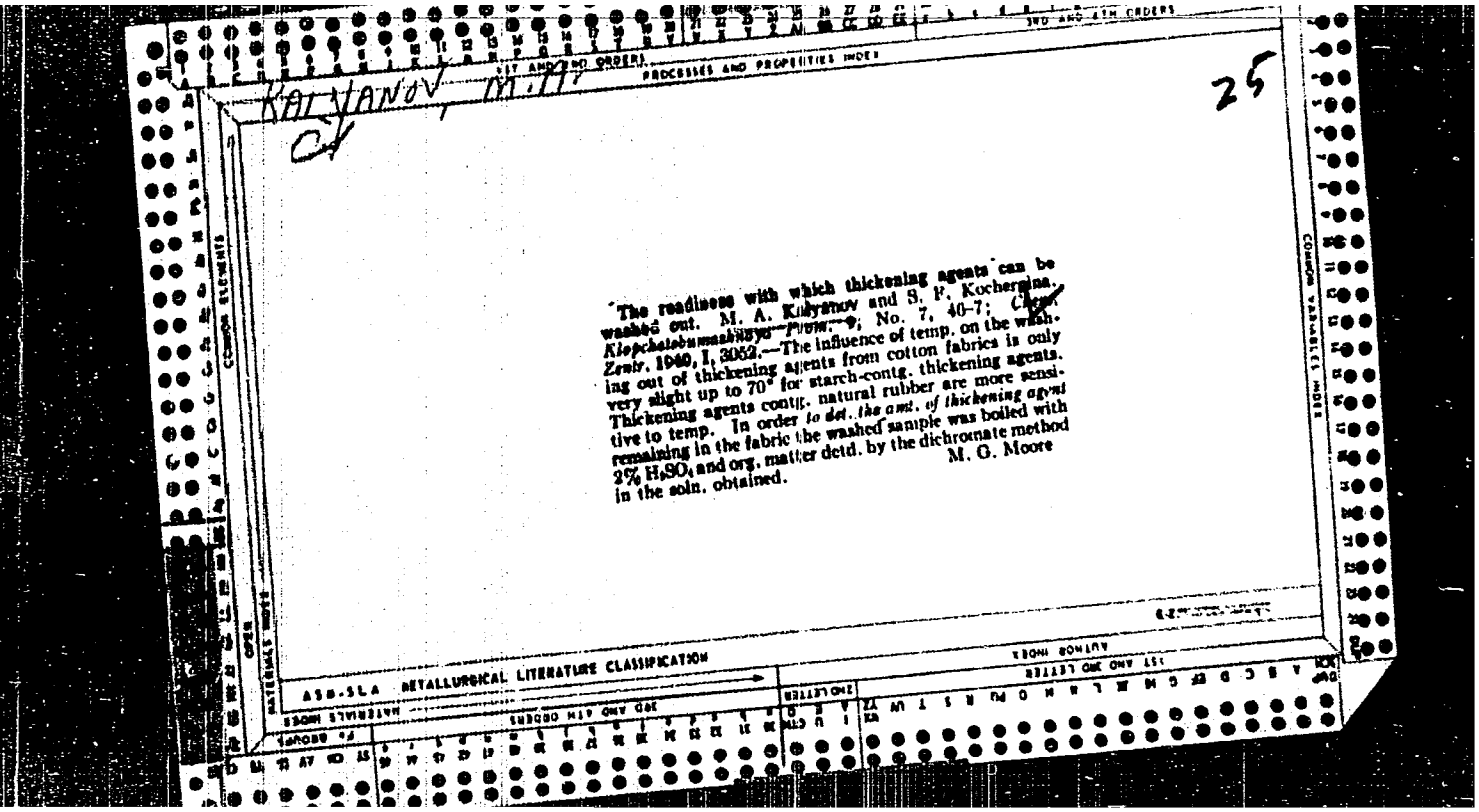
PROCESSES AND PROPERTIES INDEX

25

The washing out of sizing [from textiles]. M. A. Kal'yanov and Z. P. Kochergina. *Khlopchato-Bumazhnaya Prom.*, 1939, No. 10, 38-40; *Khim. Referat. Zhur.*, 1940, No. 6, 118; cf. *C. A.* 36, 3050¹.—The fabric satd. with resin and starch sizing was immersed 30 times in pure water and in 0.25% Na oleate soln. at various temps. The fabric was washed, dried without stretching at room temp. and the amt. of the sizing left behind after the washing was detd. by the oxidation method. The amt. of the sizing remaining in the fabric is a linear function of the temp. of the soap soln. between 20° and 60°. At 60° a break occurs and the curve is parallel to the x-axis above this temp. This is attributed to an optimum colloidal state of the soap soln. at 60°, which produces a max. washing effect. Increasing the no. of immersions of the fabric has little effect on the washing out of starch sizing, but increases considerably the washing out of resin sizing. There is less sizing left in the fabric after washing in soap soln. than after washing in water. Steaming the fabric decreases the washing out of the sizing. W. R. Henn

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



KALYANOV, M.A.

25

The readiness with which thickening agents can be washed out. M. A. Kalyanov and S. F. Kochergina. *Klopchatobumazhnaya Prom.*, No. 7, 40-7; *Chem. Zentr.* 1940, I, 3052.—The influence of temp. on the washing out of thickening agents from cotton fabrics is only very slight up to 70° for starch-contg. thickening agents. Thickening agents contg. natural rubber are more sensitive to temp. In order *to det. the amt. of thickening agent* remaining in the fabric the washed sample was boiled with 2% H_2SO_4 and org. matter detd. by the dichromate method in the soln. obtained.

