"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

UNCLASSIFIED PROCESSING DATE--09OCT70

2/2 020

CIRC ACCESSION NO--AP0106920

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A BUTADIENE ME METHACRYLATE COPOLYMER CONTG. 0.75PERCENT METHACRYLAMIDE WAS DEVELOPED FOR FINISHING LEATHER. THE LATEX FILMS HAD HIGH THERMAL STABILITY AND LOW SWELLING H IN SUB2 O, WHICH MADE THEM EXCELLENT SUBSTITUTES FOR DMMA-65-1-GP LATEX (PRESENTLY USED FOR FINISHING LEATHER).

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

1/2 024 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--THE EFFECT OF IONIZING RADIATION ON LIPID COMPOSITION IN YEAST -U-

AUTHOR--LAROKOVA, G.A.

COUNTRY OF INFO--USSR

SOURCE--MIKROBIOLOGIYA, 1970, VOL 39, NR 2, PP 305-308

DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--RADIATION BIOLOGIC EFFECT, LIPID, YEAST, FATTY ACID, GAS CHROMATOGRAPHY, ESTER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1963/1409 STEP NO--UR/0220/70/039/002/0305/0308

CIRC ACCESSION NO--AP0054272

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

2/2 024 UNCLASSIFIED PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0054272

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. METHYL ESTERS OF FATTY ACIDS IN LIPIDS OF IRRADIATED YEAST ORGANISMS (SACCH. CARLSBERGENSIS, STRAIN INMI 101, SACCH. CARLSBERGENSIS, STRAIN FROHBERG AND SACCH. CEREVISIAE, STRAIN A) WERE STUDIED BY GAS LIQUID CHROMATOGRAPHY. QUALITATIVE COMPOSITION OF FATTY ACIDS DID NOT CHANGE AND NO NEW FATTY ACIDS WERE FORMED, WHICH WERE NOT FOUND IN THE NON IRRADIATED CONTROL YEAST ORGANISMS, DURING IRRADIATION. THE RATIO OF UNSATURATED FATTY ACIDS INCREASED IN THE IRRADIATED CELLS DURING THEIR GROWTH.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

TPRS 54767
12 Dec 1971

UDC: 577.1.001.57

A FUNCTIONAL APPROACH TO IN VIVO MODELING OF BIOCHEMICAL SYSTEMS

[Article by G.V. Voronin, E.G. Larskiy, Institute of Neurology, USSR Academy of Medical Sciences, Moscow; Moscow, Vestnik Akademii Meditsinskikh Nauk SSSR, Russian, No 11, 1971, pp 76-81]

In the last decade increasing use is being made of the method of mathematical modeling in the study of biochemical systems, using analogue or digital electronic computers (computer modeling). Some of the results obtained by this method are indicative of its great potential in solving specific categories of biochemical problems. At the present time, monoenzyme systems and relatively simple systems of enzymes have been modelled in vitro (Garfinkel', 1967, 1968). Differential equations describing the dynamics of enzymatic conversions were generally used.

One can roughly distinguish three "levels" of biochemical systems according to the criterion of complexity: 1) monoenzyme systems in vitro; 2) multienzyme systems in vitro; 3) multienzyme systems in vivo.

It is expressly the third level that is of special interest for those investigating the biochemistry of the intral organism, and in particular for clinical biochemists. However, significant success obtained by the method of computer modeling is referable only to the first two levels thus far. This is quite understandable.

The construction of in vivo models of enzyme systems encounters a number of significant difficulties. One of them is the difficulty of extracting the required biochemical subsystem from the organism as a whole. The integrity of the organism finds expression in the interrelated and coordinated course of processes at all levels of its organization: molecular, cellular, tissular, organic, and systemic. At each of these, in turn, there are a number of interrelated regulatory and control subsystems [1]. Computation of the subsystem is also rendered difficult by the the fact that various metabolic systems affect one another and there are multiple influences exerted on each enzyme in the organism [2]. Furthermore, the laws governing some in vivo biochemical conversions are not known. Thus, the law of mass action, on the basis of which differential equations describing the dynamics of enzymatic reactions are formulated is valid only for reactions that take place in true

LARSKIY, E.G.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

LAR'YANOVSKIY, A.G.

(8) 4

So: JPRS 59165
31 MAY 1973

CHEMICAL INDUSTRY PRODUCTION REPORTED

[Article: "This Is How The Chemical Work", Ashkhabad, Turkmenskaya Iskra, Russian, 11 March 1973, p 1]

The chemical industry workers at Turkmenistan have committed themselves in the third year of the five-year plan to accelerate the technical retooling of existing production facilities and additionally provide the plan with 12,000 tons of superphosphate, 1,000 tons of sulfuric acid, 240,000 rubles of lump sulfur, 100,000 rubles of sodium sulfate, and assimilate five new types of items from plastic.

Chardzhou Superphosphate Plant

The collective of the Chardzhou Superphosphate Plant imeni V. I. Lenin has obligated itself to provide an additional 300,000 rubles of products above the plan during the current year. During the first 2 months, nearly 40,000 rubles worth of above-plan products were forwarded to consumers.

"In setting the goals for the third year of the five-year plan," commented plant director A. Lar'yanovskiy, "we took the existing production reserves into consideration. The further improvement in technological processes, strengthening of labor discipline, and raising the technical knowledge of the people were at the center of attention."

Competition for advance fulfillment of the plan became widespread at the plant. Each work team and shift formulated and assumed specific obligations. A persistent struggle is going on in all of the shops to achieve the highest productive labor at each work place. The collective of the sulfuric acid shop is setting the pace in the competition. The oxygen shop is working rhythmically. The ammoniated superphosphate shop has produced a considerable amount of above-plan products. The polyethylene film shop is picking up the pace. It is successfully assimilating the production of polyethylene bags. The new product has been highly rated by its users.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

1/2 026 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--TOXIC ACTION OF MESIDINE (ANILINE DERIVATIVE) ON THE ORGAN OF VISION -U-

AUTHOR--LARYUKHINA, G.M.

COUNTRY OF INFO--USSR

SOURCE--VESTNIK OFTAL'MOLOGII, 1970, NR 2, PP 75-78

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--EYE, TOXICOLOGY, RAT, RABBIT, RETINA, ANILINE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1986/0677 STEP NO--UR/0357/70/000/002/0075/0078

CIRC ACCESSION NO--AP0102661

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

2/2 026 UNCLASSIFIED PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0102661

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. TOXIC EFFECT OF MESIDINE ON THE ORGAN OF VISION WAS STUDIED IN EXPERIMENTS AND AT ITS PRODUCTION SITE. EXPERIMENTS ON RATS AND RABBITS SHOWED MESIDINE CAPABLE OF PRODUCING CHIEFLY INDURATION OF THE INTERSTITIAL SUBSTANCE OF THE RETINA, AND LESS FREQUENTLY ITS TURGESCENCE. THE STATE OF THE INTERSTITIAL SUBSTANCE WAS FOUND TO BE RELATED TO THE MESIDINE DOSE, VIZ. THE HIGHER THE LATTER, THE GREATER WERE CHANGES OCCURRING THEREIN. THE INTERSTITIAL SUBSTANCE OF THE RETINA RESPONDED TO INTRODUCTION OF MESIDINE EARLIER THAN ANY OTHER ORGANS AND SYSTEMS. THIS MADE IT POSSIBLE TO ACCEPT IT AS A LIMITING SANITARY TOXICOLOGICAL TEST WITH THE AID OF WHICH A NONEFFECTIVE DOSAGE OF MESIDINE FOR THE ORGANISM OF WARM BLOODED ANIMALS COULD BE FIXED. EXAMINATION COVERED 36 WORKERS ENGAGED IN THE PRODUCTION OF MESIDINE AND ANILINE WITH A SERVICE RECORD OF FROM 11 TO 20 YEARS. THEY PRESENTED A FALL OF PHOTOSENSITIVITY, NARROWING OF THE PERIPHERAL VISION AND AN INCREASE OF THE BLIND SPOT SIZE. THE CHANGES THUS DISCOVERED WERE CONSIDERED TO BE SIGNS OF CHRONIC INTOXICATION WITH THE SAID SUBSTANCES.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC 531.781.2.088:681.33

LASEVICH, L. G., SHKOL'NIKOV, M. B., SHNEYDER, I. A., and ZATS, G. Ya.

