L 16807-66
ACC NR: AP6003367

and niobium atoms. Calculation of the energies of mixing U of the solid solutions, carried out by using short-range order coefficients α_i, showed that the short-range order observed was an equilibrium one. Measurement of the microhardness, which increased in the presence of WC, also confirmed the presence of short-range order. Orig. art. has: 4 figures, 1 table, and 3 formulas.

SUB CODE: 11, 20 / SUBM DATE: 24May65 / ORIG REF: 004 / OTH REF: 001

Card 2/2 mc

L 31164-66 EWT(m)/T/EWP(t) IJP(c) HW/JD

ACC NR: AP6006815 SOURCE CODE: UR/0181/66/008/002/0366/0374

AUTHOR: Semenovskaya, S. V.; Umanskiy, Ya. S.

ORG: Moscow Institute of Steel and Alloys (Moskovskiy institut stali i splavov)

TITLE: Separation of the effects which dynamic and static nonhomogeneities have on diffuse scattering of x-rays by single crystals of disordered solid solutions

SOURCE: Fizika tverdogo tela, v. 8, no. 2, 1966, 366-374

TOPIC TAGS: single crystal, solid solution, x ray scattering, phonon spectrum

ABSTRACT: A method is proposed for using diffuse scattering of x-rays to determine the complete spectrum of phonon frequencies in disordered solid solutions. An expression is derived for the mean square amplitude of the fluctuation wave in terms of the chemical activities of the components in the solid solution. This formula may be used with various wave vectors for finding the correlation functions for parameters of short-range order for any number of coordination spheres. The coefficients in the formulas are determined from data of an independent thermodynamic experiment. The method makes it possible to isolate the contributions due to sta-

Card 1/2

L 31164-66

ACC NR: AP6006815

tic and dynamic nonhomogeneities in the total diffuse scattering of x-rays. The method is illustrated by calculating the total spectrum of phonon frequencies in a disordered solid solution of stoichiometric Ni_3Fe quenched in water from 600°C for three directions: [100], [110] and [111]. Dispersion curves are given for longitudinal and transverse waves propagating in these three directions in this alloy. These curves are analyzed and compared with the frequency spectrum for pure nickel. Orig. art. has: 5 figures, 1 table, 16 formulas.

SUB CODE: 20/ SUBM DATE: 28Jun65/ ORIG REF: 007/ OTH REF: 008

Card 2/2

L 40928-66 EWP(k)/EWT(m)/T/EWP(w)/EWP(t)/ETI IJP(c) JD/HW/JG

ACC NR: AP6030179 SOURCE CODE: UR/0148/66/000/005/0140/0143

38
55
B

AUTHOR: Dubrovina, A. N.; Umanskiy, Ya. S.

ORG: Moscow Institute of Steel and Alloys (Moskovskiy institut stali i splavov)

TITLE: Character of structural transformations in deformed alloy Ni + 10% (at.) Mo

SOURCE: IVUZ. Chernaya metallurgiya, no. 5, 1966, 140-143

TOPIC TAGS: nickel alloy, annealing, molybdenum containing alloy, hardness, x ray diffraction analysis, metal recrystallization, phase analysis, solid solution, crystal lattice structure

ABSTRACT: It was thought that preliminary deformation only affects the kinetic formation characteristics of the K-state. It appeared of interest to study the structural changes of a preliminarily deformed alloy during isothermal annealing. A nickel alloy containing 15.1% (wt) Mo [9.8% (at.)], melted in an induction furnace, with not more than 0.5% unavoidable impurities, was studied. Two batches of specimens, quenched (1200°C, 30 minutes, water) and deformed after quenching, were annealed at 500-700°C for 10 minutes to 100 hours after which hardness (according to Vickers), electrical resistance, and x-ray diffraction patterns of the structure were studied.

Changes in electrical resistance and hardness of the quenched specimens in the course of annealing were small and close to experimental error. The electrical resistance of the quenched specimens was higher than that

UDC: 669.24'28':620.183.48

Card 1/3

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of the deformed; consequently, after quenching the atomic arrangement was non-chaotic (close-ordered).

Hardness of the deformed specimens in the annealing process increased from Bhn 275 to approximately Bhn 420. Processes leading to the hardness increase proceeded more rapidly at 600°C than at 500°C. At 700°C the hardness initially increased but later, in connection with the initiation of recrystallization, was reduced. The electrical resistance of the deformed specimens in the annealing process was increased by approximately 6%.

To study character of structural changes, shapes of the diffractions lines (111), (200), (311) and (222) of deformed and annealed specimens were photographed. In lines (200) and (311) satellites appear from the direction of small angles; this attests to the appearance of a new phase in the alloy.

This phase can have a lattice of the gamma-solid solution and be enriched with molybdenum (increase of the Mo content in the solution leads to the increase of its lattice period). In this case cleavage should be observed in all lines but the distance between lines of the basic solid solution and Mo-enriched parts should be increased with increase in the reflection angle proportional to tan v (v - the Wolf-Bragg angle). However, the cleavage of the (222) line, whose Wolf-Bragg angle is greater than the others, is absent, and the degree of cleavage of the (200) and (311) lines does not satisfy this requirement. Whereas in Mo-enriched parts there occurred ordering, and the Ni_4Mo phase was formed, which has

ACC NR: AP6030179

a tetragonal structure on a face-centered base, the more intense components of the tetragonal doublets of line (200) and (311) of this phase should be shifted in the direction of smaller angles relative to the lines of the gamma-solid solution; lines (111) and (222) of the new phase are insignificantly shifted relative to the lines of the main solution. This picture of transformations in the alloy was in excellent agreement with experiment.

Effects noted in specimens deformed 40% was considerably weaker. During exposure in monochromatized copper radiation it was possible to observe weak satellites in lines (200) and (311) of the specimens annealed at least 5 hours at 600°C and not less than 10 hours at 500°C. Characteristics of intensity distribution are the same as in stronly deformed specimens.

Deformation of the investigated alloy results in the appearance of microdistortions. Nickel and molybdenum atoms have different radii; hence, during annealing, a rising diffusion of Mo atoms in parts with an elongated lattice and the emergence of a concentrated inhomogeneity in the alloy are possible. Just such a structure provides for high hardness.

Thus, the roentgenographic study indicated that the K-state in the deformed and annealed alloy of Ni + 10% (at.) Mo was associated with the formation, in the annealing process, of parts with the ordered structure of Ni_4Mo having an increased content of Mo in comparison with the average content, since the K-state in the quenched and annealed specimens is explained by the existence of close ordering per the Ni_4Mo type. Orig. art. has: 3 figures. [JPRS: 36,728]

SUB CODE: 11, 20 / SUBM DATE: 13Dec65 / ORIG REF: 007 / OTH REF: 004

L 07385-67 EWT(m)/EWP(t)/ETI IJP(c) JD/HW/JG

ACC NR: AP6027748 SOURCE CODE: UR/0370/66/000/004/0123/0127 44 41 B

AUTHOR: Dubrovina, A. N. (Moscow); Umanskiy, Ya. S. (Moscow) v1 v1

ORG: None

TITLE: Investigation of the kinetics of isothermal ordering in Ni_4Mo alloy

SOURCE: AN SSSR. Izvestiya. Metally, no. 4, 1966, 123-127

TOPIC TAGS: nickel base alloy, molybdenum containing alloy, intermetallic compound, ordered alloy, isothermal transformation

ABSTRACT: X-ray analysis is used for studying the kinetics of ordering in a nickel alloy containing 20.76 at.% Mo. Ordering takes place in this alloy at temperatures below 860°C with the formation of an Ni_4Mo superlattice. The transition $\gamma \rightarrow Ni_4Mo$ results in diffraction reflections in the body-centered lattice and tetragonal line splitting in the fcc lattice. Since the structure factor of these lines is independent of the degree of ordering, line intensity may be used as a criterion for determining the quantity of ordered phase in the alloy. The degree of tetragonal splitting is determined by the degree of long-range order. The alloy was melted from pure materials in an induction furnace. The ingot was forged at 1200°C and rolled to a thickness of 8 mm at the same temperature. The specimens were held for 30 minutes at 1200°C and quenched in water. Tempering was done at 500-800°C for 10 min-100 hr. Radiographs were taken in cobalt K_α-radiation in an RKD camera for a qualitative evaluation of the nature of the transformations. The superlattice reflections and tetragonal doublets were analyzed from photographs taken in monochromatic radiation (on a KRS-501 installation using copper K_α x-rays through a monochromator consisting of a plane lithium

UDC: 669.245'28

Card 1/2

fluoride crystal). The lattice periods were determined from photographs taken in a KROSS (A~64 mm) camera in Cu_K-radiation. A UMB-2 potentiometer was used for measuring electrical resistance. The Vickers hardness was measured for comparision. A comparison of the degree of splitting of the tetragonal doublets at 700-800°C shows that the lattice periods and hence the degree of long-range order changes during isothermal ordering. Structural changes in the alloy during ordering are revealed both in growth of domains and in increase in the degree of order within the domains. A rough estimate of the quantity of Ni_4Mo phase shows an increase with annealing time from 37% at 5 hours to 80% at 100 hours of annealing at 800°C. Analysis of the results shows that the formation of long-range order in Ni_4Mo alloy begins with small regions with a degree of ordering far from equilibrium and depending on the diffusion mobility of the atoms. The dimensions of the stable nucleation centers are dependent on temperature so that the number of ordering centers decreases with an increase in temperature. Sections with an ordered structure are surrounded by a disordered matrix. There can be no increase in electrical conductivity at this stage of transformation due to scattering of electrons by antiphase boundaries. The increase in size of the ordered domains and in the degree of long-range ordering within the domains reduces electrical resistance. Due to the effect of these various factors, resistance decreases more slowly at 700°C than at 800°C. Orig. art. has: 3 figures, 1 table.

SUB CODE: 20/ SUBM DATE: 10May65/ ORIG REF: 004/ OTH REF: 006

L 09163-67 EWT(m)/EWP(t)/ETI IJP(c) JD/HW/JG

ACC NR: AP7002310 SOURCE CODE: UR/0126/66/021/005/0779/0781

VARLI, K. V. SKAKOV, Yu. A., UMANSKIY, Ya. S., Moscow Institute of Steel and Alloys (Moskovskiy institut stali i splavov)

33

"Anomalous Variation in the x-ray Interference Pattern During Aging of Nickel-Beryllium Alloys"

Sverdlovsk, Fizika Metallov i Metallovedeniye, Vol 21, No 5, May 66, pp 779-781

TOPIC TAGS: x ray scattering, beryllium alloy, nickel alloy

ABSTRACT: The authors studied anomalous two-dimensional effects in x-ray scattering during aging of nicket-beryllium alloy specimens with two compositions: 1) with 1.32 wt % Be, and 2) with 2.2 wt % Be. The alloys were annealed for maximum hardness. Interference curves are given for the solid solution after various aging periods. Considerable changes are observed in the interference pattern after aging for only 1 or 2 minutes. These changes consist of an anomalous shift in lines (111) and (200) toward one another, the appearance of asymmetry in line (111) toward smaller angles, and a reduction in the intergal intensity of line (200). These changes are all stronger in the alloy with higher beryllium concentration (alloy 2). Lines (111) and (200) begin to move away from one another with longer aging and the intergal intensity of line (200) increases while the asymmetry of line (111) disappears. The line shift may be due to packing defects with or without other structural changes which take place during decomposition of the solid solution. Among the other structural changes which may lead to anomalous line shift are oriented stresses and concentration nonhomogeneity, elastic lattice distortions of a complex type (e.g. monoclinic distortions), and the formation of metastable segregations in the form of thin layers with a hexagonal structure. Orig. art. has: 1 figure. [JPRS: 37,451]

UDC: 546.3-74'45:539.26

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Card 1/2

L 09163-67 O

ACC NR: AP7002310

TOPIC TAGS: x ray scattering, beryllium alloy, nickel alloy

SUB CODE: 11,20 / SUBM DATE: 08Jul65 / ORIG REF: 004 /

Card 2/2 nst

UMANSKIY Ye. S.

AUTHORS: Grigorenko, Ya. M. and Isakhanov, G.V. 24-2-27/28

TITLE: Scientific Conference on the strength of elements of turbo-machinery at elevated temperatures. (Nauchnoye soveshchaniye po voprosam prochnosti elementov turbomashin pri vysokikh temperaturakh).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1958, No.2, pp. 165-167 (USSR).

ABSTRACT: A scientific conference was held in Kiev between September 28 and October 2, 1957 on problems of strength of elements of turbo-machinery at elevated temperatures which was convened by the Institute of Metallo-Ceramics and Special Alloys (Institut Metallokeramiki i Spetssplavov), the Institute of Structural Mechanics (Institut Stroitel'noy Mekhaniki) and the Institute of Thermal Power (Institut Teploenergetiki Akademii Nauk Ukrainskoy SSR) of the Ac.Sc., Ukrainian SSSR. About 200 people participated representing scientific and teaching establishments and works of Moscow, Leningrad, Kiev, Kharkov, Minsk, Kuybyshev, etc. In his opening address, Corresponding Member of the Ac.Sc. Ukraine I. N. Frantsevich pointed out the importance of the problem of high temperature strength of components of turbo-machinery.

Card 1/9

Scientific Conference on the strength of [illegible] machinery at elevated temperatures.

