"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

Molecular Biology

USSR UDC 576.858:615.28

ORLYANKIN, B. G., KOSHELEVA, R. V., SERGEYEV, V. A., Doctor of Biological Sciences, and MAKAROV, V. V., Candidate of Biological Sciences (Communicated by KOVALENKO, Ya. R.), All-Union Research Institute of Veterinary Virology and Microbiology

"The Effects of Inhibitors of Macromolecular Synthesis on the Reproduction of Aujeszky's Disease Virus"

Moscow, Doklady Vsesoyuznoy Ordena Lenina Akademii Sel'skokhozyaystvennykh Nauk imeni V. I. Lenina, No 2, 1973, pp 35-36

Abstract: Since little information is available on the effects of various antimetabolites and antibiotics on the multiplication of Aujeszky's disease virus (ADV), studies were undertaken to determine the effects of 5-bromo-2-deoxyurine (BDU) (100 μg/ml), mitomycin C (5 μg/ml), aurantin (an unpurified preparation of actinomycin D, 0.1 μg/ml), puromycin (1 μg/ml) and cyclohexamide (10 μg/ml) on the reproduction of ADV in chick embryo tissue culture. Each preparation was found to significantly inhibit viral replication during the latent period. If administered after 8 h (6 h in the case of BDU), no inhibition was obtained since the synthesis of the viral building blocks had been completed.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

Veterinary Medicine

USSR UDC 576.858:591.2

SERGEYEV, V. A., Doctor of Biological Sciences, ORLYANKIN, B. G., and MAKAROV, V. V., Candidates of Biological Sciences, All-Union Scientific Research Institute of Veterinary Virology and Microbiology

"The Effects of Culture Temperature on Replication of Aujeszky's and Newcastle Disease Viruses"

Moscow, Doklady Vsesoyuznoy Ordena Lenina Akademii Sel'skokhozyaystvennykh Nauk imeni V. I. Lenina, No 11, 1971, pp 44-45

Abstract: Virulent and attenuated strains were grown in chick embryo medium at various temperatures. Growth was fastest at temperatures ranging from 31 to 40°C. No growth was recorded at 24 and 42°C. The growth rate was slow at 28 to 30°C. The thermal sensitivity of the three types of viruses studied is expressed in figures representing (in proper order) the optimum temperature yielding maximum growth and the suboptimum and supraoptimum temperatures causing 90 percent inhibition of growth: attenuated Aujeszky's disease virus -- 37, 30, and 40°C; virulent Aujeszky's disease virus -- 40, 32.5, and 41.5°C; and Newcastle disease virus -- 39, 33, and 39.5°C.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

Biochemistry

USSR UDC 617-001.28-074:577.1

GUS'KOVA, A. K., SADCHIKOVA, E. N., and ORLYANSKAYA, R. L., Institute of Labor Hygiene and Occupational Diseases, Academy of Medical Sciences USSR, Moscow

"Significance of Biochemical Studies in the Clinical Picture of Radiation Lesions in Man"

Moscow, Meditsinskaya Radiologiya, No 4, 1971, pp 52-59

Abstract: A review is presented of the Soviet literature on shifts in the biochemical indexes reflecting the various forms of radiation sickness in man, severity of the lesions, hormonal and metabolic disorders, etc. The diagnostic value of the indexes is discussed and reference is made to their value as criteria of the effectiveness of therapy. The data are summarized in four tables (acute radiation sickness from a single exposure to gamma or neutron radiation, lesions caused by hepatotropic isotopes, long-term effects and clinical prestages of lesions by osteotropic elements, lesions with maximum distribution of radiant energy in muscle tissue) under the various tests, optimum time for running the tests, and possible significance of abnormalities.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

Acc. Nr: AP0044022 Ref. Code: UR 0240

PRIMARY SOURCE: Gigiyena i Sanitariya, 1970, Nr 2, pp 49-52

COMBINATION OF THORIUM WITH BLOOD CONSTITUENTS DEPENDING UPON THE CHEMICAL NATURE OF THE COMPOUND INTRODUCED

Pavlovskaya, N. A.; Makeyeva, L. G.; Orlyanskaya, R. L.

The results of experimental investigations on albino rats produced evidence that thorium is primarily present in the blood plasma, regardless of the method of its administration, chemical nature of the compounds introduced and the time lapsed since their entrance into the organism. With entrance of a noncomplex thorium compound its main bulk in the blood is bound with globulins, while in the instance of a stable complex compound its distribution in the plasma depends upon the mode of its introduction. With intravenous administration thorium is found predominantly in the non-protein part of the blood.

REEL/FRAME
19770459

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

UDC 518.90

ORLOVSKIY, S. A. (Moscow)

"Infinite Two-Person Games With Prohibited Situations"

Moscow, Zhurnal Vychislitel'noy Matematiki i Matematicheskoy Fiziki, Vol 13, No 3, May-Jun 73, pp 775-781

Abstract: A previous article by the author considered finite (matrix) two-person games with prohibited siutations. The present article considers two-person games in which the sets of pure strategies for the players are infinite. It is assumed that player 1 (the maximizing player) first selects his mixed strategy and communicates it to player 2 and that player 1 attempts to obtain the maximum guaranteed payoff. The sets of pure strategies for players 1 and 2 represent compact Hausdorff topological spaces X and Y respectively. It is shown that the solution of the games based on the product X x Y reduces in some cases to the solution of an antagonistic game without prohibited situations and in other cases to maximization of the payoff function of some subset of the set of situations. The example of a game on a unit square is considered to illustrate games with prohibited situations.

The author thanks YU. B. GERMEYER, under whose guidance the present work was done.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR UDC 547.26'118

ORLOVSKIY, V. V., VOVSI, B. A. (deceased), and MISHKEVICH, A. YE., Leningrad Chemical-Pharmaceutical Institute

"Dealkylation of Dialkyl Esters of Phosphorous Acid"

Leningrad, Zhurnal Obshchey Khimii, Vol 42 (104), No 9, Sep 72, pp 1930-1935

Abstract: Reaction of dialkyl Phosphite taken in a 3-8 fold excess with the salts of hydrohalide acids leads to the formation of the salts of monoalkyl esters of phosphorous acids in almost quantitative yields. It was shown that the dealkylation of dialkyl phosphites is accelerated in the order K, Na, Li, as well as Ba, Sr, Ca, Mg, and Cl, Br, I. The rate of the reactions of dialkyl phosphite with the salts of substituted ammonia can be expressed by a kinetic equation of the second order, in agreement with the S_N2 mechanism. An analytical method was proposed for the ammonium salts of the monoesters of phosphorous acids based on potentiometric titration in nonaqueous media.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR UDC 636+576.8.094.29

ORLYANKIN, B. G., RAKITSKAYA, A. YA., KOSHELEVA, R. V., SERGEYEV, V. A. and MAKAROV, V. V., All-Union Institute of Veterinary Virology and Microbiology, Pokrov, Vladimirskaya Oblast

"The Biosynthesis of Components of the Aujeszky Virus Under Nonpermissive Conditions"

Moscow, Sel'skokhozyaystvennaya Biologiya, Vol 8, No 5, Sep/Oct 73, pp 761-764

Abstract: The synthesis of nucleic components and virus-specific proteins in a chick embryo cell culture synchronously infected with Aujeszky virus, BYK strain, was studied for one cycle of multiplication under conditions excluding reproduction of infectious viruses. Nucleic acid synthesis was measured by incorporation of ^{14}C-Thymidine, while virus-specific proteins were determined by immunofluorescence. It was found that at 20° or 41°C nucleic acid synthesis is inhibited, said to be due to a virus-induced suppression of cell metabolism. At 24°C nucleic synthesis proceeds but at a slower rate. Virus specific particles were formed only at 37°, under those conditions leading to the formation of infectious viruses. These results are said to indicate the presence of a virus-induced process.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR UDC 621.762.224:669.14.018.253

PETROV, A. K., LEVITIN, V. V., MIROSHNICHENKO, I. S., AKIMENKO, V. B., ANDREYEVA, A. YA., BATENEVA, M. K., GOLOVKO, V. A., LABUNOVICH, O. A., ORLOV, YU. G., and ORMAN, R. Z., Ukrainian Scientific Research Institute of Special Steels, Alloys and Ferroalloys, Dnepropetrovsk State University

"Study of Atomized Powders of High-Speed Steel and Blanks Made of Them"

Poroshkovaya Metallurgiya, No 3, Mar 71, pp 9-14

Abstract: This work was performed in order to study the structure of powders of high-speed steel produced by atomizing of liquid steel with a stream of pure argon applied to a stream of metal through a slit diaphram at a pressure of 6-8 atm. For comparison, one melt was atomized using compressed air at 14-16 atm under industrial conditions. The structure and phase composition of the initial powder, powder after heat treatment, and blanks made from the powder were studied. Blanks produced by

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

PETROV, A. K., et al., Poroshkovaya Metallurgiya, No 3, Mar 71, pp 9-14

hydrostatic pressing with subsequent sintering had a fine-grain structure with evenly distributed carbides. The structure corresponded to a hardness of 65 HRC after tempering at 560° and 61 HRC after tempering at 620°. This indicates the possibility of producing blanks from atomized powders of high speed steel.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

1/2 034 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--THE THERMODYNAMICS OF VACANCIES ARISING IN CADMIUM SULFIDE SINGLE CRYSTALS BEING PROCESSED IN CADMIUM AND SULFUR VAPORS -U-

AUTHOR-(02)-LUTSKAYA, O.F., ORMONT, B.F.

COUNTRY OF INFO--USSR

SOURCE--IZV. SSSR. MOSCOW, NEORGANICHESKIYE MATERIALY, VOL 6, NO 5, MAY 70, PP 841-845

DATE PUBLISHED----MAY70

SUBJECT AREAS--MATERIALS, PHYSICS

TOPIC TAGS--CADMIUM SULFIDE, SULFUR, METAL VAPOR, THERMODYNAMICS, SINGLE CRYSTAL, ENTHALPY, ELECTRIC CONDUCTIVITY, CRYSTAL VACANCY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3005/1538 STEP NO--UR/0363/70/006/005/0841/0845

CIRC ACCESSION NO--AP0133463

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

2/2 034 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0133463

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE AUTHORS DETERMINED THE ELECTROCONDUCTIVITY OF CADMIUM SULFIDE SINGLE CRYSTALS DURING THERMAL PROCESSING IN CD AND S VAPORS AND AFTER HARDENING. THE ELECTROCONDUCTIVITY WAS EXPRESSED AS A FUNCTION OF THE PARTIAL PRESSURE OF SULFUR VAPOR FOR THE HARDENED SAMPLES. IT WAS DETERMINED THAT OXYGEN MAY OCCUPY SULFUR VACANCIES, LOWERING THE ELECTROCONDUCTIVITY. A METHOD WAS DEVELOPED FOR THERMAL TREATMENT OF CDS SUB1-Y SINGLE CRYSTALS IN CD AND S VAPORS, PERMITTING VARIATIONS IN TEMPERATURE AND VAPOR PRESSURES WITH CONCURRENT DETERMINATION OF ELECTROCONDUCTIVITY. IN THIS FASHION IT WAS DETERMINED THAT THE CHARGE CONNECTED WITH THE SULFUR VACANCY IN CDS SUB1-Y WAS ABOUT 2. THE APPROXIMATE ENTHALPY OF THE FORMATION OF IONIZED SULFUR VACANCIES WAS CALCULATED, USING THE CURVES OBTAINED DURING THE TREATEMNT OF THE MATERIAL IN CADMIUM AND SULFUR VAPORS.