M. G. Moore

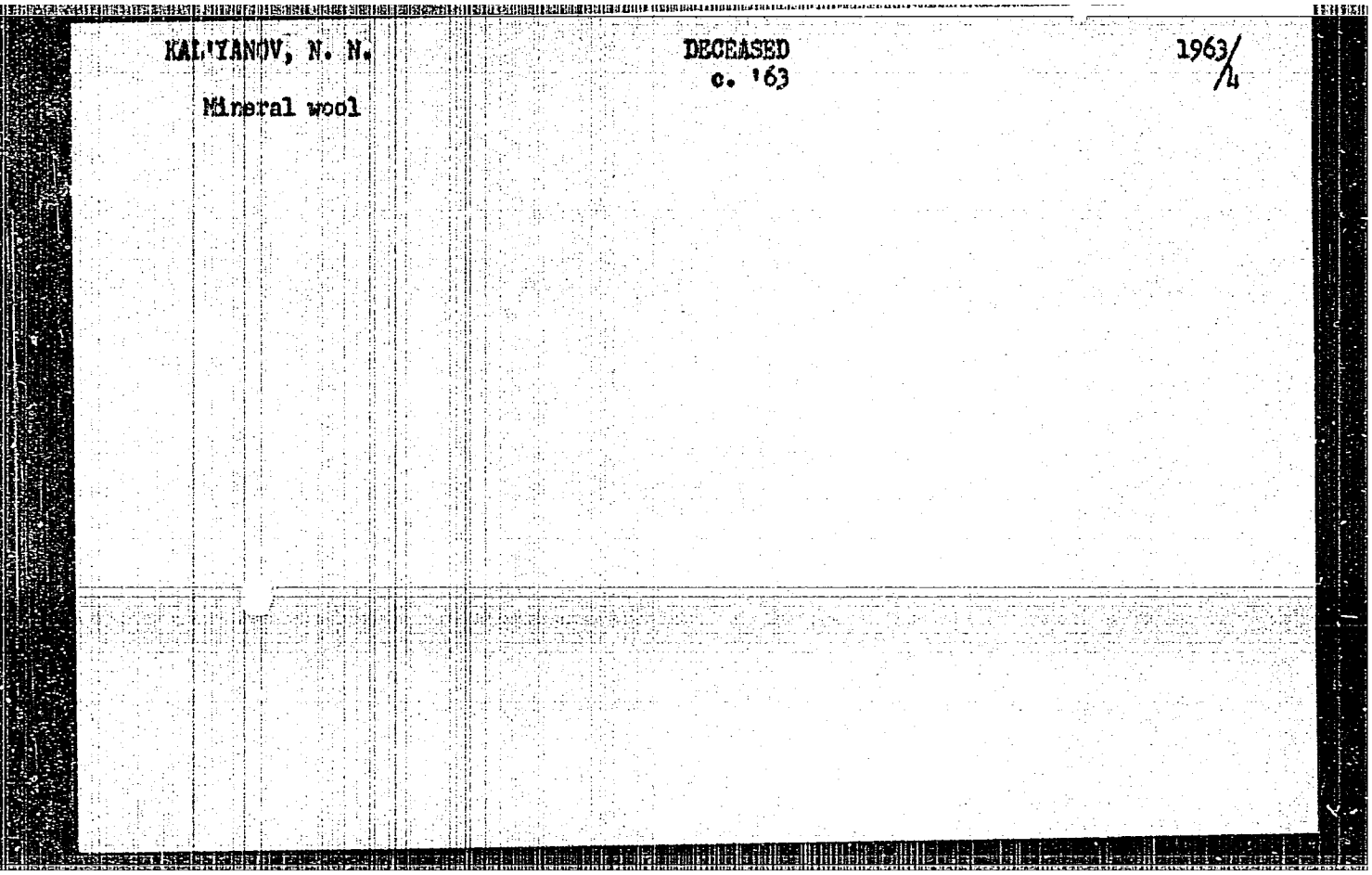
KAL'YANOV,M.A.; SHTEKKER,O.A.

Method of determining the plasticity of acetyl cellulose etrol (a plastic material). Khim.prom.no.3:81-82 Mr'47. (MIRA 8:12)

1. Nachal'nik Nauchno-issledovatel'skoy laboratorii Vladimirskogo khimicheskogo zavoda (for Shtekker) 2. Inzhener Nauchno-issledovatel'skoy laboratorii Vladimirskogo khimicheskogo zavoda (for Kal'yanov)
(Plastics)

LEONOV, M.V.; OSTER-VOLKOV, N.N.; KALYAYEV, M.M.

New plastics for stamping tools. Mashinostroitel' no.12: 28-30 D '64. (MIRA 18:2)



KELEBERDA, B., inzh.-stroitel'; KAL'YANOV, O., brigadir

Let's use economical designs of rafter trusses. Sil'.bud. 12 no.2:7-8 F '62. (MIRA 15:8)

1. Pershotravnevskoye rayonnoye otdeleniye "Sil'gosptekhniki" Donetskoy oblasti (for Keleberda). 2. Stroitel'naya brigada kolkhoza imeni Lenina Pershotravnevskogo rayona, Donetskoy oblasti (for Kal'yanov).

(Trusses)

KAL'YANOV, T.A., inzhener; BREZHNEV, Ya.I., inzhener; RUDNITSKIY, L.S., inzhener; KOTESHOV, N.P., inzhener; YEZERSKIY, B.B., inzhener; CHERKUN, N.A., inzhener; SUSLOVICH, Z.I., inzhener; ZABELIN, N.K., inzhener.

Improving the quality of cast-iron rolls for shape rolling. Stal' 16 no.7:647-649 Jl '56. (MLRA 9:9)

1. Zavod imeni Dzerzhinskogo, Dnepropetrovskiy chugunoval'-tsedelatel'nyy zavod i Dnepropetrovskiy metallurgicheskiy institut.
(Rolls (Iron mills)--Quality control)

KAL'YANOV, V. PLESHCHENKO, YE. I GRYAZEV, I.

5460 Kal'yanov, V. Pleshchenko, Ye. I Gryazev, I. Rezhim ekonomii na predpiyatii i stroyke. Tula, oblknigoizdat, 1954, 40 s. 20 sm. 4.000 ekz. 70K -- Naobl avt. ne ukazany.
Soderzh: V. Kal'yanov. Rezhim ekonomii-osnova rosta proizvodstva - E. Pleshchenko. Putiekonomii V stroitel'stve. - i. Gryazev. Vazhenysheye usloviye snizheniya sevesstoimosti-(55-1075) P 69.0031 & 339.44:69(47.391)

SO: Knizhnaya Letopis' , Vol. 1, 1955

KAL'YANOV, V.

In the warm waters of the Barents Sea. Vokrug sveta no.10:44 O '55. (Barents sea) (MLRA 9:1)

Kal'yanov, V. A.

112-2-4759

TRANSLATION FROM: Referativnyy zhurnal, Elektrotekhnika, 1957, Nr 2, p. 326 (USSR)

AUTHORS: Kal'yanov, V. A., Romanova, V. M.