A number of papers were read relating to the theory of heat conductivity and thermo-elasticity. In his paper "Investigation of the temperature fields in turbine rotors" Ye. P. Dyben reported on the theoretical and experimental investigations of the steady state and the non-steady state thermo-conductivity in turbine rotors of various designs including investigations on concrete specimens of rotors produced by the Kirov and Neva Works, the "Ekonomayzer" Works and others, carried out at the Institute of Thermal Power, Ukrainian Ac.Sc. In studying the temperature fields they used the method of laboratory investigation of non-steady state thermal conductivity by means of high frequency heating, the method of electro-thermal analogy by means of "ЭГДА" equipment etc. They obtained a solution of the problem of non-steady state thermal conductivity of a hollow cylinder of finite length with a relatively general law of the changes of the temperature and the heat transfer coefficients. The Institute, jointly with the Experimental Gas Turbine Construction Works, developed a method of cooling the discs by blowing cooling air through the

Card 2/9

Scientific Conference on the strength of elements of turbo-machinery at elevated temperatures.

assembly gaps of the tails of the rotating blades.
In his paper "Investigation of the Thermal Stresses in Turbine Rotors" A. D. Kovalenko described results of investigations in the field of thermo-elasticity carried out by the Institute of Structural Mechanics, Ukrainian Ac.Sc., the Kiev State University, the Kiev Polytechnical Institute and the Institute of Thermal Power, Ukrainian Ac.Sc. In these studies the following were investigated: problem of the plane stress state of a disc of variable thickness in the case of a cyclically symmetrical temperature field, problem of complex bending of a disc in the case of an axis-symmetrical temperature field and a variable modulus of elasticity, an axis-symmetrical problem of thermo-elasticity for a thick walled cylinder for various laws of changes of the temperature and of the modulus of elasticity along the radius and along the generatrix, etc. In the investigations strain gauges were used and also electric modelling and computing mechanisms. Furthermore, a method was developed of calculating a rotor of a two-stage aviation gas turbine considering it as a non-uniformly heated and rotating

Scientific conference on the strength of elements of turbo-machinery at elevated temperatures.

system in which the following elements operate jointly: discs, shells and ring-shaped rods.
In his paper "Certain Methods of Solving the Axis-Symmetrical Problem of the Theory of Elasticity Taking Into Consideration Mass Forces and the Temperature" E. S. Umanskiy elucidated an approximate method of calculation of the stress state.
The paper of V. I. Danilovskiy (Mechanics Institute, Ac.Sc. USSR) was devoted to calculating the temperature fields in thin shells.
The paper of A. I. Veynik (Power Institute, Ac.Sc. Byelo-Russia) was devoted to an approximate method of solving the problem of thermo-conductivity in solid bodies.
The paper "Temperature Stresses in Thin Walled Structures" by I. A. Birger and B. F. Shor dealt with the investigations carried out by TsIAM on the thermal stresses in rods, taking into consideration variable elasticity parameters and also with the stress state of thin walled naturally twisted rods which are subjected to the effect of external forces and non-uniform heating.
In the paper "Temperature Stresses in Elements of Gas Turbines Under Conditions of Non-steady State Thermal

Scientific conference on the strength of elements of turbo-machinery at elevated temperatures.

Regimes" A. G. Kostyuk (MEI) considered the method of approximate solution of the problem of the non-steady state temperature field in which the component is considered as a semi-infinite body during the initial instant of heating.
In his paper "Temperature Stresses in the Runner Blades and Discs" N. N. Malinin (MVTU) described engineering methods of calculating the thermal stresses in discs with variable elasticity parameters.
The papers of Ya. S. Podstrigach (Institute of Mechanical Engineering and Automation, Ukrainian Ac.Sc., L'vov) and of L. G. Fridman (Kuybyshev) dealt with investigations of the temperature stresses in thin walled structures particularly in bodies of aviation engines.
P. S. Kuratov (TsKTI) and Ye. M. Molchanov (VTI) reported on complex investigations of the temperature fields, the stress state and the thermal fatigue of the rotors of definite turbines.
In his paper "Experimental Investigation of the Temperature Stresses in Fully Forged Rotors" G. A. Rayer reported on experimental investigations carried out at the Neva

Scientific Conference on the strength of elements of turbo-machinery at elevated temperatures.

Engineering Works imeni Lenin (Leningrad).
The representative of the Leningrad Metal Works, Engineer I. N. Shibalov conveyed information on the tests of equipment for heating individual elements of the BT-25-4 turbine during starting.

The second part of the conference was devoted to problems of the constructional strength of elements on turbo-machinery at elevated temperatures.
In his paper "Work of the Institute of Metalloceramics and Special Alloys, Ukrainian Ac.Sc. in the Field of High Temperature Strength" G. S. Pisarenko described certain results obtained by the team of the Strength Division of the Institute as regards the development of new methods and test equipment for studying the mechanical characteristics of high temperature materials at temperatures up to 1500°C, for high temperature static and dynamic tests of metalloceramic materials and of components and also certain results of investigations relating to dissipation of energy in heat resistant materials at normal and at elevated temperatures.
Card 6/9 The paper of G. S. Brokhin, A. B. Platov and A.I.Baranov

Scientific Conference on the strength of elements of turbo-machinery at elevated temperatures.

"Technique of High Temperature Tests Applied by VNIITS" and that of Ye. N. German (VIAM) "On Certain New Methods of Testing High Temperature Metalloceramic Materials" and the paper of V. Z. Tseytlin, M. A. Filatova, A.V.Ryabchenkov and A. I. Maksimov (TsNIITMASh) "Long Duration and Fatigue Strength in Air and in Gaseous Media of a Nickel-Chromium Alloy Used for Transportation (Gas) Turbines" were all devoted to the study of high temperature materials. The results of natural investigations of elements of turbo-machinery were dealt with in papers presented by the personnel of TsKTI imeni Polzunov.
N. N. Kalinovskiy (NII) dealt with the results of investigation of the carrying capacity and the long duration strength of specimens of gas turbine discs of a new design and a complicated configuration under conditions similar to the operating conditions. The author described the features of the heating system and of the damping equipment which ensures the possibility of long duration tests of natural discs by means of racing at a high temperature until disruption occurs and he also considered the deformations of a disc in the case of long

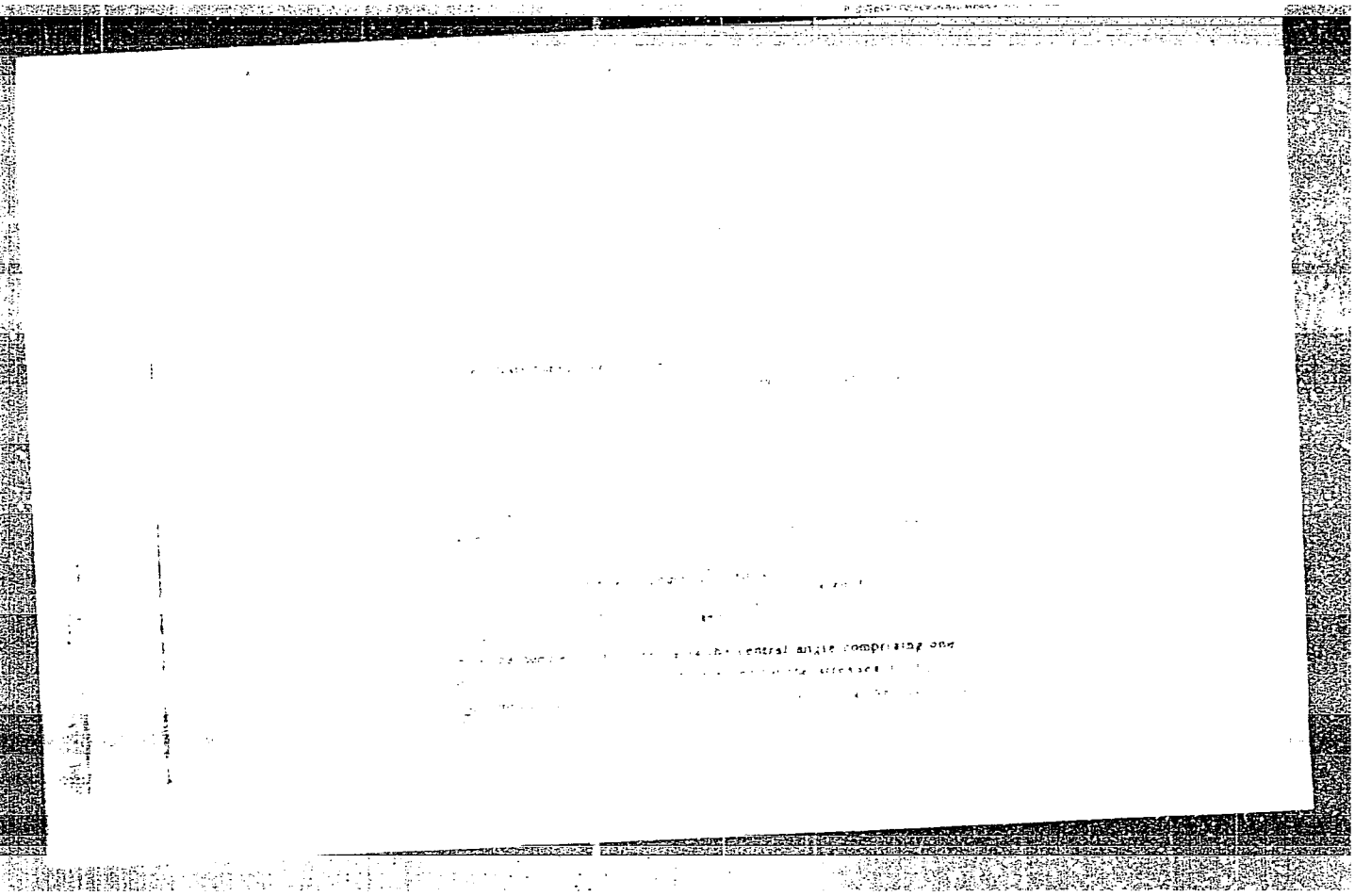
Card 7/9

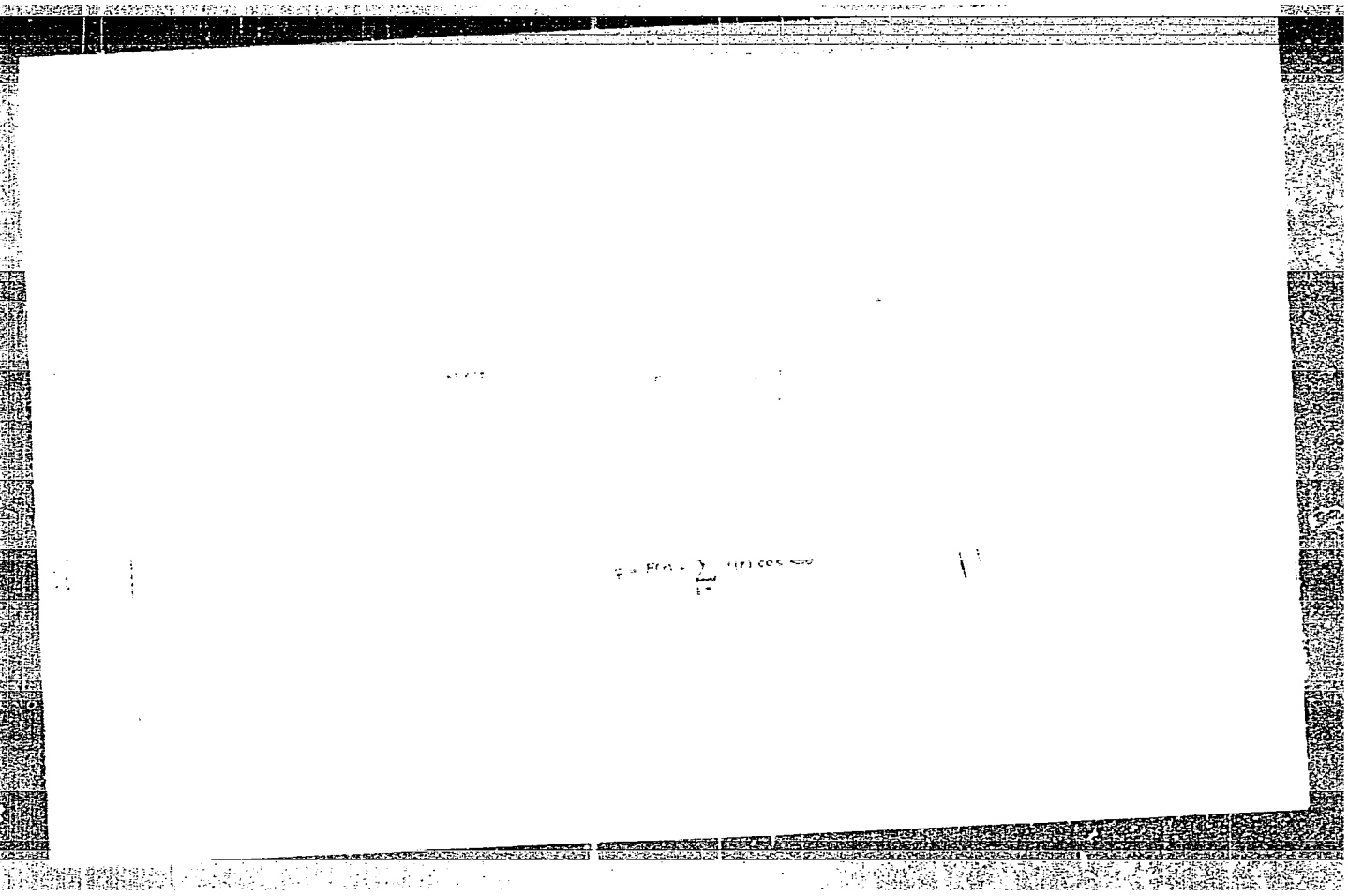
Scientific Conference on the strength of elements of turbo-machinery at elevated temperatures.