FACILITY: LENINGRAD ELECTROTECHNICAL INSTITUTE IMENI V. I. UL'YANOV LENIN.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

UDC 546.48'22:548.55

LUTSKAYA, O. F., ORMONT, B. E., Leningrad Electrotechnical Institute Imeni V. I. Ul'yanov (Lenin)

"The Thermodynamics of Vacancies Arising in Cadmium Sulfide Single Crystals Being Processed in Cadmium and Sulfur Vapors"

Moscow, Neorganicheskiye Materialy, Vol 6, No 5, May 70, pp 841-845

Abstract: The authors determined the electroconductivity of cadmium sulfide single crystals during thermal processing in Cd and S vapors and after hardening. The electroconductivity was expressed as a function of the partial pressure of sulfur vapor for the hardened samples. It was determined that oxygen may occupy sulfur vacancies, lowering the electroconductivity. A method was developed for thermal treatment of CdS_{1-y} single crystals in Cd and S vapors, permitting variations in temperature and vapor pressures with concurrent determination of electroconductivity. In this fashion it was determined that the charge connected with the sulfur vacancy in CdS_{1-y} was about 2. The

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

LUTSKAYA, O. F., et al., Neorganicheskiye Materialy, Vol 6, No 5, May 70, pp 841-845

approximate enthalpy of the formation of ionized sulfur vacancies was calculated, using the curves obtained during the treatment of the material in cadmium and sulfur vapors.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

UDC 621.315.592

ANOSOV, I.V., KUROVA, I.A., ORMONT, N.N. [Moscow State University imeni M. V. Lomonosov]

"On Some Electrical And Optical Properties Of Acousto-Electric Domains In GaAs"

Fizika i tekhnika poluprovodnikov, Vol 6, No 4, Apr 1972, pp 625-631

Abstract: The work is devoted to a detailed study of the distribution of the field in a specimen and to the establishment of the connection between the electrical characteristics in the domain and the infrared radiation. The experiments were conducted at room temperature on 12 x 0.4 x 0.7 mm GaAs specimens with $n = 2 \cdot 10^{15} cm^{-3}$ and $\mu = 4000$ $cm^2/v.sec$, oriented in the [110] direction. In specimens of compound section the effect was also studied of artifically created nonuniformities on the motion and properties of the domain. Infrared radiation from specimens with an acousto-electric domain is studied. At the boundary of the nonuniformities, where the field increases in the domain as a result of the effects of the acousto-electric flux, infrared radiation with a maximum of $\sim$ 9100 Å appears. Possible mechanisms of the radiation are considered. The authors thank N.I. Paninoy for production of the specimens and V.S. Vavilov for discussion of the results of the work. 6 fig. 8 ref. Received by editors, 4 June 1971.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR UDC 612.824

MCHEDLISHVILI, G. I., MITAGVARIYA, and ORMOTSADZE, L. G., Pathophysiology Division, Instiute of Physiology, Academy of Sciences, Georgian SSR, Tbilisi

"Determination of Resistance in Large and Small Cerebral Arteries Using an Adequate Mathematical Model"

Leningrad, Fiziologicheskiy Zhurnal SSR imeni I. M. Sechenov, No 4, 1971, pp 575-583

Abstract: The purpose of the work was to devise a mathematical model capable of utilizing information readily obtainable in physiological experiments for the determination of resistance in the blood vessels that play a major role in regulating cerebral blood flow. The model is based on the quantitative relations existing between hemodynamic resistance in the main brain arteries and arteries on the periphery of the circle of Willis and the pressures measured in the aorta, circle of Willis, and venous sinuses. It was assumed that the relative viscosity of the blood remains constant and that resistance to the blood flow changes only after changes in the lumens of the blood vessels. The model was used in experiments on dogs subjected to asphyxia, injection of norepinephrine and serotonin, change in perfusion pressure, and occlusion of the

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

MCHEDLISHVILI, G. I., et al., Fiziologicheskiy Zhurnal SSR imeni I. M. sechenov, No 4, 1971, pp 575-583

the cranial vena cava. The results were consistent with those of physiological studies conducted on changes in the lumens of cerebral arteries under the same conditions.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

1/2 021 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--A NEW MODIFICATION OF RESISTOGRAPHY OF THE IN SUTU ISOLATED INTERNAL CARGTIC ARTERY FOR INVESTIGATION OF THE VASCULAR SPASM -U-

AUTHOR-(02)-MCHEDLISHVILI, G.I., ORMOTSADZE, L.G.

COUNTRY OF INFO--USSR

SOURCE--PATOLOGICHESKAYA FIZIOLOGIYA I EKSPERIMENTAL'NAYA TERAPIYA, 1970, VOL 14, NR 3, PP 72-74

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--CARDIOVASCULAR SYSTEM DISEASE, ROTARY PUMP, DRUG TREATMENT, MEDICAL APPARATUS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3001/1937 STEP NO--UR/0396/70/014/003/0072/0074

CIRC ACCESSION NO--AP0127338

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

2/2 021 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0127338

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE PROPOSED METHOD HAS THE FOLLOWING ADVANTAGES FOR A DETAILED ANALYSIS OF THE MECHANISM OF VASOSPASM: THE ARTERY UNDER INVESTIGATION IS THE MOST PROBABLE SITE OF THE CEREBRAL VASOSPASM; A HIGH SENSITIVITY TO THE PHYSIOLOGICALLY ACTIVE SUBSTANCES AND PHARMACOLOGICAL DRUGS IS RETAINED THROUGHOUT SEVERAL HOURS OF ACUTE EXPERIMENTS IN DOGS; USE OF A PERFUSION PUMP WITH A CONSTANT MINUTE VOLUME OFFERS STEADY EXPERIMENTAL CONDITIONS WHICH MAY BE CHANGED AT WILL; THERE ARE UNLIMITED POSSIBILITIES TO CHANGE THE CONTENTS OF THE PERFUSION FLUID, SINCE ITS EXCESS IS IMMEDIATELY REMOVED FROM THE ORGANISM. FACILITY: OTDEL PATOFIZIOLOGII INSTITUTA FIZIOLOGII AKADEMII NAUK GRUZINSKOY SSR, TBILISI.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR UDC 537.311.33

BILENKO, D. I., LUN'KOV, A. Ye., ORNATSKAYA, Ye. M., and TSIPORUKHA, V. D.

"Interaction of Millimeter and Submillimeter Radiation with Semiconductor Materials"

Tr. NII Introskopii (Works of the Scientific-Research Institute for Introscopes), 1970, Issue 4, pp 61-62 (from RZh-Elektronika i yeye primeneniye, No 9, September 1971, Abstr-ct No 9B27)

Translation: A calculation is made of the reflection coefficient of the electromagnetic radiation from nondegenerate semiconductor materials for various scattering mechanisms of charge carriers. The results of the calculation show the correctness of a description of the properties of materials in the millimeter and submillimeter bands based on simplified semiclassical relations for a complex dielectric constant. Summary.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

1/2 014 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--INVESTIGATING THE DISTRIBUTION OF VELOCITIES IN PIPES WITH INTERNAL LONGITUDINAL RIBBING -U-

AUTHOR-(03)-ORNATSKIY, A.P., SHCHERBAKOV, V.K., SEMENA, M.G.

COUNTRY OF INFO--USSR

SOURCE--MOSCOW, TEPLOENERGETIKA, NO. 2, 1970, PP 75-77

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS, MECH., IND., CIVIL AND MARINE ENGR

TOPIC TAGS--RESEARCH FACILITY, STEEL PIPE, REINFORCED MATERIAL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1996/0354 STEP NO--UR/0096/70/000/002/0075/0077

CIRC ACCESSION NO--AP0117591

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

UNCLASSIFIED PROCESSING DATE--16OCT70

2/2 014

CIRC ACCESSION NO--AP0117591

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. RATIOS ARE OBTAINED FOR THE VALUE OF THE VELOCITY ON THE BOUNDARY BETWEEN THE JOINING OF THE CHANNEL BETWEEN THE RIBS AND THE BASIC FLOW AND FOR THE VALUE OF THE AVERAGE VELOCITY ALONG THE AXIS OF THE CHANNEL, TO THE AVERAGE DISCHARGE VELOCITY AND THE GEOMETRIC DIMENSIONS OF THE PIPE. FACILITY: KIEV POLYTECHNIC INSTITUTE.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

AA0046280 ORNATSKIY P.P.

Soviet Inventions Illustrated, Section II Electrical, Derwent, UR 0482

2/70

241535 VALUE OF VERY LOW FREQUENCY VOLTAGE is measured using a circuit containing null-unit (equivalence element) (1), controlled oscillator (2), pulse counters (3) and (4), code-to-potential converter (5), clock pulse generator (6) and arithmetic unit (7) conducting operations of division and root extraction.

Every impulse of the clock generator clears to zero the indications of counter (4) and switches on controlled oscillator (2) which sends impulses to the arithmetic unit (7). As these impulses proceed, the code in counter (4) increases, and consequently the compensating potential on the output of converter (5) grows. At the instant

V

Kiyevskiy Politekhnicheskiy Institut

1/3

4

19781421

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

AA0046280

when the compensating and tested potentials become equal, the equivalence element (1) is triggered and the pulses from oscillator (2) are stopped. Therefore, to the one input of the arithmetic unit arrives a number of impulses proportional to the sum of squares of momentary values of the potential which is measured; to the second input of this unit arrives a number of measurements from the clock generator, and unit (7) performs the division of these numbers and the root extraction.

11.7.67 as 1172469/26-10. P.P.ORNATSKIY & V.G. TSYVINSKIY. KIEV POLYTECHNIC (19.9.69) Bul 14/ 18.4.69. Class 21e. Int.Cl.G 01r.

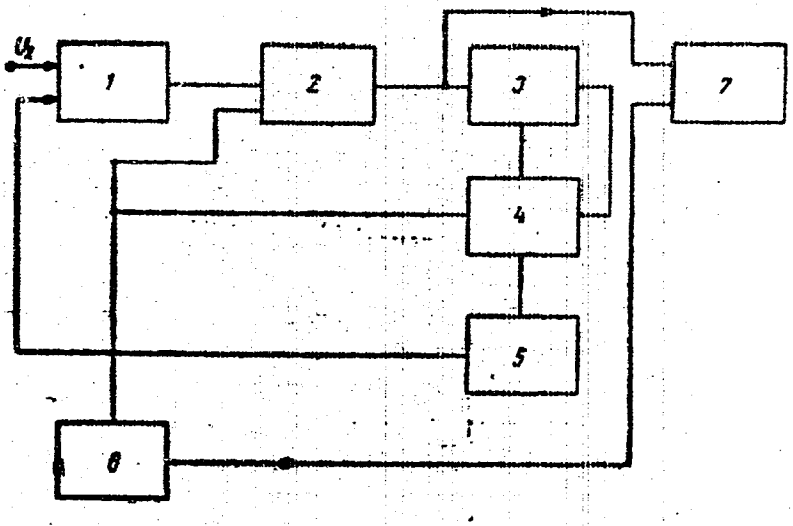
2/3

19781422

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

AA0046280



3/3

19781423

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

1/2 016 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--HARDENING EPOXY RESINS -U-

AUTHOR-(02)-OROBCHENKO, YE.V., PANCHENKO, N.A.

