L 15942-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG

ACC NR: AT6002269 (A) SOURCE CODE: UR/2564/65/006/000/0340/0347

AUTHOR: Lavrent'yeva, L.G.; Vilisova, M.D.

ORG: none

TITLE: Preparation of epitaxial and macrocrystalline gallium arsenide layers by the sublimation method (Paper presented at the Third Conference on Crystal Growing held in Moscow from 18 to 25 November, 1963.)

SOURCE: AN SSSR. Institut kristallografii. Rost kristallov, v. 6, 1965, 340-347

TOPIC TAGS: epitaxial growing, gallium arsenide, germanium, tunnel diode

ABSTRACT: Sublimation in evacuated and sealed ampoules was used to obtain stoichiometric films of gallium arsenide with n- and p-type conductivity and various resistivities and carrier concentrations up to the degenerate value. It was shown that a temperature profile with a temperature minimum permits a satisfactory reproducibility of the properties of the films in a series of experiments. Polycrystalline gallium arsenide films with a grain size of 10 — 30μ were successfully employed for the preparation of film tunnel diodes. It was noted that when the films were deposted on gallium arsenide substrates oriented in the (111) plane, epitaxial deposited occurred readily on the arsenic

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L 15942-66

ACC NR: AT6002269

side of the plates (plane $\bar{1}\bar{1}\bar{1}$). As a rule, polycrystalline films were obtained on the gallium side. In the deposition of gallium arsenide on germanium oriented in the (111) plane, the direction of growth of the condensate was [$\bar{1}\bar{1}\bar{1}$]. Authors thank A. P. Izergin for providing gallium arsenide for the investigations. Orig. art. has: 11 figures and 1 table.

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 003/ OTH REF: 002

FW

Card 2/2

ACC NR: ARG017151 SOURCE CODE: UR/0275/66/000/001/B015/B015

AUTHOR: Vilisova, M. D.; Lavrent'yeva, L. G.; Murashko, V. S.; Presnov, V. A.

TITLE: Production and analysis of gallium arsenide films

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 1B106

REF SOURCE: Sb. Poverkhnostn. i kontaktn. yavleniya v poluprovodnikakh. Tomsk, Tomskiy un-t, 1964, 422-431

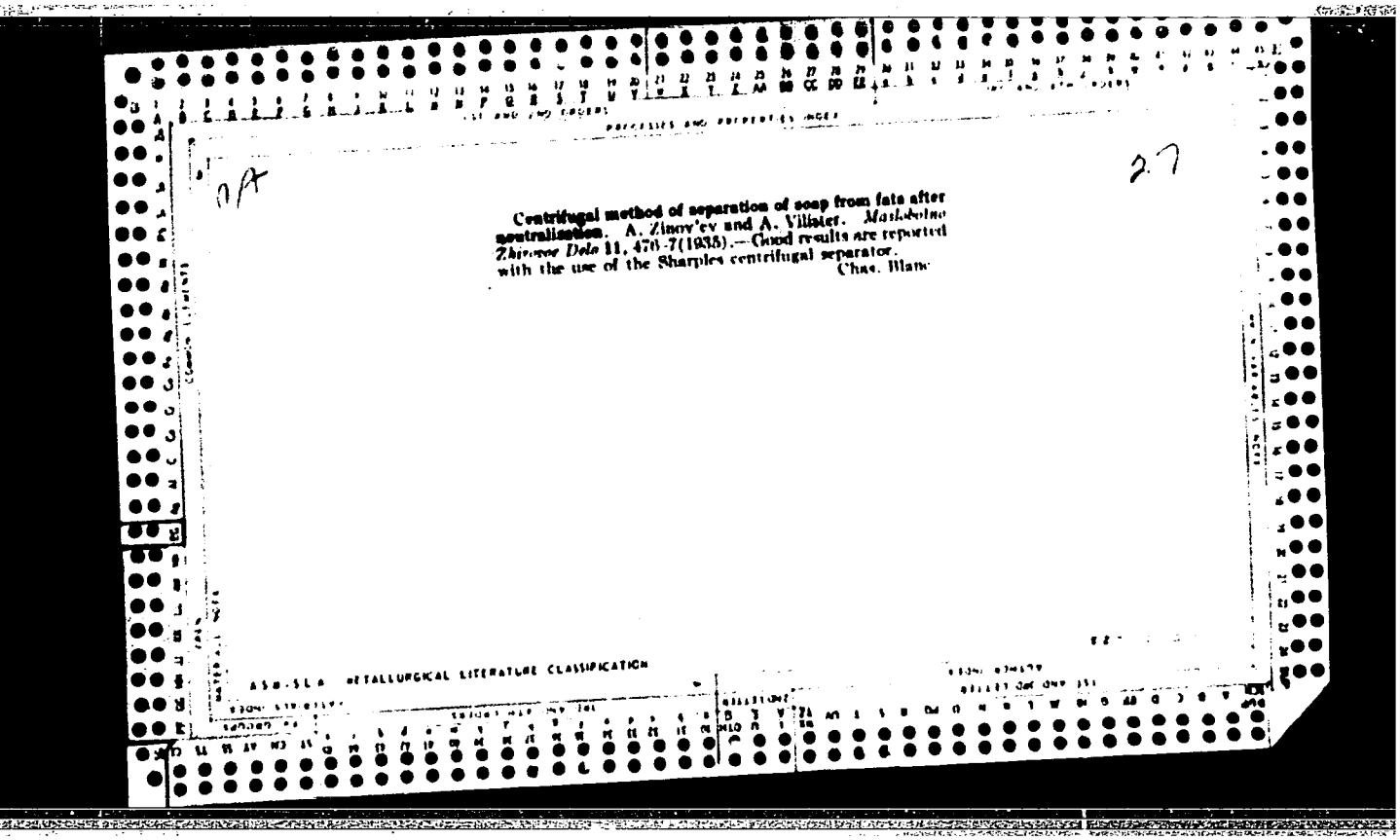
TOPIC TAGS: gallium arsenide, semiconducting film, polycrystalline film, Hall effect, thermoelectric phenomenon, thermal emf

TRANSLATION: Gallium arsenide films with Se and Zn impurities were obtained using thermal precipitation and chemical reaction (in the presence of iodine) in a quartz container. The use of iodine facilitated the deposition of film at a rate of 50 to 100 μ per hr. The investigation of temperature dependence of the Hall effect coefficient, and the thermal emf coefficient over the 0-180°C interval, showed that the concentration of the electric charge carriers does not vary over this temperature range; the electric conductivity does increase, however, due to the intercrystalline layers. The thermal emf coefficient increases logarithmically. An investigation of film isothropy over its thickness and the distribution of impurities was carried out. A. P.

SUB CODE: 20

UDC: 621.315.592:548.552:546.19'681

Card 1/1



Centrifugal method of separation of soap from fats after neutralization. A. Zinov'ev and A. Villaier. *Maslobolno Zhirovoe Dele* 11, 476-7(1935).—Good results are reported with the use of the Sharples centrifugal separator.
Chas. Blanc

COUNTRY : Czechoslovakia I
CATEGORY :

ABS. JOUR. : RZKhim., No. 1959, No. 88956

AUTHOR : Vilim, R.
INST. :
TITLE : Copolymerization of Ethylene with Propylene without Application of Pressure

ORIG. PUB. : Chem. prumysl, 1959, 9, No 2, 101-104

ABSTRACT : Study of the process of copolymerization of ethylene and propylene in gaseous phase (catalyst triethyl aluminum with $TiCl_4$). Presence of propylene in the mixture of monomers affects the course of the copolymerization process as well as properties of resultant products. Under the conditions of the experiments (temperature 55°; concentration of triethyl aluminum and $TiCl_4$ 17.48 and 7.28 mmole/liter, respectively; 250 ml solvent, cogasin I hydrogenated, n-heptane, cyclohexane; stirring speed 340 rpm) the process of copolymerization is limited in time. A graph has been plotted showing the composition of the copolymer as a function of the composition of the mixture of monomers. -- According to author's summary.

CARD:

KOLAROVA, J.; ZDARIL, J.; VALCHOVA, M.; VILIM, V.

Botulism. Cesk.pediat.16 no.1:11-15 Ja '61.

1. Infekcni oddeleni KUNZ v Plzni, prednosta prim. dr. J.Zdaril
Krajska hygienicka stanice v Plzni, prednosta dr. V.Stastny.
(BOTULISM in inf & child)

Vilium, B F

1

2951. Vilium, B. F., Hydrodynamic theory of horizontal centrifugal casting (in Russian), Izv. Akad. Nauk SSSR [illegible] Tekh. Nauk no. 10, 39-46, Oct. 1954.

When smelted metal is poured into hollow molds, it rotates around the horizontal axis of symmetry of the cylinder end, due to its viscosity, is absorbed in the cylinder walls. At sufficiently large values of rotation, the fluid arranges itself in layers on the interior surface of the cylinder. On this principle is founded the method [illegible] castings with cylindrical cavities. It is known as centri[illegible] [illegible] theoretical investigation of the process of centrifugal [illegible] additional problem, because it is necessary to con[illegible] number of factors which influence the formation of the casting.

Existing theories of centrifugal casting are founded on the consideration of [illegible] simplified system of phenomena, when [illegible] ideal fluid. Such a system will, in [illegible] the same sense, [illegible] not adhere to [illegible] cannot be [illegible] the rotatory motion of the cylinder. Because of this, in the same ele-

