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L 10126-63

ACCESSION NR: AP3000155

S/0141/63/006/002/0311/0323

45

AUTHOR: Aptek, Yu. E.; Gersht, A. M.

TITLE: Wings of quasiharmonic-signal spectrum

SOURCE: Izvestiya vysshikh uchebnykh zavedeniy, radiofizika, v. 6, no. 2, 1963, 311-323

TOPIC TAGS: quasiharmonic signal

ABSTRACT: A mathematical study of the wings is presented; the signal is amplitude- and frequency- (or phase-) modulated by mutually correlated fluctuations with wide assumptions as to the law of their distribution. Asymptotic formulae for the signal spectrum are developed. The simpler formulae given in the Sections 1 and 2 of the article are applicable to the cases when the disturbance is locally small and varies much quicker or much slower than the reciprocal of the frequency band. In other cases the formulae given in the Section 3 apply. "In conclusion the authors express their thanks to S. I. Borovitskiy for his interest in their work and his comments."

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L 10126-63
ACCESSION NR: AP3000155

Orig. art. has: 50 equations.

ASSOCIATION: none

SUBMITTED: 07Apr62 DATE ACQ: 12Jun63 ENCL: 00

SUB CODE: PH NR REF SOV: 003 OTHER: 006

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Card 2/2

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

ACC NR: AP6022084 SOURCE CODE: UR/0141/66/009/003/0608/0614

AUTHOR: Aptek, Yu. E.; Lebedev, A. V.

ORG: none

TITLE: Limits of technical feasibility in measuring oscillator phase (or frequency) fluctuation by SHF discriminators

SOURCE: IVUZ. Radiofizika, v. 9, no. 3, 1966, 608-612

TOPIC TAGS: SHF, frequency discriminator, SHF oscillator

ABSTRACT: A theoretical comparison of three known methods of oscillator-fluctuation measurement is presented with these conclusions: (1) The A. Whitwell and N. Williams circuit (Microwave J., Nov., p. 27, 1959) is the most sensitive of the circuits used for frequency discrimination; (2) The "contour" method and the delay-line method described by A. N. Malakhov et al. (IVUZ. Radiofizika,

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ACC NR: AP6022084

no. 6, 1065, 1961) are useful in studying signals having wide phase fluctuation; (3) The M. S. Skabovskiy circuit (Rad. i elektronika, no. 9, 434, 1964) is suitable only for amplitude-fluctuation measurements; (4) Any frequency-discrimination circuit has an inherent limitation of its sensitivity due to losses associated with conversion of incoming phase fluctuation into measurable amplitude fluctuation. "In conclusion, the authors wish to thank V. N. Nikonov for his help and valuable hints." Orig. art. has: 4 figures and 13 formulas.

SUB CODE: 09 / SUBM DATE: 25Oct65 / ORIG REF: 005 / OTH REF: 001

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APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', A.; BARATS, I.; BIDA, L.; KOS'YANENKO, S.

Method based on personnel norms used for planning labor productivity in ferrous metallurgy. Biul. nauch. inform.: trud i zar. plata 4 no.11:3-11 '61. (MIRA 14:12)

(Ukraine--Steel industry--Labor productivity)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

I. L. APTEKAR, I. L.

Section A

53

539.11

6663. On the theory of binary alloys. I. L. APTEKAR AND B. H. FINKELSHTEIN. *Zh. Eksper. Teor. Fiz.*, 21, 900-9 (No. 8, 1951) *In Russian.*

Solid solutions of the substitution type with isomorphous components are considered, not taking into account intermetallic compounds. The term for free energy is chosen by calculating the interaction of only the nearest neighbours. In difference to other theories the dependence of free energy on the lattice parameter is taken into account. The dependence of the lattice parameter on concentration for the series of alloys is described, and also investigations of some unique features of the processes of regulation and dissolution of solid solutions.

N. GULLILAND

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

SA APTEKAR, I. L.

Sect. A

Crystallography

548.736.3

6193. The structure of the ordered solid solutions Cu-Au and Cu-Pt. I. L. APTEKAR. *Zh. Eksper. Teor. Fiz.*, 21, 910–16 (*No. 8*, 1951) *In Russian.*

Starting from the theory of A. H. Wilson (1938) a face-centred cubic lattice of a solid solution of equal numbers of 2 kinds of atoms ordered in layers parallel to (001) and (111) is examined. Deformations with the formation of tetragonal or rhombohedral superstructures correspond respectively to ordered CuAu and CuPt solutions. The cell dimensions (for deformation without change of volume) are obtained in terms of σ, the degree of order. For tetragonal distortion ((001) layers) d_{001} is found to depend linearly on σ as found by experiment. Thus the assumption that in the alloy CuAu atoms are disordered in the 001 planes is incorrect as it leads to a quadratic dependence of d_{001} on σ. A. L. MACKAY

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', I.L.

USSR/Physics - Thermodynamics FD-2363

Card 1/1 Pub. 146 - 28/34

Author : Aptekar', I. L., and Timan, B. L.

Title : Adiabatic process at high temperatures

Periodical : Zhur. eksp. i teor. fiz. 28, 758-759, Jun 1955

Abstract : In connection with the influence of thermal ionization upon the thermal properties of gases at high temperatures (B. L. Timan, ibid. 27, 1954), it is of interest to consider the adiabatic process taking into account thermal ionization; in this case the original equation for the adiabatic process will have the form $pdV+dU'+I_1dN_1=0$, where dV is the volume increment, I_1 is the energy of single ionization, dU' is increment in the internal energy of the gas, and dN_1 is the increment in the number of ions during heating of gas. The author finally finds the degree of ionization $x=N_1/N$ as a function of temperature and obtains the graph. Two references: L. A. Landau and Ye. M. Lifshits, Statisticheskaya fizika, GITTL, 1952.

Institution : Dnepropetrovsk Mining Institute *

Submitted : November 22, 1954

* Dnepropetrovskiy gornyy institut

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Aptekar, I. L.

The adiabatic process at high temperatures. I. L. Aptekar and B. L. Timan. Soviet Phys., JETP 2, [illegible] (1956 Engl. translation).—See C.A. 50, 15i. B. M. R.

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR' I. L.

USSR/Electronics - Gas Discharge and Gas Discharge Instruments H-7

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 12346

Author : Aptekar', I.L., Timan, B.L.

Inst : --

Title : Dependence of the Coefficient of Electron Recombination on Temperature and the Pressure.

Orig Pub : Zh. tekhn. fiziki, 1956, 26, No 2, 343-347

Abstract : An investigation is made of the dependence of the coefficient of electron recombination in a gas as a function of the pressure and temperature (T). The theory of thermal ionization is employed, it being proposed that T is not too high and that the gas is weakly ionized. Only a single mechanism of recombination is considered, namely, the recombination of an ion with an electron, with a transfer of energy to a neutral atom. The equation of detailed balance is then of the form: $Q_j n_a^2 = Q_r n_a n_i n_e$, where Q_j is

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR, I.L.

AUTHOR APTEKAR, I.L. 20-1-33/54

TITLE On the Order- Disorder Theory in Alloys.
(K teorii uporyadocheniya v splavakh - Russian)

PERIODICAL Doklady Akad.Nauk SSSR,1957, Vol 115, Nr,1,pp 122-125 (U.S.S.R.)