TITLE: The Temperature-Velocity Relation of Ultrasound in Formiates at Low Temperatures (O temperaturnoy zavisimosti skorosti ul'trazvuka v formiatakh pri nizkikh temperaturakh)

PERIODICAL: Sbornik stud. nauch, rabot po yestestv.-matem. tsiklu. Mosk. obl. ped. in-t, 1956, Nr 1, pp. 65-71

ABSTRACT: The speed of ultrasound was measured in the temperature interval -40° to + 20°. The law of corresponding states for the speed of sound and adiabatic compressibility, Rao's law, establishing the relation between the speed of sound, the molecular speed of sound, the density and the molecular weight of a liquid, and Lagemann's ratio relating the temperature coefficient of the speed of sound to the molecular weight of the liquid were confirmed on the basis of these measurements. The measurements were made by the optical method (the diffraction of

Card 1/2

The Temperature-Velocity Relation of Ultrasound in (Cont.) 112-2-4759
light on ultrasonic waves in a liquid).

L.M.L.

ASSOCIATION: Moscow Oblast Pedagogical Institute (Mosk. obl. ped. in-t)

Card 2/2

KAL'YANOV, V.A.; SHENDEROV, V.Z.

Use of an electron commutator in checking the identity of seismic amplifiers. Razved. i prom. geofiz. no.48:34-37 '63
(MIRA 18:1)

1. BESKROVNYI, V. M., KAL'YANOV, V. I.

2. USSR (600)

4. Barannikov, Aleksei Petrovich, 1890-1952

7. In commemoration of Aleksei Petrovich Barannikov. Izv. AN SSSR. Otd. lit. i iaz. 12, no. 1, 1953.

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

KAI'YANOV, V.I., inzh.

Use of hydraulic dampers for damping the vertical vibrations of locomotives. Vest. TSNII MPS 24 no.2:21-25 '65.
(MIRA 18:5)

KAL'YANOV, V.I., inzh.

Coefficients of the relative damping of the vertical vibrations of locomotives. Vest. TSNII MPS 23 no.4:19-24 '64.
(MIRA 17:8)

RAGHYANSKIY, E.V., kand.tekhn.nauk; DOBROTINA, Z.A., kand.tekhn.nauk; SOPIN, V.T., inzh.; KAL'YANOV, V.N., inzh.

Effect of operating conditions on the chemical composition of metals deposited under a ZhS-type ceramic flux. Svar.proizv. no.8:20-22 Ag '60. (MIRA 13:7)

1. Zhdanovskiy metallurgicheskiy institut.
(Hard facing) (Flux(Metallurgy))

S/135/62/000/010/001/006
A006/A101

AUTHORS: Bagryanskiy, K. V., Candidate of Technical Sciences, Kal'yanov, V. N., Engineer

TITLE: Investigating the phase composition of some multi-layer deposits

PERIODICAL: Svarochnoye proizvodstvo, no. 10, 1962, 9 - 12

TEXT: A theoretical analysis and experimental investigations were made of the connection between the phase and chemical composition in multi-layer welding under ceramic fluxes, alloying the built-up metal with C, Cr, Mn and Si. Processes of possible structural transformations predetermining the final phase composition of the metal are demonstrated by calculating the thermal welding cycle, using the values of linear energy q_u/v = 5,000 - 7,000 cal/cm, and preheating temperature $T_{pre.}$ = 330 ÷ 370°C. The theoretical concepts were checked by a series of welded deposits with chemical compositions varying in such a manner that continuously increasing total amounts of ferrite forming elements (Cr, Si, W, Ti) and austenizers (C, Mn) were obtained. The welds were deposites on 50 - 70 mm thick Ст.3 (St.3) and 55 X (55Kh) steel plates with Св-08 (Sv-08)

Card 1/2

S/135/62/000/010/001/006
A006/A101

Investigating the phase composition of...

electrode wire, 4 and 5 mm in diameter, under ceramic fluxes yielding basic slags. Prior to building-up the specimens were preheated and subsequently cooled. The effect of hard-facing with application of loads and holding at elevated temperatures upon changes in the structure and hardness was also studied. The theoretical and experimental data are in a satisfactory agreement. Conclusions: Under the experimental conditions the phase composition in multi-layer deposition, at sufficiently high C, Cr and Mn content, is mainly determined by the chemical composition of the section under investigation. When long deposits are built-up on massive parts under the described conditions, the phase composition of the deposit does practically not depend upon the number of layers. Preheating or accompanying heating has a maximum effect upon the structure and properties of the built-up metal, at a constant chemical composition of the deposit. Brief-lasting heating combined with considerable specific loads increases hardness and reduces the content of residual austenite in the metal layers which are adjacent to the operational surfaces of the part. Residual austenite in the deposit is entirely disintegrated as a result of tempering at temperatures over 550°C. There are 2 tables and 4 figures.

Card 2/2

KAL'YANOV, V.N.

Conference of Zhdanov welders. Avtom. svar. 16 no.7:96 Jl '63.
(MIRA 16:8)
(Electric welding—Congresses)

BAGRYANSKIY, K.V.; KAL'YANOV, V.N.; LAVRIK, P.F.

Flaking of chromium steel layers deposited on 55Kh and 60KhG steel. Avtom. svar. 16 no.9:26-30 S '63. (MIRA 16:10)

1. Zhdanovskiy metallurgicheskiy institut.

KAL'YANOV, V.N.; RUDENKO, V.K.; KHUDOSHIN, V.A.

Converting the MPShchPr-54 device into a high-speed temperature regulator. Priborostroenie no.10:26 O '64.

(MIRA 17:11)

KAL'YANOV, V. P.

Geomorphological and Hydrological Observation on the expedition vessel "Albatross" during the summer 1932 in the Ob-Yenisay delta and neighboring parts of the Kara Sea.
Zemlevodeniye Vol. 36 #3, 1934

SO: Trudy Arkticheskogo Nauchno-Issledovatel'skogo Instituta, GUSMP, Council of Ministers, Vol. 201, 1948

BAGRYANSKIY, K.V., kand.tekhn.nauk; LAVRIK, P.F., inzh.;
KAL'YANOV, V.N., inzh.

Effect of repeated built-up welding of iron mill rolls on their wear resistance. Svar. proizv. no.8:15-17 Ag '61. (MIRA 14:8)

1. Zhdanovskiy metallurgicheskiy institut.
(Rolls (Iron mills)--Maintenance and repair)

KAL'YANOV, V.N., inzh.