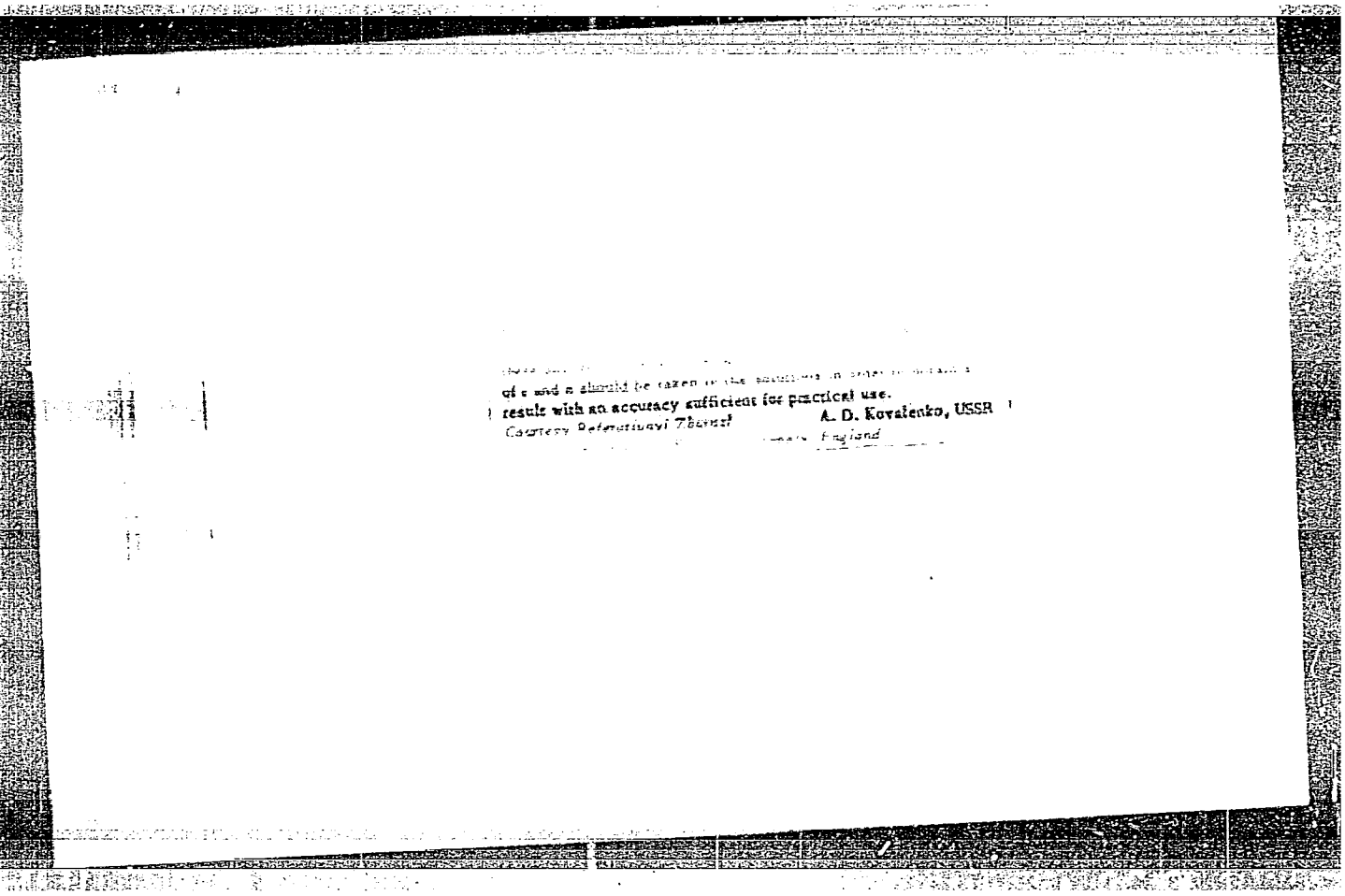
the materials.
V. V. Kuleshov (VVIA imeni N. Ye. Zhukovskiy) described the application of the method of finite differences to calculating the strength and profiling of non-uniformly heated discs which operate in the elastic range, under conditions of creep and under conditions of plastic deformation.
G. Ye. Krumel'' and A. G. Prokopenko (LPI and YuZhORGRES) reported on the method of starting large thermal power equipment and V. I. Tseytlin reported "On the Selection of Optimum Tooth Dimensions".
For improving further the methods of calculation of the strength of individual elements of turbo-machinery at elevated temperatures, the members of the conference recommended that theoretical and experimental investigations should be extended on heat exchange in the components of turbines as well as on the stress state of these elements under conditions of non-steady state heat exchange.
(Note: This is a complete translation).

Card 9/9

AVAILABLE: Library of Congress.







of c and n should be taken in the solution in order to obtain a result with an accuracy sufficient for practical use.

A. D. Kovalenko, USSR

Courtesy Referativnyi Zhurnal England

S/021/60/000/006/005/019
A153/A029

24.4100

AUTHORS: Umans'kyy, Ye.S.; Agar'yov, V.A.

TITLE: On the Method of Initial Functions in the Two-Dimensional Problem of the Theory of Elasticity

PERIODICAL: Dopovidi Akademiyi nauk Ukrayins'koyi RSR, 1960, Nr. 6, pp. 755 - 760

TEXT: A general solution for the two-dimensional thermoelastic problem for a rectangular region is given by the method of initial functions. The paper is strictly mathematical, using standard mathematical symbols and considering the solution of the above-specified problem taking into account various assumptions. All the necessary operators and the transcendental characteristic equation and their roots for principal cases of boundary conditions are given. It is stated that approximate solutions of systems of algebraic linear equations can be obtained with the help of existing computers. There are 7 references: 6 Soviet and 1 English.

ASSOCIATION: Kyyivs'kyy ordena Lenina politekhnichnyy instytut (Kiyev Order of Lenin Polytechnical Institute)

Card 1/2

GENDRIKHOVSKIY, Zdislav Cheslavovich; UMANSKIY, Ye.Ya., otv.red.; MIRSKAYA, V.V., red.izd-va; BERESLAVSKAYA, L.Sh., tekhn.red.; SHKLYAR, S.Ya., tekhn.red.

[Electrical engineering in mining] Gornaia elektrotekhnika. Moskva, Ugletekhizdat, 1958. 323 p. (MIRA 12:2)
(Electricity in mining)

TOKAROVSKIY, D.I., inzh.; UMANSKIY, Ye.Ya., inzh.

Equipment for automatic drainage in mining. Shakht.stroi. no.10:16-19 O '59. (MIRA 13:2)
(Mine drainage--Equipment and supplies)

UMANSKIY, Ye.Ye.; KUDOKOTSEV, V.P.

On the possibility of restoring the regenerative properties of an amphibian extremity following x-ray irradiation. Doklady Akad.nauk SSSR 76 no.4:605-608 1 Feb 51. (CLML 20:5)

1. Presented by Academician Ye.N.Pavlovskiy

UMANSKIY, Ye.Ye.; KUDOKOTSEV, V.P.

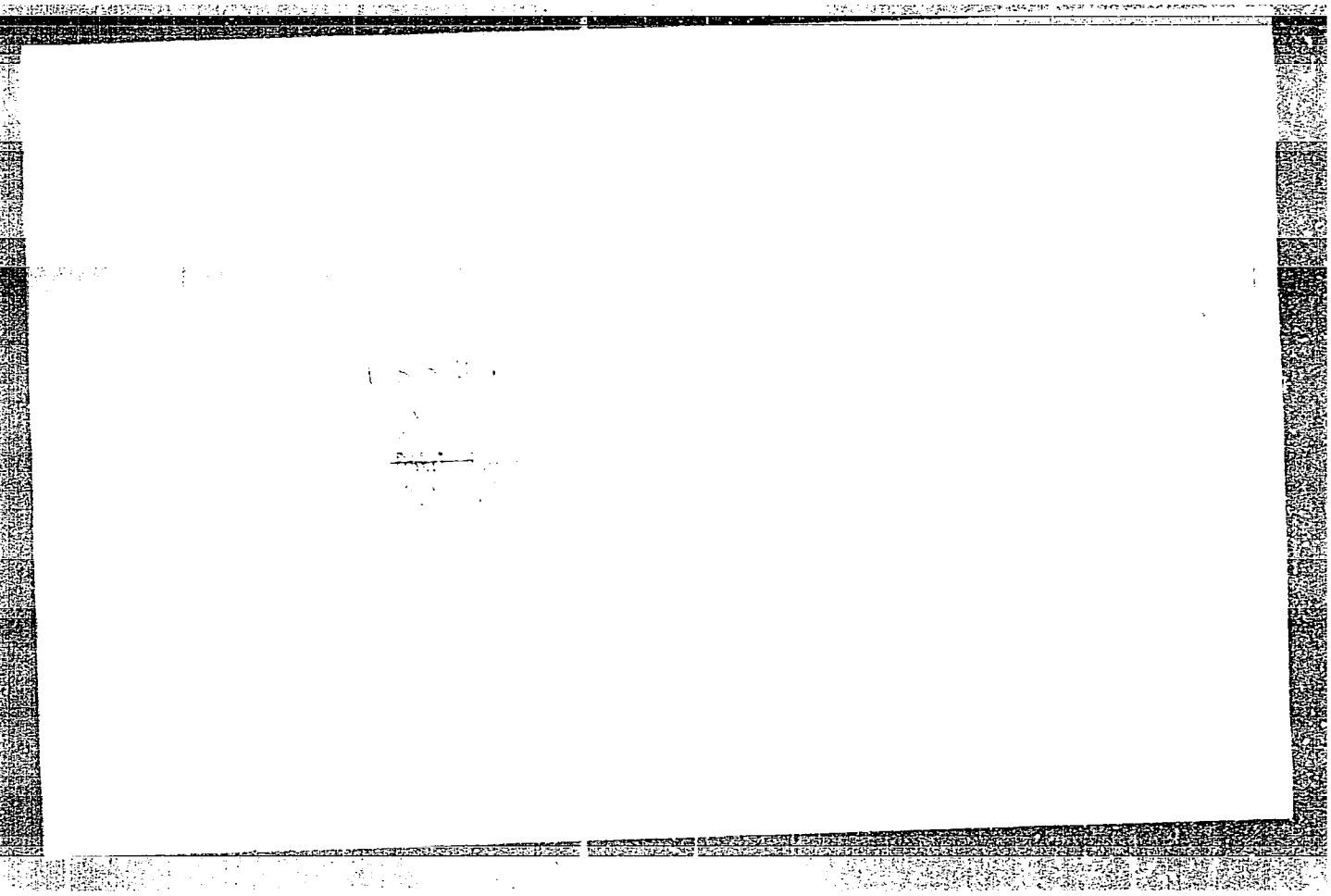
Stimulation of regenerative processes in the extremities of mammals with parathyroid hormone. Doklady Akad. nauk SSSR 86 no. 2: 437-440 11 Sept 1952. (CIML 23:3)

1. Presented by Academician K. I. Skryabin 23 May 1952.

UMANSKIY, Ye.Ye.;SAMOKHOVA, V.A.

Inhibition of the development of scar tissue with hyaluronidase. Doklady Akad. nauk SSSR 88 no. 2:361-363 11 Jan 1953. (CLML 24:1)

1. Presented by Academician A. I. Abrikosov 27 October 1952. 2. Khar'kov State University imeni A. M. Gor'kiy.



APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001857930008-0"

UMANS'KIY, Yu.A.

In vivo determination of radiophosphorus in tumors implanted into the skin and in normal skin of rabbits. Medych.zhur.24 no.3:41-47 '54. (MLRA 8:10)

1. Institut klinichnoi fiziologii im. akad.O.O. Bogomol'tsya Akademii nauk URSR, viddil patologichnoi fiziologii.

(PHOSPHORUS, radioactive,
determ. in skin tumor tissue & in normal skin in rabbits)
(NEOPLASMS, experimental,
determ. of radiophosphorus in skin tumor tissue & in normal skin in rabbits)
(SKIN, neoplasms,
radiophosphorus in skin tumor tissue & in normal skin in rabbits)
(SKIN, metabolism,
radiophosphorus, in normal & neoplastic skin in rabbits)

UMANS'KIY, Yu.O.

Determination of radiophosphorus in tumors, organs, and tissues of mice. Medych.zhur.24 no.5:48-57 '54. (MLRA 8:10)

1. Institut fiziologii im. O.O. Bogomol'tsya Akademii nauk URSR.

(PHOSPHORUS, radioactive,
metab.,in tumor tissue & in normal organs & tissue in mice, determ.)
(NEOPLASMS, metabolism in,
radiophosphorus in tumor tissue, determ.)