ABSTRACT It is known that on examination of the "far" order in a double alloy all lattice nodes are divided into two classes (1 and 2).The presence of a wide order is characterized by the fact that the probability of finding one atom of type A in the nodes of one of the classes (e.g. class 1) is greater than in the nodes of the other class.The presence of a "far"order usually leads to a modification in the character of neighborhood of the atoms among one another.The parameters η and σ are introduced for the"wide"and to the"near"orders respectively.In the absence of the correlation that the probability of finding one atom in a node is dependent on the node belonging to one class and that it is not dependent on the numerical relation of A and B atoms around this node, the σ parameter of the"near" order is clearly a function of the parameter η of the"far" order.It can be shown that a simple relation $\sigma=\eta^2$(3) exists for the case of a homogeneous-atomic composition and a lattice in which the nodes of class 1 are only surrounded by atoms of class 2,and inversely.But in the general case of an alloy which is characterized by a parameter of the"far"order,the correlation exists. It was actually proved to exist by means of an experiment.For cases to which relation (3) is applicable the author found out: $\sigma=\eta^2+x(1-\eta^2)$ (4). This is illustrated by a graph.From the diagrams b and v it may be seen that the atomic distribution in the immediate neighborhood

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On the Order-Disorder Theory in Alloys. 20-1-33/54

be seen that the atomic distribution in the immediate neighborhood of the given atom will be equal for the cases $\eta=0$ and $\eta\neq0$ (in the case $r < r_0$). The "far" order itself (beside the dependence on the correlation) manifests itself at greater distances, since the radious of the correlation is r_0. Therefore it will be assumed in the following that the crystal volume is considerably larger than r_0. The author arrives at the following general conclusion: It is fundamentally impossible to describe the development of the far order (for $\sigma\neq1$) and sufficiently large crystal volumina by an approximation which would only take into account the interaction of the immediate neighbors. If it is assumed that the specific energy of the far order is not dependent on the correlation and if the relations $E=E_0+V_\sigma$ (5) and $E=E_0+U\eta^2$ (7) are used, the following formulae can be given for the energy of the alloy: $E = E_0 + U\eta^2 + V_\sigma$.

(1 table)

ASSOCIATION **Institut pretsizionnykh splavov tsentral'nogo nauchno-issledovatel'skogo instituta chernoy metallurgii.**

PRESENTED BY KURDYUMOV G.V., Member of the Academy, January 24, 1957.

SUBMITTED 21.1.1957

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

Aptekar, I. L.

PHASE I BOOK EXPLOITATION SOV/3940

Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Institut pretsizionnykh splavov

Pretsizionnyye splavy (Precision Alloys) Moscow, Metallurgizdat, 1959. 268 p. (Series: Its: Sbornik trudov, vyp. 22) 2,150 copies printed.

Additional Sponsoring Agency: USSR. Gosudarstvennyy planovyy komitet

Ed.: D. I. Gabrielyan; Ed. of Publishing House: Ye. I. Levit; Tech. Ed.: P. G. Islent'yeva.

PURPOSE: This collection of articles is intended for technical personnel and scientific workers in the metallurgical, instrument-manufacturing, and electrical-equipment-manufacturing industries. It may also be useful to students of schools of higher technical education.

COVERAGE: This collection of articles presents the results of studies of precision alloys made in recent years by the Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (Central Scientific Research Institute of Ferrous Metallurgy). Properties of metal alloys which can be soldered (soft or hard) with glass and ceramic materials and alloys used for making springs are discussed. Anomalies of electrical resistance and thermal expansion and the effect of irradiation on properties of alloys are considered. Problems connected with the determination of magnetic susceptibility and with rolling of bimetallic strips are reviewed. An analysis of alloys used in manufacturing high-temperature transducers and strain gages is presented. No personalities are mentioned. References follow several of the articles.

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Boleukh, A. S., E. P. Belova, and V. A. Sol'ts. Utilization of the K40NKhM Alloy for Making Drive Springs 57

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Semenova, N. V., and L. L. Zhukov. Methods of Short-Time Testing of Alloys Used for Electrical Heating Elements 150

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Artsishevskiy, M. A., S. S. Vasil'yev, G. V. Kozhelyayev, and Ya. P. Selisskiy. Effect of Deuteron Irradiation on Electrical Resistance of Self-Ordering and Aging Alloys 168

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Yelyutin, O. P. High-Ohmic-Resistance Alloy Used for Strain Gages 183

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

S/137/61/000/011/073/123
A060/A101

AUTHOR: Aptekar', I.L.

TITLE: On the problem of the nature of the K-state in alloys

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 11, 1961, 27, abstract 11Zh168 (Sb. tr. Tsentr. n.-i. in-t chernoy metallurgii", 1959, no. 22, 177 - 182)

TEXT: A critical analysis is given of the various hypotheses as to the structure of alloys in the K-state. The increase in the electric resistivity of the alloy, characteristic of the K-state may be connected not only with various kinds of precipitations, zones, etc., but also with a homogeneous short-range order and even with a distant order. By comparing the dependence of the close-ordering parameter and electric resistivity of the alloy upon the temperature and making a calculation it was shown that the peculiarities of the behavior of alloys of the Ni_3Cr type do not contradict the short-range order hypothesis.

A. Belinkiy

[Abstracter's note: Complete translation]

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

S/126/60/010/005/011/030
E193/E483

AUTHORS: Aptekar', I.L. and Gorbunov, V.I.

TITLE: On the Problem of the Relationship Between Ordering in the α-Phase and the $\alpha \rightleftarrows \gamma$ Transformation in Fe-Co-V Alloys

PERIODICAL: Fizika metallov i metallovedeniye, 1960, Vol.10, No.5, pp.710-713

TEXT: As has been shown by Martin and Geisler (Ref.3), the disorder-order transformation of the α-phase takes place not only in the binary Fe-Co, but also in the ternary Fe-Co-V alloys. Addition of V lowers the temperature of the disorder-order transformation and yields alloys which at temperatures above 400°C, may consist of two (α' + γ) phases. The object of the present investigation was to study the $\alpha \rightleftarrows \gamma$ transformation during low temperature, isothermal treatment, and to investigate the effect of ordering of the α-phase on this transformation. Two experimental alloys were used which contained: (1) 51.9% Co, 2.57% V, remainder Fe, and (2) 51.85% Co, 3.14% V, remainder Fe. The ordering transformation was studied by the dilatometric method

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E193/E483

On the Problem of the Relationship Between Ordering in the α-Phase and the $\alpha \rightleftarrows \gamma$ Transformation in Fe-Co-V Alloys

on specimens either quenched, or cooled slowly from 1000°C. In addition, the microstructure and constitution of specimens (a) quenched from 1000°C, (b) slowly cooled from 1000°C and (c) quenched from 1000°C and aged (ordered), were studied by X-ray diffraction and by optical and electron microscopy. The results indicated that, when the alloys studied are subjected to low temperature treatment, ordering of the α-phase precedes its decomposition and formation of the γ-phase or, to be more exact, that instead of uniform ordering a decomposition, accompanied by the formation of disordered and ordered (α + α') phases, takes place. The volume of the α'-phase is larger than that of the disorder structure and so is the volume of the vanadium-enriched α-phase. On further heating, the vanadium-enriched α-phase undergoes the $\alpha \rightarrow \gamma$ transformation, as a result of which a highly dispersed α' + γ structure is formed which is similar to the product of decomposition of martensite in these alloys (Ref.3).

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

S/126/60/010/005/011/030
E193/E483

On the Problem of the Relationship Between Ordering in the α-Phase and the $\alpha \rightleftarrows \gamma$ Transformation in Fe-Co-V Alloys

Marked change in the microstructure taking place in the 600 to 700°C interval is obviously associated with the order-disorder transformation taking place in the ordered regions of the α-phase and it is not unlikely that the increase in volume observed at these temperatures is also caused by these structural changes. There are 4 figures and 4 Non-Soviet references.

ASSOCIATION: Institut pretsizionnykh splavov TsNIIChM (Institute of Precision Alloys TsNIIChM)

SUBMITTED: April 3, 1960

Card 3/3

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

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S/020/60/130/03/022/065
B004/B011

AUTHOR: Aptekar', I. L.

TITLE: On Phase Diagrams of Systems With an Ordered Phase

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 3, pp 562-564 (USSR)

ABSTRACT: The author investigated the theoretical construction of phase diagrams. He proceeds from the mixing energy, represented by the equation:

$E_{mix} = Uc_A c_B + V\eta^2 + W\sigma$ (1), where η denotes the long range order, σ the short range order, c_A, c_B the concentrations, while U, V, W are designated as the parameters of the mixing energy, the energy of the long range order, and the energy of the short range order. Unlike the well-known ordering theories (Refs 1-4), wherein U, V, W are determined by the same constant $v = 2v_{AB} - v_{AA} - v_{BB}$ (v_{AA}, v_{BB}, v_{AB} = energies of the atomic pairs) the author investigates the influence of varying values of U, V, W upon the phase diagram. Different values

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On Phase Diagrams of Systems With an Ordered Phase

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for U, V, W are brought about by the circumstance that besides the energy E_1 of the interaction of neighboring atoms (on which W is principally dependent), the energy E_2 of the interaction between ions and generalized electrons and the energy E_3 of the latter become efficient. Depending on the nature of the components (valence, electron concentration, affinity, magnitude of the atomic radius, etc.) different values are thus obtained for U, V, W. Equation 2 is derived for U, V, and equations: $T_{crit} = 8c_A c_B \cdot \frac{V}{R}$ is found for the dependence of the Kurnakov temperature on concentration. By means of equation $c'_A c'_B = \frac{2 - U/V}{12 - 3U/V}$ (c'_A, c'_B = the concentration corresponding to the critical points) phase diagrams are graphically represented for different values of $\alpha = U/V$ (Fig 1). The contradictions occurring in certain cases ($\alpha = 4$) against the Gibbs phase rule are explained by the fact that in reality, α does not remain constant in the entire temperature range in-

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67915

On Phase Diagrams of Systems With an Ordered Phase

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B004/B011

vestigated. There are 1 figure and 14 references, 7 of which are Soviet.