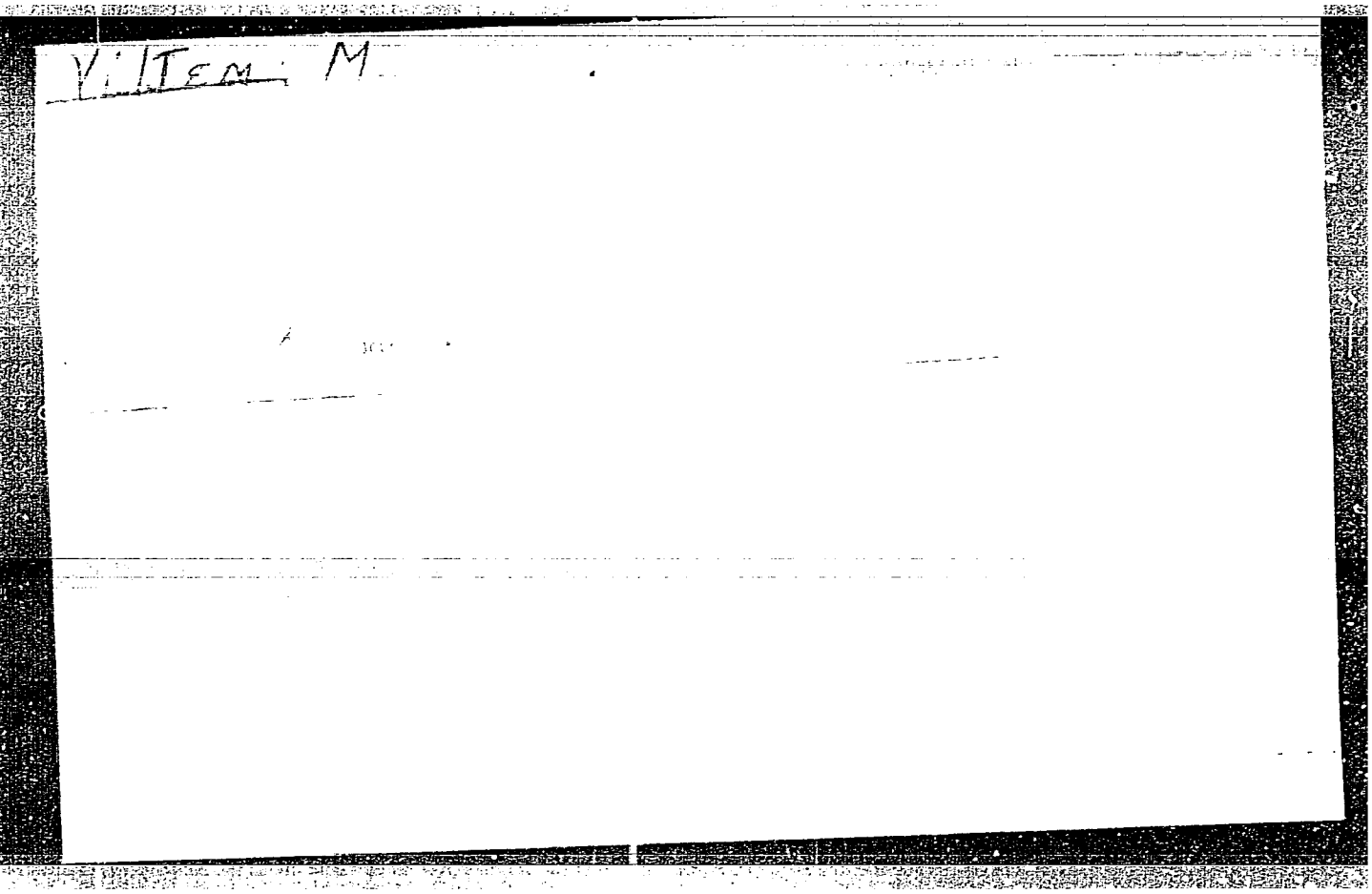
Vilium, B. F.

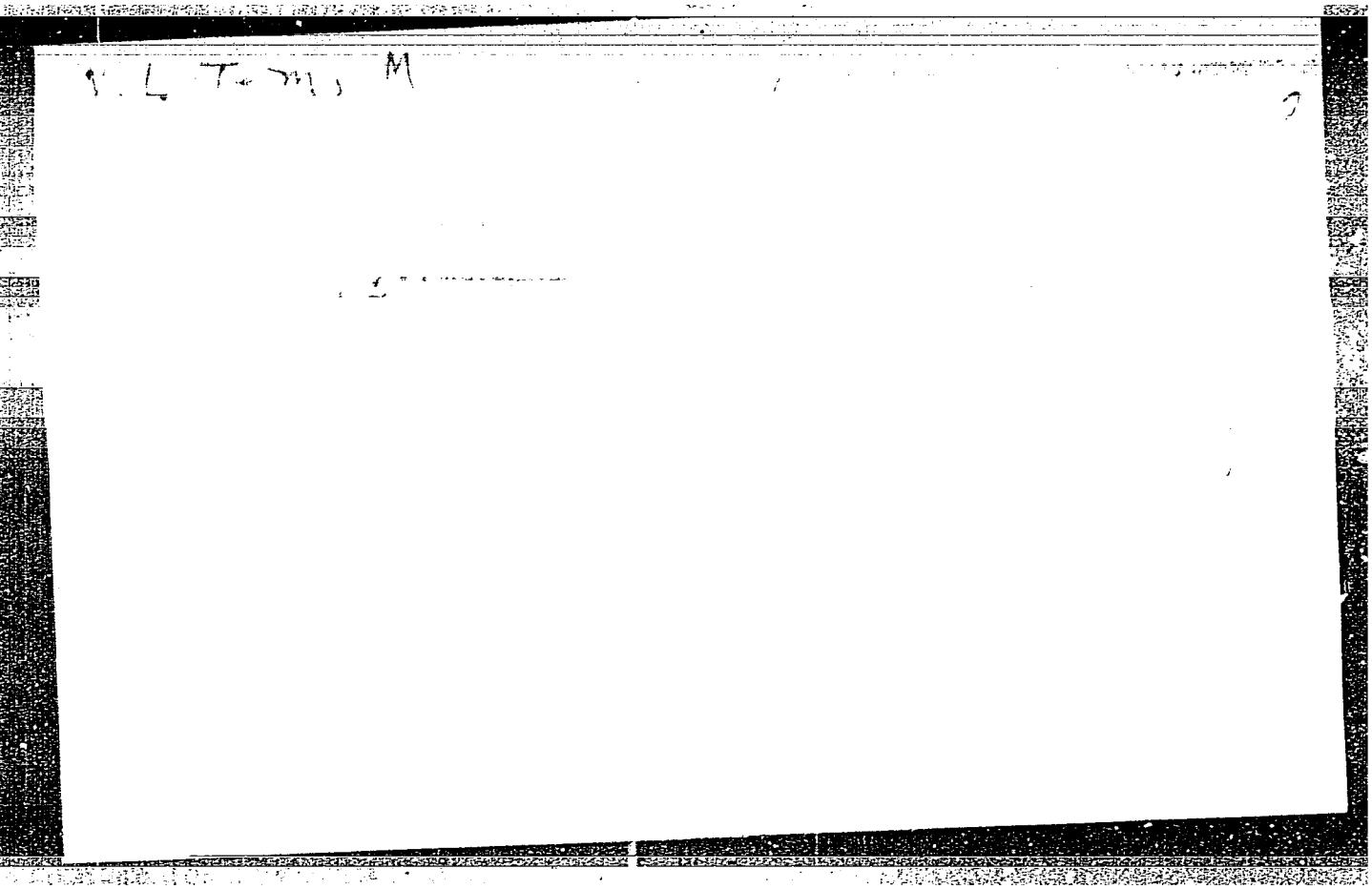
mentary theoretical system, smelt must be considered as a viscous fluid. The essential questions in the theory of centrifugal casting, pertaining to the form of the free surface of the viscous metal, regardless of the angular velocity in the casting mold, require the differential between the maximum and minimum wall thickness of the casting and show themselves to be questions in the hydromechanics of viscous fluids.

The mathematical determination of the hydromechanical problem of a viscous fluid poses some very great difficulties, such that it becomes necessary to consider a complicated system of nonlinear differential equations with peculiar derivatives. Precise integration of these equations is rarely successful. In the present paper, consideration is given to the problem of the motion of a heavy viscous fluid rotating around the horizontal axis of symmetry of a cylinder. The problem is solved by means of approximate integration of the differential equations of the fluid for the case when the thickness of the [illegible] is small in comparison to the radius of the cylinder.

N. M. Matusewicz, USA

2/12





VIL'K, G. A.

"Basis for the Theory of the Splitting of Wood." Cand Tech Sci, Moscow Forestry Engineering Inst, 29 Dec 54. (VM, 21 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

L 29602-66 EWT(m)/ETC(f)/EWP(e)/EWP(t)/ETI IJP(c) AT/WH/JD/JG/GD

ACC NR: AT6013560 (A) SOURCE CODE: UR/0000/65/000/000/0219/0236

AUTHOR: Vil'k, Yu. N.; Avarbe, R. G.; Neshpor, V. S.; Ryzhkova, T. P.; Omel'chenko, Yu. A.

ORG: State "Order of the Red Banner of Labor" Institute of Applied Chemistry (Gosudarstvennyy ordena trudovogo krasnogo znamenii institut prikladnoy khimii)

TITLE: About interaction between niobium carbide and tungsten

SOURCE: AN UkrSSR. Institut problem materialovedeniya. Vysokotemperaturnyye neorganicheskiye soyedineniya (High temperature inorganic compounds). Kiev, Naukova dumka, 1965, 219-236

TOPIC TAGS: niobium, tungsten, carbide, carbon, nonferrous metal

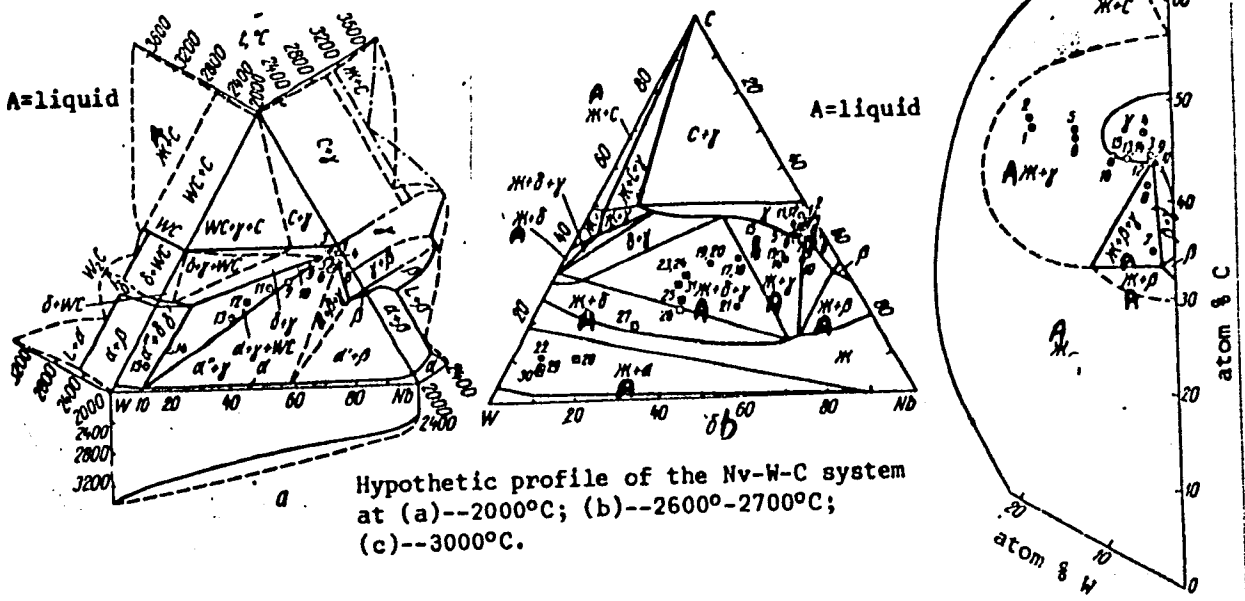
ABSTRACT: The phase equilibrium of tungsten and niobium carbide, $NbC_{0.98}$ (from 5 to 95 wt % W), and $NbC_{0.85}$ (from 5 to 50 wt % W), was examined by x-rays in the 2000°-3000°C range. It was found that the system has true two-phase region (α+δ-solid solution based on W and W_2C, α+γ-solid solution based on W and NbC, and γ+β-solid solution based on NbC and Nb_2C) and also a region of a three-phase equilibrium, α+β+γ. In the tertiary W-Nb-C region the liquid phase occurs below 2600°C. In the tertiary W-Nb-C region binary eutectic α+β, a tertiary eutectic α+β+γ, and a tertiary eutectic α+δ+γ were detected. The hypothetic profile of the Nb-W-C system is shown in figure 1. The dependence of the lattice parameter of the α-phase upon Nb content and of the NbC solid solu-

Card 1/3

tion upon WC content are graphed. The melting ranges and the possible shape of the polythermal profile of the W-NbC system are also shown. Orig. art. has: 8 figures, 3 tables.