"Algorithm of Primary Processing of Results of Multiple-Point Static Strain Measuring for the Electronic Digital Computer 'Minsk-22' "

Tr. Tsentr. N.-I. Avtomob. i Avtomotor. In-ta / Works of the Central Scientific Research Automobile and Automobile Engine Institute /, No 132, 1971, pp 47—61 (from Referativnyy Zhurnal, Metrologiya i Izmeritel'naya Tekhnika, No 32. Single Issue No 1, 1972, Abstract No 1.32.585, Resume)

Translation : The algorithm of the program of automated processing of results of multiple-point static strain measuring on the electronic digital computer Minsk-22 is analyzed. In the discussed program is realized a complex of mathematical and logical actions on readings of the tensometer by strain measuring of constructions. The automated processing permits: a). to calculate the magnitude of stresses recorded by each strain gage; b). to

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

LASEVICH, L. G., et al., Tr. Tsentr. N.-I. Avtomob. i Avtomotor. In-ta, No 132, 1971, pp 47-61

show and to compensate roughly erroneous measurements with assigned fiducial probability; c). to rate the source of insufficient accuracy of strain measuring with assigned fiducial probability; d). to calculate the rating of mathematical expectation of stresses recorded by each strain gage; e). to calculate the fiducial interval of measured stresses. The use of electronic digital computer for processing of results of strain measuring permits to change radically the existing methods of processing. The rapid action of the electronic digital computer opens new potentialities for strain gaging and permits to carry out experiments on a higher level. Three illustr., five biblio. refs.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC: 51:155.001.57:681.3.06

BACHAUSKENE, M. I., GUDYALIS, L. P., LASHAS, A. V.

"Some Problems of Designing a Font of the OCR-B Type"

V sb. Avtomatika i vychisl. tekhn. (Automation and Computer Technology--collection of works), No 3, Vil'nyus, "Mintis", 1971, pp 101-106 (from RZh-Kibernetika, No 12, Dec 71, Abstract No 12V1020)

Translation: The paper deals with a number of problems relating to the design of a slightly stylized font for both machine and visual reading. A font of an OCR-B type is presented for the Russian alphabet together with certain of its characteristics. Authors' abstract.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC: 51:155.001.57:681.3.06

LASHAS, A. V.

"On Selecting the Operating Mode of an Automatic Reading Machine"

V sb. Avtomatika i vychisl. tekhn. (Automation and Computer Technology--collection of works), vyp. 3, Vil'nyus, "Mintis", 1971, pp 117-121 (from RZh-Kibernetika, No 12, Dec 71, Abstract No 12V1018)

Translation: The quantity of specific calculated expenditures for recognition of a single written character is used as a criterion for the economic effectiveness of an automatic reading machine. It is shown that the optimum operating mode of the reading machine can be selected on the basis of this criterion. Author's abstract.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

Computer Technology

USSR

UDC 621.391.2

GVIL'DIS, I. Yu., LASHAS, A. V., BACHAUSKENE, M. I., KUDYALIS, L. P.

"Relative Comparison of Some Rules of Classification in the Case of Low Probabilities of Errors"

Vil'nyus, Nauchnyye trudy vysshikh uchebnykh zavedeniy Lit. SSR, Avtomatika i vychislitel'naya tekhnika (Scientific Works of Institutions of Higher Education of the Lithuanian SSR. Automation and Computer Technology), No 2, 1970, "Mintis", pp 5-13

Abstract: A relative comparison is made in this article of some rules of classification in the case where the probabilities of errors are small. This kind of classification enables determination of the best rule in the sense of error probability for the given objects. Determination of the best rule of classification is carried out as a check on the statistical hypothesis of comparison of two probabilities. It is proposed that the frequencies of rejection be used in the case of a limited number of objects to be tested. Algorithms which realize relative comparison are presented for some rules of classification, and the experimental results of such a comparison are given. Four tables, one illustration, bibliography of nine titles.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC 621.391

OKULICH-KAZARINAS, Ya. A., LASHAS, A. V., LEVITAN, E. G.

"A Device for Memorizing the Images of Symbols"

Vil'nyus, Nauchnyye trudy vysshikh uchebnykh zavedeniy Lit. SSR. Avtomatika i vychislitel'naya tekhnika (Scientific Works of Institutions of Higher Education of the Lithuanian SSR. Automation and Computer Technology), No 2, 1970, "Mintis", pp 99-103

Abstract: The paper describes a memory device developed at Kaunas Polytechnical Institute and designed for visual observation of symbols read out by the "RUTA-701" machine. The electrical data of the elements and modules of the memory device, as well as the requirements for control signals give an idea of the feasibility of using it in other instances of adjustment or monitoring. Three illustrations, bibliography of two titles.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR UDC 612.766.1:658.13.071.7

VAYSMAN, A. I., LASHCHENKO, N. S., IKSANOV, M. SH., DOROFEYEVA, Ye. D., ROSTOVTSEVA, G. G., GOLOVA, I. A., CHANDAYEV, A. K., VOL'PER, G. I., and E. I. KOGAN

"Physiological Characteristics of the Work of Bus and Truck Drivers in a Large City"

Moscow, Gigiyena Truda i Professional'nyye Zabolevaniya, No 1, 1973, pp 13-16

Abstract: The results of various functional psychological and physiological tests (reflexes, reaction to a moving object, proof reading test, EKG, blood pressure, pulse, etc.) confirmed the conclusions drawn from questionnaires filled out by 8000 bus drivers that fatigue gradually sets in after 4 to 5 hours on the job and becomes pronounced after 7 to 8 hours of driving. Along with a deterioration in performance, many showed an "improvement" in some physiological indices at the end of the work shift (e.g., increase in number of correct reactions to a moving object, decrease in time of differential reactions). This "improvement" is regarded as the result of overstraining the compensatory mechanisms in order to preserve a level of activity sufficient to protect the life and health of the driver. The truck drivers, on the other hand, continued to function well even after 8 or 9 hours on the job because

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

VAYSMAN, A. I., et al., Gigiyena Truda i Professional'nyye Zaboleveniya, No 1, 1973, pp 13-16

of the less strenuous nature of the work (less time spent in driving during the shift, fewer actions to control the vehicle per unit of time, and less emotional stress). Some suggestions are made for altering the work schedules of bus drivers to take into account the physiological factors uncovered in the study.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC 616-001.34-057

MIKULINSKIY, A. M., SUDONINA, L. T., LASHCHENKO, N. S., KOSSOVSKIY, N. N., and AZOVSKAYA, I. I., Gor'kiy, Institute of Labor Hygiene and Occupational Diseases

"Physiological and Clinical Characteristics of Vibration Sickness in Individuals Working With High-Frequency Rotational Instruments and Ways of Preventing it"

Moscow, Gigiyena Truda i Professional'nyye Zabolevaniya, No 12, 1971, pp 15-18

Abstract: Vibration sickness was diagnosed in 19.5% of 296 aviation industry workers working with machines producing vibrations of 63-2000 Hz. It was characterized by disturbances of the peripheral blood circulation, loss of sensitivity to vibration after 1-4 years of work with vibrating instruments, neurotrophic abnormalities and angiospasmatic reaction of the peripheral blood vessels of the upper limbs. Cardiograms of 11 workers (of 26 tested) showed some abnormalities. X-ray studies showed generative-dystrophic changes in the hand bones, such as cysts, enostosis, aseptic necrosis, and degenerative arthrosis. Spinal changes were in a form of degenerative spondylo-arthrosis of the neck and chest vertebrae. A pronounced vegetative-sensory

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

1/2 017 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--EFFECT OF OXYGEN BLOWING OF AN OPEN HEARTH BATH ON THE QUALITY OF LOW ALLOY STEEL -U-

AUTHOR--LASHCHEV, B.YA., DVORYANINOV, V.A., MEDZHIBOZHSKIY, M.YA., KURAPIN, B.S., KOVALENKO, V.S.