Submerged arc welding of rings with an electrode comb. Svar. proizv. no.8:32-33 Ag '61. (MIRA 14:8)

1. Zhdanovskiy metallurgicheskiy institut.
(Electric welding--Equipment and supplies)

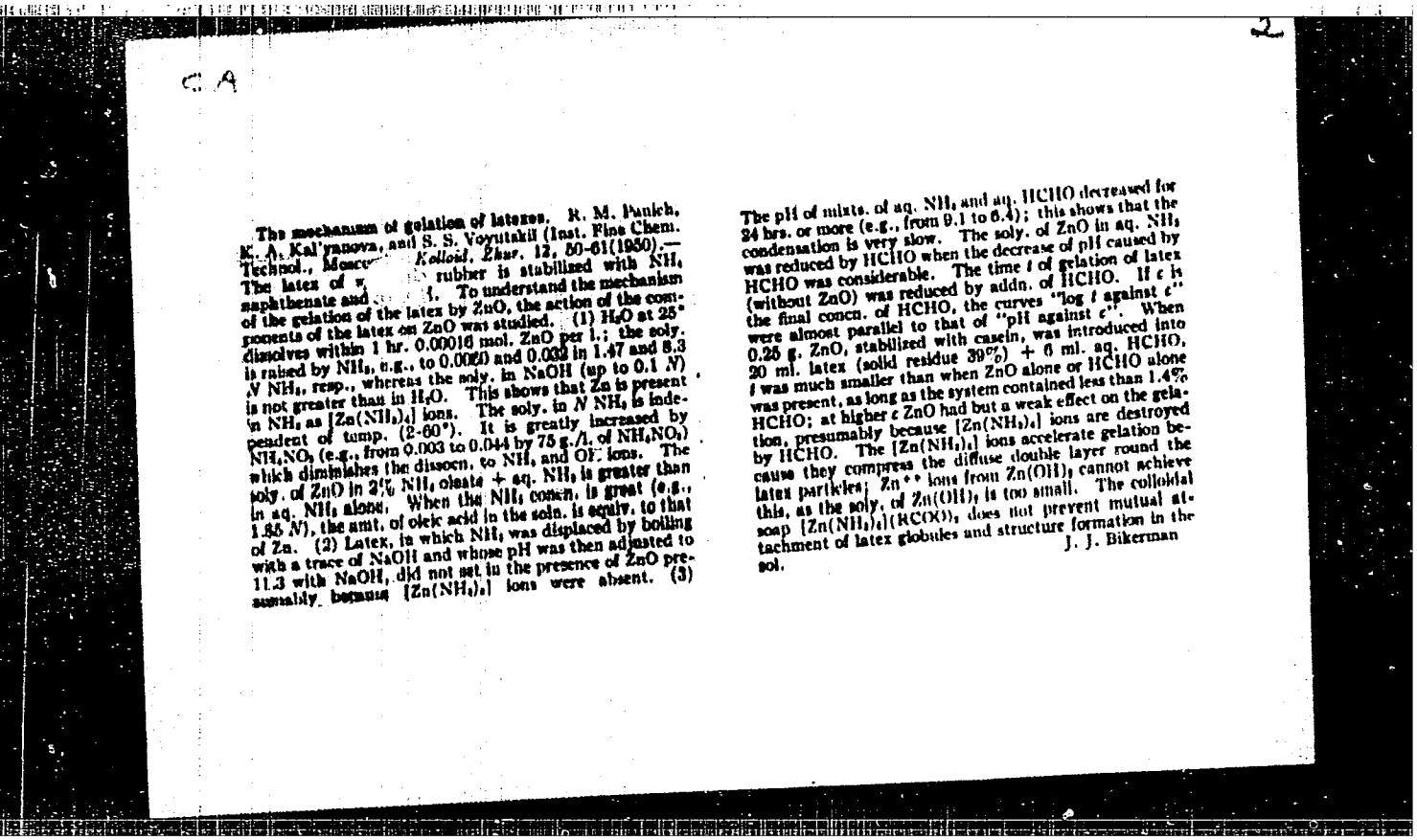
KAL'YANOV, Viktor Petrovich; MALININA, G., red.; TERYUSHIN, M., tekhn.red.

[Ocean far away] Vdali okean. [Moskva] Izd-vo TsK VLKSM "Molodaia gvardiia," 1957. 260 p. (MIRA 11:1)
(Siberia--Description and travel)

MAL'KOV, V. S. (Engineer)

"Use of a Rebuilt U-2 Tractor-Cultivator for Work in Fruit-Bearing Gardens with Joining Tree Tops." Thesis for degree of Cand. Technical Sci. Sub 25 Dec 50, Moscow Inst for the Mechanization and Electrification of Agriculture imeni V. M. Molotov.

Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva. Jan-Dec 1950.