L 29602-66
ACC NR: AT6013560

Fig. 1.



Hypothetic profile of the Nv-W-C system at (a)--2000°C; (b)--2600°-2700°C; (c)--3000°C.

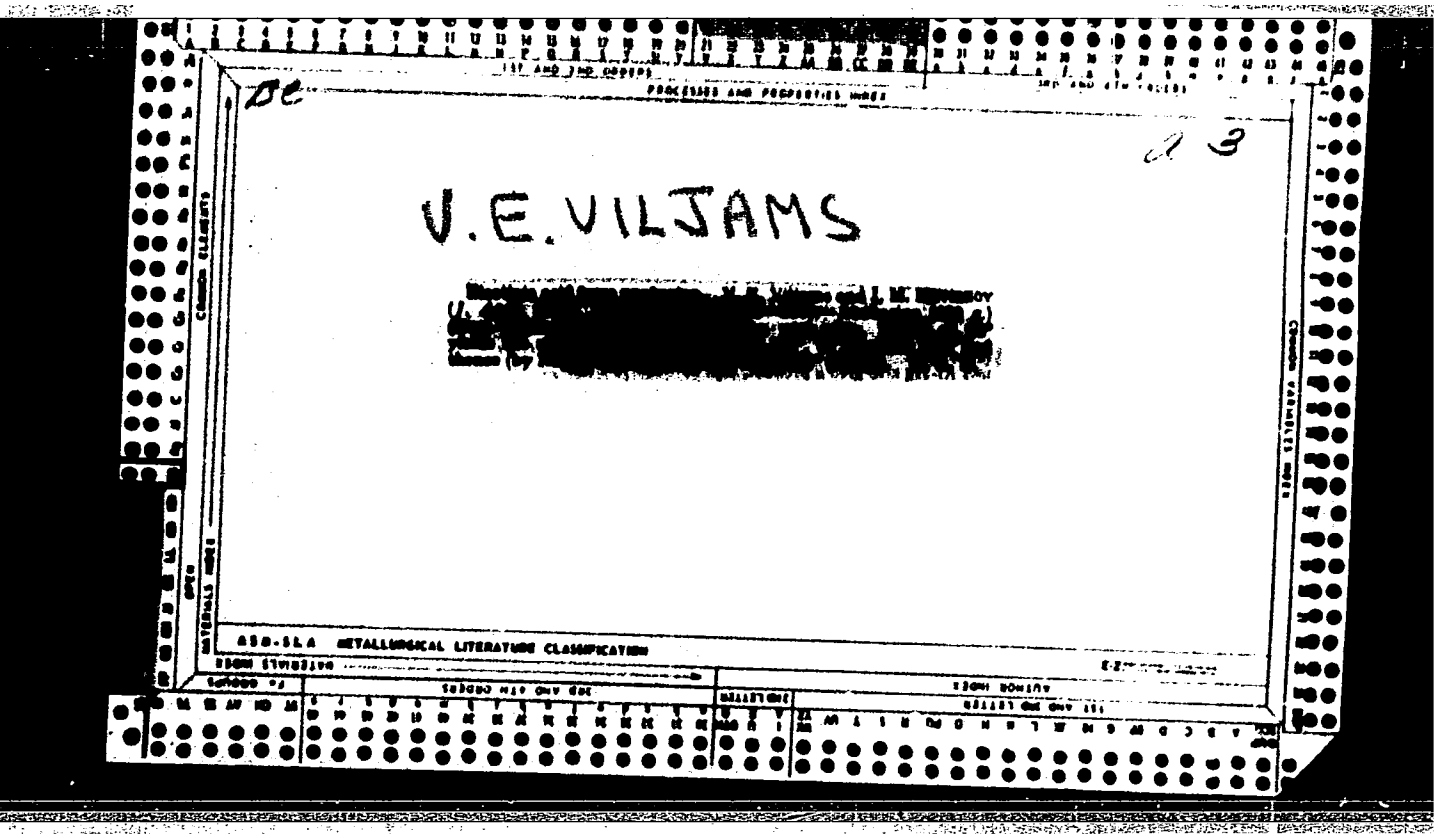
SUB CODE: 07/ SUBM DATE: 03Jul65/ ORIG REF: 008/ OTH REF: 010

Card 3/3

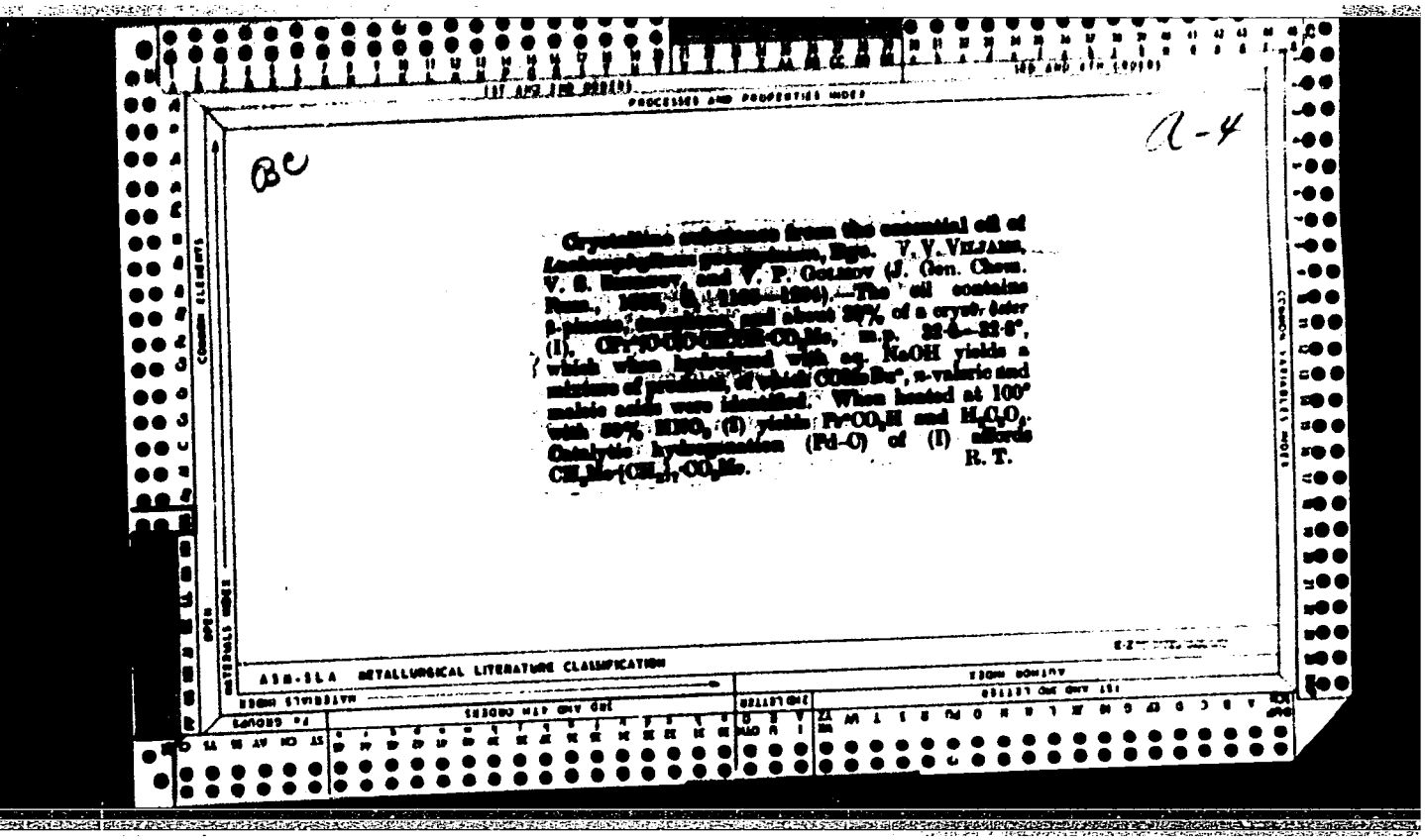
V. VILJAMS

"Collected works" vol. 3, p. 161-167. Tr. from the Russian. p. 348. (ZA SOCIALISTICKÉ ZEMĚDĚLSTVÍ, Vol. 2, no. 3, Mar. 1952, Praha, Czechoslovakia.)

SO: Monthly List of East European Accessions, L.C., Vol. 2 No. 7, July 1953, Uncl.



APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859820002-6"



VIL'K, I. M. Maj

USSR/Medicine - Tuberculosis, Pulmonary Mar/Apr 1948
Medicine - Deglutition, Disorders

"The Electrophoresis of Novocaine in the Field of the Jugular Neurovascular Group as a Method of Combating Dyspagia During Laryngeal-Pulmonary Tuberculosis," Lt Col A. B. Rabitskiy, Med Sv; Maj I. M. Vil'k, Med Sv, Yalta Cen Sanatorium No 1 of the Armed Forces, 4 pp

"Vest Oto-Rino-Laringol" Vol X, No 2

The matter is of importance since 10-20% of tubercular patients admitted to the sanatorium in spring and autumn suffer from acute dysphagia. Describes the technique of electrophoresis: 1-5% solution of novocaine in 80° spirits being used with current of 0.15-0.30Ma for 10-15 minutes. Gives particular of its successful application in the sanatorium.

PA 70T84

VIL'K, K.K.