UMANSKIY, Yu.

KAVETS'KIY, R.E.; UMANSKIY, Yu.O.

Application of artificially radioactive isotopes in medicine. Medych.zhur. 24 no.5:65-80 '54. (MLRA 8:10)

1. Institut fiziologii im. O.O. Bogomol'tsya Akademii nauk URSR.

(ISOTOPES, med.use)

UMANSKIY, YU.A., VESELAYA, I.V.

"Investigating the Accumulation of Radioactive Isotopes in Tumors when Introduced into the Organism in the FOrm of Antitumorous Sera" p. 100, in the book Experience intthe Use of Radioactive Isotopes in Medicine R. Ye. KAVETSKIY and I.T. SHEVCHENKO, published by the Gosmedizdat Publishing House of the UKRAINIAN SSR, KIEV 1955, represents medical transactions of a conference held in KIEV from 18-20 January 1954.

So: 1100235

UMANSKIY, YU.A., DANILENKO, A.I., KAVETSKIY, R.YE.,

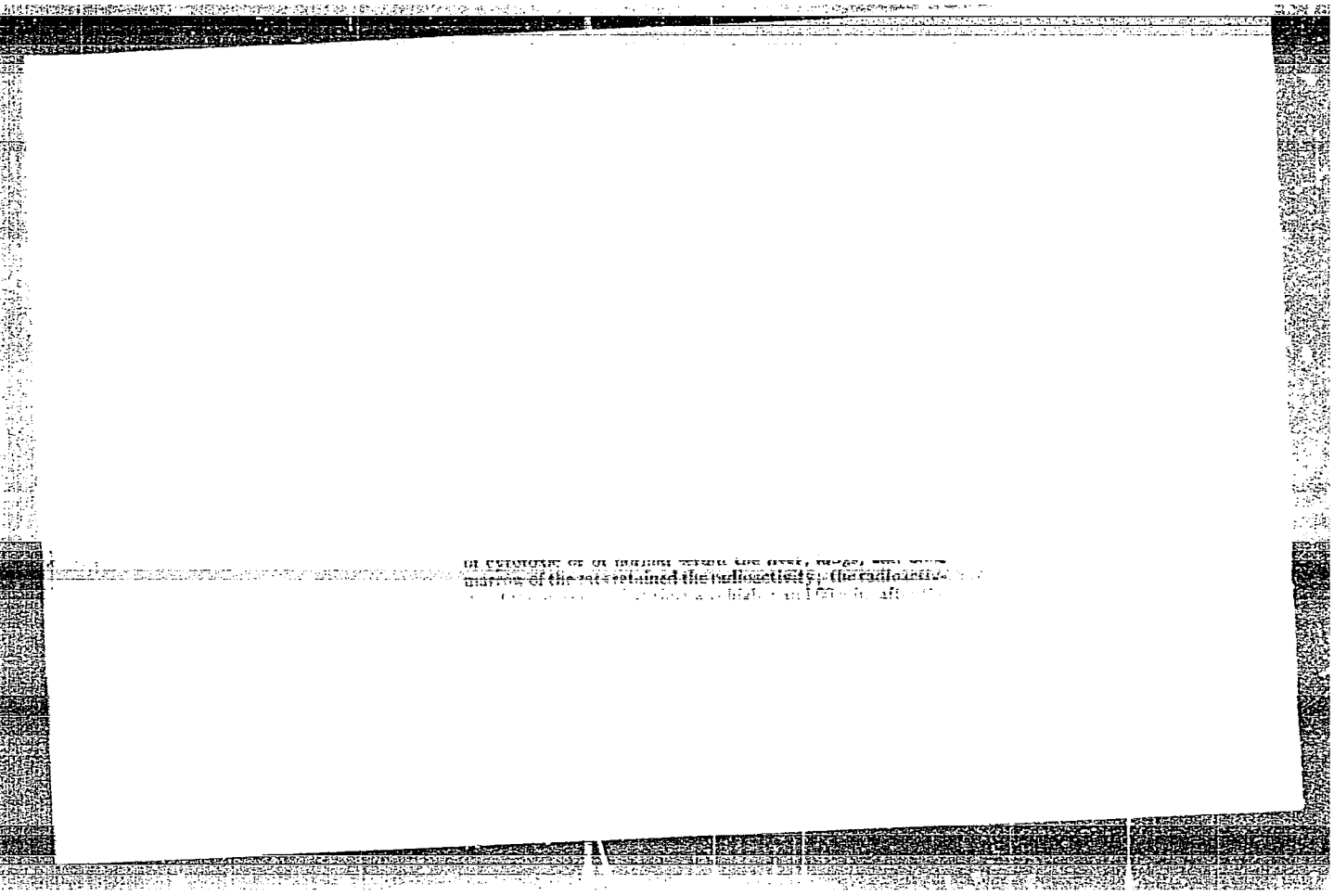
"Investigating the Accumulation of Radio-iron in Tumors when being Introduced into the Affected Organism in the Form of the Complex Compound of Iron Ascorbinate" p. 105, in the book Experience in the Use of Radioactive Isotopes in Medicine R. Ye. KAVETSKIY and I.T. SHEVCHENKO, published by the Gosmedizdat Publishing House of the UKRAINIAN SSR, KIEV 1955, represents medical transactions of a conference held in KIEV from 18-20 January 1954.

So: 1100235

UMANS'KIY, Yu. O.

The use of labeled anticancerous cytotoxic serums in the preferential accumulation of radiophosphorus in tumors (cancers). Yu. O. Umans'kil. *Fiziol. Zhur., Akad. Nauk Ukr. R.S.R.* 1, No. 6, 107-15(Russian summary, 115) (1955).—Rabbits were immunized against sheep red blood cells. Simultaneously they were injected with solns. of radioactive P salts. The antiserum so produced was injected into animals having chicken sarcoma. Following this radioactive P was detected in the liver and muscles, but the counts were 68% more numerous in the sarcomatous tissues.

B. S. Levine



UMANSKIY, Yu.A.

Effect of radioactive iron (Fe^{59}) on the growth of inoculated tumors. Vrach.delo no.11:1217 N '56. (MLRA 10:3)

1. Laboratoriya radioaktivnykh izotopov (zaveduyushchiy - akademik AN USSR, professor R.Ye.Kavetskiy) Kiyevskogo nauchno-issledovatel'skogo rentgeno-radiologicheskogo i onkologicheskogo instituta.
(IRON--ISOTOPES) (CANCER)

DANILENKO, A.I. [DANYLENKO, A.I.], UMANSKIY, Yu.A. [UMANS'KYI, IU.O]

Studies on the accumulation of radioactive iodine in tumors following introduction into the affected organism as a part of antitumor serum globulins. [with summary in English]. Fiziol.zhur. [Ukr.] 4 no.3 369-375 My-Je '58 (MIRA 11:7)

1. Institut klinichnoi fiziologii im. O.O. Bogomol'tsya AN URSR, viddil patofiziologii.
(IODINE IN THE BODY)
(TUMORS)

ZNACHKOVSKIY, N.G., UMANSKIY, Yu.A.

Information on the plenary session of the Society of Oncologists of the Ukrainian S.S.S.R. and the conference of the Kiev Institute of Roentgenology, Radiology, and Oncology, devoted to the 40th anniversary of the Ukrainian S.S.S.R. Vop.onk.4 no.3:374-375 '58 (MIRA 11:8)

(UKRAINE--ONCOLOGY)

Umanskiy, YU, A., Barshteyn, YU, A. and Korol', S. A.

About the effect of ACS* upon the morphological changes in the spleen of animals, subjected to irradiation with radiocobalt gamm-rays and radio phosphorous betarays. p 167

Materialy nauchnykh konferentsii, Kiev, 1959. 288pp
(Kievskiy Nauchno-issledovatel'skiy Institut Epidemiologii i Mikrobiologii)

Translator's note: *Antireticular cytotoxic serum

Umanskiy, YU. A., and Korol', S. A.

Course of tetanus toxication under the effect of different types of ionizing radiations on grounds of changes in the reactiveness. p. 133

Materialy nauchnykh konferentsii, Kiev, 1959. 288pp
(Kievskiy Nauchno-issledovatel'skiy Institut Epidemiologii i Mikrobiologii)

Umanskiy, YU. A., Barshteyn, YU. A., and Korol', S. A.

On the pathomorphology of the spleen of white mice during simultaneous action of tetanus toxin at different types of radiation (gamma-rays of radio cobait and beta-rays of phosphorus) under conditions of changed reactiveness. p. 236

Materialy nauchnykh konferentsii, Kiev, 1959. 288pp
(Kievskiy Nauchno-issledovatel'skiy Institut Epidemiologii i Mikrobiologii)

PEYSAKHOVICH, Iosif Mironovich, prof.; KOL'NER, Rakhil' Yul'yevna; KORENEVSKIY, Leonid Ivanovich; LEVCHUK, Georgiy Antonovich; MAZURENKO, Nikolay Petrovich; POLONSKIY, Boris Leonidovich; SAVITSKIY, Vasiliy Nikolayevich; TELENGATOR, Yakov Moisyevich; UMANSKIY, Yulian Aleksandrovich; GLUZMAN, F.A., red.; RAYZ, A.L., tekhn. red.

[Drug therapy for malignant tumors] Khimioterapiia zlokachestvennykh opukholei. Kiev, Gos. med. izd-vo USSR, 1961. 304 p. (MIRA 14:11)

(CANCER)

UMANSKIY, Yu.A.; KRALICH, I.M.; SIDORIK, O.A.

Relation of the distribution of labelled antibodies in rat organs to the method of their introduction into the body. Pat. fiziol. i eksp. terap. no.2:65-69 '64. (MIRA 17:9)

1. Ukrainskiy nauchno-issledovatel'skiy institut eksperimental'noy i klinicheskoy onkologii (dir. - akademik AN UkrSSR prof. R.Ye. Kavetskiy), Kiyev.

UMANSKIY, Yu.A.

Effect of radio-iodinated globulins in antitumor serum on the development of the ascitic form of the Ehrlich tumor. Vop. onk. 10 no.2:91-98 '64. (MIRA 17:7)

1. Iz laboratorii radioaktivnykh izotopov Ukrainskogo nauchno-issledovatel'skogo instituta eksperimental'noy i klinicheskoy onkologii Ministerstva zdravookhraneniya UkrSSR (dir. - akademik AN UkrSSR R.Ye. Kavetskiy). Adres avtora: Kiyev -108, Vasil'kovskaya 65, Ukrainskiy nauchno-issledovatel'skiy institut eksperimental'noy i klinicheskoy onkologii Ministerstva zdravookhraneniya UkrSSR.

BALITSKIY, K.P.; UMANSKIY, Yu.A.; PRIDATKO, O.Ye.

Effect of cortisone on the intracutaneous antitumor immunity. Probl. endok. i gorm. 10 no.4:82-84 Jl-Ag '64. (MIRA 18:6)

1. Laboratoriya patogeneza (rukovoditel' - kand. med. nauk K.P. Balitskiy) i laboratoriya immunologii (rukovoditel' - kand. med. nauk Yu.A. Umanskiy) Ukrainskogo nauchno-issledovatel'skogo instituta eksperimental'noy i klinicheskoy onkologii (dir. - akademik AN UkrSSR R.Ye. Kavetskiy) Ministerstva zdravookhraneniya UkrSSR, Kiyev.

BEZVERSHENKO, I.A.; UMANSKIY, Yu.A. [Umans'kyi, IU.O.]

Mechanism of glycolysis inhibition by antineoplastic serum. Ukr. biokhim. zhur. 37 no.3:420-429 '65. (MIRA 18:7)

1. Ukrainskiy nauchno-issledovatel'skiy institut eksperimental'noy i klinicheskoy onkologii, Kiyev.

UMANSKIY, Yu.A.; PINCHUK, V.G.; MONASTYRSKAYA, B.D.

Ultrastructural changes in cells on the Guerin's carcinoma treated with various antitumoral serums. Dokl. AN SSSR 161 no.1:221-223 Mr '65. (MIRA 18:3)

1. Ukrainskiy nauchno-issledovatel'skiy institut eksperimental'noy i klinicheskoy onkologii. Submitted June 5, 1964.

UKANSKIY, Yu.A.

Obtaining antineoplast sera in the immunization of animals by means of tumor cells freed from connective tissue stroma. Biul. eksp. biol. i med. 60 no.8:99-102 Ag '65. (MIRA 18:9)

1. Ukrainskiy nauchno-issledovatel'skiy institut eksperimental'noy i klinicheskoy onkologii (dir.- akademik AN UkrSSR R.Ye. Kavetskiy), Kiyev.

UMANSKIY, Yu.A. [Umans'kyi, IU.O.]; BEZVERSHENKO, I.A.

Effect of antimitochondrial serum on some energy metabolism indices of Guerin's carcinoma. Dop. AN URSR no.8:1088-1091 '65. (MIRA 18:8)

1. Ukrainskiy nauchno-issledovatel'skiy institut eksperimental'noy i klinicheskoy onkologii.

L 23368-66 EWT(1)/T JK

ACC NR: AP6014003 SOURCE CODE: UR/0219/65/060/008/0099/0102

AUTHOR: Umanskiy, Yu. A.--Umansky, Yu. A.