COUNTRY OF INFO--USSR

SOURCE--U.S.S.R. 263,876
REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRAZTSY, TOVARNYE ZNAKI 1970,
DATE PUBLISHED--10FEB70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--EPOXY RESIN, CHEMICAL PATENT, PHENOL, HARDNESS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3002/1463 STEP NO--UR/0482/70/000/000/0000/0000

CIRC ACCESSION NO--AA0128862
UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

UNCLASSIFIED PROCESSING DATE--13NOV70

2/2 016

CIRC ACCESSION NO--AA0128862

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. EPOXY RESINS ARE HARDENED WITH 2,4,6,TRIPIPERIDINOMETHYLPHENOL.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

UNCLASSIFIED PROCESSING DATE--04DEC70

1/2 015

TITLE--EFFECT OF SOME AMINO ACIDS ON THE CRYSTALLIZATION OF SUCROSE -U-

AUTHOR-(02)-IVANOV, S.Z., OROBINSKIY, I.P.

COUNTRY OF INFO--USSR

SOURCE--IZV. VYSSH. UCHEB. ZAVED., PISHCH. TEKHNOL. 1970, (2), 163-70

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--FOOD TECHNOLOGY, SUCROSE, CRYSTALLIZATION, AMINO ACID

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3004/0794 STEP NO--UR/0322/70/000/002/0163/0170

CIRC ACCESSION NO--AT0131388

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

UNCLASSIFIED PROCESSING DATE--04DEC70

2/2 015

CIRC ACCESSION NO--AT0131388

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. LAB. EXPTS. WERE CONDUCTED TO DET. THE EFFECTS OF DIFFERENT AMINO ACIDS ON THE CRYSTN. RATE OF SUCROSE FROM SUGAR SIRUP. THE RESULTS INDICATED THAT SOME OF THE AMINO ACIDS (GLYCINE, SERINE, VALINE, AND LYSINE) INCREASED THE RATE OF CRYSTN. AND OTHERS (GLUTAMIC ACID, ASPARTIC ACID, AND ALANINE) REDUCED THE RATE OF CRYSTN. CHANGES IN THE CRYSTN. TEMP. FROM 40 TO 60DEGREES INCREASED THE CRYSTN. RATE IN THE SAME WAY FOR ALL AMINO ACIDS. THE INCREASE IN THE CONCN. OF GLUTAMIC AND ASPARTIC ACIDS RETARDED THE CRYSTN. OF SUCROSE.

FACILITY: VORONEZH. TEKHNOL. INST., VORONEZH, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

1/2 013 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--AMMONIUM BICARBONATE AS A REAGENT FOR THE DETECTION OF TRACES OF CADMIUM -U-

AUTHOR-(02)-OROCHKO, A.I., EPIK, P.A.

COUNTRY OF INFO--USSR

SOURCE--IZV. VYSSH. UCHEB. ZAVED., KHIM. KHIM. TEKHNOL. 1970, 13(1), 32-4

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--AMMONIUM COMPOUND, CADMIUM, TRACE ANALYSIS, CARBONATE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/1387 STEP NO--UR/0153/70/013/001/0032/0034

CIRC ACCESSION NO--AT0120180

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

UNCLASSIFIED PROCESSING DATE--23OCT70

2/2 013

CIRC ACCESSION NO--AT0120180

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CD PRIME2 POSITIVE IS DETECTED IN THE PRESECENT OF CU PRIME2 POSITIVE, HG PRIME2 POSITIVE, OR BI PRIME3 POSITIVE BY PLACING A DROP OF THE UNKNOWN SOLN. ON FILTER PAPER IMPREGNATED WITH NH SUB4 HCO SUB3, AND THEN DROPPING ONTO IT 4-5 DROPS SATD. NH SUB4 HCO SUB3 (IF CU PRIME2 POSITIVE IS PRESENT, SUFFICIENT TO CLEAR THE CENTRAL PART OF THIS ION). CD PRIME2 POSITIVE REMAINS IN THE CENTER BECAUSE IT PPTS. AS COCO SUB3, AND IT IS REVEALED BY THE YELLOW COLOR PRODUCED BY HOLDING THE PAPER OVER H SUB2 S SOLN. TO DETECT SMALLER QUANTITIES OF CD PRIME2 POSITIVE IN THE PRESENCE OF 200 FOLD EXCESSES OF CU PRIME2 POSITIVE AND FE PRIME2 POSITIVE, ANY VOL. OF THE UNKNOWN SOLN. IS PASSED THROUGH A NH SUB4 HCO SUB3 IMPREGNATED FILTER PAPER, THE PAPER IS FURTHER TREATED WITH NH SUB4 HCO SUB3 SOLN. TO WASH OUT THE CONTAMINATING IONS AND IS HELD OVER AN H SUB2 S SOLN. A SEMIQUANT. METHOD USING A RULED PAPER STRIP IS ALSO DESCRIBED. TO ELIMINATE THE INTERFERENCE OF PB PRIME2 POSITIVE, AG PRIME POSITIVE, HG PRIME POSITIVE, NI PRIME2 POSITIVE, AND ZN PRIME2 POSITIVE IN THE LATTER METHOD, THE UNKNOWN SOLN. IS TREATED WITH CL PRIME NEGATIVE AND SO SUB4 PRIME2 NEGATIVE SOLNS. AND FILTERED PRIOR TO TREATMENT WITH NH SUB4 HCO SUB3. THE METHOD IS SENSITIVE TO 20 MUG CD PRIME2 POSITIVE-ML.

FACILITY: KIEV. POLITEKH. INST., KIEV., USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

1/2 012 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--DEASPHALTIZATION OF ACID SLUDGE -U-

AUTHOR-(05)-MIKHAYLOV, I.A., LEVINSON, S.Z., OROCHKO, D.I., IZOTOVA, P.P., TIMOFEYEVA, K.M.

COUNTRY OF INFO--USSR

SOURCE--U.S.S.R. 219,057

REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRAZTSY, TOVARNYE ZNAKI 1970,

DATE PUBLISHED--01APR70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHEMICAL PATENT, ADSORPTION, PETROLEUM DEASPHALTING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3005/0890 STEP NO--UR/0482/70/000/000/0000/0000

CIRC ACCESSION NO--AA0132980

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

UNCLASSIFIED PROCESSING DATE--13NOV70

2/2 012

CIRC ACCESSION NO--AA0132980

ABSTRACT/EXTRACT--(U) GP-0-- ABSTRACT. ACID SLUDGE UNDERWENT COUNTERCURRENT ADSORPTION TREATMENT IN SOLN. FACILITY: ALL UNION SCIENTIFIC RESEARCH INSTITUTE OF THE PETROLEUM INDUSTRY.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR UDC 513.88+517.948

OROCHKO, Yu. B.

"Two Remarks on a One-Dimensional Schrödinger Operator With a Real Potential"

Tr. Mosk. in-ta elektron. mashinostr. (Transactions of the Moscow Institute of Electronic Machine Building), No 15, 1971, pp 121-128 (from Referativnyy Zhurnal -- Matematika, No 7, July 71, Abstract No 7B757)

Translation: Suppose A is any self-adjoint operator in $L_2(R^1)$, corresponding to the differential expression $Df = -f'' + q(x)f$ with real potential $q \in C(R^1)$, $\lambda(\Delta)$ is the lower bound of the operator A_Δ generated in $L_2(\Delta)$ by the expression for D and by the boundary conditions $f(a) = f(b) = 0$. It is proven that if the numbers $\lambda(\Delta)$ are uniformly bounded from below for all segments Δ with fixed length $h>0$, then for sufficiently small $|t|$ the operators $\cos \sqrt{A}t$ are bounded; therefore, the operator A is semi-bounded from below. This gives a new proof of the familiar localization principle of R. S. Ismagilov (Referativnyy Zhurnal -- Matematika, 1963, Abstract No 9B211). Suppose $y(x,\lambda)$ is the solution of the equation $y'' + a(x)y' + b(x)y = \lambda y$, satisfying the conditions $y(0,\lambda) = 1$, $y'(0,\lambda) = z$, and z is a fixed complex number. An example of such a real potential with bounded

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

OROCHKO, Yu. B., Tr. Mosk. in-ta elektron. mashinostr. (Transactions of the Moscow Institute of Electronic Machine Building), No 15, 1971, pp 121-128 (from Referativnyy Zhurnal -- Matematika, No 7, July 71, Abstract No 7B757)

variance $\sigma(\lambda)$ independent of complex-valued coefficients a, b $\in C(R^1)$, and the number z is constructed, such that for any $x \in R^1$

$$\int_{-\infty}^{\infty} y(x, \lambda)\, d\sigma(\lambda) = 0.$$

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

Acc. Nr: AT0043980 Ref. Code: UR0000

PRIMARY SOURCE: Geofizicheskiy Sbornik, Kiev, 1970, Nr 33, pp 43-48

INCREASE MAGNETIC SUSCEPTIBILITY OF PRACTICALLY NON-MAGNETIC ERUPTIVE ROCKS
(Experimental Data)

T. S. Lebedev, Yu. P. Orovetskiy, Yu. M. Lalo
(Institute of Geophysics, Academy of Sciences, Ukrainian SSR)

Summary

The contents of the report is presented which was made by the authors at the All-Union seminar of experimenters in the Institute of Geochemistry and Analytical Chemistry of the Academy of Sciences of the USSR (February 18—19, 1969, Moscow).

Intrusive formations are known in the Mountain Crimea which belong to the zones of the Submontane Crimean-Caucasus and Krivoy Rog-Samsun abyssal fractures. Avarage value of magnetic susceptibility in the rocks of former zone is 1200, but of the latter it accounts only for $40 \cdot 10^{-6}$ CGSM. The composition of original rock-forming

1/2

REEL/FRAME
19770415

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

AT0043980

minerals of both zones is subidentical. It is supposed that the rocks of the former zone had acquired the extremal values of magnetic susceptibility as a result of allometasomatosis, of the latter due to autometasomatosis.

The samples of practically non-magnetic gabbro-diorites ($\bar{\varkappa}=30\cdot10^{-6}$ CGSM) were placed into an autoclave with semi-normal solution of $NaHCO_3$ and were kept here during 120 hrs at a pressure of 0.32+0.02 atm³ and at temperature of 430±30° C in a natural geomagnetic field. After the experiment the values of magnetic susceptibility increased by 6 times ($\bar{\varkappa}=196=10\%\cdot10^{-6}$ CGSM). The increase in the magnetic susceptibility values occured as a result of a polymorphous transition of Fe^{+2} dark colour component of the rock into a new modification. The latter is observed in a fine-dispersed state (the size of grains <0.001 mm) and is presented by pyrrhotite.

2/2

19770416

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR UDC: 621.371.33

OROZOBAKOV, T., MAMAYEV, O., MOROZOV, S. S.