Nature of the humus of mountain taiga ferruginous soils in western Transbaikalia. Pochvovedenie no.12:31-37 D '62.
(MIRA 16:2)

(Transbaikalia--Soils) (Transbaikalia--Humus)

2001. **Clinical Features and Pathogenesis of Spontaneous Rupture of the Aorta.** (К клинике и патогенезу самопроизвольного разрыва аорты)

N. L. Vil'k. Терапевтический Архив [*Terap. Arkh.*] 22, No. 2, 14–24, March–April, 1950. 15 refs.

The author discusses the clinical features and pathogenesis in 18 cases of spontaneous rupture of the aorta. Six case histories are given. The term spontaneous rupture is used for cases in which there is no trauma or neoplasm. In none of the cases was the condition diagnosed during life. There were 15 men and 3 women; most were over 40 years of age, 4 were under 40, and one patient was 15 years old. In 11 cases hypertension was present. In 11 cases the aorta ruptured in its ascending part, and in 5 cases there were multiple ruptures. In most cases the rupture led to the formation of a dissecting aneurysm. A severe migrating pain was the presenting symptom in 15 cases; other symptoms and signs included vomiting, dizziness, shock, and neurological signs (a rapidly developing paralysis of the lower limbs due to ischaemia). A diastolic murmur could often be heard in the aortic area, indicating an enlarging aorta and incompetence of the valves. Tachycardia and pulsus paradoxus developed in some cases. The electrocardiogram did not show anything abnormal. The radiological picture was that of a progressively enlarging aorta with a double contour. The immediate cause of death was heart tamponade in 7 cases. Seven patients lived for about 24 hours after the beginning of symptoms, the others lived longer (up to 35 days in one case in which laparotomy was twice performed because the diagnosis of a perforated ulcer was made). The differential diagnosis is from myocardial infarction and ulcer perforation. In the pathogenesis, hypertension and atherosclerosis are of importance. Congenital lesions such as a stenosis of the aortic isthmus, may predispose to a spontaneous rupture.

N. Chatelain

[illegible], M.I.; VILK, T.T.

Conference on noncontact electric machinery. Elektrichestvo no.11: 91-93 N '61. (MIRA 14:11)

(Electric machinery--Congresses)

SHCHUKIN, M.I., inzh.; VILK, T.T., inzh.

Conference on contactless electric machinery. Izv. vys. ucheb. zav.; elektromekh. 4 no.9:115-117 '61. (MIRA 15:2)

1. Institut energetiki AN Latviyskoy SSR.
(Electric machinery--Congresses)

ACCESSION NR: AP4038443 S/0294/64/002/002/0274/0279

AUTHOR: Vil'k, Yu. N.; Avarbe, R. G.; Neshpor, V. S.; Ry*zhkova, T. P.; Omel'chenko, Yu. A.

TITLE: Interaction of niobium carbide with tungsten

SOURCE: Teplofizika vy*sokikh temperatur, v. 2, no. 2, 1964, 274-279

TOPIC TAGS: tungsten, niobium carbide, sintered tungsten niobium carbide alloy, tungsten niobium carbide interaction, tungsten niobium carbide alloy, alloy property, alloy microstructure, alloy phase diagram

ABSTRACT: Two sections of the W-Nb-C system, the W-$NbC_{0.98}$ with 5—95 wt% W and W-$NbC_{0.85}$ with 5—50 wt% W, at 2000, 2600, 2700, and 3000C, have been investigated by means of metallographic and x-ray phase analyses, visual thermal analysis, and microhardness measurements. The alloys, sintered in a vacuum of 10^{-4} mm Hg, contained 0.1 wt% max. of N and O. Heat treatment of the alloys was carried out in an ultrapure

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ACCESSION NR: AP4038443

helium atmosphere. Results of the analyses showed that the W-$NbC_{0.98}$ and W-$NbC_{0.85}$ sections are not pseudobinary systems and (in the solid state) pass through the two-phase equilibrium regions α+δ (α-W and W_2C base solid solutions), α+γ(α-W and NbC base solid solutions), and γ+β(NbC and Nb_2C base solid solutions) and through a three-phase α+δ+γ region. No ternary compounds were found in that region of the compositions investigated. On the basis of the results obtained, isothermal sections of the ternary phase diagram for 2000, 2600—2700, and 3000C, and a hypothetic diagram of the W-NbC section were plotted (see Enclosure 1). The W-NbC alloys with less than 20 wt% W were found to be stable at temperatures ≤ 3000C, but alloys with a higher W content begin to melt at ≤ 2600C. At 2000C all alloys are in the solid state and can be used as a base for high-temperature materials. Orig. art. has: 5 figures.

ASSOCIATION: Gosudarstvennyy institut prikladnoy khimii (State Institute of Applied Chemistry)

Card 2/4

ACCESSION NR: AP4038443

SUBMITTED: 21May63 DATE ACQ: 09Jun64 ENCL: 01

SUB CODE: MM NO REF SOV: 007 OTHER: 008

Card 3/4

ENCLOSURE: 01

CCESSION NR: AP4038443

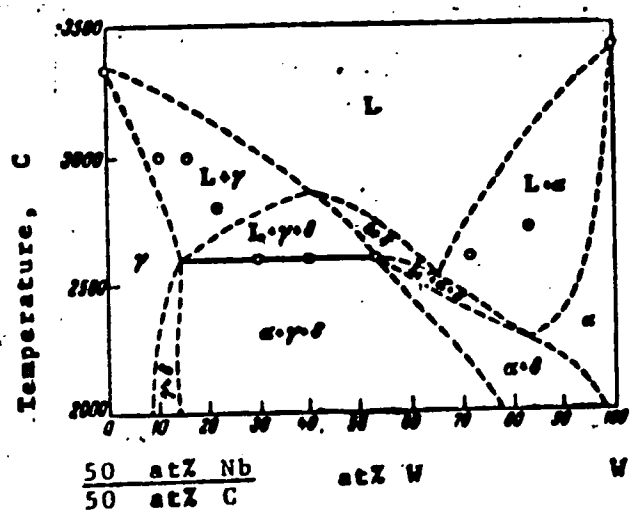

Fig. 1. Hypothetical phase diagram of the W-NbC system

Card 4/4

AVARBE, R.G.; VIL'K, Yu.N.

Calculation of the temperature and concentration dependencies of certain thermodynamic functions of the phase Nb_3. Teplofiz. vys. temp. 2 no.3:406-410 My-Je '64. (MIRA 17:8)

1. Gosudarstvennyy institut prikladnoy khimii.

NIKOL'SKAYA, T.A.; VIL'K, Yu.N.; AVARBE, R.G.

Variation in the gram-molecular volume during mixing in systems zirconium - carbon and niobium - carbon. Porosh. met. 5 no.5:71-75 My '65. (MIRA 18:5)

1. Gosudarstvennyy institut prikladnoy khimii, Leningrad.

SOV/137-58-9-18556

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 54 (USSR)

AUTHORS: Krylov, V.N., Vil'k, Yu. N.

TITLE: Some Investigations of the Kinetics of Formation of 75% Ferrosilicon (Nekotoryye issledovaniya po kinetike obrazovaniya 75%-nogo ferrosilitsiya)

PERIODICAL: Tr. Leningr. tekhnol. in-ta im. Lensoveta, 1957 Nr 43, pp 64-67

ABSTRACT: The rate of formation of 75%-Fe-Si was determined in a Tamman laboratory furnace at temperatures of 1600, 1700, 1800, and 1900°C, as a function of the particle size of the quartz sand, the nature of the reductant, and the temperature. It has been established that the size of the sand particles has a significant effect only at temperatures up to 1700°. The process of reduction with charcoal develops its maximum intensity during the first stage, the greatest reduction rate being then achieved with the aid of petroleum coke. Maximum Si content is obtained at 1800° at an exposure time of 30 minutes. The beginning of SiO_2 evaporation was observed at 1600°. Bibliography: 6 references.

V. B.

Card 1/1 1. Iron silicon alloys--Development 2. Furnaces--Performance 3. Iron silicon alloys--Reduction 4. Temperature--Effectiveness

VIL'K, Yu. N.
TITLE: Seminar on refractory metals, compounds, and alloys (Kiev, April 1963).
SOURCE: Atomnaya energiya, v. 15, no. 3, 1963, 266-267

ACCESSION NR: AP3008085

S. S. Ordan'yan, A. I. Avgustinnik, V. S. Vidergauz. The ZrC-Mo phase diagram at temperatures above 2500C.

L. B. Dubrovskaya, G. P. Shveykin. Phase diagram of the Ta-C system at temperatures above 2500C.

Yu. N. Vil'k, R. G. Avarbe, and others. The NbC-W interaction at temperatures above 2500C.

L. M. Katanov. Investigation of the Cr_2C_3-Fe, Cr_7C-Fe, and Cr_2C-Ti systems at temperatures below 2500C.

Yu. B. Kuz'ma, Ye. I. Glady*shevskiy, and Ye. Ye. Cherkashin. Physicochemical investigation of the Nb-Co-Si system.

N. N. Kolomy*tsev, N. V. Moskaleva. Phase composition of Mo-Ni-B alloys.

Ye. I. Glady*shevskiy and others. Interaction between group 4a and

Card 6/11

ACC NR: AP7004404 SOURCE CODE: UR/0226/67/000/001/0089/0094

AUTHOR: Neshpor, V. S.; Vil'k, Yu. N.; Danisina, I. N.

ORG: State Institute of Applied Chemistry (Gosudarstvennyy institut prikladnoy khimii)

TITLE: Changes in the electric and thermophysical properties of pseudobinary alloys of the section $ZrC_{0.92}$—$ZrN_{0.85}$ of the zirconium—nitrogen—carbon system

SOURCE: Poroshkovaya metallurgiya, no. 1, 1967, 89-94

TOPIC TAGS: carbon alloy, binary alloy, pseudobinary alloy, zirconium carbide, zirconium nitride

ABSTRACT: The dependence of the variation in electroconductivity, absolute differential thermal e. m. f., and characteristic temperature on chemical composition for alloys of the pseudobinary region of the state diagram of zirconium-nitrogen-carbon hardened from 2000 C has been studied. The nature of a change in value of the electroconductivity, thermal conductivity and characteristic temperature indicates that in the zirconium carbide-zirconium nitride system, a continuous series of solid solutions are formed with unlimited mutual solubility of the

Card 1/2

ACC NR: AP7004404

components. The authors express their gratitude to O. V. Molchanova, A. V. Suvorova, Yu. A. Omel'chenko, and V. D. Novozhilova, for chemical and x-ray analyses of samples. Orig. art. has: 3 figures. [Authors' abstract] [AM]

SUB CODE: 11/SUBM DATE: 29May66/ORIG REF: 021/OTH REF: 009/

Card 2/2

AM

VILKAITIS (V.). **Ar kūlėti Kviečiai esti labiau nurūdiję?** [Is bunted Wheat less resistant to yellow rust?]—Pamphlet issued by *Akc. 'Spindulio' Spaustuve*, Kaunas [Kovno], 10 pp., 2 graphs, 1931. [German summary.]