ASSOCIATION: Institut pretsizionnykh splavov Tsentral'nogo nauchno-issledovatel'skogo instituta chernoy metallurgii (Institute of Precision Alloys of the Central Scientific Research Institute of the Metallurgy of Ferrous Metals)

PRESENTED: September 19, 1959 by G. V. Kurdyumov, Academician

SUBMITTED: September 1, 1959

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APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', I.L.

Phase diagrams in systems with volume-centered cubic lattices and two types of long-range order (AB and A_3B). Fiz. met. i metalloved. 12 no.2:197-203 Ag '61. (MIRA 14:9)

1. Institut pretsizionnykh splavov TSentral'nogo nauchno-issledovatel'skogo instituta chernoy metallurgii.

Crystal lattices)
(Phase rule and equilibrium)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

S/126/61/012/003/003/021
E194/E180

AUTHORS: Aptekar', I.L., and Zusman, Sh.I.

TITLE: Magnetic and electrical properties and diagram of state of Fe-Al alloys close in composition to Fe_3Al

PERIODICAL: Fizika metallov i metallovedeniye, v.12, no.3, 1961, 350-359

TEXT: This article describes a study into the kinetics of changes in magnetic and electrical properties of Fe-Al alloys at high temperatures. The object of the work was to establish relationships between these properties and the structural state of the alloys. The article opens with a review of previous work on the subject. The tests were made with an alloy containing 12.8 wt.% aluminium (23.2 at.%) which, according to Taylor and Jones (Ref.6: A. Taylor, R. Jones. J. Phys. Chem. Solids, 1958, Vol.6, 16, 37; J. Appl. Phys., 1958, Vol.29, 3, 522) is in the two-phase region at room temperature. For comparison, tests were also made with an alloy of 14.2 wt.% aluminium (25.4 at.%) which is close to the stoichiometric composition of the intermetallic compound, and an alloy with 8.3 wt.% aluminium (15.7 at.%).

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APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

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The alloys were melted in a high frequency induction furnace with a magnesite crucible. The amount of carbon, silicon and phosphorus was minimal in the melts and the total content of Mn and Si did not exceed 0.3%. The ingots were forged into bars, cleaned and hot rolled at 1000-1050 °C, and then cold rolled to a thickness of 0.1 mm. Strip samples for magnetic tests were vacuum annealed at 1100 °C for five hours with slow cooling to room temperature. The high temperature tests were made in vacuum. The magnetic measurements were made by ballistic and oscillographic methods; the coercive force was measured either on toroids with an internal diameter of 20 mm and an external diameter of 30 mm or on solenoids made of strips 120 mm long and 5 mm wide. Electrical resistance of hardened specimens was measured during rapid heating (500 °C/hour) and remeasured after a long annealing in vacuum. The kinetics of change in magnetic and electrical properties were studied on specimens quenched in water from 900 °C. Fig.1 shows the saturation magnetisation $4\pi I_s$ and coercive force H_c as a function of temperature for the alloy with 12.8% weight aluminium. Fig.2 shows similar curves for alloys with 14.2 and 8.3% Al.

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Fig.3 shows the change of coercive force of previously hardened specimens of the 12.8% aluminium alloy against holding time (in hours). It will be seen from Fig.1 that at about 400-600 °C there is a sharp maximum in the coercive force with a corresponding inflection in the curve of saturation magnetisation. There are no such anomalies in the curves for alloys of 14.2 and 8.3% aluminium. There are two clearly marked temperature regions in Fig.3; below 450 °C there is a comparatively small increase in the coercive force, but the increase becomes more marked at higher temperatures. Similar results were obtained on the 14.2% Al alloy but, since the Curie point of this alloy is 500°C, measurements of coercive force could be made only up to 450°C. By using the low inertia oscillograph procedure it was possible to follow changes in magnetic properties during rapid heating and cooling. Hysteresis loops were obtained for the alloy with 12.8% Al during heating over a period of 10-15 minutes to a temperature above the Curie point, and whereas at room temperature the hysteresis loops of water quenched samples are the same as those of slowly cooled samples, at high temperatures there is a considerable difference.

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With hardened samples there is no noticeable broadening of the hysteresis loop at any temperature, but with slowly cooled samples it was very pronounced between 450-575 °C. Resistivity is plotted against temperature in Fig.6; white circles refer to equilibrium conditions, black circles to the hardened state. It was found that the curves obtained on heating slowly cooled alloys are close to the equilibrium. Fig.7 shows the change of electrical resistance for hardened 12.8% aluminium alloy against holding time in hours. The resistance falls the faster, the higher the temperature. Comparing Figs. 7 and 3 it will be seen that, on isothermal holding, resistance changes more rapidly than coercive force. The following conclusions are drawn from the above results. In the alloy with 12.8% aluminium, two diffusion processes (with different values of activation energy and relaxation time) can occur in two distinct temperature ranges: 250-450 and 500-575°C. The alloy with 14.2% Al displays only one process similar to the low temperature process in the 12.8% Al alloy. Unusual physical properties, such as a maximum in the coercive force/temperature curve, an inflection in the saturation

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Magnetic and electrical properties and.. S/126/61/012/003/003/021
E194/E180

magnetisation curve, and a reduction in resistance as compared with the hardened condition, are observed in the 12.8% Al alloy above 450 °C in the equilibrium condition but not in the alloy with 14.2% Al. Comparison of these results with the equilibrium diagram of Taylor and Jones indicates that the change in the physical properties of alloys with 12.8 and 14.2% Al in the lower temperature region are due to the formation of a homogeneous order of type α_{Fe_3Al} whilst changes in the properties of the alloy with 12.8% Al in the upper temperature region (up to 550°C) are due to the formation of two phases, which is not in accordance with Taylor and Jones who suppose that there is a homogeneous phase in this region.

There are 7 figures and 16 references: 8 Soviet-bloc and 8 non-Soviet-bloc. The four most recent English language references read:

Ref.6: as quoted in the text above.
Ref.7: W. Bennet. J. Iron Steel Inst., 1952, 171, 1, 372.
Ref.10: H. McQueen, G. Kuczunski, Trans. AIME, 1959, 215, 4, 619.
Ref.11: R. Feder, R. Cahn. Phil. Mag., 1960, Vol.5, 52, 343.

Card 5/6

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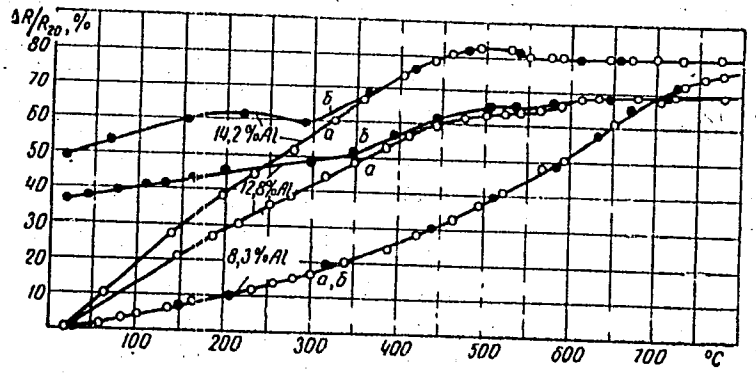
"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

Magnetic and electrical properties and... S/126/61/012/003/003/02
E194/E180

ASSOCIATION: Institut pretsizionnykh splavov TsNIIChM imeni I.P. Bardina (Institute of Precision Alloys TsNIIChM imeni I.P. Bardin)

SUBMITTED: December 6, 1960

Fig.6



Card 6/9

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40683

S/126/62/014/002/018/018
E193/E383

18.7500

AUTHORS: Aptekar', I.L. and Kamenetskaya, D.S.