CA

2

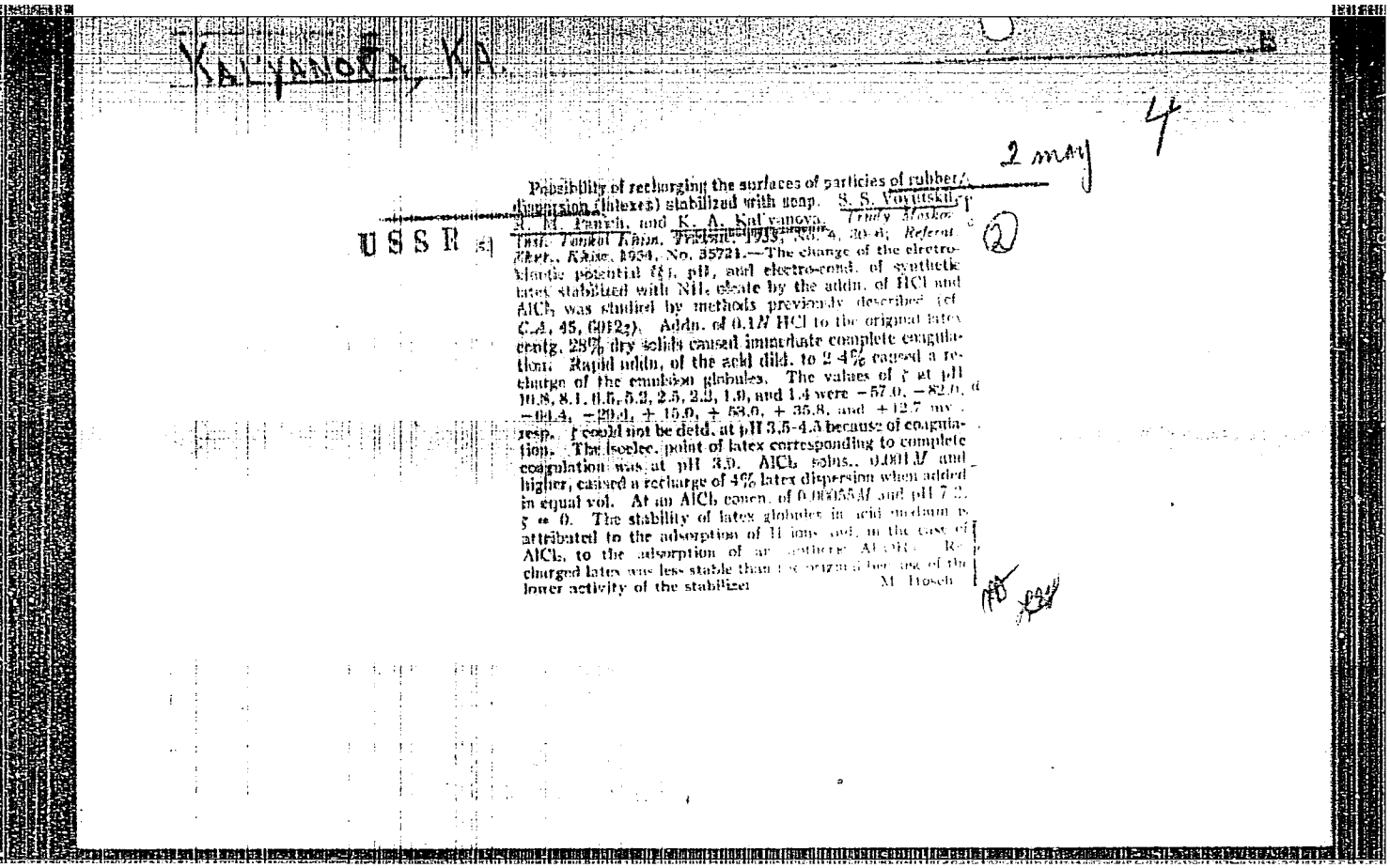
The mechanism of gelation of latexes. R. M. Panich, K. A. Kal'yanova, and S. S. Voyutskii (Inst. Fine Chem. Technol., Moscow). *Kolloid. Zhur.* 12, 50-61(1950).—The latex of w[illegible] rubber is stabilized with NH_4 naphthenate and [illegible]. To understand the mechanism of the gelation of the latex by ZnO, the action of the components of the latex on ZnO was studied. (1) H_2O at 25° dissolves within 1 hr. 0.00016 mol. ZnO per l.; the soly. is raised by NH_3, e.g., to 0.0020 and 0.032 in 1.47 and 8.3 *N* NH_3, resp., whereas the soly. in NaOH (up to 0.1 *N*) is not greater than in H_2O. This shows that Zn is present in NH_3 as $[Zn(NH_3)_4]$ ions. The soly. in *N* NH_3 is independent of temp. (2-60°). It is greatly increased by NH_4NO_3 (e.g., from 0.003 to 0.044 by 75 g./l. of NH_4NO_3) which diminishes the dissocn. to NH_3 and OH^- ions. The soly. of ZnO in 2% NH_4 oleate + aq. NH_3 is greater than in aq. NH_3 alone. When the NH_3 concn. is great (e.g., 1.85 *N*), the amt. of oleic acid in the soln. is equiv. to that of Zn. (2) Latex, in which NH_3 was displaced by boiling with a trace of NaOH and whose pH was then adjusted to 11.3 with NaOH, did not set in the presence of ZnO presumably because $[Zn(NH_3)_4]$ ions were absent. (3) The pH of mixts. of aq. NH_3 and aq. HCHO decreased for 24 hrs. or more (e.g., from 9.1 to 6.4); this shows that the condensation is very slow. The soly. of ZnO in aq. NH_3 was reduced by HCHO when the decrease of pH caused by HCHO was considerable. The time *t* of gelation of latex (without ZnO) was reduced by addn. of HCHO. If *c* is the final concn. of HCHO, the curves "log *t* against *c*" were almost parallel to that of "pH against *c*". When 0.25 g. ZnO, stabilized with casein, was introduced into 20 ml. latex (solid residue 39%) + 6 ml. aq. HCHO, *t* was much smaller than when ZnO alone or HCHO alone was present, as long as the system contained less than 1.4% HCHO; at higher *c* ZnO had but a weak effect on the gelation, presumably because $[Zn(NH_3)_4]$ ions are destroyed by HCHO. The $[Zn(NH_3)_4]$ ions accelerate gelation because they compress the diffuse double layer round the latex particles; Zn^{++} ions from $Zn(OH)_2$ cannot achieve this, as the soly. of $Zn(OH)_2$ is too small. The colloidal soap $[Zn(NH_3)_4](RCOO)_2$ does not prevent mutual attachment of latex globules and structure formation in the sol.

J. J. Bikerman

Elastomers-38

CA

The mechanism of gelation of latexes. R. M. Panich, K. A. Kalyanova, and S. S. Voyutskii (Lomonosov Inst. Fine Chem. Technol., Moscow). *Rubber Chem. & Technol.* 25, 600-608(1952).—See *C.A.* 44, 3770c. C. C. Davis



KALYANOVA, K.A.

4

2 may

USSR

Possibility of recharging the surfaces of particles of rubber dispersion (latexes) stabilized with soap. S. S. Voyutskii, R. M. Fenych, and K. A. Kal'yanova. *Trudy Moskov. Inst. Tonkoi Khim. Tekhnol.*, 1953, No. 4, 39-41; *Referat. Zhur., Khim.* 1954, No. 35721.—The charge of the electrokinetic potential (ζ), pH, and electrocond. of synthetic latex stabilized with NH4 oleate by the addn. of HCl and $AlCl_3$ was studied by methods previously described (cf. *C.A.* 45, 6012g). Addn. of 0.1*N* HCl to the original latex contg. 28% dry solids caused immediate complete coagulation. Rapid addn. of the acid dild. to 2-4% caused a recharge of the emulsion globules. The values of ζ at pH 10.8, 8.1, 6.5, 5.2, 2.5, 2.3, 1.9, and 1.4 were −57.0, −82.0, −61.4, −29.4, + 15.0, + 53.0, + 35.8, and + 12.7 mv., resp. ζ could not be detd. at pH 3.5-4.3 because of coagulation. The isoelec. point of latex corresponding to complete coagulation was at pH 3.9. $AlCl_3$ solns., 0.001*M* and higher, caused a recharge of 4% latex dispersion when added in equal vol. At an $AlCl_3$ concn. of 0.00055*M* and pH 7.2, ζ = 0. The stability of latex globules in acid medium is attributed to the adsorption of H ions and, in the case of $AlCl_3$, to the adsorption of an aquohydroxo $Al_2(OH)_5^+$ ion. Recharged latex was less stable than the original latex because of the lower activity of the stabilizer. M. Hosch

KAZANOVA, K. A.