COUNTRY OF INFO--USSR

SOURCE--STAL' 1970, 30(1), 20-5

DATE PUBLISHED--------70

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

TOPIC TAGS--OPEN HEARTH FURNACE, OXYGEN, LOW ALLOY STEEL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1987/0160 STEP NO--UR/0133/70/030/001/0020/0025

CIRC ACCESSION NO--AP0103839

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

2/2 017 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0103839

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. COMPARISON HEATS WERE MADE IN A 300 TON GAS FIRED OPEN HEARTH FURNACE BY BLOWING THE BATH WITH O, OR BY ADDING THE LATTER TO THE FLAME, BY VARYING BLOWING RATE AND THE TIME BETWEEN THE END OF BLOWING AND DEOXIDN. INCREASING BLOWING RATE 6.7-11.7 M PRIME3-TON-HR AND SHORTENING TIME BEFORE DEOXION. FROM 55 TO 7-15 MIN LOWERED H CONTENT, AND THAT OF N FROM 0.0043 TO 0.0038, PURITY OF O HAVING NO EFFECT ON THIS REDN. EXCESS O IN THE METAL OVER THE EQUIL. IS NOT AFFECTED BY THE MANNER OF O INTRODUCTION WHEN ITS C IS GREATER THAN 0.4PERCENT, BUT IT INCREASES PROPORTIONALLY TO THE BLOWING RATE WHEN C DROPS TO 0.15-0.20PERCENT. NONMETALLIC CONTENT AND MECH. PROPERTIES ARE UNAFFECTED BY THE WAY IN WHICH O IS INTRODUCED IN THE METAL.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

1/2 018 UNCLASSIFIED PROCESSING DATE--02OCT70

TITLE--EFFECTS OF BOIL DURATION PRIOR TO CAPPING AND OF 75PERCENT FERROSILICON PARTICLE SIZE ON THE SILICON ENRICHMENT OF THE TOP OF THE

AUTHOR-(05)-KUNDRASHOV, A.M., SABYEV, M.P., VAINTRAUB, S.S., LASHCHEV, V.YA., TERZIYAN, P.G.

COUNTRY OF INFO--USSR

SOURCE--METALLURG (MOSCOW), 1970, 15(1), 21-3

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--INGOT CASTING, FERROSILICON, PARTICLE SIZE, DISTRIBUTION COEFFICIENT, SILICON, STEEL PRODUCTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1989/1933 STEP NO--UR/0130/70/015/001/0021/0023

CIRC ACCESSION NO--AP0108262

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

2/2 018 UNCLASSIFIED PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0108262

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. USE OF 75PERCENT 10-29 MM PARTICLE SIZE FERROSILICON AIDS IN THE UNIFORM DISTRIBUTION OF THE SI. THE BOIL TIME OF THE METAL IN THE INGOT BEFORE CHEM. CAPPING HAS A GREATER EFFECT ON THE SI DISTRIBUTION IN THE TOP OF THE INGOT THAN THE 75PERCENT FESI PARTICLE SIZE FRACTION. THE OPTIMUM BOIL TIME FOR THE STEEL IN THE MOLD DEPENDING ON THE INTENSITY OF THE PROCESS SHOULD BE CONSIDERED AS 1.5-3 MIN. THE OPTIMUM 75PERCENT FESI PARTICLE SIZE FRACTION IS 10-30 MM. DATA OBTAINED CAN BE USED FOR OTHER PLANTS WORKING IN SIMILAR CONDITIONS AS THE KOMMUMARSK PLANT WHERE THE WORK WAS DONE.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR UDC 669.14.018.29-414

GOL'DSHTEYN, M. I., BLYUM, E. E., GRIN', A. V., SELETKOV, A. I., LITVINENKO, D. A., LEYKIN, I. M., RUDCHENKO, A. V., OREL, E. I., VAINTRAUB, S. S., LOKTIONOV, P. Ya., LASHCHEV, V. Ya., MOSIOSHVILI, V. V., MIROSHNICHENKO, S. I., and KONDRASHOV, M. M., Ural Scientific Research Institute of Ferrous Metals, Central Scientific Research Institute of Ferrous Metallurgy imeni I. P. Bardin, and Kommunarsk Metallurgical Plant

"Adoption of the Industrial Production of 15G2AF Sheet Steel"

Moscow, Stal', No 9, Sep 70, pp 828-830

Abstract: An investigation of the 15G2AF plate steel (10-25 mm), commercially produced at the Kommunarsk Metallurgical Plant, revealed that alloying of the manganous structural steel with nitrogen and vanadium increases the strength and plasticity properties of the normalized rolled steel. Normalizing of the metal effects a size reduction of the grain (to 10-12), which assures a low (-100°C to -120°C) cold brittleness threshold. The strength of the 15G2AF steel was found to be at least 60 kg/mm^2 and the yield stress at least 45 kg/mm^2. Use of 15G2AF steel for welded structures decreased weight, in comparison with steel 10G2S1, by 13.6%.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR UDC 669.14.018.29-414

GOL'DSHTEYN, M. I., BLYUM, E. E., GRIN', A. V., SELETKOV, A. I., LITVINENKO, D. A., LEYKIN, I. M., RUDCHENKO, A. V., OREL, E. I., VAYNTRAUB, S. S., LOKTIONOV, P. Ya., LASHCHEV, V. Ya., MOSIOSHVILI, V. V., MIROSHNICHENKO, S. I., and KONDRASHOV, M. N., Ural Scientific Research Institute of Ferrous Metals, Central Scientific Research Institute of Ferrous Metallurgy imeni I. P. Bardin, and Kommunarsk Metallurgical Plant

"Adoption of the Industrial Production of 15G2AF Sheet Steel"

Moscow, Stal', No 9, Sep 70, pp 828-830

Abstract: An investigation of the 15G2AF plate steel (10-25 mm), commercially produced at the Kommunarsk Metallurgical Plant, revealed that alloying of the manganous structural steel with nitrogen and vanadium increases the strength and plasticity properties of the normalized rolled steel. Normalizing of the metal effects a size reduction of the grain (to 10-12), which assures a low (-100°C to -120°C) cold brittleness threshold. The strength of the 15G2AF steel was found to be at least 60 kg/mm^2 and the yield stress at least 45 kg/mm^2. Use of 15G2AF steel for welded structures decreased weight, in comparison with steel 10G2S1, by 13.6%.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

1/2 017 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--HEMODYNAMIC DISTURBANCES IN ACUTE PANCREATITIS -U-

AUTHOR--LASHCHEVKER, V.M.

COUNTRY OF INFO--USSR

SOURCE--KLINICHESKAYA MEDITSINA, 1970, VOL 48, NR 6, PP 38-42

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--PANCREATITIS, HYPERTENSION, HYPOTENSION, HEMODYNAMICS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3005/1000 STEP NO--UR/0497/70/048/006/0038/0042

CIRC ACCESSION NO--AP0133072

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

2/2 017 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0133072

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CIRCULATORY DISORDERS IN ACUTE PANCREATITIS WERE CHARACTERIZED BY TRANSITORY HYPERTENSION, CHANGED BY PERSISTENT HYPOTENSION, AS WELL AS BY INCREASED VASCULAR PERMEABILITY, HYPOVOLEMIA (PREDOMINANTLY AT THE EXPENSE OF DEFICIENT VOLUME OF CIRCULATING PLASMA), BLOOD CONCENTRATION, RISE OF THE PORTAL PRESSURE. IT IS DEEMED JUSTIFIED TO INTRODUCE THE TERM "PANCREATIC SHOCK". IN ITS PATHOGENESIS, ALONG WITH NEUROVEGETATIVE REACTIONS, AN IMPORTANT ROLE IS PLAYED BY DISTURBANCES OF THE VASCULAR TONE AND PERMEABILITY WHICH DEPEND ON THE ACTION OF PLASMOKININS (BRADYKININ AND KALLIDIN), POLYPEPTIDES, LIBERATED FROM ALPHA SUB2 GLOBULINS OF THE PLASMA UNDER THE INFLUENCE OF TRYPSINE AND KALLICREIN. FOR THE COMBAT WITH HEMODYNAMIC DISTURBANCES IT IS NECESSARY TO COMPENSATE HYPOVOLEMIA (BY MASSIVE TRANSFUSIONS OF PLASMA, BLOOD AND SUBSTITUTES), ADMINISTER EARLY TRASYLOL (INHIBITING THE ACTIVITY OF TRYPSINE AND PLASMOKININS), USE NOVOCAIN BLOCK, STEROIDS AND ANTIHISTAMINICS. FACILITY: KAFEDRA OBSHCHEY I GOSPITAL'NOY KHIRURGII MEDITSINKOGO FAKUL'TETA UZHGORODSKOGO GOSUDARSTVENNOGO UNIVERSITETA NA BAZE ZAKARPATSKOY OBLASTNOY KLINICHESKOY BOL'NITSY.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC: 621.375.421

PUSHKAR', V. I. and LASHCHUK, Ye. Ye.