TITLE: The effect of pressure on nucleation of solid phases in a melt

PERIODICAL: Fizika metallov i metallovedeniye, v. 14, no. 2, 1962, 316 - 318

TEXT: The results of several investigations concerned with the effect of pressure on the mode of solidification of molten metals are in apparent contradiction. According to M. Hasselblatt (Zs. anorg. u. allgem. Chem., 1921, 119, 353) and A.I. Bykhovskiy (Ukr. fiz. zhurnal, 1958, 3, no. 4, 488), when external pressure is applied to a melt the curves representing the variation in the rates of nucleation and growth of the solid-phase particles are shifted into a temperature range, that corresponds to the degree of undercooling approximately the same as that attained under atmospheric pressure, and the final structure of the solidified metal remains unaffected. According to Belousov, Dodonov and Varich (Kristallizatsiya metallov, (Metal Crystallisation) Moscow, AN SSSR, 1960, pp. 279, 298) solidification under pressure

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S/126/62/014/002/018/018
E193/E383

The effect of pressure ....

leads to grain-refinement of the final structure. The present authors show that both views are correct and that the apparent contradiction is due to the fact that the pressure in the experiments described in the first two references remained constant throughout the solidification process, whereas it increased from zero to a predetermined level in the work reported in the next two references mentioned above. They show that the effect of pressure on the rate of nucleation and growth of solid-phase particles in a melt depends on the temperature of the melt at the moment at which the pressure is first applied and on the rate at which it increases. They claim that even a relatively small pressure can have a considerable effect on the final structure if it is applied to an undercooled melt. For any given temperature there is, however, a threshold pressure which must be exceeded if the application of pressure is to have any significant effect. The findings on the effect of static pressure are applied to an analysis of the effect of ultrasonics on the solidification process with particular reference to features which are common to both static and dynamic pressure.

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

The effect of pressure S/126/62/014/002/018/018
E193/E383

ASSOCIATIONS: Institut pretsizionnykh splavov (Institute of Precision Alloys)
Institut metallovedeniya i fiziki metallov TsNIIChM
(Institute of Metal Science and Physics of Metals of TsNIIChM)

SUBMITTED: December 2, 1961

Card 3/3

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

S/126/62/014/003/004/022
E039/E420

AUTHORS: Aptekar', I.L., Kamenetskaya, D.S.

TITLE: On the theory of phase changes in binary systems

PERIODICAL: Fizika metallov i metallovedeniye, v.14, no.3, 1962, 358-365

TEXT: It is necessary to take the following three processes into account: (1) reorganization of the lattice; (2) redistribution of components between phases through the phase boundary, i.e. by means of an exchange process; (3) equalization of composition in each phase. The energy requirements for the first two processes are considered as well as the ratio of their velocities for four temperature ranges. In the region between the liquidus temperature T_ℓ and the temperature of equal free energies T_0 between the two phases only component exchange can occur and this is limited by diffusion in each phase. For temperatures between T_0 and the temperature of the solidus T_s, when $T_D < T_s$ (T_D is the temperature at which the velocities of lattice reorganization and component redistribution are equal), or between T_0 and T_D, when $T_D > T_s$, it is possible for the type of phase

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

S/020/62/143/003/025/029
B101/B144

AUTHORS: Aptekar', I. L., and Kamenetskaya, D. S.

TITLE: Thermodynamics of phase transformations in binary alloys

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 143, no. 3, 1962, 636 - 639

TEXT: The authors study the change in free energy associated with phase transformation in binary alloys in dependence on df_a, the energy change associated with phase transformation owing to diffusion (redistribution of the components), and df_c, energy change associated with phase transformation owing to capture of atoms of the second component. The equation $df = a_2(\partial f_2/\partial C_2 - \partial f_1/\partial C_1)dC_2 + [f_2(C_2) - f_1(C_1) + (C_1 - C_2)\partial f_1/\partial C_1]da_2$ is derived. $a_2 = N_2/N$, where N_2 is the number of atoms in the second phase, N the total number of atoms; C_1, C_2 are the concentrations of atoms of type A in the first and second phase; f_1, f_2 are the specific free energies of the first and second phase, respectively. The authors discuss the

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possible partial equilibria and phase transitions in the case of (a) unchanged quantity of both phases (the interface is not displaced); (b) constant concentration of the second phase; (c) change in the quantity and composition of both phases during the phase transition. If the system is not in equilibrium, the velocity of the transition processes depends on Δf, the deviation of the free energy from the value of equilibrium. For the velocity of these processes the authors give:
$V_{diff} = A_{diff}\exp(-q_{diff}/kT)[1 - \exp(-\Delta f_a/kT)]$; and
$V_{capt} = A_{capt}\exp(-q_{capt}/kT)[1 - \exp(-\Delta f_c/kT)]$. A_{diff} is a coefficient containing the diffusion coefficient; q_{diff} is the activation energy of the process; A_{capt} is a coefficient which includes the mobility of atoms during the capture process, q_{capt} the activation energy of this process. The temperature range below T_1, the top limit of the phase equilibrium, can be divided into three intervals: (1) $T_1 - T_o$; a phase transition with redistribution of components is energetically advantageous here; (2) $T_o - T_D$: both processes are possible, but redistribution is quicker; (3)

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below T_D the phase transformation without change in composition is quicker. If $T_o > T_D > T_S$ (T_S = lower temperature limit of the two-phase range), the process takes place in two stages: first, phase transformation without change in concentration, then, decomposition of the metastable second phase into two phases. There are 6 references: 5 Soviet and 1 non-Soviet.

ASSOCIATION: Institut metallofiziki i Institut pretsizionnykh splavov Tsentral'nogo nauchno-issledovatel'skogo instituta chernoy metallurgii im. I. P. Bardina (Institute of Physics of Metals and Institute of Precision Alloys of the Central Scientific Research Institute of Ferrous Metallurgy imeni I. P. Bardin)

PRESENTED: September 11, 1961, by G. V. Kurdyumov, Academician

SUBMITTED: September 2, 1961

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', I.L.; KAMENETSKAYA, D.S.

Theory of phase transformations in binary systems. Fiz. met. i metallovéd. 14 no.3:358-365 S '62. (MIRA 15:9)

1. Institut metallovedeniya i fiziki metallov TSentral'nogo nauchno-issledovatel'skogo instituta chernoy metallurgii.
(Crystal lattices)
(Phase rule and equilibrium)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', I.L.; KAMENETSKAYA, D.S.

Effect of pressure on the nucleation of a new phase. Fiz. met. i metalloved. 14 no.2:316-318 Ag.'62. (MIRA 15:12)

1. Institut pretsizionnykh splavov i Institut metallovedeniya i fiziki metallov TSentral'nogo nauchno-issledovatel'skogo instituta chernoy metallurgii.

(Crystallization)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', I.L.

Mutual relation between short-range and long-range order and the properties of alloys. Ukr. fiz. zhur. 8 no.2:170-175 F '63.
(MIRA 16:2)

1. Institut pretsizionnykh splavov TSentral'nogo nuachno-issledovatel'skogo instituta chornoy metallurgii, Moskva.
(Alloys)

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

L 12475-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD
S/185/63/008/003/007/009

59
57

AUTHOR: Aptekar', I. L. and Molotilov, B. V.

TITLE: Brittleness of ordered alloys with body-centered cubic lattice

PERIODICAL: Ukrains'kyy Fizychnyy Zhurnal, v. 8, no. 3, 1963, 373-376.

TEXT: The work investigates transition from plastic to brittle state of ordered alloys with body-centered cubic lattice. This work considers: 1. dependence of transition point on ordering; 2. the effect of deformation on lowering of transition point for ordered and disordered alloys; 3. surface effect on the transition point. Specifically the article investigates the dependence of embrittlement temperature of iron-cobalt alloy, determined by flexure tests, on ordering. It was found that the embrittlement temperature is the same for ordered and disordered alloys (within the precision of measurement). The difference between them is manifested only in the case of repeated bending. The presence of oxide films and of hydrogen in the surface layer leads to a perceptible rise in the embrittlement temperature of the specimens in both ordered and disordered states. The experimental results are treated with reference to the theory of dislocations. The article contains one

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Central Scientific Research Inst. of Ferrous Metallurgy and Inst. of Precision Alloys, Mowcow.