"Methods of Calculating the Attenuation Factor of Ultrashort Waves Over Rough Terrain, and the Limits of Applicability of These Methods"

V sb. Materialy 1-y Konferentsii molodykh uchenykh AN KirgSSR, 1965 (Materials of the First Conference of Young Scientists of the Kirgiz SSR, 1965), Frunze, "Ilim", 1970, pp 123-125 (from RZh-Radiotekhnika, No 6, Jun 71, Abstract No 6A181)

Translation: Conditions of applicability are analyzed for various methods of calculating the diffraction attenuation factor with consideration to the effect of ground relief. One illustration, bibliography of three titles. N. S.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR UDC 678.6

EFENDIYEV, A. A., ABBASOVA, B. G., BABAZADE, S. N., ORUDZHEV, D. D., KHUDIYEV, A. K.

"Synthesis and Sorption Properties of Phosphorus Containing Selective Polyelectrolytes"

Baku, Azerbaydzhanskiy Khimicheskiy Zhurnal, No 2 (84), 1973, pp 97-99

Abstract: A description is given of the synthesis of complex-forming films based on copolymers of diethyl ether of vinylphosphonic acids and acrilic acid with different ratios of the components. A study is made of their sorption properties as a function of the copolymer composition. Tabulated data are presented which show that it is more difficult for the diethyl ether of vinylphosphonic acid to enter into the copolymerization reaction than acrilic acid -- for all monomer ratios in the initial mixture, copolymers are obtained which are impoverished with respect to the ether.

A study was made of the sorption properties of cross-linked films with respect to K, Na, Ca, Mg, Ba, Zn and Cu ions in solutions with a concentration equal to 0.1 normal by the static method. Films based on the copolymers of all compositions (including the homopolymer of acrilic acid) fail in practice to extract ions of alkali and alkali-earth metals from water solutions of their chloride and sulphate salts. The films extract K and Na ions only in

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

UDC 678.6

USSR

EFENDIYEV, A. A., et al., Azerbaydzhanskiy Khimicheskiy Zhurnal, No 2 (84), 1973, pp 97-99

an alkaline medium. The films are capable of extracting copper ions from neutral and even weakly acid solutions which indicates the occurrence of complex formation.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR UDC 616.43/44-008:612.014.42:611.77

ORUDZHEV, I. M. and DZHABAROV, K. A., Azerbaydzhan State Medical Institute

"Skin Bioelectric Potentials in Some Endocrine Diseases Pathogenetically Connected with Diencephalic Disturbances"

Baku, Azerbaydzhanskiy Meditsinskiy Zhurnal, No 7, 1973, pp 20-25

Abstract: Bioelectric potentials were derived from the parietal region of the cortex of patients with Cushing's disease (32), diabetes insipidus (12), acromegaly (10), and hyperthyroidism with the diencephalic syndrome (37) before and after treatment. Bioelectrical activity was very high (over 12 mv) before the first course of treatment in all but a few cases. Therapy resulted in normalization of the potentials in all the diabetes patients as well as marked improvement in the clinical picture. In the patients with Cushing's disease, acromegaly, and hyperthyroidism, the potentials tended to return to normal and there was some improvement in the course of the disease. Additional courses of treatment brought further improvement in both skin bioelectric activity and various symptoms.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

1/2 017 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--PHOSPHOSULFURIZATION O,O BISALKYLPHENYL PHOSPHORODITHIOATE PRODUCTION IN CONTINUOUS PILOT APPARATUS -U-

AUTHOR-(05)-[illegible]UDZHEVA, I.M., ZEYNALOVA, G.A., PULATOVA, SH.I., NAMAZOV, I.I., AGADZHANOV, KH.S.

COUNTRY OF INFO--USSR

SOURCE--AZERB. NEFT. KHOZ. 1970, (3), 35-7

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS, CHEMISTRY

TOPIC TAGS--LUBRICANT ADDITIVE, CHEMICAL SYNTHESIS, THIOL, PHOSPHATE ESTER, BENZENE DERIVATIVE, ZINC OXIDE, BARIUM HYDROXIDE/(U)VNIINP354 LUBRICANT ADDITIVE, (U)VNIINP350 LUBRICANT ADDITIVE, (U)VNIINP360 LUBRICANADDITIVE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3006/1797 STEP NO--UR/0487/70/000/003/0035/0037

CIRC ACCESSION NO--AP0135362

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

2/2 017 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0135362

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ALKYLPHENOL (93.8 PARTS) AND 6.2 PARTS P SUB2 S SUB5 REACTED AT LESS THAN OR EQUAL TO 130DEGREES AND 1.33 KG PER HR PER L. REACTION VOL. TO GIVE 97PERCENT PRODUCT, WHICH WAS TREATED WITH ZNO AND BA(OH) SUB2 TO OBTAIN THE ADDITIVES VNII NP-354 AND 350, RESP., WHICH, MIXED IN RATIO 2:5, GAVE THE ADDITIVE VNII NP-360.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

UDC: None

USSR

RZAYEV, K. I. and GRUDZHEVA, Sh. G.

"Temperature Dependences of TlSe and GaSe Monocrystal Elastic Constants"

Baku, Izvestiya Akademii Nauk Azerbaydzhanskoy SSR--Seriya fiziko-tekhnicheskikh i matematicheskikh nauk 1970, No. 5, pp 76-78

Abstract: The determination of the behavior of monocrystal elastic constants as functions of temperature is important because of the light it may shed on the nature of the atomic forces in solid bodies. This article investigates this behavior on the basis of data the authors gathered on the velocity of propagation of ultrasonic waves and from the density computed from data on expansion due to heat. The temperature dependences of TlSe and GaSe monocrystals are given in the forms of equations and curves, which show the dependences to be linear. The curves furnish additional proof of the anharmonicity theory, which states that the weaker the connection between atoms and the lower their mass, the stronger the anharmonic effect.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

Pesticides

UDC 632.952

USSR

ORYNBAYEV, S. O., and FEDOSIMOVA, O. S., Kazakh Scientific Research Institute of Plant Protection

"Effect of Fungicides on the Stimulators of Black Wheat Germ"

Moscow, Khimiya v Sel'skom Khozyaistve, No 4, 1973, pp 41-42

Abstract: A study was carried out on the effect of mercury organic (mercuron, mercurhexane, granozan), sulfur (TMTD), and chlorine (GKhB) fungicides on pure cultures of fungi -- stimulators of black wheat germ and on the suppression of the seed infection with symptoms of this disease, as well as on the sprouting energy and laboratory germination of the seeds. When used at low concentrations, the fungicides increased the growth and development of black wheat germ stimulators. Increasing the concentration to 0.05% stopped the growth of the fungi completely. Among the black wheat germ stimulators the most sensitive one towards the fungicides was Helminthosporium sativum P. K. et B fungus. Granosan, TMTD and GKhB increaded the sprouting energy and germination of the infected seeds and lowered root rot infection of wheat plants under field conditions.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

UDC 621.791.763.1.05:434.669.715

FEL'DMAN, L. S., Candidate of Technical Sciences, BURCHENKOVA, L. M., ORYSHICH, I. V., and GRECHUKHA, A. V., Engineers

"Effect of Certain Defects During Point Welding of Aluminum Alloys on the Fatigue Strength of Joints"

Moscow, Svarochnoye Proizvodstvo, No 10, Oct 70, pp 45-46

Abstract: In order to estimate the effect of point welding defects on the fatigue characteristics of joints welded in D16T alloy, the fatigue strength and viability of welded specimens with defects were measured. Defect types tested included external cracks, internal cracks with length over one-third the diameter of the fused core, internal splashes, and pore penetration. The fatigue strength of point joints of D16T alloy produced by resistance welding was found to be decreased by shrinkage cracks extending over more than one-third the diameter of the welded point. Fatigue cracks are formed and develop around the periphery of the welded spot in the area of heat application. Variations in fusion depth between 20 and 80% and variations in the diameter of the weld nugget by ±30% had no significant effect on the durability of welded joints.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR UDC 620.179.2

FEL'DMAN, L. S., BURCHENKOVA, L. M., ORYSHICH, I. V., and GRECHUKHA, A. V.

"Quality Norms for Welded Joints Made by Spot Resistance Welding"

Moscow, Defektoskopiya, No 6, 1970, pp 126-132

Abstract: Results are presented from statistical processing of data from long-term testing of the quality of electric spot welding, as well as the results of fatigue testing of spot welded joints with various welding defects, various depths of fusion, and spot diameters. The fatigue durability of spot welded joints of D16 alloy with fatigue cracks extending over one-third of the diameter of the welded point decreases as a function of stress levels as follows: internal -- 22-73%, external -- 37-80%. Fatigue cracks arise and develop at the periphery of the welded spot in the thermally affected area. The point of formation and development of fatigue cracks is unrelated to defects already present. A change in the depth of fusion at welded joints between 20 and 80% and a change of the welded spot diameter by ±30% have no significant influence on the fatigue durability of specimens.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

1/2 022 UNCLASSIFIED PROCESSING DATE--27NOV70

TITLE--DETERMINATION OF CARBON IN STEELS AND ALLOYS -U-

AUTHOR-(02)-ORZHEKHOVSKAYA, A.I., YAKOVLEV, P.YA.

COUNTRY OF INFO--USSR

SOURCE--U.S.S.R. 264,757
REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRAZTSY,TOVARNYE ZNAKI 1970 47(9)
DATE PUBLISHED--03MAR70

SUBJECT AREAS--MATERIALS, CHEMISTRY

TOPIC TAGS--CHEMICAL PATENT, METALLURGIC PATENT, METALLURGIC RESEARCH FACILITY, METAL CHEMICAL ANALYSIS, ALLOY STEEL, CARBON STEEL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3001/1469 STEP NO--UR/0482/70/000/000/0000/0000

CIRC ACCESSION NO--AA0127000

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

UNCLASSIFIED PROCESSING DATE--27NOV70

2/2 022

CIRC ACCESSION NO--AA0127000

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. C IS DETD. BY FUSING THE SAMPLE IN AN O CURRENT IN THE PRESENCE OF FLUX, SUCH AS A MIXT. OF AL IN CUO OR FE SUB2 O SUB3 (E.G., 1 PART AL TO 5 PARTS CUO, OPTIMUM OR 1 PART AL TO 3 PARTS FE SUB2 O SUB3, OPTIMUM). THE CO SUB2 LIBERATED IS COLLECTED AND DETD., E.G., POTENTIOMETRICALLY. FACILITY: TSENTRAL'NYY NAUCHNO, ISSLEDOVATEL'SKIY INSTITUT CHERNOY METALLURGII IM. I. P. BARDINA.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

UDC 669.1:541.015

YAKOVLEV, P. Ya., YAKOVLEVA, Ye. F., and ORZHEKHOVSKAYA, A. I.

Opredeleniye Ugleroda v Metallakh (Determination of Carbon in Metals), Metallurgiya, Moscow, 1972, 288 pp

Translation of Annotation: Theoretical fundamentals and detailed practical recommendations are given on chemical, physicochemical, and physical methods of determining large and small quantities of the total carbon in steels, alloys, ferroalloys, pure metals, and other materials of metallurgical production, as well as the bonded and free (carbon in a solid solution) carbon. New and different methods of carbon determination tested by the authors are recommended. This book is intended for personnel of analytical laboratories of industrial enterprises and scientific research and teaching institutes for metallurgy and other branches of industry. It may also be used as a textbook by students in chemical and chemical-metallurgical specialties of institutions of higher learning. 35 figures, 35 tables, 197 bibliographic references.