The author states that observations in 1929 in Lithuania on plots of seven named varieties of wheat of the *vulgare* group, which had been experimentally infected with bunt [*Tilletia caries*], showed that the leaves on stalks bearing bunted ears were the most severely attacked by yellow rust (*Puccinia glumarum*), and those of plants free from bunt were the least, while leaves on stalks free from bunt but belonging to bunted stools occupied an intermediate position. These facts tend to confirm the view previously advanced that bunt predisposes the wheat plant to attacks of yellow rust [*R.A.M.*, x, p. 378.]

METALLURGICAL LITERATURE CLASSIFICATION

L 11170-67 EWT(d)/EWP(1) IJP(c) SOURCE CODE: UR/0044/65/000/010/V036/V036

ACC NR: AR6013779

AUTHOR: Vilkas, E.

TITLE: Solution of a functional equation with a game value operator

SOURCE: Ref. zh. Matematika, Abs. 10V254

REF SOURCE: Lit. matem. sb. v. 3, no. 1, 1963, 61-70

TOPIC TAGS: game theory, functional equation, iteration, iterative process, mathematic operator

ABSTRACT: The paper is devoted to the investigation of the functional equation

$$x = \text{val } A(x) \qquad (1)$$

The author proves the convergence, for all x, of iterations of the continuous reflection Tx of a real straight line upon itself for which $T^2x = x$ leads to $Tx = x$; and the convergence of the sequence $\{x_n\}$ where $x_n = T_n x_{n-1}$ and $\{T_n\}$ is a convergent sequence of the compression operator. Sufficient conditions for the convergenc of the above iterative processes are formulated in terms of game matrix elements; boundedness of the solution of (1) is discussed. [Translation of abstract].

SUB CODE: 12

UDC: 518.9

Card 1/1

L 11169-67 EWT(d)/EWP(1) IJP(c)

ACC NR: AR6013780 SOURCE CODE: UR/0044/65/000/010/V037/V037

25

AUTHOR: Vilkas, E.

TITLE: Some functional properties of the value of the matrix game 16

SOURCE: Ref. zh. Mat. Abs. 10V258

REF SOURCE: Lit.matem. sb., v. 3, no. 1, 1963, 71-76

TOPIC TAGS: game theory, functional equation, ~~game solution~~ approximation method, mathematic matrix

ABSTRACT: A method of finding val A(x) explicitly, and an approximate method for finding all solutions of the equation $x = \text{val } A(x)$ are given. [Translation of abstract].

SUB CODE: 12

UDC 518.9

Card 1/1 jnl

VILKAS, E.I. (Vil'nyus)

Axiomatic determination of the significance of a matrix game. Teor. veroiat. i ee prim. 8 no.3:324-327 '63. (MIRA 16:8)

1. Institut fiziki i matematiki AN Litovskoy SSR.

VILKAS, E.I.

PHASE I BOOK EXPLOITATION SOV/4981

Soveshchaniye po teorii veroyatnostey i matematicheskoy statistike, Yerevan, 1958

Trudy Vsesoyuznogo soveshchaniya po teorii veroyatnostey i matematicheskoy statistike, Yerevan, 19-25 sentyabrya 1958 g. (All-Union Conference on the Theory of Probability and Mathematical Statistics. Held in Yerevan 19-25 September, 1958. Transactions) Yerevan, Izd-vo AN ArmSSR, 1960. 291 p. Errata slip inserted. 2,500 copies printed.

Sponsoring Agency: Akademiya nauk Armyanskoy SSR.

Editorial Staff: G.A. Ambartsumyan, B.V. Gnedenko, Ye.B. Dynkin, Yu.V. Linnik and S. Kh. Tumanyan; Ed. of Publishing House: A.G. Sinani; Tech. Ed.: M.A. Kaplanyan.

PURPOSE: The book is intended for mathematicians.

COVERAGE: The book contains 41 articles submitted to the Conference and dealing with the theory of probability and mathematical statistics. Some of the articles are the papers read at the Conference and edited for publication, while others outline the theses of papers which appeared or are scheduled to appear, wholly or in part, in other publications; in some cases, such publications are quoted. A list of the papers whose contents were published elsewhere is included and the places of publication are indicated. Individual articles examine theories of mass service, spectral instruments, numbers, games, and certain functions, and discuss the theorems of Shannon, Markov's chains, and certain processes, quantities, and functions. Such items as the method of least squares, the stochastic Markov's and diffusion processes, measures and their applications, a scheme of Bernoulli experiments, Markov-type random fields, visible distribution of stars, Brownian motion, capacity of radio channels, and defective products are considered. No personalities are mentioned. References accompany some of the articles.

VILKAS, L.

It is advisable to base the accounting for beef cattle on the weight and quality of the meat. Mias.ind.S.S.S.R. 33 no.6:34-35 '62. (MIRA 16:1)

1. Vil'nyusskiy myasokombinat.
(Vilnius—Meat industry—Costs)
(Beef cattle)

VILKAS, Yu. D.

Name: VILKAS, Yu. D.

Dissertation: Experiments in raising alfalfa in the Lithuanian SSR

Degree: Cand Agr Sci

DEFENDED AT
~~Affiliation~~: Min Agriculture Lithuanian SSR

PUBLICATION
~~Defense Date~~, Place: 1956, Kaunas

Source: Knizhnaya Letopis', No 52, 1956

VIL'K, [illegible]; [illegible], S.S.; AVARBE, R.G.; AVGUSTINIK, A.I.; [illegible]VA, [illegible];
[illegible]CHENKO, Yu.A.

Phase diagram in the Zr - ZrC system. Zhur. prikl. khim. 38 no.7:150[illegible]-150[illegible] Jl '65. (MIRA 18:7)

L 63049-65 EWT(m)/EPF(n)-2/T/EWP(t)/EWP(b)/EWA(c) Pu-4 IJP(c) JD/WW
ACCESSION NR: AP5017778 UR/0080/65/038/007/1500/1506
546.831+546.831'261+669.018.1

AUTHOR: Vil'k, Yu. N.; Ordan'yan, S. S.; Avarbe, R. G.; Avgustinik, A. I.; Ryzhkova, T. P.; Omel'chenko, Yu. A.

TITLE: Phase diagram in the Zr-ZrC system

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 7, 1965, 1500-1506

TOPIC TAGS: zirconium, zirconium carbide, phase diagram, alloy hardness

ABSTRACT: A phase diagram (see Fig. 1 of the Enclosure) plotted on the basis of measurements of melting points and data of x-ray structural and metallographic studies in the Zr-ZrC system (in the range of 1.25 to 46.25 at. % C) was found to be eutectic in character. The temperature of the eutectic is 1820C, and the eutectic composition contains 3.0 at. % carbon. The solubility of the latter is about 2 at. % at the temperature of the eutectic transformation. The region of homogeneity of the ZrC phase at the temperature of the eutectic and at 1250C is bounded by 35 and 39 at. % C, respectively. The lattice constant of alloys located in the two-phase region after soaking at 1400C is equal to 4.653 kX; the

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L 63049-65

ACCESSION NR: AP5017778

extrapolated value of the lattice constant at the upper boundary of the region of homogeneity is equal to 4.688. The microhardness of alloys in the region of homogeneity of the ZrC phase and in the two-phase region is given. In accordance with a hypothesis advanced earlier, the microhardness of alloys may be extrapolated in a straight line to the value of microhardness for pure zirconium at zero carbon content. The solidus line extrapolated to the melting point of zirconium carbide reaches a point between 3375 and 3500C, which also agrees with the data on the melting point of ZrC. Orig. art. has: 5 figures.

ASSOCIATION: None

SUBMITTED: 23Sep63 ENCL: 01 SUB CODE: IC, MM

NO REF SOV: 006 OTHER: 008

Card 2/3

L 63049-65
ACCESSION NR: AP5017778 ENCLOSURE: 01

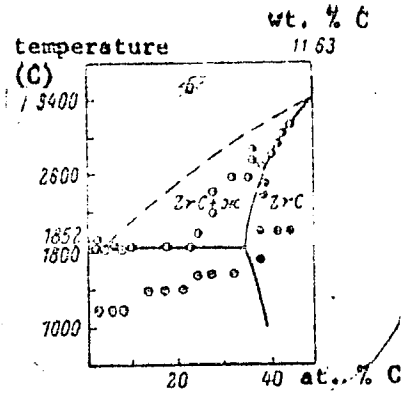

Figure 1. Phase diagram of the Zr - C system.

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24721
S/064/61/000/006/003/003
B110/B206

18.8300 1416 1045

AUTHORS: Antonovskaya, E. I., Vil'k, Yu. N.

TITLE: Corrosion of copper and its alloys in hydrofluoric acid

PERIODICAL: Khimicheskaya promyshlennost', no. 6, 1961, 61 - 62

TEXT: Since it is known that the corrosion of copper and its alloys in hydrofluoric acid depends on the presence of atmospheric oxygen, H_2SO_4, SO_2, H_2S, H_2O_2, etc. in the hydrofluoric acid, the effect of these admixtures on the corrosion of copper М1 (M-1) and its alloys БрА5 (BrA5), БрАН (BrAN), and Л62 (L62) in boiling hydrofluoric acid was determined. 40% hydrofluoric acid was filled into the 100-ml container 1 of the column made of copper M-1 (Fig.) and heated over an oil bath. The temperature was kept between 110 and 114°C by a thermo regulator. Six samples were suspended from strip 3 made of Ftoroplast-4 in the acid at the interface vapor - liquid. Before starting the experiment, the gas in which the test was made, was blown through for 2 hr. The investigation lasted 100 hr. The admixtures were introduced together with the hydrofluoric acid, and

Card 1/7

Corrosion of copper...

their content was analyzed according to TU MKhP (TU MKhP) 3846-53 before and after the experiment. Tables 1-3 show maximum corrosion in the presence of oxygen in the hydrofluoric acid. At the interface vapor - liquid, splitting takes place at the places affected by crystal boundaries and deposition of spongy copper, while copper corrodes uniformly in the liquid phase. When adding 5-15% H_2SO_4, the corrosion character is changed through the formation of HSO_3F acid and a new ratio between H_2O and HF. The corrosion activity decreases and the boiling temperature at the vapor - liquid interface rises. With 10% H_2SO_4, corrosion becomes punctiform, with 15% H_2SO_4 it becomes uniform with an increase of the total corrosion rate. The presence of H_2S in H_2F_2 causes higher splitting and corrosion rate than that of SO_2. The SO_2 concentrations occurring during hydrofluoric acid production did not change corrosion rate and character. Addition of hydrogen peroxide increased the total corrosion rate. The oxygen formed during H_2O_2 decomposition: $H_2O_2 \rightleftharpoons H_2O + 1/2\ O_2$ causes copper corrosion. The copper alloys BrA5, BrAN, and L-62 show higher total corrosion rates

and corrosion splitting than copper, while BrA5 and BrAN lose aluminum whereas the brass L-62 loses zinc. During the corrosion of BrA5, mainly aluminum passes into the corrosion products. At the vapor - liquid interface, corrosion splitting and deposition of spongy copper takes place. During corrosion of brass, a component rich in zinc (β-phase) passes over, and splitting and deposition of spongy copper takes place. The metallographic investigations of bronze and brass samples proved the results obtained. There are 1 figure, 3 tables, and 13 references: 4 Soviet-bloc and 9 non-Soviet-bloc. The most important references to English-language publications read as follows: Ref. 5: J. C. Chaston, Chem. Eng., 55, no. 11, 104 (1948), Ref. 6: E. Fetter, Chem. Eng. 56, no. 8, 9, 10 (1949). Ref. 12: J. Byrne, M. D. Vahn, Blast Furnace a. Steel Plant, 41, no. 7, 780 (1953).