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', I.L.; KAMENETSKAYA, D.S.

Diffusionless transformations in alloys. Probl. metalloved. i fiz. met. no.8:205-221 '64. (MIRA 18:7)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', I.L.; OSIP'YAN, Yu.A.

Properties of solid solutions as a criteria for the structural changes in them. Probl. metalloved. i fiz. met. no.8:355-372 '64. (MIRA 18:7)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

ACC NR: AR5013663 SOURCE CODE: UR/0058/65/000/010/E028/E028

AUTHOR: Aptekar', I. L.; Kamenetskaya, D. S.

TITLE: Diffusionless transformations in alloys

SOURCE: Ref. zh. Fizika, Abs. 10E217

REF SOURCE: Sb. tr. In-t metalloved. i fiz. metallov Tsentr. n.-i. in-ta chernoy metallurgii, vyp. 36, 1964, 205-221

TOPIC TAGS: alloy phase diagram, phase transformation, crystal lattice deformation

TRANSLATION: Conditions under which diffusionless transformations could theoretically occur are analyzed. A review of experimental research showed that the type of transformation is determined by experimental conditions such as cooling rate, supercooling, and the nature of the alloy (state diagram and concentration). Energy stimuli for the following two limiting processes are discussed: rearrangement of the lattice and exchange across the phase boundary and the bond with the state diagram. A qualitative analysis is made of the limits of the occurrence of diffusion, diffusionless and mixed processes. Kinetic parameters (activation energies and kinetic coefficients) which characterize exchange processes and rearrangements of the lattice must also be taken into account in a determination of a type of phase transformation besides electrical.

SUB CODE: 20,11

Card 1/1

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

ACC NR: AP7005637 (A) SOURCE CODE: UR/0413/67/000/002/0091/0091

INVENTOR: Sizov, Ye. A.; Aptekar', I. L.

ORG: None

TITLE: A magnetically soft iron-nickel alloy. Class 40, No. 190584 [announced by the Central Scientific Research Institute of Ferrous Metallurgy im. I. P. Bardin (Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1967, 91

TOPIC TAGS: iron nickel alloy, magnetic alloy

ABSTRACT: This Author's Certificate introduces a magnetically soft iron-nickel alloy. The material has a rectangular hysteresis loop, high coercive force and short magnetic reversal time. The alloy has the following chemical composition (in %): nickel--50-80, aluminum--1-4, boron--less than 0.1, the remainder iron.

SUB CODE: 11/ SUBM DATE: 20Dec65

Card 1/1

UDC: 669.24.71;669.018.58

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', L. D. (Cand Tech Sci); BUSHKANETS, S. S. (Cand Tech Sci)

"Investigations Concerning Construction of a Large Earth Dam on a Foundation Containing Sustained Layer of Liman-Marine Silt, and Results of Long Term Observations for Structure Behavior."

report presented at the 8th Intl Cong of the Intl Comm on Large Dams, Edinburgh, Scotland, 4-8 May 64.

All-Union Sci Res Inst of Hydrotechnics, USSR

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', L.D., kand. tekhn. nauk

Calculation of the seepage from the horizontal drainage of navigable locks and drydocks. Part 3: Problem on the inflow of ground water into a chamber having a bottom permeable to water and lateral symmetric drains. Izv. VNIIG 46:86-105 '51.
(MIRA 12:5)
(Locks (Hydraulic engineering) (Water, Underground)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

ASHURLI, S.I.[deceased]; APTEKAR', L.L.

[redacted]

Creating an electromagnetic device for reclaiming weighting agents of drilling fluids. Azerb. neft. khoz. 41 no.9:41-43 S '62. (MIRA 16:6)

(Oil well drilling fluids)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

ULITISKIY, L.; APTEKAR', M.

Letter to the editor. Tekh.kino i telev. 4 no.5:42-43 My '60.
(MIRA 13:8)

1. Glavnyy inzh. Glavka kinofikatsii i kinoprokata Ministerstva kul'tury USSR (for Ulitskiy).
2. Starshiy inzh. Glavka kinofikatsii i kinoprokata Ministerstva kul'tury USSR (for Aptekar').
(Motion pictures, Talking)
(Stereophonic sound systems)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', M.V.

APTEKAR', M.V., inzh.; ROLINSKIY, V.Yu., kand.tekhn.nauk

New series of centrifugal electric fans for general use on ships. Sudostroenie 23 no.8:30-32 Ag '57. (MIRA 10:11)
(Fans, Electric) (Ships--Heating and ventilation)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

ANDREYEV, L.M., inzh.; AITEKAR', M.V., inzh.

Effect of the number of blades on the noisiness of centrifugal fans. Sudostroenie 24 no.8:34-36 Ag '58. (MIRA 11:10)
(Fans, Mechanical--Noise)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', M.V., inzh.; VEZLOMTSEV, K.A., inzh.

Marine centrifugal electric fans with radially placed blades.
Sudostroenie 26 no.12:30-35 D '60. (MIRA 13:11)
(Ships--Heating and ventilation) (Fans, Mechanical)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', M.V., inzh.; VEZLOMTSEV, K.A., inzh.

Axial forces in marine centrifugal fans. Sudostroenie 28 no.4: 25-28 Ap '62. (MIRA 15:4)

(Fans, Mechanical)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

RUSINOV, L.I. [deceased]; APTEKAR', R.L.; GVODEV, V.S.; SAKHAROV, S.L.; KHAZOV, Yu.L.

Level scheme of Eu^{153}. Zhur. eksp. i teor. fiz. 40 no.1:79-84 Ja '61. (MIRA 14:6)

1. Leningradskiy fiziko-tekhnicheskiy institut.
(Europium) (Samarium--Decay)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

RUSINOV, L.I. [deceased]; APTEKAR', R.L.; GVOZDEV, V.S.; SAKHAROV, S.L.; KHAZOV, Yu.L.

Level scheme of Eu^{153}. Zhur. eksp. i teor. fiz. 40 no.1:79-84 Ja '61. (MIRA 14:6)

1. Leningradskiy fiziko-tekhnicheskiy institut.
(Europium) (Samarium--Decay)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', S.; VENDROV, I.; SHMULICH, F.

Determining the expenditure of labor for repairing metallurgical equipment. Sotsl. trud 7 no.9:73-78 S '62. (MIRA 15:9)

1. Donetskiy sovet narodnogo khozyaystva.
(Donetsk Province--Steel industry--Equipment and supplies)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

SOV/137-59-3-5148

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 3, p 33 (USSR)

AUTHOR: Aptekar', S.

TITLE: The Council of National Economy on the Problems Posed by Adoption of the Seven- and Six-hour Working Day. The Donbass Metallurgical Establishments on New Schedules (Sovnarkhoz i voprosy perekhoda na semi- i shestichasovoy rabochiy den'. Metallurgicheskiye predpriyatiya Donbassa v novykh usloviyakh)

PERIODICAL: Sots. trud, 1958, Nr 7, pp 88-98

ABSTRACT: In the fourth quarter of 1957 there was a change-over to a 7-hour workday and new wage schedules for the workers of six metallurgical, three pipe, and ten coke-oven plants of the Stalino Council of National Economy. For workers of the main continuous-production sections a four-brigade continuous schedule was prevalently adopted, specifying four 8-hour workdays and 48 hours off; according to this schedule each worker works 42 hours per week. With the increase in the number of workers a raise in the qualification was carried out on a large scale, and in this way 31.5% of the requirements for additional workers were filled from internal reserves. As a result of an

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

The Council of National Economy on the Problems Posed by Adoption of (cont.) SOV/137-59-3-5148

alignment of the production quotas, the fulfillment of the production quotas as a whole in the above establishments was reduced from 136.4% in July to 113.7% in December; the number of workers exceeding the work quotas by 20% and more was 57.2% of the total number of piece-workers before the change-over, whereas after the change it became 22.1% with a simultaneous increase in labor productivity. The fulfillment of the labor-productivity quota in the third quarter of 1957 throughout the establishments was 96.4% (in the metallurgical plants it was 92.7%) and in the first quarter of 1958 it increased to 100.2% (100.9% in the metallurgical plants).