ORG: Ukrainian Scientific Research Institute of Experimental and Clinical Oncology/ directed by Academician R. Ye. Kavetskiy, AN UkrSSR/, Kiev (Ukrainskoy nauchno-issledovatel'skiy institut eksperimental'noy i klinicheskoy onkologii)

TITLE: Derivation of antitumor sera by immunizing animals with tumor cells freed from connective tissue stroma

SOURCE: Byulleten' eksperimental'noy biologii i meditsiny, v. 60, no. 8, 1965, 99-102

TOPIC TAGS: tumor, serum, immunization, rabbit

ABSTRACT: The derivation of nonspecific antitumor sera which can be used as antigens of tumor cells is the object of the experiments which are described in this article. From rats with transplanted Herne carcinoma the tumor was extracted and reduced to fine particles by cutting; the particles were then suspended in a 0.0001 percent solution of trypsin for a period of 30 minutes. The suspension was then filtered through two layers of gauze and the filtrate was centrifuged. The obtained precipitate was covered with physiological solution and placed into a magnetic mixer; the solution was again filtered through two layers of gauze and then washed with physiological solution. Tumor cells freed from connective tissue stroma were thus obtained and used to obtain antitumor sera. A suspension of these cells in physiological

UDC: 615.373.3: 616-006]-012

Card 1/2

L 23368-66

ACC NR: AP6014003

solution was intravenously injected into the rabbits. Seven days later the animals were bled and the sera which were obtained were studied in complement fixation and hemagglutination reactions. Ten sera obtained from the experimental rabbits immunized with the antitumor cells and 16 antitumor sera obtained from control animals immunized with the whole tumor tissue were studied (the latter will be known as control sera in the article). The control sera were studied in complement fixation and hemagglutination reactions with antigens from tumor tissues, liver, and spleen. An analysis of the results obtained in the complement fixation and hemagglutination reactions with sera from animals immunized with tumor cells revealed an antibody titer somewhat higher than the titer of antibodies of the control sera; the titer of antibodies with relation to the spleen was about the same in the experimental and control sera; the titer of antibodies in relation to the liver was somewhat higher in the sera of the experimental animals than in the sera of the control animals. This paper was presented by A. I. Serebrov, Active Member, AMN SSSR. Orig. art. has: 1 figure and 1 table. [JPRS]

SUB CODE: 06 / SUBM DATE: 19Feb64 / ORIG REF: 002 / OTH REF: 005

Card 2/2 LC

UMANSKIY, Yu.M.

"Metkhimprom" reverberatory furnace for aluminum alloy smelting. (MLRA 8:11)
Lit. proizv. no.8:19-20 Ag'55.
(Smelting furnaces) (Aluminum alloys)

L 37788-66

ACC NR: AP6028840 SOURCE CODE: UR/0143/66/000/002/0049/0056

AUTHOR: Dubinskiy, M. A. (Doctor of technical sciences); Martynovskiy, V. S. (Professor; Doctor of technical sciences); Umanskiy, Yu. M. (Engineer) 41 C

ORG: Odessa Technological Institute of the Food and Refrigeration Industry (Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti)

TITLE: Analysis of the cycles of air-cycle refrigerators with additional heat transfer in a regenerator

SOURCE: IVUZ. Energetika, no. 2, 1966, 49-56

TOPIC TAGS: regenerative cooling, cryogenic refrigerator, refrigeration engineering, refrigeration equipment, heat transfer

ABSTRACT: It is shown that implementing the principle of additional heat transfer in the regenerator simplifies closed- and open-loop air-cycle refrigerators to the extent where they can be designed on the basis of turbomechanisms and be introduced into industry, particularly for temperatures of -70 to -80°C and lower. Those with additional heat transfer in a regenerator can be expediently employed for the combined generation of heat and cold. The use of intermittent-action regenerators assures a high degree of regeneration and a reliable performance, using moisture-contain-

UDC: 66.021.2+542.78

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L 37788-66
ACC NR: AP6028840

ing atmospheric air. The principle advantages are: absence of any special expensive refrigerating agent, low weight and compactness, short startup time, absence of need for cooling water, and convenience of installation in mobile power and propulsion plants. Then also the use of the hot air produced along with cold air makes it possible to dispense with the use of heat from a heat and power station or boilerhouse. Orig. art. has: 6 figures. [JPRS: 35,663]

SUB CODE: 13, 05 / SUBM DATE: 30Mar65 / ORIG REF: 007

Card 2/2

PHASE I BOOK EXPLOITATION SOV/5283

Umanskiy, Yakov Semenovich

Rentgenografiya metallov (Roentgenography of Metals) Moscow, Metallurgizdat, 1960. 448 p. Errata slip inserted. 10,200 copies printed.

Ed.: V. G. Lyuttsau; Ed. of Publishing House: L. M. Gordon; Tech. Ed.: M. K. Attopovich.

PURPOSE: This textbook is intended for students. It may also be used by specialists working in x-ray laboratories of the metallurgical and machine manufacturing industries.

COVERAGE: The textbook presents the principles of x-ray physics, x-ray engineering, as well as the fundamentals of x-ray structural analysis of polycrystalline metals and alloys. It describes the techniques of defect detection in products through the use of x-ray and gamma radiations. Methods for determining the size of crystals and mosaic blocks are explained along with

Card 1/7

the methods of texture analysis, and quantitative and qualitative phase analysis. The technique of x-ray analysis of solid solutions and of processes taking place during thermal treatment is described as are the methods for determining stress and defects in the crystal lattice of metals. The textbook also includes data on accident prevention, labor protection in x-ray laboratories, and electron and neutron radiographic studies of the metal and alloy structure. Tabular data for the analysis of roentgenograms are given in the appendixes. No personalities are mentioned. There are 144 references: 101 Soviet, 28 English, 13 German, and 2 French.

TABLE OF CONTENTS:

89663

18.1210

S/149/61/000/002/012/017
A006/A001

AUTHORS: Astrakhantsev, S.M., Mozzhukhin, Ye.I., Umanskiy, Ya.S.

TITLE: Investigation of Sintered Alloys on Metallic NiAl Compound Base

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Tsvetnaya metallurgiya, 1961, No. 2, pp. 110 - 115

TEXT: The authors developed a technology for obtaining Ni-Al alloys by powder metallurgy methods, and investigated the properties of the alloys obtained. Alloys of the single-phase NiAl and the bi-phase NiAl-Ni_3Al range were studied. The technology employed was different from previous methods (Ref. 5, 6) where the alloys had been prepared from powders whose composition corresponded to that of the alloys. In the present investigation the alloys were produced from Ni-Al addition alloys and nickel powder, whereby the Al content in the addition alloy exceeded that in the alloy. The addition alloys were melted in high-frequency induction furnaces in a magnesite crucible. The experiments were made with four single-phase alloys containing Al (in atomic %): 1) - 52.5; 2) - 50; 3) - 45; 4) - 40. Alloy 1 was a solid solution of Al subtraction in NiAl; alloy 2 corresponded to the NiAl compound of stoichiometric composition; alloys 3 and 4 were solid solutions

Card 1/5

89663

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A006/A001

Investigation of Sintered Alloys on Metallic NiAl Compound Base

of Ni in NiAl (alloy 4 is close to the boundary of Ni solubility in Ni_3Al). Alloys of the bi-phase NiAl-Ni_3Al range were also studied, containing Al (weight %): 5) - 20; 6) - 19.5; and 7) - 17.5. The addition alloy and nickel powder were mixed in alcohol for 72 hours and pressed under 3 t/cm^2 pressure. Sintering was performed in a ТВВ -2 (TVV-2) vacuum furnace mainly in a "hydrogen" vacuum which was maintained at $\nearrow$ 4 - 5.10^{-3} mm Hg during the rise of temperature and the sintering temperature. To produce specimens of minimum porosity sintering was carried out at maximum temperatures which were experimentally determined for each alloy (1,490 - 1,500°C for alloy 1; 1,510 - 1,520° for alloy 2; 1,490 - 1,500° for alloy 3; and 1,430 - 1,440°C for alloy 4). Relative densities of pressed briquets and sintered specimens are given in Table 1. The sintered alloys were subjected to bending and break and tested as to their microhardness and endurance strength. Results are given in Figures 2, 3, 4. It was found that the bending strength of single-phase NiAl alloys at room temperature increased with a higher nickel content in the NiAl compound; maximum strength is offered by an alloy which is on the boundary of the single-phase NiAl and the bi-phase NiAl+Ni_3Al range. At high temperatures, the poorest strength characteristics are shown by alloys being near the boundary of the single-phase NiAl range, from the nickel and the aluminum side as well.

Card 2/3

89663

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A006/A001

Investigation of Sintered Alloys on Metallic NiAl Compound Base

Table 1: Relative densities of pressed and sintered specimens, volumetric and linear shrinkage for single-phase alloys

	After pressing			After sintering				
Alloy	Specific weight of briquets g/cm^3	Spec. weight of compact charge material g/cm^3	Relative density of briquets %	Spec. weight of specimens g/cm^3	Spec. weight of compact alloy material g/cm^3	Relative density %	Volumetric shrinkage %	Linear shrinkage %
1	3,75	5,15	72,8	5,2	5,65	92,5	30	10,5
2	4,05	5,20	78,0	5,5	5,93	93,0	28	8,5
3	4,18	5,55	75,5	5,9	6,20	95,0	30	9,5
4	4,25	5,80	73,0	6,4	6,50	98,5	35	9,0

Card 3/5

Investigation of Sintered Alloys on Metallic NiAl Compound Base

Figure 2:

Dependence of strength during bending (for 20°C) from the composition of sintered alloys obtained in the present investigation (1) and in the study described in Ref. 5 (2)

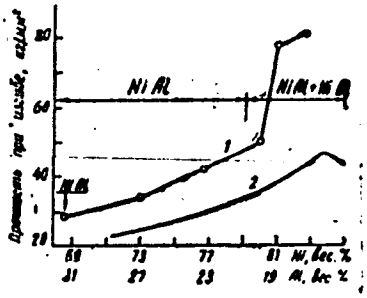
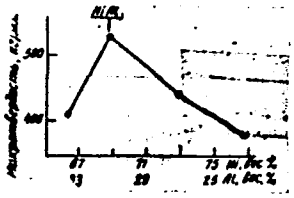


Figure 3:

Microhardness of sintered single-phase NiAl alloys



Card 4/5

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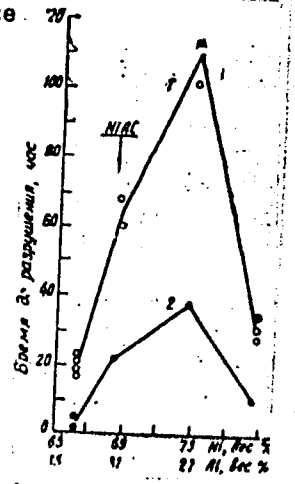
A006/A001

Investigation of Sintered Alloys on Metallic NiAl Compound Base

Figure 4:



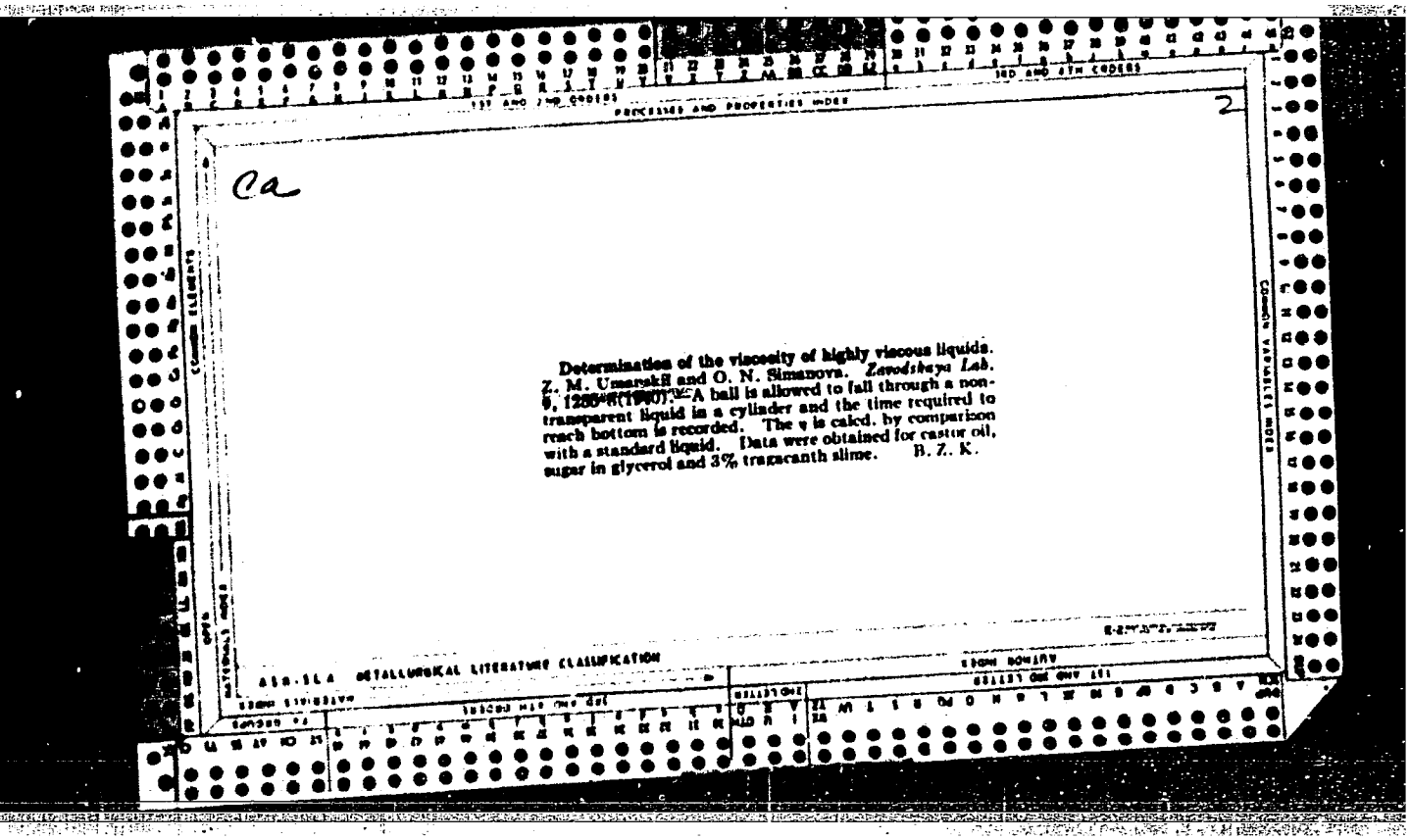
Strength of NiAl alloys during stretching (5 kg/mm^2 load) for 800°C (1) and 850°C (2).