Corrosion of copper...

Fig.: Scheme of the laboratory apparatus for testing alloy samples. (1) Container; (2) column with water jacket; (3) insert made of Ftoroplast-4; (4) thermocouple container; (5) samples.

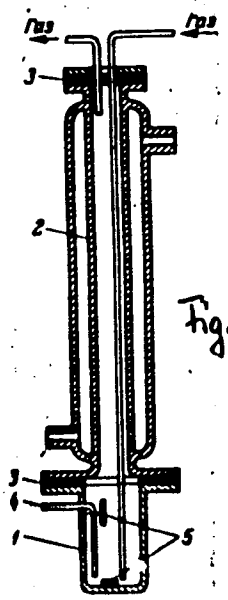

Fig.

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Corrosion of copper...

Table 1. Effect of oxygen on the corrosion rate of copper M-1 in 40% hydrofluoric acid, $g/m^2 \cdot hr$. (1) Gas medium; (2) liquid phase; (3) interface vapor - liquid; (4) corrosion character at the interface; (5) air; (6) nitrogen with content of:; (7) 3% oxygen; (8) 0.02% oxygen; (9) corrosion splitting, deposition of spongy copper; (10) ditto; (11) deposition of spongy copper. Corrosion was uniform in the liquid phase for all experiments.

(1) Газовая среда	(2) Жидкая фаза*	(3) Граница раздела пар—жидкость	(4) Характер коррозии на границе раздела
(5) Воздух	3,38	5,90	Коррозионное растрескивание, осаждение губчатой меди (9)
(6) Азот с содержанием:			
(7) 3% кислорода .	0,19	0,12	То же (10)
(8) 0,02% кислорода	0,05	0,05	Осаждение губчатой меди (11)

Table 1

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Corrosion of copper...

Table 2: Effect of admixtures on the corrosion rate of copper M-1 in 40% hydrofluoric acid, $g/m^2 \cdot hr$ (gas medium: nitrogen + 0.02% oxygen). (1) Admixture to 40% HF; (2) liquid phase; (3) interface vapor - liquid; (4) corrosion character at the interface; (5) without admixtures; (6) deposition of spongy copper; (7) punctiform corrosion, deposition of spongy copper; (8) insignificant punctiform corrosion; (9) uniform corrosion; (10) deposition of spongy copper; (11) corrosion splitting, deposition of spongy copper; (12) ditto; (13) deposition of spongy copper; (14) insignificant corrosion splitting, deposition of spongy copper; (15) as (11).

(1) Примеси к 40%-ной HF	(2) Жидкая фаза*	(3) Граница раздела пар—жидкость	(4) Характер коррозии на границе раздела
(5) Без примесей	0,05	0,05	(6) Осаждение губчатой меди
5% H_2SO_4	0,14	0,12	(7) Точечная коррозия, осаждение губчатой меди
10% H_2SO_4	0,49	0,36	(8) Незначительная точечная коррозия
15% H_2SO_4	0,61	0,71	(9) Равномерная коррозия
0,02% SO_2	0,05	0,01	(10) Осаждение губчатой меди
0,21% SO_2	0,08	0,09	(11) Коррозионное растрескивание, осаждение губчатой меди
0,01% H_2S	0,27	0,36	(12) То же
0,1% H_2O_2	0,30	0,11	(13) Осаждение губчатой меди
0,5% H_2O_2	0,81	0,13	(14) Незначительное коррозионное растрескивание, осаждение губчатой меди
1% H_2O_2	1,13	0,49	(15) Коррозионное растрескивание, осаждение губчатой меди

Table 2

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S/064/61/000/006/003/003
B110/B206

Corrosion of copper...

Table 3: Corrosion rate of copper alloys in 40% hydrofluoric acid, $g/m^2 \cdot hr$ (gas medium: nitrogen + 0.02% oxygen). (1) Type of alloy; (2) liquid phase; (3) interface vapor - liquid; (4) corrosion character at the interface; (5) pure hydrofluoric acid; (6) hydrofluoric acid + 15% H_2SO_4; (7) deposition of spongy copper; (8) ditto; (9) insignificant corrosion splitting; (10) uniform; (11) corrosion splitting.

(1) Марка сплава	(2) Жидкая фаза*	(3) Граница раздела пар—жидкость	(4) Характер коррозии на границе раздела
	(5) Чистая плавиковая кислота (7)		
М-1	0,05	0,05	Осаждение губчатой меди
БрАН	0,21	0,06	То же (8)
БрА5	0,26	0,15	Незначительное коррозионное растрескивание (9)
	(6) Плавиковая кислота + 15% H_2SO_4		
М-1	0,61	0,71	Равномерная (10)
БрА5	0,03	0,05	Коррозионное растрескивание (11)
Л—62**	1,80	2,8	То же (8)

Table 3

Card 7/7

L 31876-66 EWT(m)/ETC(f)/EWP(e)/EWP(w)/T/EWP(t)/ETI IJP(c) AT/WH/GD/WW/JD/JG
ACC NR: AT6013559 (A) SOURCE CODE: UR/0000/65/000/000/0211/0218

47
46
B+1

AUTHOR: Vil'k, Yu. N.; Ordan'yan, S. S.; Avarbe, R. G.; Avgustinnik, A. I.; Ryzhkova, T. P.; Omel'chenko, Yu. A.

ORG: State "Order of the Red Banner of Labor" Institute of Applied Chemistry (Gosudarstvennyy ordena Trudogo Krasnogo Znamenii institut prokladnoy khimii)

TITLE: Phase diagram of the Zr-ZrC system

SOURCE: AN UkrSSR. Institut problem materialovedeniya. Vysokotemperaturnyye neorganicheskiye soyedineniya (High temperature inorganic compounds). Kiev, Naukova, dumka, 1965, 211-218

TOPIC TAGS: zirconium, carbide, nonferrous metal, phase diagram, phase composition

ABSTRACT: The phase diagram of the Zr-ZrC system was drawn up on the basis of experimentally determined melting points, x-ray, and microhardness data for samples containing 1.25-46.25 atm % C. The work was conducted in order to resolve a controversy in the literature. The phase diagram was examined in the 600°-3100°C range. The samples were prepared by fusing zinc hydride with carbon in various ratios and holding for 4 hrs at 1400°C in argon atmosphere. The phase diagram of the Zr-ZrC system is shown in figure 1. The eutectic temperature of the system is 1820°C. The eutectic alloy contains 3.0 atm % C. The changes of the ZrC-phase lattice parameter as a function of

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L 31876-66
ACC NR: AT6013559

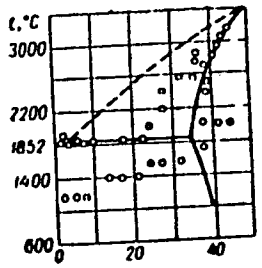

Fig. 1.

composition and temperature are graphed. Changes in microhardness of the Zr-ZrC system as a function of carbon content are also graphed. Orig. art. has: 5 figures.

SUB CODE: 11/ SUBM DATE: 03Jul65/ ORIG REF: 006/ OTH REF: 008

Card 2/2

ANTONOVSKAYA, E.I.; VIL'K, Yu.N.

Corrosion of copper and its alloys in hydrofluoric acid. Khim.prom. no.6:431-432 Je '61. (MIRA 14:6)
(Copper alloys—Corrosion) (Hydrofluoric acid)

83506

S/064/60/000/005/008/009
B015/B058

18.1150 also 2308

AUTHORS: Antonovskaya, E. I., Vil'k, Yu. N.

TITLE: Application of Steels of the Grades ЭИ-533 (EI-533) and ЭИ-629 (EI-629) for the Production of Hydrofluoric Acid

PERIODICAL: Khimicheskaya promyshlennost', 1960, No. 5, p. 77

TEXT: A strong corrosion can be observed in rotary kilns which are used to decompose fluorspar at 170° - 450°C for the production of hydrofluoric acid. Various experiments for achieving a better corrosion protection having failed, the corrosion resistance of steels of the grades EI-533 (Kh23N23M3D3)) and EI-629 (Kh23N28M3D3T (Kh23N28M3D3T)) was compared with that of the conventional Cr-3 (St-3) steel under greatest strain, i.e., in the rear and front parts of the furnace. The experimental data obtained show that in the front part of the furnace the corrosion resistance of EI-533 steel is ten times higher, and that of EI-629 steel 22 times higher than that of carbon steel of the grade St-3. The difference is smaller in the rear part of the furnace, since the corrosion of St-3 steel is also weaker there. Welded joints of these

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83506

Application of Steels of the Grades ЭИ-533 (EI-533) and ЭИ-629 (EI-629) for the Production of Hydrofluoric Acid

S/064/60/000/005/008/009
B015/B058

steel grades, which were made with a ЦЛ-9 (TsL-9) electrode, also showed good results, so that a suitable lining of rotary kilns could be made by use of the above steels. There is 1 table.

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ANTONOVSKAYA, E. I.; VIL'K, Yu.N.

Use of EI-533 and EI-629 steels in the production of hydrogen fluoride. Khim.prom. no.5:429 Jl-Ag '60. (MIRA 13:9)
(Hydrofluoric acid) (Steel)

L 39423-65 EWT(d) IJP(c)
ACCESSION NR: AR5006741 S/0044/64/000/012/V007/V007

SOURCE: Ref. zh. Matematika, Abs. 12V32

AUTHOR: Vilkauskas, L.