P. P.

Card 2/2

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', S.; KATSEN, L.

A norm plan for metallurgical machinery units. Sots.trud 4 no.9:87-91 S '59. (MIRA 13:1)
(Steel industry--Production standards)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', S.; SHMULICH, F.

Practice of the labor organization and productipn laboratory. Sots. trud. 5 no.12:132-134 D '60. (MIRA 14:6)

1. Nachal'nik otdela kadrov, truda i zarabotnoy platy upravleniya metallurgicheskoy promyshlennosti Stalinskogo sovnarkhoza (for Aptekar'). 2. Nachal'nik tsentral'noy normativno-issledovatel'skoy laboratorii upravleniya (for Shmulich).
(Saratov Province--Steel industry--Production standards)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR, S.G.

USSR.

Effect of the relative amounts of proteins, fats, and carbohydrates present in food on the development of thiamine avitaminosis. S. G. Aptekar (Inst. Nutrition, Acad. Med. Sci. U.S.S.R., Moscow). *Voprosy Pitaniya* 13, No. 3, 25-30 (1954).—Guinea pigs were fed synthetic diets of the same caloric value but differing in their compns. with respect to proteins (I), fats (II), and carbohydrates (III); all vitamins were provided except thiamine. Increasing the amt. of I at the expense of III at const. II did not prevent the development of B_1-avitaminosis. Increasing the dietary I at the expense of II accelerates the process. Increasing the amt. of II in the diet either at the expense of I or III inhibits the development of the avitaminosis. The amt. of pyruvic acid excreted with urine was the highest in the case of the carbohydrate-rich diet, the smallest in the case of the fat-rich diet. E. Wierbicki

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', S. G.

USSR/Medicine - Vitamins, Conferences

FD-1768

Card 1/1 Pub 141-15/15

Author : Aptekar', S. G.

Title : Meeting of the biochemical sections of the Moscow Society and Chernovitsy Division of the Ukrainian Society of Physiologists, and Pharmacologists on vitamins

Periodical : Vop. Pit. 62-63, Jan/Feb 1955

Abstract : A meeting was held at Chernovitsy on 25-28 June 1954 where questions pertaining to vitamins were discussed. A number of papers were presented on such subjects as vitamin assay, the role of vitamins in various biochemical reactions, etc. The titles and authors of the papers are listed.

Institution: --

Submitted : --

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APTEKAR', S. G.

APTEKAR', S. G. -- "Experimental Materials on the Effect on Thiamine Insufficiency Produced by Various Combinations of Albumen, Fats, and Carbohydrates in Food." Acad Med Sci USSR, Inst of Nutrition, Moscow, 1956. (Dissertation for the Degree of Candidate of Medical Sciences)

SO: Knizhnaya Letopis' No 44, October 1956

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

EXCERPTA MEDICA Sec 8 Vol 12/12 Neurology Dec 59

6174. STATE OF CONDITIONED REFLEX REACTIVITY AS AN INDICATOR OF THIAMINE DEFICIENCY (Russian text) - Aptekar S. G. Inst. of Nutrit., USSR Acad. of Med. Scis, Moscow - VOPR. PIT. 1956, 15/1 (21-28) Illus. 3

The earliest signs of thiamine deficiency include an increased excretion of pyruvic acid in the urine and a disturbance of the conditioned reflex reactivity. First, there is a transitory rise of excitability of the cerebral cortex and a weakening of the internal inhibition (disinhibition of the differentiation power). This is followed by a weakening of the processes of excitation and a development of a diffuse inert inhibition; the latter spreads to the subcortical regions which is clinically reflected in the disappearance of the unconditioned defensive reflexes. For an early diagnosis of experimental thiamine deficiency, and also to assess the requirements of the body with regard to thiamine, the estimation of pyruvic acid in the urine and blood is considered to be the best method. A constant and progressive urinary excretion of pyruvic acid occurs earlier than the development of appreciable changes in the conditioned reflex reactions, and the method is simpler. The assessment of other signs of thiamine deficiency should also be made in addition to the estimation of the urinary excretion of pyruvic acid. To determine, however, whether after a period of thiamine deficiency in the body the normal nutritional status has been restored, the evaluation of the conditioned reflex reactivity is suggested as being a more valuable criterion than any other known method.

Krymskii - Moscow (S)

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR, S.G.

Course of thiamine deficiency in pigeons following feeding on food containing various protein-fat-carbohydrate ratios [with summary in English]. Vop.pit. 17 no.6:32-37 N-D '58. (MIRA 12:2)

1. Iz labortaorii patologicheskoy fiziologii (zav. - prof. L.A. Cherkes) Instituta pitaniya AMN SSSR, Moskva.

(VITAMIN B1 DEFICIENCY, exper.
eff. of food with various protein-fat-carbohydrate ratios (Rus))
(FOOD,
eff. of various protein-fat-carbohydrate ratios on exper. vitamin B1 defic, in pigeons (Rus))

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', S.G., LORIYE, K.M., (Moskva)

Effect of ascorbic acid on blood coagulation. Klin.med. 36 no.5: 121-127 My '58 (MIRA 11:7)

1. Iz laboratorii patologicheskoy fiziologii (zav. - prof. L.A. Cherkes) i iz otdeleniya bolezney serdechno-sosudistoy sistemy (zav. - doktor med.nauk V.P. Sokolovskiy) kliniki lechebnogo pitaniya Instituta pitaniya AMN SSSR.

(BLOOD COAGULATION, effect of drugs on, vitamin C (Rus))
(VITAMINC C, effects, on blood coagulation (Rus))

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', S.G.

Effect of riboflavin on blood coagulation. Farm. i toks. 22 no.2:134-138 Mr-Ap '59. (MIRA 12:6)

1. Laboratoriya patologicheskoy fiziologii (zav. - prof.L.A. Cherkes) Instituta pitaniya AMN SSSR.
(BLOOD COAGULATION, eff. of drugs on vitamin B2 (Rus))
(VITAMIN B2, eff. on blood coagulation (Rus))

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', S.G.

Interconnections between the metabolism of riboflavin and amino acids containing sulfur and tryptophan. Vop.pit. 19 no.1:54-56 Ja-F '60. (MIRA 13:5)

1. Iz laboratorii patologicheskoy fiziologii (zav. - prof. L.A. Cherkes) Instituta pitaniya AMN SSSR, Moskva.
(VITAMIN B_2 metabolism)
(AMINO ACIDS metabolism)

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

CHERKES, L.A.; APTEKAR', S.G.

Excretion of riboflavin in the urine in experimental tumors.
Arkh. pat. 22 no.2:27-37 '60. (MIRA 13:12)
(TUMORS) (RIBOFLAVIN)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

NATANSON, Adol'f Oskarovich; APTEKAR', S.G., red.; SENCHILO, K.K., tekhn. red.

[Vitamin A and vitamin A insufficiency] Vitamin A i A-vitaminnaia nedostatochnost'. Moskva, Gos. izd-vo med. lit-ry Medgiz, 1961. 277 p. (MIRA 14:7)

(VITAMINS--A) (DEFICIENCY DISEASES)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

CHERKES, L.A.; APTEKAR', S.G.; VOLGAREV, M.N.

Tumors of the liver produced by selenium. Biul. eksp. biol. i med. 3[i.e.53] no.3:78-83 Mr '62. (MIRA 15:4)

1. Iz laboratorii patologicheskoy fiziologii (zav. - prof. L.A. Cherkes) Instituta pitaniya AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR A.Ye.Braunshteynom.
(LIVER--TUMORS) (SELENIUM--PHYSIOLOGICAL EFFECT)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', S.G. (Moskva)

Content of riboflavin in the organs of rats with transplanted tumors. Arkh. pat. 10:45-52 '62. (MIRA 17:1)

1. Iz laboratorii patologicheskoy fiziologii (zav. - prof. L.A. Cherkes) Instituta pitaniya AMN SSSR.

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', S.G.

Factor III and selenium; a survey of literature. Vop.pit. 22 no.1:83-86 Ja-F'63 (MIRA 16:11)

1. Iz Instituta pitaniya AMN SSSR, Moskva.

*

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', S.G.; BRAKSH, T.A.; ORLOVA, N.V.