"Broad-band Transistorized A-C Amplifiers"

V sb. Vopr. uluchsheniya tekhn. parametrov vypryamit. i tranzist. priborov (Problems in Improving the Technical Parameters of Rectifiers and Transistorized Devices) Leningrad, 1970, pp 247-251 (from RZh-Radiotekhnika, No. 3, March 71, Abstract No. 3D167)

Translation: The circuit is given of an amplifier with a frequency range up to 1 MHz. It consists of two identical stages involving effective negative d-c feedback. Results of tests on the amplifier are given. Its high accuracy and stability in a broad temperature range are noted. Two illustrations, bibliography of two.
N. S.

1/1

USSR

UDC: 621.375.121(088.8)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

LASHEVSKIY, B.

"Dolphins -- How Are You at Working With the Empirical Dimensionality of Shapes?"

Moscow, Znaniye-Sila, No 10, 1972, pp 12-15

Abstract: Some experiments with afalina indicating their ability to deal with the spatial properties of figures and shapes in an empirical manner are described. The differences in individual performances are noted. "Mental fatigue" of the dolphins after intensive testing was observed. The authors state that there is a 0.999 probability that their dolphins have the capacity to operate with the empirical dimensionality of shapes.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

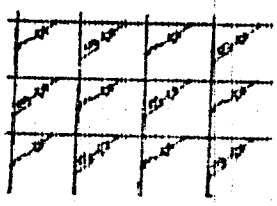
USSR UDC: 681.325.53

SVERDLOV, A. S., LASHEVSKIY, R. A.

"A Diode-Magnetic Decoder"

Moscow, Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, No 4, Feb 71, Author's Certificate No 292154, Division G, filed 1 Sep 69, published 6 Jan 71, p 130

Translation: This Author's Certificate introduces a diode-magnetic decoder for an operative accumulator. At each junction are windings of coordinate transformers connected to the coordinate lines and diodes. As a distinguishing feature of the patent, transformer-capacitive interference is reduced by connecting the initial and terminal ends of the primary windings of transformers for adjacent junctions to the coordinate lines and diodes in alternating order.



1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

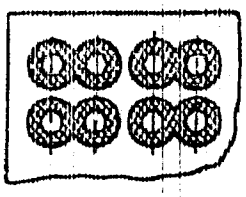
USSR UDC: 681.327.66

BEKKER, YA. M., BERG, I. V., KUZNETSOV, V. YA., LASHEVSKIY, R. A., SHVALEV, YU. V.

"A Memory Plate"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 6, 1970, p 36, patent No 262175, filed 3 Oct 68

Abstract: This Author's Certificate introduces a memory plate based on a ceramic slab with apertures. As a distinguishing feature of the patent, manufacture of the plates is simplified and their properties are improved by applying a ferrite film on both sides of the slab covering the apertures by pairs.



1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR UDC: 621.387.233

AVLAKHORA, R. G., LARSHINA, S. I., POLYAKOVA, A. A., EOGOVA, G. N.

"Study of Oxide Cathode Sputtering in Hydrogen Thyratron With Current Commutation of Short Duration"

Elektron. tekhnika. Nauchno-tekhn. sb. Gazorazryadn. pribory (Electronic Technology. Scientific-Technical Collection. Gas-Discharge Devices), 1970, Issue 4(20), pp 49-53 (from RZh—Elektronika i yeye primeneniye, No 5, May 1971, Abstract No 5A165)

Translation: It is demonstrated by the method of radioisotopes that in hydrogen thyratrons with commutation of pulses of 100 nsec duration, intense ion bombardment of the cathode takes place. Summary.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

1/2 015 UNCLASSIFIED PROCESSING DATE--09DC70

TITLE--EFFECT OF P TOLUALDEHYDE ON THE LIQUID PHASE OXIDATION OF P XYLENE IN THE PRESENCE OF COBALT SALTS -U-

AUTHOR-(05)-ARIKO, N.G., MITSKEVICH, N.I., LASHITSKIY, V.A., BUSLOVA, M.K., KOVALKOV, M.D.

COUNTRY OF INFO--USSR

SOURCE--NEFTEKHIMIYA 1970, 10(1), 48-53

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ALDEHYDE, OXIDATION, XYLENE, COBALT COMPOUND, CARBON DIOXIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1992/1886 STEP NO--UR/0204/70/010/001/0048/0053

CIRC ACCESSION NO--AP0112866

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

2/2 015 UNCLASSIFIED PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0112866

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ADDN. OF 4.5-10.5 MOLE PERCENT P TOLUALDEHYDE INCREASED THE RATE OF OXION. AT 120DEGREES OF P XYLENE CONTG. 2 TIMES 10 PRIME NEGATIVE3 MOLE-L. CO STEARATE. AS THE AMT. OF ALDEHYDE WAS INCREASED, EVOLVED CO SUB2 INCREASED LINEARLY, ALDEHYDE CONTENT REMAINED CONST., AND ACID AND ETHER FORMATION INCREASED UP TO 0.58 MOLE-L. ALDEHYDE ADDED, AND REMAINED CONST. THEREAFTER. TAGGED ALDEHYDE EXPTS. SHOWED THAT CO SUB2 EVOLUTION OCCURRED BY DECOMPN. OF PERTOLUIC ACID FORMED BY OXIDN. OF THE ALDEHYDE. USE OF BZH UNDER THE SAME CONDITIONS ALSO GAVE AN INCREASE IN RATE OF FORMATION OF P TOLUIC ACID AND CO SUB2; THE FORMER BECAME CONST. AT 0.2 MOLE-L. ALDEHYDE, THE LATTER AT 0.4. FACILITY: INST. FIZ. ORG. KHIM., MINSK, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

Crystals & Semiconductors

USSR UDC 539.293:535.374:546.681'191.1

BELEN'KIY, G. L., KROLEVETS, N. M., LASHKAREV, V. YE., and SHEYNKMAN, M. K., Institute of Semiconductors, Academy of Sciences Ukrainian SSR, Kiev; Institute of Physics, Academy of Sciences Azerbaydzhan SSR, Baku

"Radiative Electron Capture by Sensitivity Centers in High-Pre sistivity GaAs"

Kiev, Ukrainskiy Fizicheskiy Zhurnal, Vol 16, No 1, Jan 71, pp 128-132

Abstract: In order to elucidate the mechanism of electron capture by r-centers, the authors studied the stationary dependence of the photocurrent and luminous intensity on temperature and excitation intensity (at various temperatures) as well as optical infrared quenching of photocurrent and luminescence. High-resistivity Cu-doped ($\sim 10^{-3}$ percent Cu) GaAs single crystals were studied. The photoluminescence spectra of typical specimens display two luminescence bands $h\nu_m$ = 0.99 ev (band 1)

1/3

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

BELEN'KIY, G. L., et al., Ukrainskiy Fizicheskiy Zhurnal, Vol 16, No 1, Jan 71, pp 128-132

and $h\nu_m$ = 1.23 ev (band 2), which undergo thermal quenching due to thermal excitation of holes from the r-centers into the v-band and their subsequent capture by s-centers of fast recombination. It is shown that band 1 is due to radiative capture of electrons by the centers of slowest recombination of the majority carriers (r-centers). In the GaAs : Cu forbidden gap, and situated closer to the v-band than the r-centers are recombination m-centers $E_{vm} \approx$ 0.3 ev, which take part in the recombination at T $\leq$ 120° K. It is shown that band 2 is due to electron capture by these centers.