Table of Contents:

Page

Forword 6

1/8

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

YAKOVLEV, P. Ya., et al., Opredeleniye Ugleroda v Metallakh (Determination of Carbon in Metals), Metallurgiya, Moscow, 1972, 288 pp

	Page
Chapter I. General Information About Carbon	9
Chemical Properties of Carbon	13
Significance of Carbon in Metallurgy	18
Chapter II. Compounds of Carbon With Metals. Carbides	22
Classification of Carbides According to Their Relationship to Water and Acids	30
Chemical Properties of Transition Metal Carbides	32
Carbide Phases in Steels and Alloys	39
Chapter III. Physicochemical Methods of Determining the Total Carbon Content in Materials of Metallurgical Production	71
Methods of Test Selection for Determining Carbon in Steels, Alloys, and Ferroalloys	72
Gravimetric Method of Carbon Determination	78
Gas Volumetric Method of Carbon Determination	79
Gas Volumetric Method of Carbon Determination Using a Microeudiometer	83

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

YAKOVLEV, P. Ya., et al., Opredeleniye Ugleroda v Metallakh (Determination of Carbon in Metals), Metallurgiya, Moscow, 1972, 288 pp

	Page
Barite Method of Carbon Determination With Titrimetric Completion of Analysis	85
Potentiometric Method of Carbon Determination	87
Coulometric Method of Carbon Determination	96
Conductometric Method of Carbon Determination	98
Carbon Determination by the Freezing Method	99
Carbon Determination by Vacuum-Oxidation Melting	100
Chromatographic Method of Carbon Determination	105
Carbon Determination by Thermal Conductivity	107
Carbon Determination by Infrared Absorption	108
Photocolorimetric Method of Carbon Determination	109
Chapter IV. Physical Methods of Determining Total Carbon Content in Materials of Metallurgical Production	110
Thermoelectric Method of Carbon Determination	110
Magnetoelectric (Carbometric) Method of Carbon Determination	112
Spectral Method of Carbon Determination in Steels and Alloys	114

3/8

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

YAKOVLEV, P. Ya., et al., Opredeleniye Ugleroda v Metallakh (Determination of Carbon in Metals), Metallurgiya, Moscow, 1972, 288 pp

	Page
Determination of Carbon Microquantities by Activation With Charged Particles and Gamma Quanta	121
Chapter V. Effect of Temperature, Chemical Composition of Material Being Analyzed, and Fluxes on the Quantitative Combustion of Carbon	138
Effect of Burning Temperature on the Quantitative Combustion of Carbon	139
High-Temperature Furnaces for Carbon Determination	140
Effect of Steel and Alloy Chemical Composition on Carbon Determination Results	144
Effect of Different Elements on the Accuracy of Carbon Determination in Steels and Alloys	152
Effect of Ceramic Tubes and Boat Quality and Purity on the Accuracy of Carbon Determination	157
Chapter VI. Role and Behavior of Fluxes in the Determination of Carbon	159

4/8

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

YAKOVLEV, P. Ya., et al., Opredeleniye Ugleroda v Metallakh (Determination of Carbon in Metals), Metallurgiya, Moscow, 1972, 288 pp

Page

Study of Carbon Burning Completeness in Alloys With the Aid of C^{14} 174
Effect of Burning Time, Condition, and Form of Weighed Sample on Carbon Determination 178

Chapter VII. Methods of Determining Different Forms of Carbon in Steels and Alloys 184
Physical Methods of Separating Different Forms of Carbon 187
X-Ray Methods of Carbon Determination in a Solid Solution 189
Methods of Determining Different Forms of Carbon Based on Its Oxidation 193
Chemical Methods of Separating Free and Bonded Carbon .. 196
Differential Determination of Carbon in Anodic Precipitates, Insolated From Steels and Alloys, With the Use of a Mixture of Hydrofluoric and Nutric Acids 200

5/8

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

YAKOVLEV, P. Ya., et al., Opredeleniye Ugleroda v Metallakh (Determination of Carbon in Metals), Metallurgiya, Moscow, 1972, 288 pp

	Page
Calculation of Bonded Carbon Content in Chromium Carbides	209
Chapter VIII. Methods of Determining Different Forms of Carbon in Materials of Metallurgical Production	210
Gas Volumetric Carbon Determination	210
Potentiometric Method of Determining Small Quantities of Carbon (0.001-0.1%)	219
Automated Potentiometric Method of Determining Small Quantities of Carbon (0.001-0.1%)	222
Potentiometric Method of Determining Large Quantities of Carbon in Materials of Metallurgical Production	225
Coulometric Method of Carbon Determination (0.001-7.5%)	227
Coulometric Method of Carbon Determination With an AN-29 Instrument	236
Conductometric Method of Carbon Determination	245
Determination of Small Quantities of Carbon in Steels and Alloys by the Freezing Method	248

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

YAKOVLEV, P. Ya., et al., Opredeleniye Ugleroda v Metallakh (Determination of Carbon in Metals), Metallurgiya, Moscow, 1972, 288 pp

	Page
Method of Vacuum Oxidation Melting	252
Thermoelectric Method of Carbon Determination	255
Determination of Free Carbon in Graphite Form and Carbon in the Solid Solution of Steels	259
Colorimetric Method of Determining Carbon in Solid Solution With Bromothymol Blue	261
Bonded Carbon Determination in High-Alloy Chromium Steels	264
Free Carbon Determination in Steels and Alloys Containing Carbides of the Type MeC, Me_6C, and Mo_2C...	265
Free Carbon Determination in Steels (Alloys) Containing Vanadium Nitride (Carbonitride) or Molybdenum Carbide.	268
Free Carbon Determination in Steels Containing Zirconium Carbide or the Binary Carbide Me_6C	269
Free Carbon Determination in Steels Containing Type Me_6C and Chromium Carbides	270

7/8

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

YAKOVLEV, P. Ya., et al., Opredeleniye Ugleroda v Metallakh (Determination of Carbon in Metals), Metallurgiya, Moscow, 1972, 288 pp

Page

General Brief Recommendations on Carbon Determination in Certain Steels, Alloys, Ferroalloys, and Pure Metals 271

Appendix 275

Bibliography 283

8/8

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR UDC:620.193.01

TIMONOVA, M. A., KUTAYTSEVA, A. I., ORZHEKHOVSKAYA, L. B. and KABANOVA, T. S.

"The Problem of the Contact Corrosion of Magnesium Alloys"

Moscow, Zashchita Metallov, Vol 10, No 1, Jan-Feb 74, pp 53-57

Abstract: Magnesium alloy specimens consisting of discs 70 mm in diameter with a central aperture were tested by full immersion in a 3% solution of sodium chloride and in a tropical climate chamber. The specimens were tested in contact with several types of steel, aluminum and copper alloys. The strongest contact corrosion was observed with steel. The chemical composition of the steels tested had practically no influence on the depth and radius of corrosion. Bronze causes stronger corrosion than brass. Contact corrosion depends on the chemical composition of the magnesium alloys, which can be explained by the different degree of difference effect. The use of stannate, zinc, cadmium and chrome coatings helped to reduce corrosion for type-20 steel, while anodizing in chromic acid was most effective for D16 alloy. Under the tropical climate conditions, the contact corrosion caused by type-20 steel is significantly reduced by cadmium and zinc coatings, while that caused by D16 alloy is reduced by an anodic oxide coating.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

UDC: 532.525.3:532.529.4

BUKHAROV, B. L., KRASHENINNIKOV, S. Yu., ORZHEKHOVSKIY, G. Yu., YAKOVLEVSKIY, O. V., Moscow

"Pecularities of Propagation of Twisted Jets of Variable Density"

Moscow, Izv. AN SSSR: Mekhanika Zhidkosti i Gaza, No 4, Jul/Aug 72, pp 33-37

Abstract: The paper presents the results of an experimental study of a twisted jet flow which develops behind centrifugal gas nozzles. The principal flow parameters -- characteristic width of the jet, the length of the back-flow, lengthwise fall-off of concentration along the jet -- were determined from data of experiments with two-component nozzles. The characteristic frequencies of pulsations of gasdynamic parameters are determined from experiments with a single-component nozzle. The resultant empirical relations are generalized. The authors thank V. I. Furletov for constructive criticism.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR UDC 669.27.-172

KOPETSKIY, CH. V., ORZHEKHOVSKIY, V. L., PASHKOVSKIY, A. I., and CHUZHKO, R. K., Moscow

"Influence of Carbon on the Structure and Mechanical Properties of Tungsten Single Crystals"

Moscow, IAN SSSR, Metally, No 2, Mar-Apr 71, pp 124-129

Abstract: Although the literature contains a number of works dealing with the investigation of the mechanical properties of tungsten crystals, the influence of carbon on these characteristics has not as yet been studied in detail. This work presents a study of the influence of various quantities of carbon on the structure and mechanical properties of tungsten crystals, with unchanged content of other impurities. The structure and mechanical properties were studied in extension in the 77-473°K temperature interval, using tungsten crystals with orientation of the growth axis < 110 > and < 100 >, containing 0.01 and 0.001 wt. % C. A decrease in the carbon content in tungsten causes: a) an increase in the ductility of the tungsten crystals, particularly at low temperatures; b) a decrease in the yield point; c) a decrease in the dependence of the yield point on temperature; d) more even distribution of dislocations and enlargement of subgrains in the tungsten crystals. The strong dependence of yield point, necking down, relative

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

KOPETSKIY, CH. V., et al., Moscow, IAN SSSR, Metally, No 2, Mar-Apr 71, pp 124-129

elongation, and nature of rupture of tungsten crystals on the orientation of the extension axis was confirmed.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

Mechanical Properties

5

USSR UDC 620.18

KOPETSKIY, CH. V., ORZHEKHOVSKIY, V. L., PASHKOVSKIY, A. I., AMOSOV, V. M., BOBKOVA, N. N., and PAVLOVA, YE. I., Moscow

"Influence of Carbon on the Mechanical Properties and Structure of Molybdenum Crystals"

Moscow, Fizika i Khimiya Obrabotki Materialov, No 2, Mar-Apr 71, pp 67-74

Abstract: The structure and properties of molybdenum crystals with orientation of the <110> <100> growth axes, containing 0.02 and 0.03 wt. % carbon, are studied in the 77-293°K temperature interval. A decrease in the carbon content within these limits causes a sharp increase in plasticity of the crystals, particularly at low temperatures, a decrease in the yield point, and a decrease in the dependence of yield point on test temperature, as well as more even distribution of dislocations and superior crystal structure. The strong dependence of yield point, relative elongation, relative reduction in area, and nature of rupture of crystals on the orientation of the rupture axis is confirmed.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

Mechanical Properties

USSR UDC 620.18

KOPETSKIY, CH. V., ORZHEKHOVSKIY, V. L., PASHKOVSKIY, A. I., AMOSOV, V. M., BOBKOVA, N. N., and PAVLOVA, YE. I., Moscow

"Influence of Carbon on the Mechanical Properties and Structure of Molybdenum Crystals"

Moscow, Fizika i Khimiya Obrabotki Materialov, No 2, Mar-Apr 71, pp 67-74

Abstract: The structure and properties of molybdenum crystals with orientation of the <110> <100> growth axes, containing 0.02 and 0.03 wt. % carbon, are studied in the 77-293°K temperature interval. A decrease in the carbon content within these limits causes a sharp increase in plasticity of the crystals, particularly at low temperatures, a decrease in the yield point, and a decrease in the dependence of yield point on test temperature, as well as more even distribution of dislocations and superior crystal structure. The strong dependence of yield point, relative elongation, relative reduction in area, and nature of rupture of crystals on the orientation of the rupture axis is confirmed.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR UDC 669.27.-172