There are 2 tables, 4 figures and 12 references: 4 Soviet and 8 non-Soviet.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute). Kafedra rentgenografii (Department of Roentgenography)

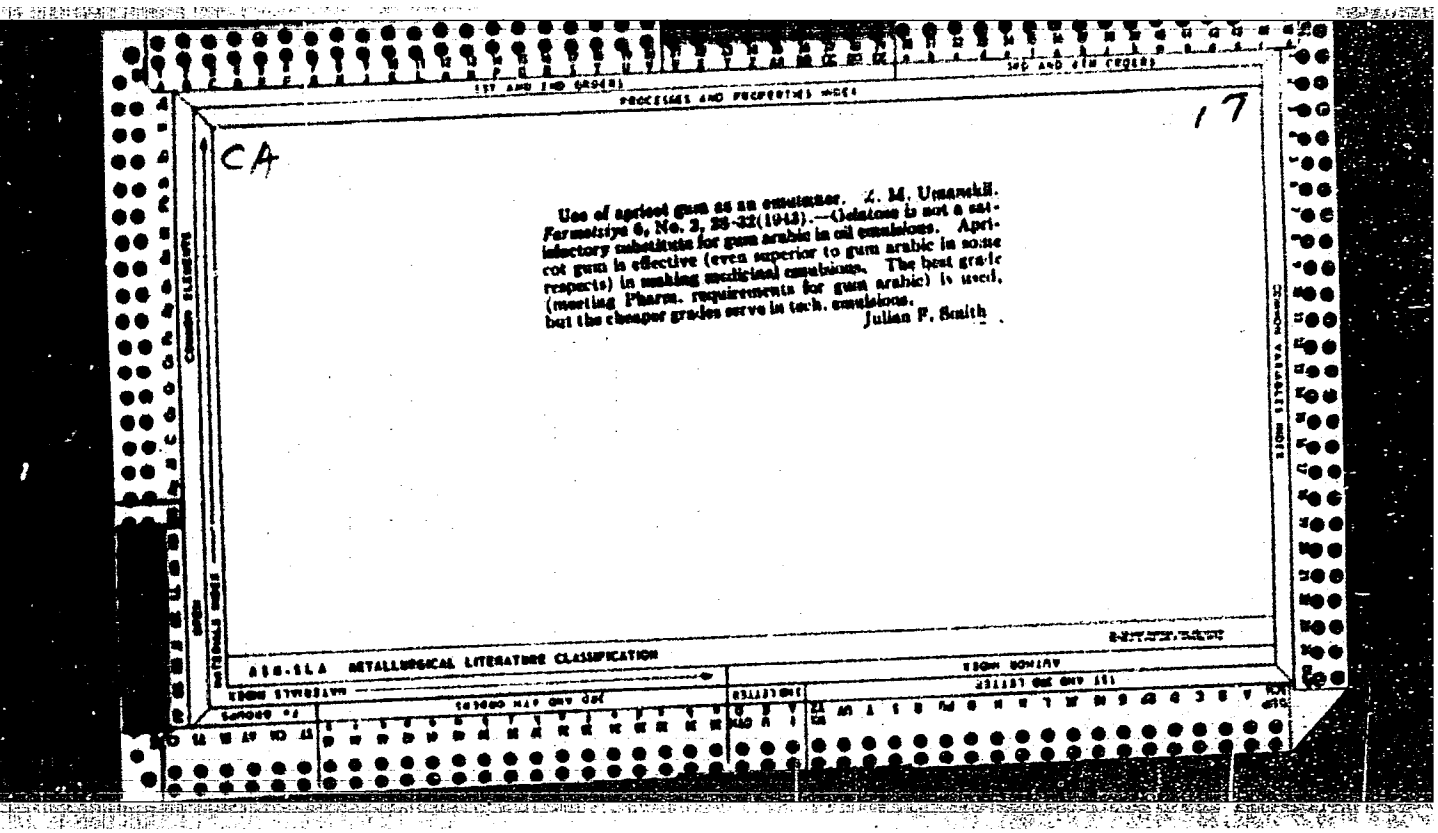
SUBMITTED: April 29, 1960

Card 5/5



Ca

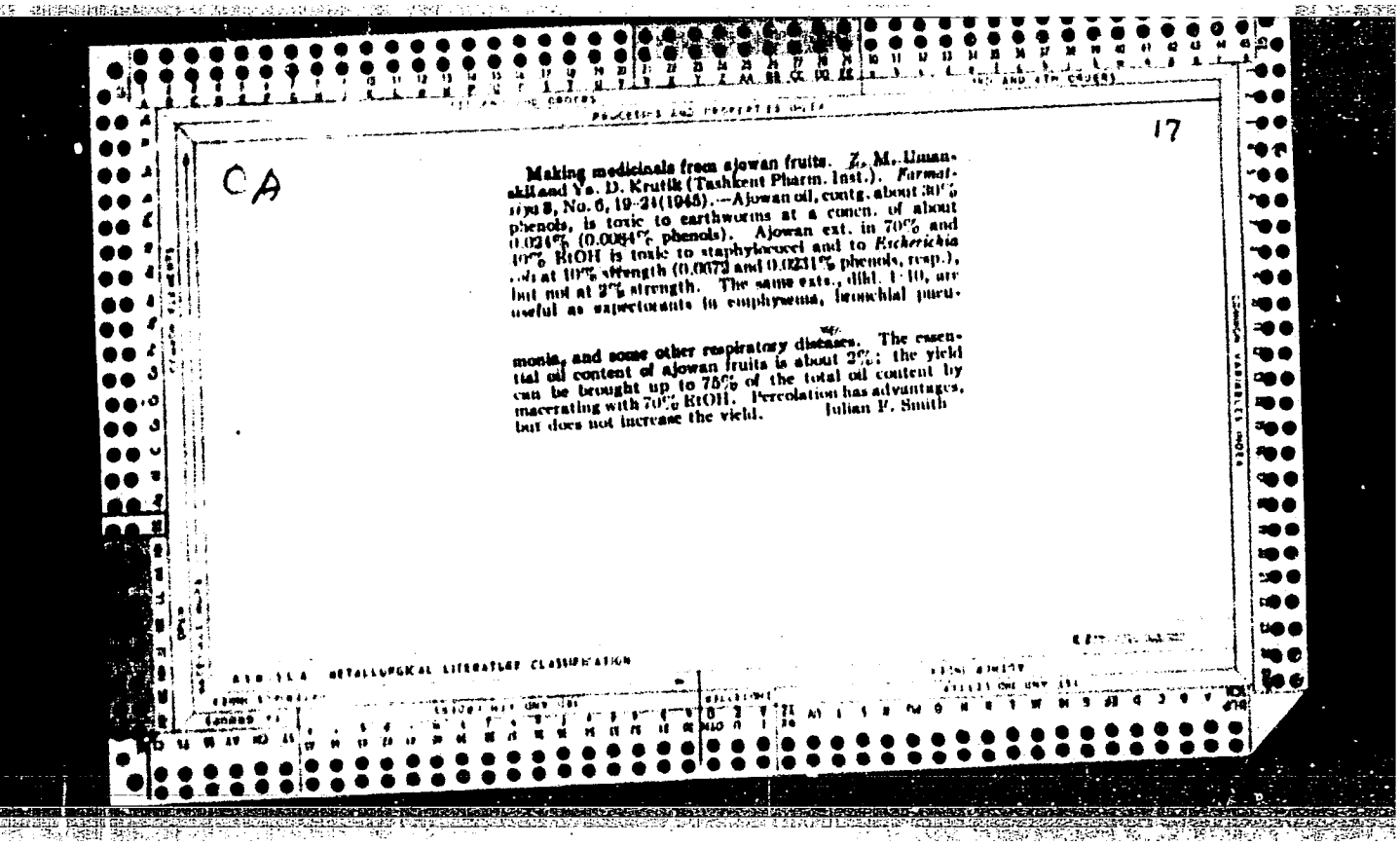
Determination of the viscosity of highly viscous liquids. Z. M. Umarskii and O. N. Simanova. *Zavodskaya Lab.* 9, 1285-6(1940). A ball is allowed to fall through a non-transparent liquid in a cylinder and the time required to reach bottom is recorded. The η is calcd. by comparison with a standard liquid. Data were obtained for castor oil, sugar in glycerol and 3% tragacanth slime. B. Z. K.



CA

17

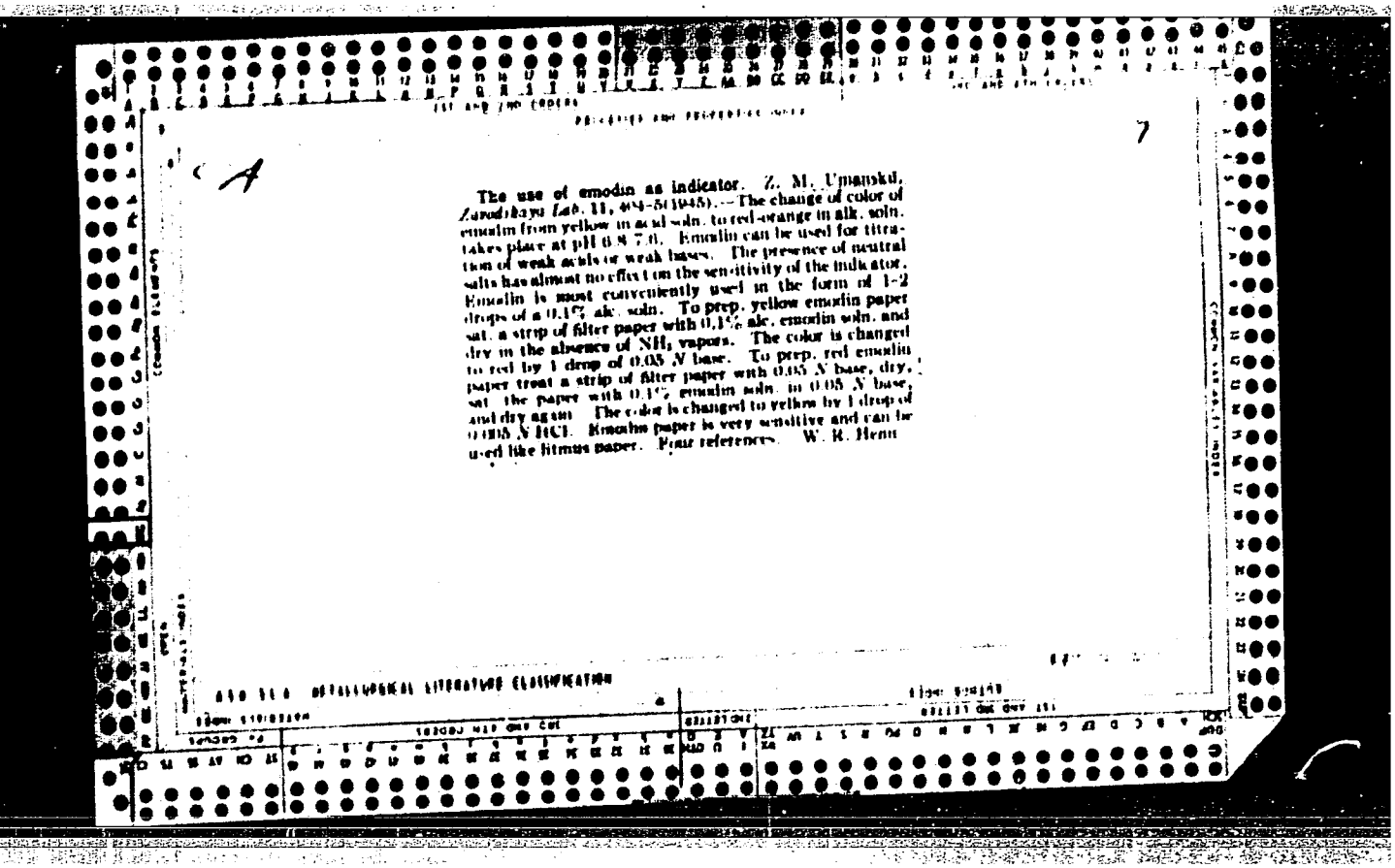
Use of apricot gum as an emulsifier. Z. M. Umanskii. *Farmatsiya* 6, No. 2, 28-32(1943).—Cellulose is not a satisfactory substitute for gum arabic in oil emulsions. Apricot gum is effective (even superior to gum arabic in some respects) in making medicinal emulsions. The best grade (meeting Pharm. requirements for gum arabic) is used, but the cheaper grades serve in tech. emulsions.
Julian F. Smith