In order to determine whether the r-centers are due to the Cu atoms present in the crystals, the intensity of the luminescence $h\nu_m$ = 1.04 ev observed in n-type GaAs specimens undoped

2/3

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

BELEN'KIY, G. L., et al., Ukrainskiy Fizicheskiy Zhurnal, Vol 16, No 1, Jan 71, pp 128-132

with Cu atoms whose Cu content, according to chemical analysis data, did not exceed $5 \cdot 10^{-6}$ percent (electron concentration n = $1 \cdot 10^{15} - 1 \cdot 10^{16}$ cu m and mobility $\mu_n = 3 \cdot 10^{-3} - 5.5 \cdot 10^{-3}$ sq cm/v·sec in different crystals) was compared with the intensity of band 1 in the Cu-doped crystals. It was found that the luminescence band intensities of 1.04 and 0.99 ev in both types of crystals differed by a factor of three at most and the variation with temperature of the intensities of both bands and the variations of their intensities with excitation intensity were similar. This indicates that the luminescence centers responsible for the band $h\nu_m$ = 1.04 ev are not directly related to copper atoms.

The authors thank A. V. LYUBCHENKO, Candidate of Physico-mathematical Sciences, for discussing the results.

3/3

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC 537.311.23

LASHKAREV, V, Ye., PTASHCHENKO, A. A.

"The Kinetics of the Impurity Photoconductivity of CdS-Type Semiconductors"

Kiev, Ukrainskiy Fizicheskiy Zhurnal, Vol 15, No 7, July 1970, pp 1108-1115

Abstract: The rules governing the linear and nonlinear relaxation of impurity photoconductivity from the r-centers in CdS-type semiconductors were investigated. The experimental data are in good agreement with a theoretical model which takes into account two recombination levels with very different electron-capture cross sections. In this model the light absorbed by the impurity simultaneously causes v-zone-r-level and r-level-c-zone electron transitions. This model explains the nonmonotonic relaxation in impurity photoconductivity. The above-mentioned considerations permit some parameters of the recombination center in CdS, CdSe, and HgS to be determined.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR UDC 576.858.25.095.18

DZHIVANYAN, T. I., CHUPRINSKAYA, M. V., and LASHKEVICH, V. A., Institute of Poliomyelitis and Viral Encephalitis, Academy of Medical Sciences USSR, Moscow

"On Factors Affecting Manifestation of the DS-Index in Viruses of the Tick-Borne Encephalitis Complex"

Moscow, Voprosy Virusologii, No 1, 1973, pp 86-91

Abstract: Differences in plaque formation in response to DS (dextran sulfate) were studied in cultures of the Khipr, Absettarov (western strains), Khabarovskiy-17, Khabarovskiy-9, and Sof'in strains, and strain TP-21 (Langat virus) (eastern strains), all of the tick-borne encephalitis complex. Viruses were cultured in SPEV-44 and chick embryo cells with varying quantities of $NaHCO_3$ and normal calf serum in the presence or absence of chick embryo extract. DS either had no effect or reduced plaque size to varying degrees depending on the type of virus and culturing conditions. Addition of chick embryo extract to DS-treated cultures reduced plaque size further. By this method it was possible to differentiate western from eastern strains and strain TP-21 (Langat virus) from all other strains in SPEV-44 cell cultures. The ways in which culturing factors affect DS sensitivity remain unknown.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC 576.858.25.095.18:547.458.122

DZHIVANYAN, T. I., and LASHKEVICH, V. A., Institute of Poliomyelitis and Viral Encephalitis, Academy of Medical Sciences USSR

"The Effect of Sulfopolysaccharides on Plaque Formation by Tickborne Encephalitis Viruses of Different Degrees of Neurovirulence"

Moscow, Voprosy Virusologii, No 4, Jul/Aug 70, pp 395-399

Abstract: It was determined that addition of dextran sulfate (25 to 800 micro g per ml of agar to a chick embryo tissue culture with 0.22 to 0.3% $NaHCO_3$ does not suppress plaque formation by the virulent Absettarov strain, whereas under the same conditions the less virulent Langat virus (TP-21 strain) produces 1.5 to 2.1 g fewer plaques than under an agar layer containing diethylaminoethyl dextran or under an agar layer without polions such as DEAED. The sensitivity to dextran sulfate may serve as a new genetic marker for viruses of the tickborne encephalitis virus complex. Under an agar layer containing dextran sulfate and a low concentration of $NaHCO_3$ (0.07%), neither strain formed plaques.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

1/2 021 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--GRAPHIC DETERMINATION OF THE VISCOSITY OF MINERAL OILS THICKENED WITH POLYISOBUTYLENE -U-

AUTHOR-(02)-KICHKIN, G.I., LASHKHI, V.L.

COUNTRY OF INFO--USSR

SOURCE--NEFTEPERERAB. NEFTEKHIM. (MOSCOW) 1970, (2), 10-13

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--MINERAL OIL, GRAPHIC TECHNIQUE, LUBRICATING OIL, MOLECULAR WEIGHT, FLUID VISCOSITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1996/1518 STEP NO--UR/0318/70/000/002/0010/0013

CIRC ACCESSION NO--AP0118505

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

2/2 021 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0118505

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE FORMULA LOG V EQUALS (M EXP(0.014 LOG M PLUS 0.863)) C-67,700 (V IS THE RELATIVE VISCOSITY, M IS THE MOL. WT. OF POLYISOBUTYLENE (I), C IS THE CONCN. OF I) WAS EMPIRICALLY DEDUCED TO CALC. V OF A LUBRICATING OIL CONTG. ADDED I. THE VERIFICATION OF THE FORMULA AGAINST V EXPTL. DATA SHOWED THAT IN 37 SAMPLES THE ERROR OF CALCD. V WAS SMALLER THAN OR EQUAL TO 10PERCENT, IN 7 SAMPLES IT WAS 10-15PERCENT, AND IN 2 SAMPLES IT WAS SMALLER THAN 20PERCENT.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

1/2 010 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--MORPHOLOGICAL CHARACTERISTICS OF PULMONARY TUBERCULOSIS AS THE ASSOCIATIVE DISEASE -U-

AUTHOR-(02)-KUSEVITSKIY, I.A., LASKIN, A.V.

COUNTRY OF INFO--USSR

SOURCE--ARKH PATOL 32(3): 30-33. ILLUS. 1970.

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--TUBERCULOSIS, AUTOPSY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY FICHE NO----FD70/605015/806 STEP NO--UR/9056/70/032/003/0030/0033

CIRC ACCESSION NO--AP0140550

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

2/2 010 UNCLASSIFIED PROCESSING DATE--04DEC7

CIRC ACCESSION NO--AP0140550

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. MORPHOLOGICAL DATA ON THE FORMS OF PULMONARY TUBERCULOSIS OBSERVED AT AUTOPSIES IN PERSONS DEAD OF NONTUBERCULOUS DISEASES ARE PRESENTED. BEING CLINICALLY ASYMPTOMATIC, PULMONARY TUBERCULOSIS MORPHOLOGICALLY RESEMBLED ACTIVE FORMS. THIS FACT IS CONSIDERED TO BE OF GREAT EPIDEMIOLOGICAL SIGNIFICANCE. THE DIFFICULTY OF CLINIDAL DIAGNOSIS OF LATENT FORMS OF TUBERCULOSIS REQUIREING SPECIAL EXAMINATION IS EMPHASIZED.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

Superalloys

USSR

UDC 620.193:669.24

LASHKO, N. F., GLEZER, G. M.

"Characteristic Features of Oxidizing Heat-Resistant Nickel Alloys Containing Molybdenum"

Moscow, Zashchita Metallov, Vol 8, No 6, 1972, pp 654-659

Abstract: A study was made of the effect of molybdenum and tungsten on the process of intense oxidation of heat-resistant nickel alloys containing different amounts of molybdenum, tungsten, and chromium. The methods of x-ray diffraction phase analysis of the scale and anode deposits isolated from the surface layers of the metal adjacent to the scale were used.

The presence of a liquid phase in the scale of nickel molybdenum-containing alloys is not the only mandatory cause of intense oxidation of these alloys. During oxidation of complexly alloyed heat-resistant nickel alloys molybdenum and tungsten behave differently. The alloys containing molybdenum are oxidized intensely under defined conditions with the formation of a loose layer of $NiMoO_4$ under the scale which promotes swelling of the basic mass of the protective scale, peeling, and a reduction of the bonding with the basic metal. The presence of NiO in the scale is a necessary condition of the formation of $NiMoO_4$. In alloys which do not contain molybdenum but do contain tungsten, the two-layer scale is not formed. The loose, friable subscale is not observed.