USSR

62
3

Mechanism of separation of the disperse phase of emulsions during filtration. S. S. Voyutskii, K. A. Kal'yanova, R. M. Panich, and N. M. Fuzlinan (M. V. Lomonosov Inst. Fine Chem. Technol., Moscow). *Doklady Akad. Nauk S.S.S.R.* 91, 1165–8(1953).—In the filtration of emulsions through fibrous materials, the emulsion separates only if some crit. filtration velocity is not exceeded. Below this velocity, the completeness of sepn. [illegible] face of the fiber rather than on the size [illegible] emulsions. To elucidate the mechanism of the sepn. [illegible] water-in-oil emulsions (0.2% H_2O [illegible] with a series of fibers of const. total surface [illegible] ent hydrophility (I). The rate of destruction of the emulsion increased with I. In filtration, a similar relation held. The coagulation of the H_2O globules, by their adsorption on the fibers, was possibly preceded by adsorption of the surfactants present in the emulsion. The rate of self-cleaning of the fibers, by shedding the coagulated H_2O, increased with increasing hydrophobicity (II) of the fibers, as indicated by comparison of the amts. of water displaced from moist fibers by oil. For best sepn. of water-in-oil emulsions, the fiber filters should possess I high enough to coagulate the H_2O phase, and II high enough to permit a self-cleaning of the filter fiber, so that the filter does not clog. A. H.

KAL'YANOVA, M. I.

Kuznets, M. M. and Kal'yanova, M. I. "Buschke's scleredema in adults," Voprosy dermato-venerologii, Vol. IV, 1948, p. 81-92, --Bibliog: 9 items.

SO: U-3736, 21 May 53, (Letopis 'Zhurnal 'nykh Statey, No. 18, 1949).

KAL'YANOVA, M. I. Feb 50

USSR/Medicine - Penicillin Therapy
Lungs

"Treatment of Pulmonary Diseases by Inhalation of an Aerosol of Penicillin," Prof S. Ya. Kofman, Dir, Chair of Propaedeutics of Inst Diseases, M. I. Kal'yanova, Chair of Propaedeutics of Inst Diseases, Leningrad State Pediatric Med Inst, 5 pp

"Klin Med" No 2

Discusses subject inhalation method and equipment necessary for use. Finds method effective not only for treatment of diseases in epidemic group, but also for various pulmonary diseases. Because method provides direct and immediate contact with site of disease, proved effective in treating severe complicated pneumonia, even in sulfamide-resistant cases. Proved effective treatment for suppurative processes of respiratory tract, abscesses of the lungs, and bronchiectatic diseases.

155T38

KUCHEROV, P.M.; BYKOV, L.T.; KARPUZIDI, K.S.; MERLIN, V.M.; KUNITSA, N.K.; KAL'YANOVA, M.L.; PARSHIN, M.I.

Experience with the prevention of tularemia during an extensive epizootic outbreak in rodents. Zhur. mikrobiol. epid. i immun. 29 no.8:3-7 Ag '58. (MIRA 11:10)

1. Iz Ural'skoy protivochumnoy stantsii i Rostovskogo protivochumnogo instituta.

(TULAREMIA, prevention and control, during extensive epizootic outbreak in rodents (Rus))

SOV/137-58-8-17954

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 251 (USSR)

AUTHOR: Kalyanova, M. P.

TITLE: On the Possibility of Fabricating Spindle Pulleys for Spinning Machines From Magnesium Alloys (O vozmozhnosti izgotovleniya blochkov vereten pryadil'nykh mashin iz magniyevykh splavov)

PERIODICAL: V sb.: Tekhnol. obrabotki detaley tekstil'n. mashin. Moscow, Mashgiz, 1957, pp 102-103

ABSTRACT: Investigations were performed in order to compare the wear-resistant properties of spindle pulleys for spinning machines made of Mg alloy ML-5 without a coating, spindle pulleys with a 1.5-2 mm thick coating of steel St. 3 applied by metallization, and spindle pulleys made of cast iron. It is shown that a five-fold increase in wear resistance of pulleys made of the Mg alloy may be achieved by the employment of steel coating. After 1600 hours of operation, the cast iron pulleys exhibited a wear of 18 μ , whereas the steel-coated pulleys made of the Mg alloy showed a wear of only 11 μ . It is assumed that the increase in wear resistance of the steel-coated

Card 1/2

On the Possibility of Fabricating Spindle Pulleys (cont.)

Mg-alloy pulleys is attributable to the appearance of oxide inclusions formed in the course of the metallization process.

E. S.

1. Magnesium alloys—Mechanical properties
2. Magnesium alloys—Coatings 3. Magnesium alloys—Applications

KALYANOVA, M.P., inzh.

Effect of corrosion rate on the wear of rings of spinning frames used for wet spinning of linen. Sbor. st. NIILTEKMASH no.3:98-101 '57. (MIRA 12:10)

(Spinning machinery) (Mechanical wear)

KALYANOVA, M.P.; DYNKINA, S.Ya.; DRONOVA, N.P.

Electrolytic sharpening of punches used for piercing spinnerette holes. Sbor. st. NIILTEKMASH no.3:164-165 '57. (MIRA 12:10)
(Electrolytic polishing)

SAYKINA, V.N., inzh.; KALYANOVA, M.P., inzh.

Wear resistance of the ring-traveler spinning pair. Metalloved. i term. obr. met. no.2:58 F '61. (MIRA 14:3)
(Case hardening) (Spinning machinery)

SAYKINA, Vera Nikolayevna, inzh.; KALYANOVA, Mariya Pavlovna, inzh.; TRYASUNOVA, Ye.V., inzh., ved. red.; SAMOKHOTSKIY, A.I., inzh., red.; SOROKINA, T.M., tekhn. red.

[Chemical and heat treatment of friction surfaces instead of honing]Khimiko-termicheskaia obrabotka poverkhnostei treniia vzamen dovodki. Moskva, Filial Vses. in-ta nauchn. i tekhn. informatsii, 1958. 7 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 3. No.M-58-246/8) (MIRA 16:2)
(Surfaces (Technology))

KAL'YANOVA, S.M.

82641
S/126/60/010/02/011/020
18.7500 E021/E335

AUTHORS: Gorelik, S.S., Kal'yanova, S.M. and Rozenberg, V.M.