KOPETSKIY, CH. V., ORZHEKHOVSKIY, V. L., PASHKOVSKIY, A. I., and CHUZHKO, R. K., Moscow

"Influence of Carbon on the Structure and Mechanical Properties of Tungsten Single Crystals"

Moscow, IAN SSSR, Metally, No 2, Mar-Apr 71, pp 124-129

Abstract: Although the literature contains a number of works dealing with the investigation of the mechanical properties of tungsten crystals, the influence of carbon on these characteristics has not as yet been studied in detail. This work presents a study of the influence of various quantities of carbon on the structure and mechanical properties of tungsten crystals, with unchanged content of other impurities. The structure and mechanical properties were studied in extension in the 77-473°K temperature interval, using tungsten crystals with orientation of the growth axis < 110 > and < 100 >, containing 0.01 and 0.001 wt. % C. A decrease in the carbon content in tungsten causes: a) an increase in the ductility of the tungsten crystals, particularly at low temperatures; b) a decrease in the yield point; c) a decrease in the dependence of the yield point on temperature; d) more even distribution of dislocations and enlargement of subgrains in the tungsten crystals. The strong dependence of yield point, necking down, relative

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

KOPETSKIY, CH. V., et al., Moscow, IAN SSSR, Metally, No 2, Mar-Apr 71, pp 124-129

elongation, and nature of rupture of tungsten crystals on the orientation of the extension axis was confirmed.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

1/2 054 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--DEFORMATION AND MECHANICAL PROPERTIES OF COMPOSITES BASED ON NICKEL AND TITANIUM REINFORCED WITH TUNGSTEN WIRE -U-

AUTHOR--KOPETSKIY, CH.V., MARKOV, A.M., ORZHEKHOVSKIY, V.L.

COUNTRY OF INFO--USSR

SOURCE--FIZ. KHIM. OBRAB. MATER. 1970, (1) 70-8

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS, MECH., IND., CIVIL AND MARINE ENGR

TOPIC TAGS--MECHANICAL PROPERTY, COMPOSITE MATERIAL, NICKEL ALLOY, TITANIUM ALLOY, TUNGSTEN ALLOY, WIRE, METAL DEFORMATION, MATERIAL FRACTURE, REINFORCED MATERIAL, FIBER METALLURGY, METAL FIBER/(U)UT31 TITANIUM ALLOY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1988/0633 STEP NO--UR/0472/70/000/001/0070/0078

CIRC ACCESSION NO--AP0105612

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

2/2 054 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0105612

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE TENSILE STRENGTH, THE DEFORMATION, AND THE FRACTURE CHARACTERISTICS OF UNIDIRECTIONAL NI OR TI ALLOY (VT7-1) COMPOSITES REINFORCED WITH W WIRE WERE INVESTIGATED AS A FUNCTION OF TEMP. (20DEGREES TO 800DEGREES IN 200DEGREES STEPS) AND FIBER CONTENT (0-45 VOL. PERCENT) AND COMPARED WITH THOSE OF THE COMPONENTS. THE TENSILE STRENGTH OBEYED THE RULE OF MIXTS. IS GREATER THAN 200DEGREES FOR W-NI AND IS GREATER THAN 600DEGREES FOR THE W-TI ALLOY COMPOSITES; IN THE LATTER NO REINFORCEMENT OCCURRED UNTIL 600DEGREES. THE FAILURE STRAIN INCREASED RAPIDLY WITH DECREASING FIBER CONTENT AND SHOWED A MAX. AT 200DEGREES FOR THE W-NI AND AT 600DEGREES FOR THE W-TI ALLOY, AT WHICH POINT THE W WIRE DEFORMED UNIFORMLY. AT IS GREATER THAN OR EQUAL TO 400DEGREES FOR W-NI AND IS GREATER THAN OR EQUAL TO 800DEGREES FOR W-TI ALLOY, RESP., MULTIPLE NECKING OF THE W REINFORCEMENT WAS OBSD. PRESENCE OF A 10-15 MU INTERMEDIARY LAYER OF WNI SUB4 DECREASED THE STRENGTH TO APPROX. ONE HALF, IF THE COMPOSITE WAS BELOW THE BRITTLE DUCTILE TRANSITION TEMP., T SUBG, OF THE W, BUT HAD NO EFFECT AT TEMP. IS GREATER THAN T SUBG. THE FAILURE CHARACTERISTICS OF THE COMPOSITE AND THE COMPONENTS AT VARIOUS TEMPS. AND FIBER CONTENTS ARE DISCUSSED IN DETAIL.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR UDC 669.71

KOPETSKIY, CH. V., MARKOV, A. M., ORZHEKHOVSKIY, V. L., Moscow

"Deformation and Mechanical Properties of Ni- and Ti-Based Compositions Reinforced with Tungsten Wire"

Moscow, Fizika i Khimiya Obrabotki Materialov, No 1, 1970, pp 70-78

Abstract: An experimental study is made of the effect of tungsten wire reinforcement, in various volumetric proportions, on the mechanical properties (deformation, hardening, rupture) of nickel- and tungsten-based compositions. Temperature effects are studied. Tables, graphs, and photographs accompany the article.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

Mechanical Properties

USSR UDC 669.14.018.8:620.186.82

BIRMAN, S. I., and ORZHEKHOVSKIY, YU. F., All Union Scientific Research Institute of Aviation Materials

"Grain Comminution in 08Kh15N5D2T Stainless Steel"

Moscow, Metallovedeniye i Termicheskaya Obrabotka Metallov, No 12, 1973, pp 18-21

Abstract: The influence of overheating on the mechanical properties of high-strength and martensitic aging 08Kh15N5D2T stainless steel was experimentally investigated. The results are discussed by reference to diagrams showing the dependence of mechanical properties and grain size on the hardening temperature. The investigated steel was found to be sensitive to overheating in the state of maximum hardening (aging at 450°C); this is expressed in a considerably decreased impact ductility at +20°C and at -70°C with increasing hardening temperature from 950 to 1200°C. A total structural austenitic recrystallization in 08Kh15N5D2T steel takes place with the repeated heating of the overheated steel to 950°C; in this case a reduction of the impact ductility, an elimination of the coarsecrystalline structure in the granular fracture, and a disappearance in the microstructure of the boundaries of overheated initial grains occur. High-temperature tempering at 650°C before repeated heating of

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

BIRMAN, S. I., and ORZHEKHOVSKIY, YU. F., et al., Metallovedeniye i Termicheskaya Obrabotka Metallov, No 12, 1973, pp 18-21

the overheated steel causes an increased recrystallization temperature and a growth of the grain. The sources of the retardation effect of high-temperature tempering are explained by the flow of the processes of martensitic relaxation and the formation of carbides before the repeated austenitization. Four figures, five bibliographic references.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

UDC 669.15.018.8(088.8)

5

FEDOTOVA, L. S., ALEKSEYENKO, M. F., POTAK, YA. M., BELYAKOVA, V. A., ORZHEKHOVSKIY, YU. F., SHEPETOV, V. A., TOPILIN, V. V., DORONIN, V. M., KLYUYEV, M. M.

"Stainless Steel"

USSR Author's Certificate No 276434, Filed 25 Jul 68, Published 13 Oct 70 (from RZh-Metallurgiya, No 4, Apr 71, Abstract No 4I637P)

Translation: A steel for operation at temperatures up to 600° is proposed with the following composition (in %): C 0.05-0.09, Cr 10.5-12, Ni 1.4-1.8, Mo 0.35-0.5, Nb 0.06-0.15, V 0.15-0.25, Si $\leq$ 0.6, Mn $\leq$ 0.6, Ce $\leq$ 0.02. The ratio of the alloying elements satisfies the formula 0.68% Cr + (% Mo + % V + % Si) + 0.5% Nb - (30% C + % Ni + 0.5% Mn) $\leq$ 6.6. After quenching from 1,000° and tempering at 570°, at 20, 500, and 550° the steel has σ_B of 120, 70, and 55 kg/mm^2, σ_T of 100, 75, and 55 kg/mm^2, δ of 12% and ψ of 60-65%, respectively; σ_{100}^{500} and σ_{100}^{550} are 56 and 32 kg/mm^2, respectively.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

AA0040509

UR 0482

2

3-70

Soviet Inventions Illustrated, Section I Chemical, Derwent,

236411 STAMPING of lightgauge austenitic plate is made on lead and zinc stamp by preheating the plate to the temperature of the austenitic formation and then cooling it down to 25-30°C anove the martensitic conversion but below the melting point of the stamp (327°C). Preheating is done in a furnace and for cooling the plate is transferred to an electric oven or to an alkaline bath. 31.7.67. as 1177719/25-27. N.P.PETROVICHEV et al. (11.6.69.) Bul.7/ 3.2.69. Class 7c, 18c. Int.Cl. B21d, C21d.

4D

18

AUTHORS: Petrovichev, N. P.; Fomin, A. P.; Stroganov, G. B.; Natapov, S. I.; Entin, L. Kh.; Orzhekhovskiy, Yu. F.

19750009

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

UDC 621.372.5/.6

GUREVICH, I. V., ORZHELIK, V. B.

"Approximation of Transfer Functions of Instantaneous Values of Inertialess Parametric Circuits Consisting of Unidirectional Parametric Four-Terminal Networks with Different Laws of Variation of Transmission"

Materialy nauchno-tekhn. konferentsii. Leningr. elektrotekhn. in-t svyazi (Materials of the Scientific and Technical Conference. Leningrad Electrotechnical Communications Institute. vyp. 4), 1970, pp 90-94 (from RZh-Radiotekhnika, No 9, Sep 70, Abstract No 9A67)

Translation: This article contains a discussion of the method of finding the approximation coefficient of the transfer function of instantaneous values of inertialess parametric circuits consisting of unidirectional parametric four-terminal networks with various laws of transmission variation. The conditions of physical realizability of the second order function are investigated. An example of synthesis of a multiplier is presented.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

UDC 534.539.376

(2)

KOZYRSKIY, G. YA., KONONENKO, V. A., KUZMOVA, O. M., LEVITIN, V. V., MORDYUK, N. S., and ORZHITSKAYA, L. K., Institute of Metal Physics, Academy of Sciences Ukrainian SSR, and Ukrainian Scientific Research Institute of Special Steel

"Durability and Substructure of a Heat-Resistant, Precipitation-Hardened Alloy Subjected to Ultrasonic Treatment"

Sverdlovsk, Fizika Metallov i Metallovedeniye, Vol 35, No 4, 1973, pp 867-870

Abstract: The effect of ultrasonic irradiation on the structure and durability of KhN77TYuR industrial alloy was studied on samples quenched after eight hours at 1080°C, which were subjected to irradiation at 700°C with ultrasonic oscillation amplitude varied between 10 and 17 millicoulombs. After irradiation the samples were aged at 700°C for one or two hours and then creep tested at 700°C under a load of 46 kG/mm^2. It was determined that ultrasonic treatment of this alloy promotes a more uniform distribution of the carbide phase, increases ductility owing to removal of carbide from the grain boundaries, blocks dislocation sources, and intensifies aging in weak areas. The result is increased durability and decreased creep rate. 2 figures, 1 table, 4 bibliographic references.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

Nickel

USSR UDC 539.376+539.25+539.26

LEVITIN, V. V., and ORZHITSKAYA, L. K., Ukrainian Scientific Research Institute of Special Steels, Alloys and Ferroalloys

"Substructure of Nickel in the Process of Creep"

Sverdlovsk, Fizika Metallov i Metallovedeniye, Vol 30, No 4, Oct 70, pp 843-850

Abstract: Determinations of the angle of disorientation, the dimension of blocks, and the density in sub-boundaries were made according to changes in the intensity of scattering of X-rays directly in the creep process. Using the method of diffraction microscopy, a study was made of the type of dislocations, and of the nature of formation and development of the block structure. It was assumed that the steady-state creep is controlled by the motion of screw dislocation with thresholds. The density of the moving dislocations was estimated. NP2 brand nickel containing (wt. %) 0.02 Cu; 0.02 Fe; 0.002 Zn; 0.0014 S was used in the investigation. Wire specimens 0.7 mm in diameter were annealed in vacuum (~ 10^{-3} mm Hg) 1030°C over a period of 3 hrs. The average grain size after annealing was 0.01 cm.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

1/2 019 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--INFLUENCE OF THE SOLVATION OF GROWING CHAINS ON THE MICROTACTICITY OF THE RESULTING POLYMER -U-

AUTHOR-(04)-OSADA, YE., NEKRASOVA, N.A., PAPISOV, I.M., KABANOV, V.A.