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

LASHKO, N. F., et al., Zashchita Metallov, Vol 8, No 6, 1972, pp 654-659

In alloys which do not contain molybdenum, no compounds similar with respect to structure and properties to nickel molybdate and wolframate are detected in the subscale. The alloying of nickel molybdenum-containing alloys with iron can prevent the formation of the subscale layer containing nickel molybdate $NiMoO_4$.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR UDC 669.295:669.017.3

LASHKO, N. F., KHATSINSKAYA, I. M., and YERMOLOVA, M. I., All-Union Institute of Aviation Materials

"Volume Changes in the Decomposition of Metastable Phases in Titanium Alloys"

Sverdlovsk, Fizika Metallov i Metallovedeniye, Vol 33, No 2, Feb 72, pp 275--283

Abstract: Results are presented of a dilatometric investigation of a number of alpha-beta titanium alloys with the following chemical compositions (in wt %): OT4--2.5-4.5 Al, 0.8-2.0 Mn; VTZ-1--6.5 Al, 1.5 Cr, 2.5 Mo, 0.4 Fe; Alloy 1--4.0 Al, 2.1 V, 1.2 Cr, 7.65 Mo; and VT22-4.7 Al, 5.0 V, 1.1 Cr, 5.0 Mo, 1.0 Mn. It was found that the formation of a stable beta-phase, enriched with beta-stabilizing elements, is a leading process causing a volume change in the decomposition of the metastable phase. Development of the omega phase, as a result of beta-phase diffusion decomposition, precedes the decrease in volume associated with the formation of an enriched beta-phase. In the first stage of metastable alpha''-phase decomposition in Alloy 1, where the alpha''-phase was fixed by quenching from the single-phase region or from the two-phase region (VTZ-1), the decrease in volume, caused by the enriched beta-phase, prevails over the increase in volume associated with depletion of the alpha''-phase and its conversion to the alpha'-phase. 1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

LASHKO, N. F., et al., Fizika Metallov i Metallovedeniye, Vol 33, No 2, Feb 72, pp 275-283

Decomposition of the alpha'-phase occurs with a general decrease in alloy volume which stems from precipitation of the beta-phase, and its enrichment and volume increase during alpha'-phase formation. Ye. V. Zhamenskaya, V. N. Moiseyev, and O. P. Solonina participated in this work. Five figures, 7 tables, 10 bibliographic references.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

LASHKO, N. F.

JPRS 56001
16 May 72

UDC 669.245:669.018.4

DISTRIBUTION OF TRANSITION ELEMENTS FROM THE IV-VI AND VIIIa GROUPS BETWEEN γ- and γ'-PHASES OF HEAT-RESISTANT NICKEL ALLOYS

[Article by S.T. Kishkin, M.N. Korlova, N.F. Lashko; Moscow, Izvestiya Akademii Nauk SSSR, Metally, Russian, No 1, 1972, signed to press 18 August 1970, pp 170-176]

In the theory of heat-resistant and heatproof nickel alloys, of the greatest significance is the establishment of the distribution of the doping elements between the basic phases: solid nickel solution (γ) and the strengthening intermetallide phases (γ') on a base of Ni_3Al or Ni_3 (Al, Ti). Certain data on the region of uniformity of the phase of Ni_3Al doped with individual transition elements have been obtained by using x-ray structural [1] and metallographic [2] methods of analysis. Direct determination of the composition of the γ- and γ'-phases of certain model nickel alloys has been done by the method of x-ray spectral local analysis [3]. In real nickel heat-resistant alloys, other than γ- and γ'-phases there exist, as a rule, carbide and boride phases, and by prolonged heating at high temperatures or under operational conditions certain intermetallide phases can be formed (the σ- and μ-phases, the Laves phases, etc.), which may substantially influence the distribution between the γ- and the γ'-phases.

In the present paper we have investigated the γ- and γ'-phases in real metastable heat-resistant alloys containing, in addition to the dispersed particles of the γ'-phase, other phases as well.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC 669.721.5'5'296:620.193.4

TIMONOVA, M. A., AL'TMAN, M. B., TIKHONOVA, V. V., GERASIMOVA, M. N., TOKMAKOVA, G. S., LASHKO, N. F., MOROZOVA G. I.

"Effect of the Composition and Structure of Alloys of the Mg-Zn-Zr System on their Corrosion and Electrochemical Behavior"

V sb Struktura i svoystva legk. splavov (Structure and Properties of Light Alloys -- collection of works), Moscow, Nauka Press, 1971, pp 136-140 (from Rzh-Metallurgiya, No 4, Apr 72, Abstract 4I700)

Translation: A study was made of the effect of Zn on the structure and corrosion behavior of alloys of the Mg-Zn system and the Mg-Zn-Zr system with a Zn content of up to 20%; the effect of heat treatment leading to a change in the phase composition and in the quantity and shape of the segregations of intermetallide compounds on the corrosion strength of the alloys of the Mg-Zn-Zr system was also studied. The variation of corrosion resistance of the alloys is explained by the formation of cathode phases with different electrochemical properties and variation of their number and form of segregation. The increase in corrosion resistance with the introduction of Zr into the alloys of the Mg-Zn system is primarily connected with a decrease in the Fe admixture in the alloys. Six illustrations, one table, and a 6-entry bibliography.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC: 669.245:543.25

BOGINA, N. KH. and LASHKO, N. F.

"Electrochemical Conditions for the Separation of the γ'-Phase From High-Temperature Nickel Alloys"

Moscow, Zavodskaya laboratoriya, Vol 37, No 10, 1971, pp 1172-1175

Abstract: In the practice of phase analyses of nickel and iron-nickel-chrome alloys, use is made of methods of isolating the γ'-phase from electrolytes with oxygen-containing anions (NO_3^-, SO_4^{2-}, PO_4^{3-}) using current density control within 0.03-0.10 amp/cm . It is assumed that these conditions afford quantitative isolation of the γ'-phase. The objective of this study was to substantiate such conditions of electrolysis. The elements and their contents in the γ- and γ'-phases of the γ+γ'-alloys under study are cited. The anodic polarization curves of the tests alloys are shown and data on isolated γ'-phases given. It is shown that quantitative isolation of the γ-phase from chromium-containing alloys EI437B, EI617, and ZhS6 is achieved from electrolytes with oxygen-containing

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

BOGINA, N. KH., et al, Zavodskaya laboratoriya, Vol 37, no 10, 1971, pp 1172-1175

ions under potentiostatic and galvanostatic conditions. The quantitative isolation of the γ'-phase of nickel-base alloys with minute contents of chromium or without it necessitates the use of electrolytes with fairly strong oxidizing agents. (5 illustrations, 1 table, 3 bibliographic references).

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR UDC: 669.245:669.018.4

KISHKIN, S. T., KOZLOVA, M. N. and LASHKO, N. F., Moscow

"Distribution of Transition Elements of Groups IV-VI and VIII Between γ- and γ'-Phases of High-Temperature Nickel Alloys"

Moscow, Izvestiya Akademii nauk SSSR, Metally, No 1, Jan-Feb 72, pp 170-172

Abstract: In the theory of alloying high-temperature and refractory nickel-base alloys, primary importance is attached to determining the distribution of alloying elements between the principal phases: the solid nickel solution γ and the strengthening intermetallide phases γ'. This study deals with the composition of γ- and γ'-phases in real metastable high-temperature alloys containing, in addition to the disperse γ'-phase particles, also other phases (σ-, μ- and Laves phases). The composition of the Ni_3Al-base γ'-phase in high-temperature nickel-chrome alloys is specific of each alloy. The Al:Ti ratio in the γ'-phase of these alloys is close to that in the alloy itself. The capacity of the elements of the transition groups to form the γ'-phase, determined from the ratio of their content in both γ- and γ'-phases, diminishes with the rising number of the group in the periodic system (with the exception of cobalt). Within the limits

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

KISHKIN, S. T., et al, Izvestiya Akademii nauk SSSR, Metally, No 1, Jan-Feb 72, pp 170-172

of a given group the γ'-forming capacity of the elements increases with the period (V and VI groups). Substituting titanium for some of the aluminum reduces the element content of the VIa group in the γ'-phase and accordingly increases their content in the γ-phase. (3 tables, 9 bibliographic references).