TITLE: Two integral theorems on large deviations in the multidimensional case

CITED SOURCE: Lit. matem. sb., v. 3, no. 2, 1963, 53-67

TOPIC TAGS: statistics, random variable, normal distribution, variance, multidimensional deviation

TRANSLATION: Let $\xi^{(k)}=(\xi_1^{(k)},\dots,\xi_s^{(k)})$, $k=1,2,\dots$, be a sequence of independently distributed random vectors with noncorrelated components, having zero mathematical expectation and dispersion equal to unity. Let $\Phi(z, Q)$ be the integral over the region Q of a normal s-dimensional distribution. The following theorem is then demonstrated: If, for $\alpha<\frac{1}{\sigma}$, the condition

$$E\exp\left\{\sum_{j=1}^{s}|\xi_j^{(k)}|^{\frac{\alpha}{\sigma\alpha+1}}\right\}<\infty, \qquad (1)$$

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ACCESSION NR: AR5006741

is satisfied, then

$$\lim_{n\to\infty} \frac{P\left(\frac{1}{\sqrt{n}}\sum_{k=1}^{n}\xi^{(k)}\in Q_n\right)}{\Phi(s, Q_n)} = 1, \quad (2)$$

where Q_n is the interior of the s-dimensional sphere of radius R (n), $\frac{R(n)}{\rho(n)} \in \left[0, \frac{A^6}{\rho(n)}\right]$, and $\rho(n)$ is any function satisfying the condition $\lim_{n\to\infty} \rho(n) = +\infty$. An analogous result is obtained for certain other regions of a more complicated nature. V. Petrov.

SUB CODE: MA ENCL: 00

Card 2/2

Vilkauskas, L. L.

SOV/6371

PHASE I BOOK EXPLOITATION

Vsesoyuznoye soveshchaniye po teorii veroyatnostey i matematicheskoy statistike. (6th; Vilnius, 1960.

Trudy VI Vsesoyuznogo soveshchaniya po teorii veroyatnostey i matematicheskoy statistike i kollokviuma po raspredeleniyam v beskonechnomernykh prostranstvakh (Transactions of the Sixth Conference on Probability Theory and Mathematical Statistics and of the Symposium on Distributions in Infinite-Dimensional Spaces held in Vilnius 5-10 September 1960) Vilnius, Gospolitizdat LitSSR, 1962. 493 p. 2500 copies printed.

Sponsoring Agency: Akademiya nauk Litovskoy SSR. Vil'nyusskiy gosudarstvennyy universitet imeni V. Kapsukasa. Matematicheskiy institut imeni V. A. Steklova, Akademiya nauk SSSR.

Editorial Board: N. N. Vorob'yev, B. V. Gnedenko, R. L. Dobrushin, Ye. B. Dynkin, A. N. Kolmogorov, I. P. Kubilyus, Yu. V. Linnik, Yu. V. Prokhorov, N. V. Smirnov, V. A. Statulyavichyus, and A. M. Yaglom. Ed.: D. Melihene; Tech. Ed.: O. Pakerite.

Card 1/13

Transactions of the Sixth Conference (Cont.)

PURPOSE: Dissemination of scientific information.

COVERAGE: Because of various editorial difficulties, not all papers presented at the Conference could be included. The 86 papers presented here are divided by subject matter into 6 sections (see Table of Contents). The editors thank the members of the Mathematical Section of the Institute of Physics and Mathematics of the Lithuanian Academy of Sciences and the Department of Probability Theory and Number Theory at Vil'nyus University, particularly A. K. Aleshkyavichene, A. A. Mitalauskas, B. A. Ryauba, and R. V. Uzhdavinis. References, cited in the text at the end of the individual reports, comprise 489 entries: 316 Soviet (a number of which are translations), 2 Hungarian, 1 Polish, 139 English, 20 French, 10 German, and 1 Italian.

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LIMIT THEOREMS

VILKAUSKAS, L. L.

PHASE I BOOK EXPLOITATION SOV/6371

Vsesoyuznoye soveshchaniye po teorii veroyatnostey i matematicheskoy statistike. (6th; Vilnius, 1960.

Trudy VI Vsesoyuznogo soveshchaniya po teorii veroyatnostey i matematicheskoy statistike i kollokviuma po raspredeleniyam v beskonechnomernykh prostranstvakh (Transactions of the Sixth Conference on Probability Theory and Mathematical Statistics and of the Symposium on Distributions in Infinite-Dimensional Spaces held in Vilnius 5-10 September 1960). Vilnius, Gospolitizdat LitSSR, 1962. 493 p. 2500 copies printed.

Sponsoring Agency: Akademiya nauk Litovskoy SSR. Vil'nyusskiy gosudarstvennyy universitet imeni V. Kapsukasa. Matematicheskiy institut imeni V. A. Steklova, Akademiya nauk SSSR.

Editorial Board: N. N. Vorob'yev, B. V. Gnedenko, R. L. Dobrushin, Ye. B. Dynkin, A. N. Kolmogorov, I. P. Kubilyus, Yu. V. Linnik, Yu. V. Prokhorov, N. V. Smirnov, V. A. Statulyavichyus, and A. M. Yaglom. Ed.: D. Melinene; Tech. Ed.: O. Pakerite.

Card 1/17
3

PURPOSE: Dissemination of scientific information.

COVERAGE: Because of various editorial difficulties, not all papers presented at the Conference could be included. The 86 papers presented here are divided by subject matter into 6 sections (see Table of Contents). The editors thank the members of the Mathematical Section of the Institute of Physics and Mathematics of the Lithuanian Academy of Sciences and the Department of Probability Theory and Number Theory at Vil'nyus University, particularly A. K. Aleshkyavichene, A. A. Mitalauskas, B. A. Ryauba, and R. V. Uzhdavinis. References, cited in the text at the end of the individual reports, comprise 489 entries: 316 Soviet (a number of which are translations), 2 Hungarian, 1 Polish, 139 English, 20 French, 10 German, and 1 Italian.

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LIMIT THEOREMS

MATSKEVICH, Dmitriy Dmitriyevich; VIL'KE, G.A., red.

[Methods and equipment for automatic recording of timber during floating] Metody i sredstva avtomaticheskogo ucheta lesa na splave. Moskva, Lesnaia promyshlennost', 1965. 173 p. (MIRA 18:12)

28(1) SOV/118-59-1-10/16

AUTHOR: Vil'ke, G.A., Candidate of Technical Sciences

TITLE: Automation in the Lumber Industry (Avtomatizatsiya v lesozagotovitel'noy promyshlennosti)

PERIODICAL: Mekhanizatsiya i Avtomatizatsiya Proizvodstva, 1951, Nr 1, pp 38-41 (USSR)

ABSTRACT: The production of timber must be increased according to the Seven-Year Plan, from 322,000,000 m³ in 1958 to 378,000,000 m³ in 1965 and that of saw timber respectively from 68,600,000 to 95,000,000 m³. The author stresses the necessity for greater automation and mechanization in timber cutting. In practice, this means fewer actual timber-cutting operations, and transfer of more timber-processing operations to lower echelon timber yards, where comprehensive automation and mechanization can show the best results. Having mentioned the principal stages of timber pro-

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Automation in the Lumber Industry

cessing, the author indicates the bottlenecks and suggests a number of immediate countermeasures. These include: automation of timber dressing by creating a special stand for lengthwise feed of logs. Such a stand (Figure 3) has been developed by the Moskovskiy Lesotekhnicheskiy Institut (The Moscow Institute of Wood Technology). The problem now is how to determine inner flaws of the wood: experiments conducted by the above-named institute show that the problem can be solved by applying soft Gamma-rays, radiated by a series of radioactive isotopes, with their subsequent registration by Geiger-type counters. A simple and reliable synchronous tracker-memory device would considerably facilitate assorting processes. An electronic tube designed by the Institut Radioelektroniki AN SSSR (The Institute of Radioelectronics of the AS USSR) is the kind of device needed. It is highly sensitive

Automation in the Lumber Industry

and can register the static dipoles on the standard tape recorder. A similar instrument has been developed by the Moscow Institute for Wood Technology based on changes in magnetic permeation of permalloy cores when inducing weak static magnetic fields. In conjunction with magnetic amplifiers of a phase-inversion lay-out, a reliable non-contact system can be obtained. Another useful innovation is the yacheykovyy magazin (cellular chamber) for feed of logs into processing line, worked out by the L'vovskiy Lesotekhnicheskiy Institut (L'vov Institute of Wood Technology). In conclusion, the article recommends the setting up of new laboratories and design offices for coping with the task of producing new automatic and mechanized equipment. There are 5 diagrams.

Card 3/3

VIL'KE, Georgiy Aleksandrovich, kand. tekhn. nauk, dots.; GINZBURG, Z.B., spets. red.; PECHENKIN, I.V., tekhn. red.

[Fundamentals of the theory of automation (cybernetics); first lecture]Osnovy teorii avtomatizatsii (kibernetika); lektsiia 1-ia. Moskva, Izd-vo M-va sel'.khoz.SSSR, 1960. 45 p. (MIRA 15:7)

1. Predsedatel' Obshchestvennogo komiteta po avtomatizatsii lesopromyshlennykh predpriyatiy (for Vil'ke).
(Automation) (Cybernetics)

VIL'KE, Georgiy Aleksandrovich; ROOS, Lev Vladimirovich, kand. tekhn. nauk, retsenzent; BYSTROV, G.P., prof., retsenzent[deceased]; PATSIORA, P.P., red.; PITERMAN, Ye.L., red. izd-va; KARLOVA, G.L., tekhn. red.

[Fundamentals of the automatic control and automation of the industrial processes of lumbering enterprises]Osnovy avtomatiki i avtomatizatsiia proizvodstvennykh protsessov lesopromyshlennykh predpriiatii. Moskva, Goslesbumizdat, 1962. 450 p. (MIRA 16:3)

(Lumbering--Machinery)

LESHKEVICH, Andrey Ivanovich; VOYEVODA, Dmitriy Kondrat'yevich; NAZAROV, Viktor Vasil'yevich; VIL'KE, G.A., retsenzent; YEREMINA, N.S., retsenzent; SOLOV'YEV, N.S., red.; PITERMAN, Ye.L., red. izd-va; KUZNETSOVA, A.I., tekhn. red.

[Equipment and work mechanization at log dumps] Oborudovanie i mekhanizatsiia rabot na lesnykh skladakh. Moskva, Goslesbumizdat, 1960. 369 p. (MIRA 14:9)
(Lumbering—Equipment and supplies)

VIL'KE, G.A., kand.tekhn.nauk

Automation of operations at log decks. Mekh. trud. rab. 12 no.9:30-32 S '58. (MIRA 11:10)
(Sawmills) (Automation)

VIL'KE, G.A., kandidat tekhnicheskikh nauk.

Optimal specifications of furniture springs. Der.prom 5 no.12:10-11 D '56. (MIRA 10:1)

1. Proyektno-konstruktorskoye byuro tresta Soyuzbummash.
(Furniture industry) (Springs (Mechanism))

VIL'KE, O.A., kandidat tekhnicheskikh nauk.