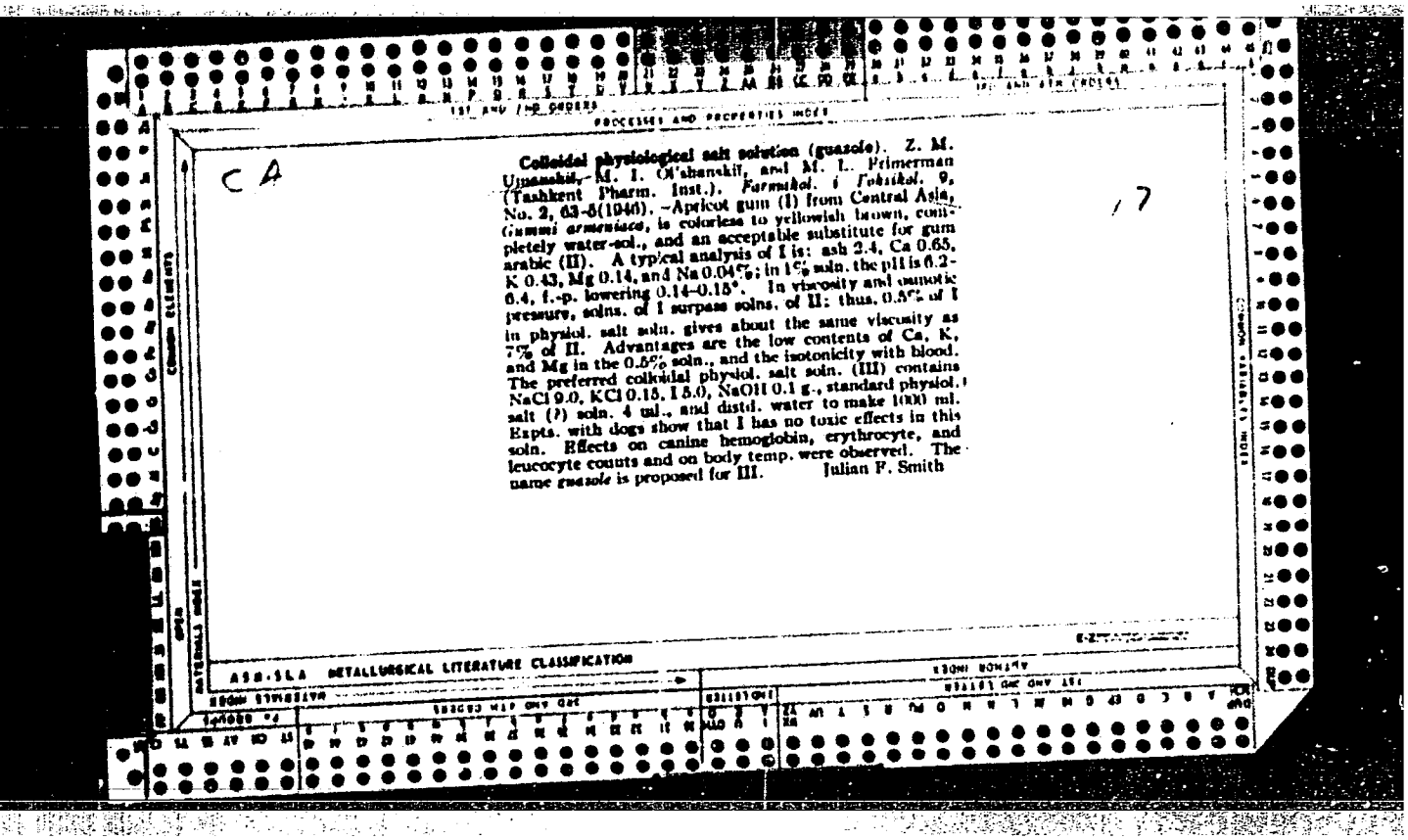
17

CA

Making medicinals from ajowan fruits. Z. M. Usmanskii and Ya. D. Krutik (Tashkent Pharm. Inst.). *Farmatsiya* 8, No. 6, 19–24(1945).—Ajowan oil, contg. about 30% phenols, is toxic to earthworms at a concn. of about 0.024% (0.0084% phenols). Ajowan ext. in 70% and 40% EtOH is toxic to staphylococci and to *Escherichia coli* at 10% strength (0.0072 and 0.0231% phenols, resp.), but not at 2% strength. The same exts., dild. 1:10, are useful as expectorants in emphysema, bronchial pneumonia, and some other respiratory diseases. The essential oil content of ajowan fruits is about 2%; the yield can be brought up to 75% of the total oil content by macerating with 70% EtOH. Percolation has advantages, but does not increase the yield. Julian P. Smith



The use of emodin as indicator. Z. M. Umanskii. *Zavodskaya Lab.* 11, 404–5(1945).—The change of color of emodin from yellow in acid soln. to red-orange in alk. soln. takes place at pH 6.8–7.0. Emodin can be used for titration of weak acids or weak bases. The presence of neutral salts has almost no effect on the sensitivity of the indicator. Emodin is most conveniently used in the form of 1–2 drops of a 0.1% alc. soln. To prep. yellow emodin paper sat. a strip of filter paper with 0.1% alc. emodin soln. and dry in the absence of NH_3 vapors. The color is changed to red by 1 drop of 0.05 *N* base. To prep. red emodin paper treat a strip of filter paper with 0.05 *N* base, dry, sat. the paper with 0.1% emodin soln. in 0.05 *N* base, and dry again. The color is changed to yellow by 1 drop of 0.05 *N* HCl. Emodin paper is very sensitive and can be used like litmus paper. Four references. W. R. Henn



CA

Colloidal physiological salt solution (guazole). Z. M. Umanskii, M. I. Ol'shanskii, and M. L. Primerman (Tashkent Pharm. Inst.). *Farmakol. i Toksikol.* 9, No. 2, 63–5(1946).—Apricot gum (I) from Central Asia, *Gummi armeniaca*, is colorless to yellowish brown, completely water-sol., and an acceptable substitute for gum arabic (II). A typical analysis of I is: ash 2.4, Ca 0.65, K 0.43, Mg 0.14, and Na 0.04%; in 1% soln. the pH is 6.2–6.4, f.-p. lowering 0.14–0.15°. In viscosity and osmotic pressure, solns. of I surpass solns. of II; thus, 0.5% of I in physiol. salt soln. gives about the same viscosity as 7% of II. Advantages are the low contents of Ca, K, and Mg in the 0.5% soln., and the isotonicity with blood. The preferred colloidal physiol. salt soln. (III) contains NaCl 9.0, KCl 0.15, Ca 0.0, NaOH 0.1 g., standard physiol. salt (?) soln. 4 ml., and distd. water to make 1000 ml. Expts. with dogs show that I has no toxic effects in this soln. Effects on canine hemoglobin, erythrocyte, and leucocyte counts and on body temp. were observed. The name *guazole* is proposed for III. Julian F. Smith

UMANSKIY, Z.M., inzhener.

Improved system of centralized truck transport of building materials. Biul. stroi.tekh. 10 no.3:13-14 F '53. (MLRA 6:12)

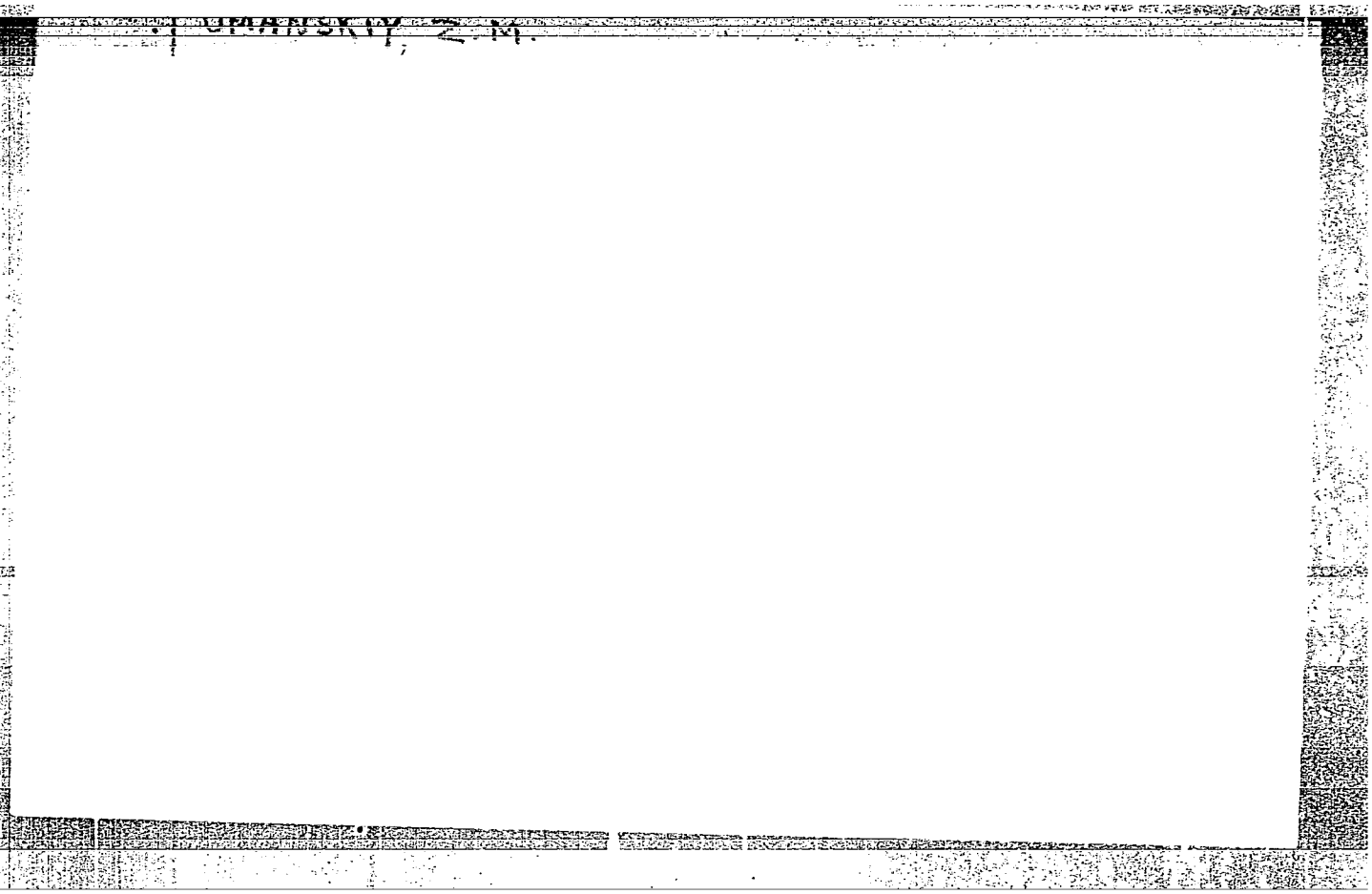
1. Trest Stalinmetallurgstroy Ministerstva stroitel'stva predpriyatiy tyazheloy industrii. (Transportation, Automotive) (Building materials--Transportation)

UMANSKIY, Z.M.

ZHURAKOVSKIY, I.A.; UMANSKIY, Z.M.

Improvement of pharmacy work in Uzbekistan. Apt. delo 3 no.6:29-30 N-D '54. (MLRA 8:2)

1. Iz Tashentskogo farmatsevticheskogo instituta Ministerstva zdravookhraneniya Uzbekskoy SSR.
(PHARMACY, in Russia, organiz.)



KHAMZINA, A.Sh.; UMANSKIY, Z.M.

Determining the rate of disintegration of pills. Apt.delo 6 no.3: 13-17 My-Je '57. (MIRA 11:1)

1. Iz kafedry tekhnologii lekarstvennykh form i galenovykh preparatov (zav. - prof. Z.M.Umanskiy) Tashkentskogo farmatsevticheskogo instituta.
(PILLS)

UMANSKIY, Z.M.

SLIVINSKIY, A.I., inzhener; UMANSKIY, Z.M., inzhener.

Using precast reinforced concrete in building casting yards and operation areas of a blast furnace. Stroi.prom. 35 no.2:8-11 F '57. (MLRA 10:3)
(Blast furncaces) (Precast concrete construction)

UMANSKIY, Z.M.

MAKH'LANOV, S.M.; UMANSKIY, Z.M.

Disintegration period of tablets. Med.prom. 12 no.4:24-27 Ap '58. (MIRA 11:5)

1. Tashkentskiy farmatsevticheskiy institut.
(TABLETS (MEDICINE)

UMANSKIY, Z.M.