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC [illegible]

KHATSINSKAYA, I. [illegible], [illegible], and [illegible]LOVA, M. I., [illegible]
Research Institute of [illegible] Materials

"Degree of Stability and Anomaly of Electrical Resistance of [illegible] in $\alpha+\beta$ Titanium Alloys"

Sverdlovsk, Fizika Metallov i Metallovedeniye, Vol 30, No 2, [illegible]

Abstract: Physical methods (electrical resistance and X-ray structural analysis) were used to study the specifics of metastable phase decomposition in $\alpha+\beta$ titanium alloys. An anomalous change in electrical resistance is noted from heating of the α', α'' and β_{met} phases in the temperature interval [illegible]. The anaomlous change of electrical resistance of the metastable phases is reversible within certain temperature intervals, depending on the degree of stability. The anomaly in electrical resistance is related to specific features of the electron structure of the transition metals included in the $\alpha+\beta$ titanium alloys. It is assumed that the nature of the chemical and [illegible] when α', α'' and β_{met} phases are heated. The temperature coefficient of electrical resistance of all metastable phases formed in $\alpha+\beta$ titanium alloys decreases with increasing metastability. The change in the temperature

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

KHATSINSKAYA, [illegible], et al, Fizika [illegible] i Metallovedeniye, Vol [illegible]
Aug 70, pp 336-347

coefficient of electrical resistance upon heating is apparently [illegible]
redistribution of localized and nonlocalized p- and d-electrons [illegible]
a partial change in the nature of the chemical bond in [illegible]

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

Analysis and Testing

USSR

UDC 669.1.541.015

LASHKO, N. F., SASLAVSKAYA, L. V., KOZLOVA, M. N., MOROZOVA, G. I., SORCKINA, K. P., KHAKHLOVA, N. V., and YAKOVLEVA, YE. F.

"Physical and Chemical Methods of Phase Analysis of Steels and Alloys"

Fiziko-Khimicheskiye Metody Fazovogo Analiza Staley i Splavov (English version above), Moscow, Metallurgiya Press, 1970, 476 pages

Translation of Annotation: Methods of combined physical and chemical phase analysis are systematized and summarized, including methods of phase separation and their chemical and x-ray structural analysis.

Problems of the theory of electrochemical separation of phases, the principles of selection of electrolytes, and methods of phase analysis are analyzed as applicable to various steels and alloys.

The book is designed for scientific workers of scientific research institutes and plant laboratories involved in the development of steels and alloys, as well as the study of their properties depending on their phase composition. 99 figs, 100 tables, 708 biblio refs.

1/6

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

LASJKO, N. F., et al., Fiziko-Khimicheskiye Metody Fazovogo Analiza Staley i Splavov, Metallurgiya Press, 1970, 476 pages.

TABLE OF CONTENTS

Foreword	. . . . .	5
Chapter 1.	Basic Principles of the Theory of Phase Separation of Multiphase Alloys in Electrolytes	9
Chapter 2.	Basic Principles of the Theory of Phase Separation of Multiphase Alloys in Electrolytes	21
Chapter 3.	Methods of Electrochemical Phase Separation of Alloys in Electrolytes	51
	Apparatus for Electrochemical Separation of Phases in Electrolytes	52
	Galvanostatic and Potentiostatic Methods of Measuring Anode Polarization Curves	64
	Differentiation (Selective Etching) of Phases of Multiphase Alloys	68
	Methods of Separation of Phases and Phase Analysis of Steels without Weighing of Specimens (Parts) and Isolated Upsetting	78

2/6

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

LASHKO, N. F., et al., Fiziko-Khimicheskiye Metody Fazovogo Analiza Staley i Splavov, Metallurgiya Press, 1970, 476 pages.

	Methods of Determining Chemical Composition and Number of Phases of Alloy Following Their Separation	84
	Methods of Testing Reliability and Accuracy of Physical and Chemical Phase Analysis	92
Chapter 4.	Diffraction Methods of Phase Analysis	100
Chapter 5.	Primary Types of Chemical Compounds in Alloys Based on Various Metals	112
Chapter 6.	Phase Analysis of Alloys Based on Iron	144
	Primary Problems of Isolation of Carbides from Carbon and Alloy Steels	146
	Dispersion of Grains and Structures of Steels	161
	Isolation and Specific Features of Residual Austenite	163
	Isolation of Ferrite from Autenitic-Ferritic Steels .	168
	Determination of Phase Composition and Distribution of Alloying Elements in Austenitic Heat-Resistant Steels in the System Fe-Cr-Mn-Ni-V-Nb-Mo-W, Containing $Me_{23}C_6$ and MeC Carbides	175
	Cast Irons and Graphitizing Steels	177

3/6

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

LASHKO, N. F., et al., Fiziko-Khimicheskiye Metody Fazovogo Analiza Staley i Splavov, Metallurgiya Press, 1970, 476 pages.

Certain Specifics of Isolation of Phases from Beryllium-Containing Heat-Resistant Steels . . . 182
Methods of Isolation of σ-phases from Steels and Iron-Based Alloys . . . 184
Isolation of Fe_2W Phases from Steels . . . 190
Isolation of Phases of the Structural Type α-Mn (χ-phase) from Steels . . . 193
Isolation and Analysis of Z-phase from Nitrogen-Containing Chrome Niobium Steels . . . 196
Phase Analysis of Chrome-Nickel-Titanium Steels with Basic Hardening of Phases θ-Ni_3Ti or $Ni_3(Ti, Al)$ . . . 198
Certain Methods of Isolation of Carbides from Steels with Stable Potentials . . . 209

Chapter 7. Methods of Separation of Phases of Anodic Precipitation . . . 221

Chapter 8. Prevention and Elimination of Products of Secondary Reactions in Electrolytes . . . 240

4/6

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

LASHKO, N. F., et al., Fiziko-Khimicheskiye Metody Fazovogo Analiza Staley i Splavov, Metallurgiya Press, 1970, 476 pages

Chapter 9.	Methods of Determining Various Forms of Carbon in Steels and Alloys	254
Chapter 10.	Methods of Phase Analysis of Nickel Steels	278
	Methods of Phase Analysis of Nickel Steels Hardened by γ' Phases Based on Ni_3Al and $Ni_3(Al, Ti)$	286
	Methods of Isolation of Carbide and Boride Phases	312
	Methods of Isolation of σ and μ Phases	320
	Methods of Phase Analysis of Alloys Hardened with Intermetallic Phases Based on Ni_3Nb, Ni_3Ti, and Ni_3Ta	328
	Methods of Isolation of Phases and Alloys Based on Ni-Be	342
	Methods of Isolation of Phases from Corrosion-Resistant Nickel Alloys in the Systems Ni-Mo, Ni-Mo-Cr, Ni-Mo-Cr-Fe	344
Chapter 11.	Methods of Phase Analysis of Copper-Nickel Alloys	348
Chapter 12.	Methods of Phase Analysis of Titanium Alloys	355
Chapter 13.	Methods of Phase Analysis of Magnesium Alloys	365

5/6

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

LASHKO, N. F., et al., Fiziko-Khimicheskiye Metody Fazovogo Analiza Staley i Splavov, Metallurgiya Press, 1970, 476 pages

Chapter 14.	Methods of Phase Analysis of Aluminum Alloys	396
Chapter 15.	Methods of Phase Analysis of Refractory Alloys	407
	Methods of Phase Analysis of Molybdenum Alloys	419
	Methods of Phase Analysis of Niobium Alloys	425
Chapter 16.	Methods of Isolation of Phases from Powder Materials	425
Chapter 17.	Methods of Layer-by-Layer Physical and Chemical Phase Analysis	431

6/6

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC 669.14.018.8:620.18

ZASLAVSKAYA, L. V., LASHKO, N. F., BELYAKOV, I. N., ANDREYEVA, F. S., and KAGAN, Ye. S., All-Union Scientific Research Institute of Aviation Materials

"Redistribution of Nickel and Chromium in $\alpha \rightarrow \gamma$-Transformation in Stainless Steels Containing Chromium and Nickel"