TITLE: Structural Changes in Aluminium With Slight Deformation and a Subsequent Annealing

PERIODICAL: Fizika metallov i metallovedeniye, 1960, Vol. 10, No. 2, pp. 251 - 261

TEXT: AV-000 aluminium containing traces of magnesium, silicon and copper was used in the investigation. Deformation was produced on a 5-ton press at 21 mm/min. The number of slip marks, the vertical component of displacement in the slip marks and the vertical component of displacement of grains relative to one another were measured on an interference microscope by the method described in earlier work (Ref. 3). The mean grain size was also found. Migration of the grain boundaries during recrystallisation was found by a method using polarised light (Ref. 5). The critical degree of deformation using an annealing temperature of 400 °C was found by constructing a graph of grain size after annealing against degree of deformation. It was found to be approximately 6.5%. Fig. 2 shows the influence of small degrees of deformation on the number of slip marks, the mean dis-

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E021/E335

Structural Changes in Aluminium With Slight Deformation and a Subsequent Annealing

placement in the slip marks, the mean displacement between the grains and the ratio of the last two, in descending order. This shows that the basic mechanism of plastic flow, with or without the critical degree of deformation, is the same - slip in the grains accompanied by displacement of the grains relative to one another. After deformation less than the critical value, structural changes during annealing occur, in the main, by polygonisation, with a small degree of migration of boundaries of individual grains, stimulated by the tendency to decrease the surface energy of a system (Figs. 3, 4). Very occasionally, migration of the boundary occurs because of differences in volume energy of adjacent grains (Fig. 5). After deformation greater than the critical amount, annealing at 400 °C is accompanied by intensive growth of individual crystallites and frontal migration of boundaries which is stimulated by differences in volume elastic energy of adjacent grains. The rate and distance of migration of boundaries is many times greater than that stimulated by surface energy differences. Intensive growth occurs after an

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E021/E335

Structural Changes in Aluminium With Slight Deformation and a Subsequent Annealing

incubation period during which redistribution of the energy inside the grains occurs (Figs. 6-8). After deformation many times greater than the critical amount, new grains arise between the original grains at places of maximum distortion. The orientation of the new grains differs sharply from those surrounding it. This occurs after an incubation period of 6 to 30 minutes. There are 8 figures, 1 table and 7 references: 6 Soviet and 1 English.

ASSOCIATION: TsNIIChM

SUBMITTED: March 19, 1960

Card 3/3

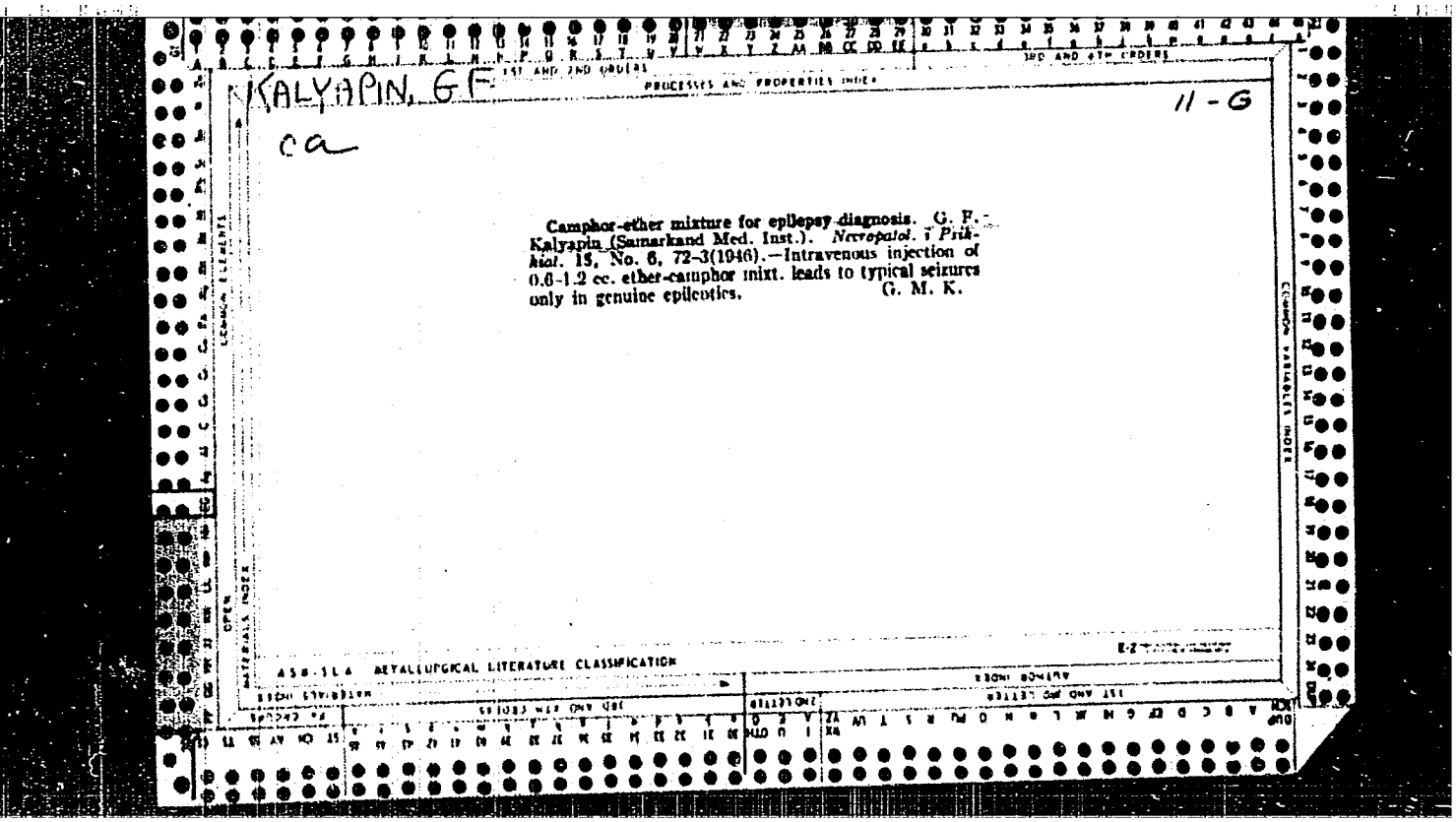
KAL'YANTS, K.S., gornyy inzh.; SANDUL, N.P., gornyy inzhener

Rapid drifting of a haulage roadway. Ugol' Ukr. 3 no.7:30-32 Jl '59. (MIRA 12:11)

1.Shakhta No.3/5 "Yasinovskaya" tresta Sovetskugol'.
(Donets Basin--Mining engineering)

KALYAPIN, A. (g. Ryazan')

Let's get rid of flies. IUn.nat. no.6:19 Je '57. (MLRA 10:7)
(Flies)



KALYAPIN, G F

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Camphor-ether mixture for epilepsy diagnosis. G. F. Kalyapin (Samarkand Med. Inst.). *Nevropatol. i Psikhiat.* 15, No. 6, 72–3(1946).—Intravenous injection of 0.6–1.2 cc. ether-camphor mixt. leads to typical seizures only in genuine epileptics. G. M. K.