Automatic production line of upholstered furniture parts. Der. prom. 5 no.2:3-5 F '56. (MLRA 9:5)

1. Proyektno-konstruktorskoye byuro tresta Soyuzbummash.
(Furniture industry) (Assembly line methods)

VILKE, G. A.

AUTHOR: 02 None Given SOV-118-58-7-7/20

TITLE: A Scientific-Technical Conference on Questions Regarding the Mechanization of the Lumber Industry (Nauchno-tekhnicheskaya konferentsiya po voprosam mekhanizatsii v lesnoy promyshlennosti)

PERIODICAL: Mekhanizatsiya trudoyemkikh i tyazhëlykh rabot, 1958, Nr 7, p 19, (USSR)

ABSTRACT: In May 1958, the Moskovskiy lesotekhnicheskiy institut (the Moscow Institute of Forest Engineering) called a scientific conference. Attending were approximately 300 persons, among them representatives from the Gor'kovskiy (Gor'kiy), Kalininskiy (Kalinin), Kirovskiy (Kirov), Komi, Permskiy (Perm'), Tyumenskiy (Tyumen') and Moskovskiy (Moscow) sovnarkhozes. Also attending were delegates from big lumber enterprises, lumber mills, furniture factories; the Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov SSSR (State Scientific Technical Committee of the USSR Council of Ministers), the USSR Gosplan, the TsNIIME, the TsNIIMOD, the Giprolesprom and from other organizations. The Member-Correspondent of the VASKhNIL, N.P. Anuchin reported on the future development of the Soviet lumber industry (1959 to 1965). The Chief Engineer of the Krestetskiy-lespromkhoz TsNIIME (the Krestetsy Lespromkhoz) reported on a semi-automatic conveyer line introduced at

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the Kresttsy lespromkhoz. The Candidate of Technical Sciences, B.A. Tauber delivered a report on the mechanization of lumber loading and stacking operations. The following reports were also heard: Dotsent N.I. Suboch - "The Present State and Development Methods of Traction Machinery in Lumber Transportation"; Dotsent M.I. Saltykov - "The All-Round Utilization of Raw Material and the Organization of Lumber Industry on the Principle of Continuous Forest Use"; Candidate of Technical Sciences, G.A. Vil'ke - "The Vibration of Gasoline Motor Saws";scientific worker, V.V. Kharitonov - "Choosing a Method of Bark Stripping"; Dotsent M.I. Kishinskiy - "The Transportation of Lumber by Motor Transport in Winter"; Professor M.I. Zaychik - "The Exploitation of Diesel Engines at Shops"; Professor N.N. Chulitskiy - "Investigations on New Technological Equipment for Production Line and Automated Furniture Production"; Head of the Tekhnologicheskiy otdel proyektnogo instituta Nr 2 (Technological Division of the Nr 2 Design Institute), V.A.

SOV-118-58-7-7/27

A Scientific-Technical Conference on Questions Regarding the Mechanization of the Lumber Industry

Tselebrovskiy - "Mechanization and Automation of Production Processes at the Raw Material Exchange Center of the Omutninsk House Construction Combine".

1. Lumber industry--USSR

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VIL'KE, G. A., Doc Tech Sci (diss) -- "The theoretical principles of designing certain special machines and mechanisms for the forestry industry". Moscow, 1959. 32 pp (Min Higher Educ USSR, Moscow Forestry Engineering Inst), 150 copies (KL, No 23, 1959, 164)

VIL KE, G. A.

124-58-9-10659

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 9, p 170 (USSR)

AUTHOR: Vil'ke, G. A.

TITLE: On a Method for Cleavage Tests of Wood (O metode ispytaniya drevesiny na raskalyvaniye)

PERIODICAL: Nauchn. dokl. vyssh. shkoly. Lesoinzh. delo, 1958, Nr 1, pp 138-141

ABSTRACT: Bibliographic entry

1. Wood--Test methods

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SOV-118-58-9-10/19

AUTHOR: Vil'ke, G.A., Candidate of Technical Sciences

TITLE: On the Automation of Production Processes in Lower Storeying Lumber Yards (Ob avtomatizatsii proizvodstvennykh protsessov na nizhnikh lesnykh skladakh)

PERIODICAL: Mekhanizatsiya trudoyemkikh i tyazhelykh rabot, 1958, Nr 9, pp 30 - 32 (USSR)

ABSTRACT: The author presents a crushing criticism of the technical conditions in lower storeying lumber yards. Most of the machines applied are out-of-date and inefficient. Highly unsatisfactory is the mechanization of lumber moving and piling up operations since the general purpose cranes used for loading do not match special requirements of the lumber industry. The author regards complete reorganization of the existing technological processes in lower lumber yards, introduction of complex mechanization and automation in particular, as the only way to cope with the present situation. The author makes some general suggestions regarding the introduction of automation of lower storeying lumber yards.

1. Lumber--Storage 2. Machines--Effectiveness

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VIL'ÆE, G. A., Engineer

"Fundamentals of the Theory of Wood-Splitting." Sub 26 Jun 51, Moscow Forestry Inst

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

VIL'KE, G.A.

RT-148 (New electric saws). Novye elektricheskie pily.
Lesnaia Promyshlennost', 11(7): 16-19, 1951.

VIL'KE, G. A.

Saws

New electric saws. Les. prom. 11, No. 7, 1951.

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

1. VIL'DE, G.A.

2. USSR (600)

4. Launches

7. Warping launch KV-5 Les prom No 1 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

PATSIORY, P.P., doktor tekhn. nauk, red.; VIL'KE, G.A., kand.tekhn. nauk, red.; ZARAPINA, Ye.Ye. otv. za vypusk; KARAVASHKIN, S.I., otv. za vypusk; TIKHOMIROVA, V.R., red.

[Establishment and operation of automatic and semiautomatic lines in forest and wood-using industries] Ustroistvo i ekspluatatsiia avtomaticheskikh i poluavtomaticheskikh linii v lesnoi i derevoobrabatyvaiushchei promyshlennosti. Moskva, GOSINTI, 1962. 172 p. (MIRA 16:8)

1. Russia (1917- R.S.F.S.R.) Gosudarstvennyy komitet po koordinatsii nauchno-issledovatel'skikh rabot.
(Wood-using industries) (Automatic control)

A L 11874-66 EWT(1)/T IJP(c) GG

ACC NR: AT6002237 SOURCE CODE: UR/2564/65/006/000/0075/0080

44,55

AUTHOR: Vil'ke, K. T.

84
B+1

ORG: None

21,44,55

TITLE: Growing of crystals from solution in melts

44,55

SOURCE: AN SSSR. Institut kristallografii. Rost kristallov, v. 6, 1965, 75-80

TOPIC TAGS: crystal growing, sulfate, tungstate, crystallization, ruby, alumina, maser, laser

ABSTRACT: Crystals of $CaSO_4$, $SrSO_4$, and $BaSO_4$ were grown from solutions in Na_2SO_4 melts by the method of cooling. $CaSO_4$ crystals could be obtained only at 1200 — 1000C at high $CaSO_4$ concentrations. The method was also used to prepare many orthotungstates $Me^{II}WO_4$ (Me^{II} + Mg, Ca, Sr, Ba, Fe, Co, Ni, Cu, Zn, Cd) in the form of large crystals. LiCl, Na_2SO_4, and Na_2WO_4 were found to be the best solvents for this purpose. The growth of ruby crystals for use in masers and lasers, and the growth of Al_2O_3 in PbO, PbF_2, or their mixtures were also studied, but the results are not yet

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ACC NR: AT6002237

definite. The growing of crystals by crystallization during precipitation presupposes that the initial components are soluble in the principal melt, and that the compound formed separates out because it is poorly soluble. As an example of this process, the author discusses the decomposition of ferric sulfate into the oxides:

$$\underset{\text{soluble}}{Fe_2(SO_4)_3} \xrightarrow[1000C]{NaCl} \underset{\text{insoluble}}{Fe_2O_3} + 3SO_3$$

Fe_2O_3 plates measuring 4 mm were thus grown from solution in the melt $Na_2(SO_4)_3NaCl$. Also discussed is crystal growing from solution in a melt during electrodeposition. Orig. art. has: 12 figures.

SUB CODE: 20 / SUBM DATE: none/ SOV REF: 002

HW

VIL'KEN, Ul'rikh [Wilcken, U.]

Rostock, a transoceanic harbor. Nauka i zhittia 11 no.10:55-56 O '61. (MIRA 15:1)

1. Direktor narodnogo pidpriyemstva "Promislove proektuvannya Nord", m.Shtral'zund.

(Rostock--Harbor)

VIL'KENS, A.A.

Microclimate of the hilly relief in an orchard. Trudy UkrNIGMI no.38:60-70 '63. (MIRA 17:2)

VIL'KEVICH, B.I.

Analysis of the redistribution of loads between pairs of wheels of Diesel locomotives in utilizing the traction force, and better the use of trailing weight in locomotives in the future. Izv. AN Uz. SSR. Ser. tekh. nauk 7 no.5:46-57 '63.
(MIRA 17:2)

1. Tashkentskiy institut inzhenerov zheleznodorozhnogo transporta.

VIL'KEVICH, B.I., inzhener (Tashkent).

Some characteristics of operating heavy-weight trains using diesel traction. Elek.i tepl.tiaga no.9:21-23 S '57. (MIRA 10:10)
(Diesel locomotives)

VIL'KEVICH, Boris Iosifovich, kand. tekhn. nauk; MURAKAYEVA, A., red

[Electrical network of the TE-3 diesel locomotive] Elektri
cheskaia skhema teplovoza TE-3. Tashkent, Gos.izd-vo UzSSR,
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VIL'KEVICH, Boris Iosifovich, dots., kand. tekhn. nauk; BICHEDOVA, A., red.; BABAKHANOV, A., tekhn. red.

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(Diesel locomotives)

VIL'KENAU A.V., DOBROVOL'SKIY V.V.

Kuznetsk basin - coal mines and mining

Problems of filling material for the mines of the Kuznetsk coal basin. Ugol' 27 No.5(314), 1952.

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Coal Mines and Mining - Duznetsk Basin

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VIL'KENS, A.A.

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(Beregovo region—Microclimatology)

SHAKHNOVICH, A.V.; VIL'KENS, A.A.

Microclimatic investigations in the viticultural zone of Transcarpathia. Trudy UkrNIGMI no.23:3-20 '61. (MIRA 14:8)
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Frost danger within the area of an individual farm ("Uzhgorod" State Viticultural Farm). Trudy UkrNIGMI no.13:38-45 '58.
(MIRA 11:12)
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AB 518756

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