15th scientific session of the Institute of Nutrition of the Academy of Medical Sciences of the U.S.S.R. Vop. pit. 23 no.5:84-90 S-O '64. (MIRA 18:5)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAREV, S.G.; IL'INICH, A.A.

Effect of atherogenic diet on the activity of certain enzymes in the blood and liver of rats. Vop. pit. 23 no.6:49-55 N-D '64. (MIRA 18:6)

1. Laboratoriya klinicheskoy enzimologii (zav. - prof. A.A. Pokrovskiy) Instituta pitaniya AMN SSSR, Moskva.

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', S.G.; GANETSKAYA, S.A. (Moskva)

Content of riboflavin in organs of mice with transplanted tumors. Arkh. pat. 27 no.9:63-65 '65. (MIRA 18:12)

1. Laboratoriya patologicheskoy fiziologii (zav.- prof. L.A. Cherkes) Instituta pitaniya AMN SSSR. Submitted June 26, 1964.

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', S.G.

Consulation of the experts of the member nations of the Mutual Economic Assistance Council on the coordination of methods in studying the nutrition of the population. Vop.pit. 24 no.4:89-91 Jl-Ag '65. (MIRA 18:12)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', S.S.; ROTMISTROVSKIY, B.M.

Mastering the rolling of 1,5 mm sheets. Biul. TSNIICHM no.21:48-49 '57. (MIRA 11:5)

1. Yenakiyevskiy metallurgicheskiy zavod.
(Rolling (Metalwork)) (Sheet steel)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

KATSEN, Leontiy Grigor'yevich; APTEKAR', Savéliy Semenovich; KOVAL', Trofim Fedotovich; LEBEDINSKIY, Boris Ivanovich; SHALGANOVA, V.N., red.; SAMOLETOVA, A.V., tekhn. red.

[A new wage system in metallurgical plants] Novaia sistema oplaty truda na metallurgicheskikh zavodakh. Stalino, Stalinskoe oblastnoe knizhnoe izd-vo, 1959. 108 p. (MIRA 14:10)
(Volgograd Province—Wages—Steel industry)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAR', Saveliy Semenovich; BARATS, Izrail Semenovich; VOLOBUYEV, Vasiliy Illarionovich; VASILENKO, V.P., red.; SAMOLETOVA, A.V., tekhn. red.

[Reducing labor consumption in metal production] Snizhenie zatrat truda na proizvodstvo metalla. Stalino, Knizhnoe izd-vo Stalino-Donbass, 1960. 115 p. (MIRA 17:4)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

KATSEN, Leontiy Grigor'yevich; LUK'YANOV, Mikhail Razumovich; APTEKAR', Saveliy Semenovich; TERESHCHENKO, N.A., inzh., retsenzent; CHUMACHENKO, T.I., red.izd-va; BEREZOVYI, V.N., tekhn. red.

[Labor productivity in ferrous metallurgy in the Ukrainian S.S.R.] Proizvoditel'nost' truda v chernoi metallurgii USSR. Kiev, Gostekhizdat USSR, 1963. 218 p. (MIRA 16:4)
(Ukraine--Iron industry--Labor productivity)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

YUR'YEV, V.M.; TELESHOVA, A.S.; APTEKAR', Ye.L.; ARDASHNIKOV, A.Ya.; REZNIKOVA, O.Ya.; PRAVEDNIKOV, A.N.

Use of ion-sorption ESh-1 pumps in the MI-1305 mass-spectrometer. Zav.lab. 30 no.3:375-376 '64. (MIRA 17:4)

1. Nauchno-issledovatel'skiy fiziko-khimicheskiy institut imeni Karpova.

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

SHARPATYY, V. A.; APTEKAR', Ye.L.; ZAKATOVA, N.V.; PRAVEDNIKOV, A.N.

Radiolysis of polyamides. Dokl. AN SSSR 156 no. 3:626-629 '64. (MIRA 17:5)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova. Predstavleno akademikom S.S.Medvedevym.

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

ACCESSION NR: AP4038527 S/0020/64/156/003/0626/0629

AUTHORS: Sharpaty*y, V.A.; Aptekar', Ye.L.; Zakatova, N.V.; Pravednikov, A.N.

TITLE: Radiolysis of polyamides

SOURCE: AN SSSR. Doklady*, v. 156, no. 3, 1964, 626-629

TOPIC TAGS: polyamide, radiolysis, mechanism, kinetics, radical radiolysis product, EPR method, radical mechanism, molecular cleavage, carbon hydrogen bond rupture, butyricbutyroamide, chromophoric group

ABSTRACT: This study was conducted to obtain information about the initial stages of the radiolysis of the polyamides $-CONH(CH_2)_n CONH(CH_2)_m$ or $-CONH(CH_2)_nNHCO(CH_2)_mCONH$ (where n and m can be 4 to 10) and their low molecular analogs. CO and H_2 are formed on radiolysis of polyamides, with the formation of H_2 being independent of radiolysis temperature and proportional to the dosage. The nature and kinetics of the accumulation of radical radiolysis products were studied by the EPR method. The yield of accumulated radicals is almost independent of the type of sample (resin or fiber) or of radiolysis temperature, and increases with the number of methyl groups in

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ACCESSION NR: AP4038527

the polymer chain. The radical $-CONH\dot{C}^{\alpha}HC^{\cdot\beta}H_2$ is presumed to be formed by rupture of the C-H bond in the methylene groups. The atomic hydrogen reacts with the polymeric material pulling away a hydrogen atom from the α-methylene bonds. On illumination with visible light for 15-20 minutes the EPR spectrum changes sharply, the sample coloring intensity is increased and no gas is evolved. Further illumination has no effect. Apparently the radical formed also exists as CH_2 $CONHCH{=}CHCH_2$ with the number of the chromophoric groups being retained but rearranged. Mass spectrometric analysis of the radiolysis products of butyroamide of butyric acid led to the assumption of the following radiolysis scheme:

$$C_3H_7-C=O-NH-CH_2-C_3H_7 \rightarrow C_3H_7CO-NH-\dot{C}H-C_3H_7 \rightarrow$$
$$\rightarrow C_3H_7-\dot{C}O+NH=CHC_3H_7,$$
$$C_3H_7\dot{C}O \rightarrow C_3H_7^{\cdot}+CO,\ 2C_3H_7^{\cdot}=CH_3CH_2CH_2+CH_3CH=CH_2.$$

Since in the radiolysis of the polyamides and of the low molecular analog the amount of H_2 exceeds that of CO, and the amount of cross-linkage does not cover the difference between the two, it was concluded that H_2 is formed during radiolysis by the radical mechanism and by molecular cleavage from two adjacent carbon atoms or from the

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ACCESSION NR: AP4038527

nitrogen and carbon atoms near the carbonyl group. Thus the processes of H_2 and of CO formation during the radiolysis of polyamides are independent to some degree. "The authors thank M.K. Dobrokhotov, A.V. Sharov, D.M. Margolin, B.V. Maslova and K.G. Yanov for help in the work." Orig. art. has: 1 table, 4 figures and 1 equation.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya Karpova (Physical Chemical Institute)

SUBMITTED: 18Dec63

ENCL: 00

SUB CODE: NP, OC

NR REF SOV: 001

OTHER: 005

Card 3/3

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

SHILOV, M.N.; SKIBO, N.S.; ROGOZHINA, N.V.; SHAPOSHNIKOV, Ya.P.; STEPANYUK, A.I.; APTEKAREV, M.A.; NEVZOROV, P.L.; TABAKO, P.I.; ALEKSEYEVSKIY, V.L.; ARTEMOV, N.N.; GRABOVSKIY, V.V.; MNOGOLET, V.Ya.

[Cultivation practices for increasing crop yields in Groznyy Province] "Agrotekhnicheskie meropriiatiia po povysheniiu urozhainosti dlia Groznenskoi oblasti." Groznyi, Groznenskoe obl.izd-vo. Pt.1. [Cultivation of field crops] Polevodstvo. 1945. 178 p. (MIRA 13:8)

1. Groznyy. Oblastnoy zemel'nyy otdel. 2. Glavnyy agronom Groznenskogo Oblastnogo zemel'nogo otdela (for Shilov). 3. Groznenskiy Oblastnoy zemel'nyy otdel (for Skibo, Rogozhina, Shaposhnikov, Stepanyuk, Aptekarev). 4. Direktor Opytnoy stantsii Groznenskoy oblasti (for Grabovskiy). 5. Inspektor Inspektury po sortoispytaniyu zernovykh i maslichnykh kul'tur i trav Ministerstva sel'skogo khozyaystva SSSR (for Mnogolet).