COUNTRY OF INFO--USSR

SOURCE--VYSOKOMOL. SOEDIN., SER. B 1970, 12(5), 324-5

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--SOLVENT ACTION, NMR SPECTRUM, POLYMERIZATION, METHACRYLIC ACID, METHYL ETHER, ETHYLENE GLYCOL, METHOXY COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3007/0724 STEP NO--UR/0460/70/012/005/0324/0325

CIRC ACCESSION NO--AP0136163

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

2/2 019 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0136163

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. NMR SPECTRA SHOWED THAT POLYMN. OF METHACRYLIC ACID (I) IN C SUB6 H SUB6 IN THE PRESENCE OF MEOCH SUB2 CH SUB2 OME (II) AND POLYETHYLENE GLYCOL (III) CAUSED A DISCONTINUITY IN THE MICROTACTICITY OF THE POLY(METHACRYLIC ACID) FORMED, PRESUMABLY DUE TO A SOLVATION OF I MACRORADICALS WITH II OR III.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

1/2 026 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--ROLE OF THE COOPERATIVE INTERACTION OF GROWING CHAINS AND MACROMOLECULAR MATRIXES DURING POLYMERIZATION -U-

AUTHOR-(05)-OSADA, YE., ANTIPINA, A.D., PAPISOV, I.M., KABANOV, V.A., KARGIN, V.A.

COUNTRY OF INFO--USSR

SOURCE--DOKL. AKAD. NAUK SSSR 1970, 191(2), 379-402 (PHYS CHEM)

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--MACROMOLECULE, METHACRYLIC ACID, POLYMERIZATION, HYDROGEN BONDING, CHEMICAL REACTION RATE, MOLECULAR INTERACTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/1127 STEP NO--UR/0020/70/191/002/0379/0402

CIRC ACCESSION NO--AT0119981

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

2/2 026 UNCLASSIFIED

CIRC ACCESSION NO--AT0119981 PROCESSING DATE--23OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. K SUB2 S SUB2 O SUB8 INITIATED POLYMN. OF METHACRYLIC ACID (I) IN AQ. MEDIA AT 50DEGREES IN THE PRESENCE OF POLYETHYLENE GLYCOL (II) OF VARIOUS MOL. WTS. WAS STUDIED TO ESTABLISH THAT THE PROPOSED COOPERATIVE INTERACTION BETWEEN THE GROWING POLY(METHACRYLIC ACID) (III) CHAIN AND THE II MATRIX AROSE FROM H BONDING BETWEEN CO SUB2 H GROUPS AND II O ATOMS. THE POLYMN. RATE OF I FELL GREATER THAN 10 TIMES AS II MOL. WT. INCREASED FROM SIMILAR TO 100 TO SIMILAR TO 10,000. LOW MOL. WT. II DID NOT FORM STRONG COMPLEXES WITH III AS SHOWN BY INDEPENDENCE OF THE REDUCED VISCOSITY OF III IN THE PRESENCE OF II ON II MOL. WT. LESS THAN 1000. THE INITIAL RATE WAS INDEPENDENT OF II CONCN. APPARENTLY, III MUST ATTAIN SUFFICIENT LENGTH FOR COOPERATIVE INTERACTION WITH II BEFORE POLYMN. CONTINUES ON THE MATRIX. AFTER ATTAINING A 3-4PERCENT YIELD (BASED ON II) OF III OR ADDING THE CALCD. AMT., THE POLYMN. RATE INCREASED TO THAT OBSD. IN THE ABSENCE OF II. AT HIGH PH, WHERE MONOMER AND III CHAINS WERE IONIZED, THE REACTION RATES IN THE PRESENCE AND ABSENCE OF II COINCIDE; BUT WITH LOWERING OF PH, THE RATE INCREASED INSIGNIFICANTLY IN THE PRESENCE OF II WHILE THE RATE IN THE ABSENCE OF II INCREASED. FACILITY: MOSK. GOS. UNIV. IM. LOMONOSOVA, MOSCOW, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

UDC 616.981.553-06:616.8-036.17

ANTONOVA, T. M., VORONTSOVA, L. P., KYDRYAVTSEVA, Ye. L., OSADCHAYA, Ye. I., POLOZOV, A. M., and TROFIMENKO, N. K., Volgograd Children's Infections Hospital No 21, and Volgograd Medical Institute

"Clinical Characteristics and Management of Patients Suffering From Botulism With Severe Affections of the Nervous System"

Moscow, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, Vol 10, Oct 70, pp 130-133

Abstract: Twenty botulism patients, including 12 with bulbar involvement were studied. Nineteen of the 20 patients recovered. Treatment with botulin antiserum (polyvalent initially, and monovalent after identification of the bacterium type) is effective. However, injections of the serum do not suffice when bulbar disorders develop. In such cases, it is imperative to perform tracheotomy, drain mucus from the trachea and the bronchi, and apply an artificial respiration apparatus. Patients with impaired deglutition and breathing should be admitted to artificial respiration departments as soon as possible; tracheotomy should be performed and other measures such as injection of the antiserum, washing of the gastrointestinal tract, etc., should be taken immediately. Since most botulism cases are caused by consumption of improperly

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

ANTONOVA, T. M., et al, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, Vol 10, Oct 70, pp 130-133

home-canned food, it is necessary to expand public education in sanitation and hygiene. This work must be carried out by physicians in all of the specialties, who must enlighten the general public on the importance of proper processing and canning of food.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

OSADCHI, N. I. and SOKOLOVA, L. I.

"Methods of Control of a Library of Standard Procedures"

Tr. NII Upravl. Mashin i Sistem [Works of Scientific Research Institute of Control Machines and Systems], 1973, No 7, pp 116-120 (Translated from Referativnyy Zhurnal Kibernetika, No 10, 1973, Abstract No 10V663)

Translation: Several versions of construction of an automatic programming system are studied. The system is a component part of a programming system designed for the economic problems of ACS. In describing the structural plans, the convenience of the input language, methods of connection of standard programs to the main program and effectiveness of utilization of the resources of the computer in various versions are estimated. As a set of standard programs, procedures for processing of files as well as programs for description, creation and servicing of data banks are suggested.

Authors' view

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

AA0046276

UR 0482

Soviet Inventions Illustrated, Section II Electrical, Derwent,

1/70

241762 SURFACE ICING DETECTOR consists of in one half of a triode high frequency generator, quartz stabilised in the anode circuit of which is connected to the receiving end of the recorder. In the anode circuit is fitted a resistance R_1 which together with potentiometer R2 forms the shoulders of bridge with the diagonal connected to relay P1.

The bridge is balanced by potentiometer R2 within the generating range.

22.1.68 as 1213144/18-19.G.L.KOBUS et al.(2.9.69) Bul 14/18.4.69. Class 421. Int.Cl.G 01 k.

V

AUTHORS: Kobus, G. L.; Soldatov, B. I.; Osadchiy, A. I.

1/2

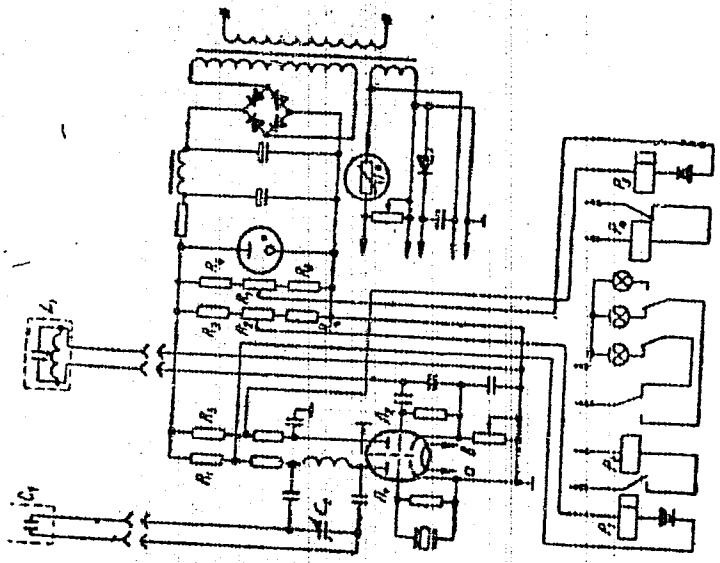
4

19781411

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

AA0046276



2/2

MT

19781412

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

UDC 633.15+581.2

OSADCHIY, A. P., SHEVCHENKO, I. S., and KOLESNICHENKO, G. S., Volgograd Agricultural Institute

"Nature of the Transformation of Corn Leaf Impedance as Affected by Smut"

Moscow, Vestnik Sel'skokhozyaystvennoy Nauki, No 1, 1970, pp 114-116

Abstract: A study was conducted of the changes in the passive electrical properties of corn plant tissues affected by smut (Ustilago zeae). Experimental results indicate that the introduction of a heterotroph together with its system of physiologically active substances changes the normal course of life processes in the host plant, and disrupts its natural coordination and harmonious metabolic processes, the transformation of which is associated with electrical phenomena occurring in plants.

A definite relationship was established between the kinetics of the course of the disease and change in the electrophysiological parameters of the inner tissues, associated with a number of factors. The chemical composition and salt composition of the mycelium differ

1/3

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

OSADCHIY, A. P., et al., Moscow, Vestnik Sel'skokhozyaystvennoy Nauki, No 1, 1970, pp 114-116

from these indices in the host plant. Enlargement of the mycelium and its intercellular substances produces a change in the ionic com position of the measured substrate and its conductor properties. The mycelium of Ustilago zeae developing in plant tissues not only fills a series of places but often penetrates into host tissue cells, disturbing tonoplast completeness and affecting the electrical conductivity of the tissues.