The 25th anniversary of the Tashkent Pharmaceutical Institute.
Aptech delo 12 no.3:91-92 My-Je '63 (MIRA 17:2)

UMANSKIY, Z.M. (Tashkent)

For further improvement of the training of druggists. Apt. delo 13 no.4:51-54 Jl-Ag '64. (MIRA 18:3)

UMANSKIY, Z.M.

Irrational medicinal prescriptions. Apt. delo 14 no.6:10-14 N-D '65. (MIRA 18:12)

1. Kafedra tekhnologii lekarstvennykh form Tashkentskogo farmatsevticheskogo instituta. Submitted October 28, 1964.

AKUL'SHINA, Ye.P.; BGATOV, V.I.; GURARI, F.G.; GUROVA, T.I.; DERBIKOV, I.V.; YEGANOV, E.A.; KAZANSKIY, Yu.P.; KALUGIN, A.S.; KAS'YANOV, M.V.; KOSOLOBOV, N.I.; KASYGIN, Yu.A.; MIKUTSKIY, S.P.; SAKS, V.N.; TROFIMUK, A.A.; UMANTSEV, D.D.

Professor Vladimir Panteleimonovich Kazarinov; on his 50th birthday. (MIRA 15:7)
Geol. i geofiz. no.3:122-123 '62.
(Kazarinov, Vladimir Panteleimonovich, 1912-)

UMANTSEV, D.F.

Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh metodov razvedki.

Prikladnaya geofizika; chornik statey, vyp. 18 (Applied Geophysics: Collection of Articles, No. 18) Moscow, Gostoptekhizdat, 1958, 286 p. Errata slip inserted. 3,000 copies printed.

Ed.: A.I. Bogdanov; Executive Ed.: E.P. Dobrynina; Tech. Ed.: K.A. Makhina.

PURPOSE: The book is intended for engineers, technicians, geophysicists, and persons interested in the geophysical methods of petroleum prospecting.

COVERAGE: The book is a collection of 16 articles dealing with the theoretical and practical problems of electrical sounding, seismic prospecting and gravimetry. Advances in electrical prospecting in not easily accessible regions and in the investigation and detection of radioactive minerals are mentioned. Optical and luminescence logging are analyzed. No personalities are mentioned. References accompany most of the articles.

Table of Contents

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7. Report on the geophysical work at the Gayskiy deposits., [Abstract] Izv.Glav.upr.geol. fon. no. 3. 1947

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1. UMANTSEV, D. F.

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Trudy SNIIGGIMS no.1:11-17 '59. (MIRA 15:4)
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ZOTKEVICH, I.A.; UMANTSEV, D.F.

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[Methods for the quantitative study of the tectogenesis of platform structures of the 3d order based on seismic prospecting data]Metod kolichestvennogo izucheniia tektogeneza platformennykh struktur III poriadka po materialam seismorazvedki. Red. D.F.Umantsev. Novosibirsk, Sibirskii nauchno-issl. in-t geol. geofiziki i mineral'nogo syr'ia, 1961. 29 p,
(MIRA 15:12)

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[Biostratigraphy of Mesozoic and Tertiary sedimentsin Western Siberia] Biostratigrafiia mezozoiskikh i tretichnykh otlozhenii Zapadnoi Sibiri. Moskva, Gostoptekhizdat. Vol. 1. 1962. 590 p. Vol. 2. [Atlas of paleontological plates and their explanations] Atlas paleontologicheskikh tablits i ob"iasneniia k nim. 1962. 128 plates. (Its Trudy, no.22). (MIRA 17:4)

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[Geology and prospects for finding oil and gas in the northwestern part of the Siberian Platform.] Geologicheskoe stroenie i perspektivy neftegazonosnosti severo-zapada Sibirskoi platformy. Leningrad, Gostoptekhizdat, 1963. 183 p. [Trudy Sibirskogo nauchno-issledovatel'skogo instituta geologii, geofiziki i mineral'nogo syr'ya, no.28.] (MIRA 16:11)

TUYEZOVA, Nina Aleksandrovna; Prinimali u[illegible]astiye: DEMINA, R.G.; BRYUZGINA, N.I.; ROSTOVTSEV, N.N., glavnyy red.; GURARI, F.G., zamestitel' glavnogo red.; UMANTSEV, D.F., red.; DERBIKOV, I.F., red.; KAZARINOV, V.P., red.; KALUGIN, A.S., red.; KOLOBKOV, M.N., red.; MALIKOV, B.N., red.; MIKUTSKIY, S.P., red.; BOTVINNIKOV, V.I., red.; BUDNIKOV, V.I., red.; BOGOMYAKOV, G.P., red.; SURKOV, V.S., red.; SUKHOV, S.V., red.; BOCHAROVA, N.I., red.

[Physical properties of rocks in the West Siberian Plain.] Fizicheskie svoistva gornykh porod Zapadno-Sibirskoi nizmennosti. Moskva, Nedra, 1964. 127 p. (Sibirskii nauchno-issledovatel'skii institut geologii, geofiziki i mineral'nogo syr'ia. Trudy, no.31). (MIRA 18:7)

ACCESSION NR: AP4034900 S/0181/64/006/005/1261/1266

AUTHORS: Bokshteyn, S. Z.; Kishkin, S. T.; Nazarova, M. P.; Svetlov, I. L.; Umantsev, E. L.

TITLE: Growth of sapphire whisker

SOURCE: Fizika tverdogo tela, v. 6, no. 5, 1964, 1261-1266

TOPIC TAGS: whisker crystal, crystal growth, sapphire, sapphire whisker

ABSTRACT: Whisker crystals of Al_2O_3 were grown by high-temperature oxidation of powdered metallic Al in an atmosphere of moist hydrogen. The reaction temperature was 1350—1400C. The authors describe a special apparatus used for growing these crystals, which consists of three essential parts: a tubular furnace, a hydrogen source, and a system for purification and control of hydrogen feed. The whisker crystals ranged from 1 to 30 μ in diameter and from 3 to 15 mm in length. Microcrystals ranged from 30 to 350 μ in diameter, and 0.5 to 3 mm in length. Capillaries were observed along the growth axes of some crystals.

Card 1/2

ACCESSION NR: AP4034900

Growth of the whisker crystals is explained on the basis of Frank's theory of crystal growth by screw dislocations. Hexagonal crystal nuclei form in sites where the screw axes emerge with Burgers vector [0001]. Since the dislocations are at right angles to the basal planes, all the whiskers grow parallel to each other in the [0001] direction. Because of a high modulus of elasticity (52,000 kg/mm^2) and a large Burgers vector of dislocations along the [0001] direction, the elastic energy of the dislocation nuclei exceeds the bonding energy of atoms in the crystal lattice. This fact leads to rupture of the lattice, which is then manifested in capillaries along the growth axes of the crystals. Laue patterns and immersion studies show the crystals to belong to the alpha modification of Al_2O_3 (sapphire). "In conclusion, we thank Ye. V. Kolontsov and I. V. Telegin for their aid in the interpretation of the x-ray patterns." Orig. art. has: 5 figures, 1 table, and 3 formulas.

ASSOCIATION: none

SUBMITTED: 08Feb63	ATD PRESS: 3048	ENCL: 00
SUB CODE: SS	NO REF SOV: 001	OTHER: 006

Card: 2/2

L 41160-66

ACC NR: AP6015383 (N) SOURCE CODE: UR/0410/65/000/004/0043/0048

AUTHOR: Umantsev, G. D. (Novosibirsk)

ORG: none

TITLE: On analog and discrete signal transformations by neurons

SOURCE: Avtometriya, no. 4, 1965, 43-48

TOPIC TAGS: analog system, discrete automaton, mathematic model, neuron, bionics

ABSTRACT: In order to achieve a more complete understanding of the neuron, the author has considered its characteristics with allowance for its discrete as well as its analog properties. On the basis of well-known electrophysiological data, a neuron model is proposed which is capable of performing analog and discrete operations simultaneously. A model of this type may be useful in the design of complex test-and-measurement facilities, and also for the interpretation of the results of electrophysiological research. The generator pulse found in the case of the receptor cells is analyzed in its interrelation with the work of the synaptic contacts. The possible operating modes of the neuron itself are discussed. It is shown that the same neuron at the same time possesses properties of both a discrete and an analog elements with the result that it is possible to refer to its particular analog-discrete mode. The analog

UDC: 62-503+612.815

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L 44169-66

ACC NR: AP6015383

character of neuron operation is particularly marked when different frequencies are present on the synapses. A neuron is shown to be capable of varying its mode of operation as a function of the signals it receives. The model presented, therefore, has the capability of performing discrete and analog operations, and also of accomplishing space and time addition of input signals. The neuron is shown to be a self-adapting element and capable, consequently, of simulation in adaptive systems. The principle of the simultaneity of its analog and discrete operations can be incorporated in a device for the simultaneous recognition and measurement of a particular set of signals. Although the neuron model does not reflect many of the peculiarities of the real neuron (adaptation, long-term memory, etc.), it can probably be employed to explain certain electrophysiological data, such as pulse series. Orig. art. has: 7 formulas.

SUB CODE: 06,09/ SUBM DATE: 01Mar65/ ORIG REF: 006/ OTH REF: 015

Card 2/2 hs

L 11161-66 EWT(d)
ACC NR: AP6015384 (N) SOURCE CODE: UR/0410/65/000/004/0049/0054

AUTHOR: Nazarov, L. A. (Novosibirsk); Umantsev, G. D. (Novosibirsk)

37
B

ORG: none

TITLE: Signal transformation in the peripheral sections of biological analyzers

SOURCE: Avtometriya, no. 4, 1965, 49-54

TOPIC TAGS: neuron, bionics, biosensor, electronic switch

ABSTRACT: In order to construct a switching device for a multipoint measuring system utilizing the organizational principles of biological receptor fields, the article analyzes some known data on the structure and operation of the peripheral sections of biological analyzers (receptors and sensors). The character of the potential processes occurring in the sensory receptor cells is described, and formulas are given to describe some of the more important aspects of neuron stimulation potential mechanisms. Certain properties specific to s" the receptors (visual, tactile, olfactory, etc.) are considered, and a comparison is made . ween the properties of these sense organ cells, considered separately and in the aggregate, a. he analogous properties of mechanical sensors. By way of example, the feasibility of employ. the property of mutual inhibition for single-output sensor switching is analyzed. Orig. art.

UDC: 621.395.659+612.84/88

Card 1/2

L 41161-66

ACC NR: AP5015284

has: 5 figures and 5 formulas.

SUB CODE: 06,09/ SUBM DATE: 23Mar65/ ORIG REF: 008/ OTH REF: 013

Card 2/2 hs

RUBO, Leonid Grigor'yevich [deceased]; MARSHAK, Yevsey L'vovich; UMANTSEV, R.B., red.

[Installation of high-voltage machinery windings] Montazh obmotok elektricheskikh mashin vysokogo napriazheniia. Moskva, Energiia, 1964. 55 p. (Biblioteka elektromontera, no.140) (MIRA 17:12)

UMANTSEVA, A.A.

Preparation of crowns and bridge-like prosthesis without filing of the teeth. Stomatologiia 38 no.5:57-58 S-O '59. (MIRA 13:3)

1. Iz Krasnodarskoy krayevoy stomatologicheskoy poliklinik (glavnyy vrach L.M. Dolgikh, konsul'tant i nauchnyy rukovoditel' - doktor med. nauk Yu.I. Bernadskiy).
(DENTAL PROSTHESIS)

CHIGIR', N.I. [Chyhyr', M.I.]; MENYAYLO, F.M. [Mieniallo, F.M.]; MATSKEVICH, I.A. [Matskevych, I.A.]; UMANTSEVA, L.N. [Umantseva, L.M.]

Using the silk screen printing method for the decoration of high-quality glassware. Leh.prom. no.2:62-64 Ap-Je '65. (MIRA 18:10)

KOGON, G.Kh.; BRODSKAYA, F.M.; UMANTSEVA, Z.S.

Deep blastomycosis. Vest.ven. i derm. 30 no.2:46 Mr-Ap '56. (MLRA 9:7)

1. Iz Dnepropetrovskoy oblastnoy koinicheskoy bol'nitsy.
(BLASTOMYCOSIS)

S/058/61/000/010/030/100
A001/A101

24.7900

AUTHORS: Iyevskaya, N.M., Umarkhodzhayev, R.M.

TITLE: Development of an installation for observing fine structure of nuclear magnetic resonance signals from protons

PERIODICAL: Referativnyy zhurnal. Fizika, no: 10, 1961, 155, abstract 10V285 (V sb. "Paramagnitn. rezonans", Kazan', Kazansk. un-t, 1960, 137-141)

TEXT: The authors describe an installation for observing nuclear resonance signals of protons with high resolution. The installation makes use of radio-frequency bridge, superheterodyne amplification and amplitude or phase detection. Signals are observed by means of an oscillograph. Spectra from protons of acetic acid and ethyl alcohol have been obtained. Splitting separations between the spectral lines are respectively equal to 5.6×10^{-6} and 4.4×10^{-6} relative units. At slow scanning of magnetic field, fluctuations of signal intensity were observed, caused apparently by nutation of the nuclear magnetization vector. To eliminate this phenomenon, it is necessary that the ratio of the rate of magnetic

Card 1/2

S/058/61/000/010/030/100
A001/A101

Development of an installation ...

field variation to the square of intensity of radio-frequency field should be more than unity.

N. Pomerantsev

[Abstracter's note: Complete translation]

Card 2/2