(Groznyy Province--Field crops)

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAREVA, A. M., GORBUSHINA, Z. Ye., ANESTIADI, N. Kh., and SHULYAK, L. P.

"On the Work of the 27th All-Union Congress of Surgeons"

report submitted at the Society of Surgeons of the Moldavian SSSR, 1960

So: Zdravookhraneniye, Kishinev, No. 2, March-April 1961, pages 61-64

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAREVA, A. M.

APTEKAREVA, A. M. "Blood transfusion within bones", Trudy Kishinevsk. gos. med. in-ta, Vol. 1 1949, p. 194-202.

SO: U-3261, 10 April 53 (Letopis - Zhurnal 'nykh Statey No. 11, 1949)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAREVA, A.M.

Clinical characteristics of acute pancreatitis in elderly and senile subjects. Zdravookhranenie 5 no.1:17-21 Ja-F '62. (MIRA 15:4)

1. Iz kafedry gospital'noy khirurgii (zav. prof. P.V.Ryzhov) Kishinevskogo meditsinskogo instituta.
(PANCREAS--DISEASES)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAREVA, A.M.

Some problems of blood transfusion in elederly and senile patients. Trudy Kish.gos.med.inst. 12:19-21 '60.

(MIRA 16:4)

1. Kafedra gospital'noy khirurgii Kishinevskogo gosudarstennogo meditsinskogo instituta.

(GERIATRICS) (BLOOD--TRANSFUSION)

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAREVA, A.M.

Side effects of antibiotics in elderly and senile surgical patients. Trudy Kish.gos.med.inst. 12:23-30 '60.

(MIRA 16:4)

1. Kafedra gospital'noy khirurgii Kishinevskogo gosudarstvennogo meditsinskogo instituta.

(GERIATRICS) (SURGERY) (ANTIBIOTICS)

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

MALOMAN, Ye.N.; APTEKAREVA, A.M.

Case of influenzal peritonitis. Khirurgiia 39 no.10:132-133 O '63. (MIRA 17:9)

1. Iz kliniki gospital'noy khirurgii (zav.-prof. P.V. Ryzhov) Kishinevskogo meditsinskogo instituta.

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APTEKAREVA, Ye.I., SHMELEV, N.S., TOKAREV, V.T.

Nikolai Grigor'evich Dam'e; on his 60th birthday. Ortop.travm i protez 19 no.2:84 Mr-Ap '58 (MIRA 11:5)
(DAM'E, NIKOLAI GRIGOR'EVICH, 1897-)

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

APTEKAREVA, Ye.I.

Late results of treating closed fracutures of the femur in children. Sov.med. 22 no.4:97-100 Ap '58 (MIRA 11:7)

1. Iz detskoy gorodskoy bol'nitsy No.20 imeni K.A. Timiryazeva Moskvy (glavnyy vrach S.T. Yesayan, starshiy khirurg N.G. Dam'ye)
(FEMUR, fract.
in child., ther., remote results (Rus))

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

ZABELOTSKIY, Lazar' Markovich; KUZ'MIN, Aleksandr Nikolayevich; FEL'DMAN, Aleksandr Yakovlevich; APTEKIN, V.I., retsenzent; PLEMYANNIKOV, M.N., red.; GRACHEV, A.M., red.; KOGAN, V.V., tekhn. red.

[Reference manual for the manufacture of spun and woven goods; ribbon and braid weaving] Spravochnik po tekstil'no-galanterejnomu proizvodstvu; lentotkachestvo i pletenie. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po legkoi promyshl., 1958. 565 p.
(Textile machinery) (Weaving) (Spinning) (MIRA 11:9)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4"

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101910005-4

L 7956-66 EWT(d)/EWT(1)/EWP(1)/EWA(h) IJP(c) BB/GG

ACC NR: AP5025744 SOURCE CODE: UR/0286/65/000/018/0092/0093

AUTHORS: Aptekman, B. A.; Kucherenko, A. P.

ORG: none

TITLE: Sign discriminator for analog-to-digital converter. Class 42, No. 174846 [announced by Automation Institute, Lisichansk Branch (Lisichanskiy filial instituta avtomatiki)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 92-93

TOPIC TAGS: analog digital converter, transistorized circuit

ABSTRACT: This Author Certificate presents a sign discriminator for analog-to-digital converters, based on the method of digit balancing. The discriminator contains a bridge modulator, a pulse amplifier, and a phase detector. To increase the converter response rate, to decrease the effect of overloads on the reduction of the response rate, and to decrease the current requirement from the measuring circuit, the bridge modulator for shaping a single symmetric pulse signal contains two pairs of semiconductor switches (see Fig. 1).

Card 1/2

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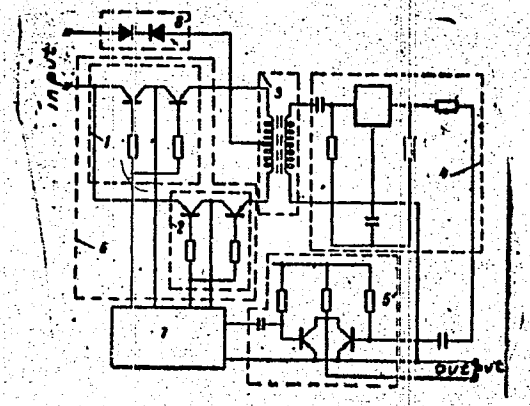

Fig. 1. 1 and 2- switches; 3- pulse transformer; 4- pulse amplifier; 5- time selector; 6- modulator; 7- control device; 8- diode limiter

The collectors of each pair are connected to each other and to a control device. The emitters of the first transistors of each pair are joined and are connected through resistors to the primary of the pulse transformer. The transformer center tap is connected to a diode current limiter. The transformer secondary is connected to the pulse amplifier. Orig. art. has: 1 diagram.

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APTEKMAN, G., inzh.; DUBROVSKIY, Ye., inzh.

Powered supports in foreign countries. Sov.shakht. 10 no.6: 13-16 Je '61. (MIRA 14:9)

(Mine timbering)

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

20

B APTEKMAN, I.B.

6589* Drying of Lumber by Application of High-Frequency Currents. I. B. Aptekman. *Torfyanaya Promyshlennost* (Peat Industry), v. 28, Jan. 1951, p. 23-25.

Apparatus and procedure are described and diagrammed.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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АПТЕКМАН, И.Л.

MASHINSKIY, I.A.; BLINOVA, A.A.; MNUSHKIN, M.L.; APTEKMAN, I.L.; KOTENKOV, P.N.

"Economy and organization of chemical production" by S.Z. Pogostin. Reviewed by I.A. Mashinskii and others. Khim. prom. no.2:124-126 Mr '57. (MLRA 10:6)

(Chemical industries) (Pogostin, S.Z.)

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APTEKMAN, L. Ya.

At the Dnepropetrovsk Mining Institute in Artem Sergeyev from April 1939 to April 1947, the following dissertations were defended in connection with attaining the scholarly degree of Candidate of Technical Sciences (specializing in mining electrical engineering: L. Ya. Aptekman on 28 April 1947 defended his dissertation on the subject "Colored Illumination for rock-screening equipment".

The official opponents of this dissertation were Doctor of Technical Sciences Professor P. P. Pirotskiy and Candidate of Technical Sciences Docent R. Ya. Nayerov.

An investigation was made of the coefficients of reflection of coal and the corresponding gangue with monochromatic light of all the colors of the spectrum. Furthermore by means of comparing the spectral characteristics of the various light sources (incandescent bulbs, mercury lights, fluorescent lights) conditions were found giving the best light contrast between coal and gangue. The results were checked under operational conditions, in hand separating of gangue from the coal mass on a conveyor belt. An increase in the productivitity of coal grading was achieved, together with an increase in the quality of the coal.

SO: Elektrichestvo [Electricity], No. 10, October 1947. Moscow

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[Epoxy compounds and their use] Epoksidnye kompaudy i ikh primenenie. Leningrad, Gos.soiuznoe izd-vo sudostroit.promyshl., 1959. 132 p. (MIRA 12:9)

(Resins, Synthetic) (Electric engineering--Materials)

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