KALIYAS L.A.

USSR / General Problems of Pathology. Tumors. U

Abs Jour: Ref Zhur-Biol., No 9, 1958, 41950.

Author : Nurmand L. P., Vakhter, Kh. T., Kal'yas, L. A.
Inst : Not given.
Title : Comparative Investigation of the Harmful Effect of Oil-shales of Kokhtla-Yarve on the Animal Organism. (Morphological Investigation).

Orig Pub: V sb. Zdravookhr. Sov. Estonii. sb. 3. Tallin, Est. gos. izd-vo 1955, 213-224.

Abstract: The action on mice, guinea pigs and rabbits, of some products of dry distillation of shale, obtained from the factory at Kokhtlia-Yarve was investigated. The products used were: medium (light) generator oil (I); heavy generator pil (II) and tars from the chamber furnaces (III). Following application of these products to the skin, 181

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USSR / General Problems of Pathology. Tumors. U

Abs Jour: Ref Zhur-Biol., No 9, 1958, 41950.

Abstract: out of 146 mice perished in the course of 6 months. The earliest death of the mice was caused by I, the latest, by III. I, II, and III caused, at first, inflammatory changes in the skin, then papillomas, particularly II and III. Seven mice treated with III, developed planocellular cancer with metastases to the lung in one animal. Application of I, II and III to the skin was followed, in all the mice, by development of focal pneumonia, distrophic liver changes, amyloidosis of the parenchymal organs and chronic nephritis. Application of shale products to the skin of guinea pigs caused temporary baldness and dermatitis. No tumors were noted. Changes in the lungs, liver and kidneys were found only after application of II. Application of I, II or III to the external

Card 2/3

KALYASHIN, N., inzhener.

Preventing breakdown of hot-water and steam boilers. Zhil.-kom.khoz. vol.3 no.9:22-23 S '53. (MLRA 6:9)
(Boilers)

KALYASHIN, N.V.

Preventing boiler explosions in boiler rooms. Vod. i san. tekh. no.12:29-31 D '59. (MIRA 13:3)
(Boilers) (Heating--Safety measures)

KALYASKIN, I.

An indifferent attitude toward an important matter. Sov.profsoiuzy 3 no.3:37-40 Mr '55. (MLRA 8:4)
(Oil well drilling) (Trade unions)

KALYATSKIN, I.I.

VOROB'YEV, A.A., professor, doktor fiziko-matematicheskikh nauk; VOROB'YEV, N.I., dotsent, kandidat tekhnicheskikh nauk; TRESKINA, M.N., inzhener; VOROB'YEV, G.A., inzhener; KALYATSKIN, I.I., inzhener; TRUBITSYN, A.M., inzhener; DMITREVSKIY, V.S., inzhener; KALGANOV, A.F., inzhener; KUCHIN, V.D., inzhener.

"High voltage electrical engineering." Part I and II. A.A.Akopian and others. Reviewed by A.A.Vorob'ev and others. Elektrichestvo no.8: 91-92 Ag '54. (MLRA 7:8)

1. Kafedra tekhniki vysokikh napryazheniy i kafedra elektroizolyatsionnoy i kabel'noy tekhniki Tomskogo politekhnicheskogo instituta im. Kirova.
(Electric engineering) (Akopian, A.A.)

KALYATSKIY, I.I. 1 Sotrudniki kafedry tekhniki vysokikh napryazheniy Tomskogo politekhnicheskogo inst.

PHASE I BOOK EXPLOITATION SOV/4809

Vorob'yev, A.A., G.A. Vorob'yev, N.I. Vorob'yev, A.F. Kalganov, I.I. Kalyatskiy, V.D. Kuchin, G.A. Mesyats, S.F. Pokrovskiy, K.K. Sonchik, and A.T. Chepikov

Vysokovol'tnoye ispytatel'noye oborudovaniye i izmereniya (High-Voltage Testing Equipment and Measurements) Moscow, Gosenergoizdat, 1960. 583 p. Errata slip inserted. 10,500 copies printed.

Ed. (Title page): A.A. Vorob'yev, Professor; Ed. (Inside book): A.I. Dolginov; Tech. Ed.: K.P. Voronin

PURPOSE: This book is intended as a textbook for students taking courses dealing with high-voltage technique and high-voltage testing equipment. It may also be of use to the personnel in high-voltage laboratories and scientific institutions. New data contained in the book may be of interest to electricians.

COVERAGE: The book describes methods and installations used for generating and measuring high and superhigh constant, alternating, and pulse voltages used in laboratory work and in charged-particle acceleration processes. Some data contained in the book could be used in designing and computing high-voltage installations. The book was written by the staff members of the Department of High-Voltage Technique of the Tomsk Polytechnic Institute. Chapters I and II were written by A.A. Vorob'yev, with paragraphs I-1 and I-2 written jointly with

Card ~~1/6~~

I.I. Kalyatskiy, paragraph I-6 with N.I. Vorob'yev, paragraphs II-1 to II-6 and II-10 to II-13 with A.F. Kalganov, and paragraphs II-7 to II-9 with V.D. Kuchin. Ch. III was written by A.A. Vorob'yev, with the exception of paragraph III-4, written by S.F. Pokrovskiy, and paragraph III-6, written jointly by A.A. Vorob'yev and the latter. Ch. IV: paragraphs IV-1 to IV-3 were written by I.I. Kalyatskiy; paragraphs IV-5 and IV-6 by A.A. Vorob'yev; paragraph IV-4 by A.A. Vorob'yev and I.I. Kalyatskiy jointly; paragraph IV-7 by K.K. Sonchik; paragraph IV-8 by G.A. Mesyats; and paragraphs IV-9 and IV-10 by N.I. Vorob'yev. Ch. V: paragraphs V-1, V-2 and V-12 were written by A.A. Vorob'yev; paragraphs V-3, V-4 and V-8 by A.A. Vorob'yev and G.A. Vorob'yev jointly; paragraphs V-5 to V-7 by A.A. Vorob'yev and A.T. Chepikov jointly; paragraphs V-9 to V-11 by A.A. Vorob'yev; and paragraph V-13 by K.K. Sonchik. The authors thank Engineer L.T. Murashko for his assistance. References accompany each chapter.

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