Investigation of this disease also indicated a disturbance of hormone metabolism and the accumulation of large amounts of the beta-indolylacetic acid associated with it. Activity of this acid causes the formation of blisters which cannot help but change the impedance characteristics. Antibiotic substances, formed in plant tissues in response to the smut, change the ionic composition of the diseased sector and influence the passive electrical properties of the plant. Hyperplasia and hypertrophy of the smut-affected plant tissues, which ensure existence of the parasite because of the increased

2/3

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

OSADCHIY, A. P., et al., Moscow, Vestnik Sel'skokhozyaystvennoy Nauki, No 1, Jan 70, pp 114-116

inflow of nutrients from plant to pathogen, change the electrical characteristics of the host plant.

3/3

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

UDC 621.771.8

4

POLYKHIN, P. I., BERKOVSKIY, V. S., ZHADAN, V. T., FEDOSOV, B. M., STEISENKO, N. V., OSADCHIY, N. A., AVRUNIN, P. M., and KOVTANYUK, Yu. P.

"Developing New Technology for Rolling the PSh-20 Section from Kh18N10T Steel on the 550 Mill"

Moscow, Plasticheskaya Deformatsiya Metallov i Splavov, "Metallurgiya" Publishing House, No. 64, 1970, pp 106-113

Translation: A brief description is given of the technology for rolling the shaped sections being studied. An analysis is made of the existing rolled pass design and deformation parameters by templets, and data are given from an investigation of the power parameters of rolling. On the basis of an analysis of the data received and the technical-economic indicators, a new technology for the process of rolling the sections under study is developed. Eleven illustrations and one table.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

UDC 681.3.06:51

DUSHKIN, B. M., OSADCHIY, N. I., SOKOLOVA, L. I.

"Principles of Construction of Programming Systems for the Class of Problems Encountered in Automatic Industrial Enterprise Control System"

Tr. NII Upravl. Mashin i Sistem [Works of Scientific Research Institute for Control Machines and Systems], No 5, 1971, pp 111-115, (Translated from Referativnyy Zhurnal, Kibernetika, No 10, 1971, Abstract No 10 V787).

NO ABSTRACT.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

UDC 547.539+542.91

OSADCHIY, S. A., and BARKHASH, V. A., Institute of Organic Chemistry, Novosibirsk, Siberian Dept. of the Academy of Sciences USSR

"Synthesis and Transformation of Polyfluorinated Indiandiones-1,3. I"

Leningrad, Zhurnal Organicheskoy Khimii, Vol 6, No 8, Aug 70, pp 1636-1644

Abstract: The purpose of this work was to synthesize polyfluorinated cyclic β-ketones -- indandiones-1,3. It was found that both phthalic and nitrophthalic anhydrides react with phenylacetic acid in the presence of triethylamine in a solution of acetic anhydride to give high yields of the corresponding indandiones-1,3. Condensation of pentafluorophenylacetic acid with phthalic anhydride and with its fluorinated analog produces polyfluorophthalides which may be regrouped to give the desired polyfluorinated indandiones-1,3. The structure of the resultant substituted phthalides was confired by infrared and ultraviolet spectroscopy.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

UDC 547.539+542.91

OSADCHIY, S. A., and BARGHASH, V. A., Novosibirsk Institute of Organic Chemistry, Siberian Division of the Academy of Sciences, USSR

"Synthesis and Some Conversions of Polyfluorinated Indandiones-1,3. II"

Leningrad, Zhurnal Organicheskoy Khimii, Vol 6, No 9, Sep 70, pp 1815-1820

Abstract: Condensation of tetrafluorophtallic anhydride with ethyl acetoacetate in acetic anhydride and triethylamine gives a 61% yield of triethylamine salt of 2-carboethoxy-4,5,6,7-tetrafluoroindandione-1,3 (I) which upon acidification yields the free (I), m.p. 130-132°. According to IR, PMR, and NMR-F^{19} spectra this compound exists entirely in enolic form. Heating (I) in acid medium yields 4,5,6,7-tetrafluoroindandione-1,3 (II), m.p. 182-184, which exists entirely in the diketo form both in solid state and in CCl_4 or $CHCl_3$ solutions. In alcohol and alcoholic base the tautomerism shifts towards the enolic form. Methylation of (II) by diazomethane in ether yields the methyl ether of the enolic form of (II), m.p. 118-119°. Under such conditions indandione-1,3 does not methylate. Oxidation of (II) by SeO_2 in benzene gave bis-4,5,6,7-tetrafluoroindandione-1,3, m.p. 320-323°. Nitration of (II) by a mixture of nitric acid and acetic acid gave 2-nitro-4,5,6,7-tetrafluoroindandione-1,3 (III), m.p. 143-144°. Bromination of (III) gave 2-bromo-2-

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

OSADCHIY, S. A. and BARKHASH, V. A., Zhurnal Organicheskoy Khimii, Vol 6, No 9, Sep 70, pp 1815-1820

nitro-4,5,6,7-tetrafluoroindandione-1,3 (IV), m.p. 118-119°. Tetrafluoroindandrione-1,2,3, m.p. 96-98° was obtained by reacting (IV) with nitrobenzene.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

Aluminum and Its Alloys

USSR

UDC 669.71.018.9.4

GOROKHOV, V. P., GUSEV, A. F., OSADCHIY, V. A., RYZHOV, I. V., and ZHALNIN, I. A.

"Special Machine for Manufacture of Large -Area Power Switchboards With a Considerable Number of Holes"

Rekhnol. legkikh splavov. Nauchno-tekhn. byul. VILSa (Technology of Light Alloys -- Scientific and Technical Bulletin of All-Union Institute of Light Alloys), 1970, No 5, pp 130-131 (from RZh-Metallurgiya, No 3, Mar 71, Abstract No 3 G166 by G. SVODTSEVA)

Translation: A table-model special machine for the manufacture of perforated power switchboards used in the refining of aluminum alloys by the injection of nitrogen and argon has been manufactured and put into production. The machine makes possible the high-efficiency drilling of holes 0.3 to 0.5 mm in diameter in graphite, steel, and titanium up to 5 mm in thickness.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

Heat Treatment

USSR

UDC 669.295.018.29.621.785

ZHIKHAREV, V. V., YEVSEYEVA, I. A., CHUPRIKOV, A. V., ROMANOVA, N. A., PAVLUSHINA, G. M., OSADCHIY, V. B.

"Influence of Heat Treatment on Special Properties of Titanium Foil"

Nauchn. Tr. N-i. i Proyektn. In-t Redkomet. Prom-sti [Scientific Works of Scientific Research and Planning Institute for the Rare Metals Industry], 1971, Vol. 32, pp. 83-87. (Translated from Referativnyy Zhurnal Metallurgiya, No. 5, 1971, Abstract No. 5 1695 by the authors).

Translation: The influence of heat treatment on the special properties of Ti foil designed for the production of solid electrolytic condensers is studied. 3 figs; 1 table, 4 biblio refs.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

UDC [621.362:538.4]-225.98.001.24

OSADCHIY, V.K., SHCHEGOLEV, G.M.

"Averaging Of The Pressure And Temperature Of A Gas Flow With Respect To The Cooled Surface Of The Channel Of A Magnetohydrodynamic Generator"

V sb. Vopr.tekhn.teplofiz (Problems Of Industrial Thermophysics--Collection Of Works), No 3, Kiev, "Nauk.dumka," 1971, pp 84-87 (from RZh--Elektrotekhnika i energetika, No 12, Dec 1971, Abstract No 12A198)

Translation: During fulfillment of an engineering analysis of the channels of a magnetohydrodynamic generator the necessity appeared for consideration of the changes of both the electrical characteristics and of the gasdynamical parameters of the plasma flow along the channel. In order to obtain reliable data, the channel is ordinarily divided into separate parts, an increase in the number of which increases the precision of the analysis but leads to its complication. It is possible to reduce the analysis (mechanical or "manual") by the introduction of mean integral parameters which make it possible to obtain a given precision with a smaller number of analyzed parts. In the extreme case, it is possible to perform such averaging for the channel as a whole. In the present

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

OSADCHIY, V. K., SHCHEGOLEV, G. M., Vopr. tekhn. teploriz (Problems Of Industrial Thermophysics--Collection of Works), No 3, Kiev, "Nauk. dumka," 1971, pp 84-87 (from RZh--Elektrotekhnika i energetika, No 12, Dec 1971, Abstract No 12A198)

work an attempt is made to determine the mean integral values of the pressure and temperature. As an argument by which averaging of the plasma parameters P and T was performed, a surface of the channel f was selected owing to the fact that averaged-out magnitudes are necessary for an analysis of the heat exchange between the plasma and a wall which has a constant temperature. 1 ill. 1 ref.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

UDC [621.362:538.4]-225.98.017.001.24

OSADCHIY, V.K., SHCHEGOLEV, G.M.

"Effect Of Temperature Of Channel Walls Protected By A Nitrogen Blast On The Efficiency Of A Magnetohydrodynamic Electrical Power Plant Scheme"

V sb. Teplotekhn.probl.pryamogo preobrazov.energii (Heat-Engineering Problems Of Direct Energy Conversion--Collection Of Works), Issue 2, Kiev, "Nauk.dumka," 1971, pp 22-29 (from RZh--Elektrotekhnika i energetika, No 12, Dec 1971, Abstract No 12A175)

Translation: The results are presented of an analysis of the effect of the temperature of the walls of a magnetohydrodynamic (MHD) generator protected by a nitrogen blast [vduv] on the efficiency of the oxygen cycles of a MHD electrical power plant. The computations were made under conditions of thermal protection only of the walls, i.e., maintenance of a given temperature of the walls (constant along the channel) for wall temperatures of 1100, 1400, 1700, and 2000° K. The conclusion is made that under certain conditions a scheme with a blast is not inferior to a scheme with an external water-cooling channel. 5 ill. 12 ref.
[In-t Tekhnich. teplofiziki AN USSR, Kiyev--Institute Of Industrial Thermophysics, Academy of Sciences, UkrSSR, Kiev]
1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

UDC 621.771.001.5

OSADCHIY, V. Ya., MUKHIN, Yu. A., and GETIYA, I. G., All-Union Correspondence Machine Building Institute

"Determining the Metal Twisting in Spiral Rolling"

Moscow, Izvestiya Vysshikh Uchebnykh Zavedeniy -- Chernaya Metallurgiya, No 9, 1970, pp 79-82

Abstract: Theoretical and experimental investigations of metal twisting in spiral rolling on a mushroom-shaped broaching tool are reported. A formula for determining the angle of twist was derived. The angle of twist was experimentally determined by twisting preliminarily machined grooves along the generatriz. The experimental results agreed well with those obtained from the formula.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4

USSR

OSADCHUK, V. A. and PODSTRIGACH, Ya. S. (L'vov)

"Determination of the Stressed State in a Closed Cylindrical Shell and an Infinite Plate With Cracks"

Moscow, Mekhanika Tverdogo Tela, No 3, May-June 1973, pp 69-78

Abstract: A method is proposed for reducing the problem of the stressed state in a closed shell with a crack to the solution of a system of integral equations for a case where tee crack is situated along the generatrix. A detailed investigation is made of an integral equation for an infinite plate with a system of parallel, periodically situated cracks. The solution of the equation is constructed in the form of an expansion on the basis of parameter $\lambda = th(\pi a/2 \ell)$, where ℓ is the half-distance between the cracks, a is their half-length. A numerical analysis of the critical load is conducted. 1 figure. 8 references.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310016-4"