Moscow, Metallovedeniye i Termicheskaya Obrabotka Metallov, No 2, 1973, pp 39-42

Abstract: A study was made of Cr, Ni, and Mo redistribution when tempering in the interval of partial $\alpha \rightarrow \gamma$-transformation in Kh11N9 and Kh11N9M2 stainless steels, containing nickel and chromium and serving as base of martensitic aging stainless steels. The Kh11N9 steel contained 0.012% C, 0.022% Mn, 0.07% Si, 0.68% Cr, and 9.2% Ni; the Kh11N9M2 steel was additionally alloyed with 1.9% Mo. At heating rates $\leq$ 50 deg/sec, $\alpha \rightarrow \gamma$-transformation goes with Cr and Ni redistribution between α-and γ-phases. At partial $\alpha \rightarrow \gamma$-transformation, austenite con-

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

ZASLABVKAYA, L. V., et al., Metallovedeniye i Termicheskaya Obrabotka Metallov, No 2, 1973, pp 39-42

tains more Cr, Ni, and probably also more Mo than the α-phase. The austenite concentration with Cr, Ni, and with other elements in the $\alpha \rightarrow \gamma$-transformation process in Kh18N9-type steels is apparently one of the sources of austenite stabilization of these steels in the tempering process at $\alpha \rightarrow \gamma$-transformation temperature. Two figures, one table, twelve bibliographic references.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR UDC: 621.373.072.6

LASHKO, A. G., MATENKOV, N. A.

"Improving the Frequency Stability of Electrical Oscillations"

V sb. Vopr. elektrosvyazi (Problems of Electrical Communications--collection of works), Kiev, "Tekhnika", 1970, pp 152-157 (from RZh-Radiotekhnika, No 11, Nov 70, Abstract No 11D486)

Translation: The authors discuss the possibility of improving the frequency stability of electrical oscillations by compensating for the instability of the input oscillation. A regenerative frequency converter is used for this purpose. Conditions are determined for self-excitation of the regenerative frequency converter; a formula is derived which may be used to determine the degree of coincidence of phase characteristics of the converter filters, assuming a given output frequency instability. One illustration, bibliography of two titles. Resumé.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR UDC 621.791.3:539.219.3:669.295:621.762

SUKHACHEV, A. P., Engineer, and LASHKO, S. V., Doctor of Technical Sciences

"Metal Ceramic Diffusion Soldering of Titanium and Its Alloys"

Moscow, Svarochnoye Proizvodstvo, No 6, 1971, pp 54-55

Abstract: Soldered butt joints of titanium and its alloys with strength factors of over 90% can be produced by contact reactive diffusion soldering using copper, copper-nickel, or copper-zirconium coatings. However, the holding time for this method is 1-2 hours, and the surfaces to be soldered must be carefully finished and firmly compressed, making the process more expensive. All of these difficulties can be eliminated by using metal ceramic solders. An optimal composition of metal ceramic solder and optimal soldering mode for type OT4 titanium alloys is selected. The optimal soldering mode is 1,150°C, 15 minutes, plus annealing at 960°C, 60 minutes, specific pressure 40 g/mm^2, heating rate 4-8° per minute to 900°C, then 12-16° per minute thereafter. The optimal solder composition is 50% copper-zirconium eutectic and 50% titanium.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC 616.981.136-092.9-092-02:613.166.9

CHERKASHIN, G. V., and LASINSKAYTE, A. B., Altayskiy Medical Institute

"Effect of Cold Stress on Some Nonspecific Factors of Immunobiological Reactivity and Sensitivity of Mice to Listeria"

Moscow, Zhurnal Mikrobiologii, Epidemiologii, i Immunobiologii, No 2, 1973, pp 33-36

Abstract: Mice were maintained 6 hours to 5 days at 3°C to determine effects of cold stress on immunobiological reactivity. Reactions followed an adaptive pattern, with an initial reduction (by over half) of leukocyte count, thymus-body weight ratio, and lysozyme and leukocyte phagocytic activity in the first stage (2 days), followed in the second stage (after 3 days) by recovery and some overshooting over control levels for these indexes. Subsequently LD_{50} determinations were made 10 days after mice first began a 3-day exposure to 3°C. Animals were infected with Listeria strain 14/57, serotype I after 12-72 hours of exposure. The LD_{50} decreased considerably (from 7 million in controls to 1.5-0.5 million) in the 1st day after infection, while resistance began to be restored from the 2d-3d days on. The correlation between thymus size and immunological activity changes implicates desoxycorticosterone production as the dominant factor in depression and recovery of immunological activity.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC 547.241:541.65

LASKORIN, B. N., YAKSHIN, V. V., BUCHIKHIN, Yu. P., SOKAL'SKAYA, L. I., and MEDVEDEV, V. I., Institute of Geophysics imeni O. Yu. Shmidt, Academy of Sciences USSR, Moscow

"The Donor Capacity of Neutral Organophosphorus Compounds of the Type $X_3P{=}O$"

Kiev, Teoreticheskaya i Eksperimental'naya Khimiya, Vol 9, No 2, Mar-Apr 73, pp 245-250

Abstract: The donor capacity in complex-formation of neutral organophosphorus compounds of the type $X_3P{=}O$ (esters, ester amides and amides of P-acids) was studied on the basis of the basicity constants pK_a determined by potentiometric titration with $HClO_4$ in nitromethane, the displacement $\Delta\nu_{OH}$ of the frequency of valency vibrations in IR spectra of complexes with phenol and the enthalpy of formation of these complexes, the displacement of the absorption band by iodine $\Delta\lambda_{max}$ upon formation of complexes with iodine in CCl_4, and the stability constants $\tilde{K}_{HNO_3}$ of complexes

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

LASKORIN, B. N., et al., Teoreticheskaya i Eksperimental'naya Khimiya, Vol 9, No 2, Mar-Apr 73, pp 245-250

with HNO_3. The compounds studied, which included $R_3P{=}O$, $R_2P(O)OR'$, $RP(O)(OR')_2$, $(R'O)_3P{=}O$, $R_2P(O)NHR'$, $RO(O)(NHR')_2$, $(R'NH)_3P{=}O$, $(RO)_2P(O)NHR'$, and $ROP(O)(NHR')_2$, where R, R' were normal alkyls C_4-C_{10}, were obtained by reacting P acid chlorides with alcohols and amines. The introduction of alkylamide groups increased the donor capacity of the phosphoryl group as a result of the p_π - d_π conjugation of the unshared electron pair of N with the vacant 3d - orbitals of P. The magnitude of this interaction was not constant, but varied with the symmetry type of the molecule, the effective positive charge at P, and the competing mesomeric capacity of the substituents at P and their volumes.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC 542.61:661.73

LASKORIN, B. N., BUCHIKIN, YE. P., SHATALOV, V. V., and PONOMAREVA, S. I.

"Effect of the Structures of Aromatic Organophosphorus Acids on Their Extraction Properties"

Leningrad, Radiokhimiya, Vol 13, No 6, 1971, pp 809-815

Abstract: Extraction constants of $U^{(VI)}$ were determined for a series of aromatic organo phosphorus acids (POA) and it has been established that their extraction properties can be described by the equation $\lg K_{UO_2^{2+}} = 3.40 - 2.06 \Sigma \sigma^{*} \phi$. In contrast to aliphatic substituents, whose effect on the acid and extraction properties of POA is determined principally by their inductive effect, the aromatic radicals are capable of a direct conjugation with the phosphorus atom, i.e., the final effect is determined by inductive and mesomeric effects. The substituents may be divided into two groups: 1) C_6H_5O-, p-$CH_3C_6H_4O$-, o-$CH_3C_6H_4O$-, $C_6H_5C{:}C$- -- strongly resembling alkoxy radicals in which a strong negative inductive effect is almost completely compensated by a counteracting mesomeric effect; and 2) C_6H_5-, $C_6H_5CH{:}CH$-, $C_6H_5CH_2$- group, in which the mesomeric effect is dominant. All acids which have an unsaturated π-elec-

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

LASKORIN, B. N., et al., Radiokhimiya, Vol 13, No 6, 1971, pp 809-815

tronic system in their structure -- C_6H_5-, $C_6H_5C{\equiv}C-$, C_6H_5O- -- have a higher extractive capability toward $U^{(VI)}$ than corresponding dialkylphosphoric-phosphinic acids.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR UDC 547.341.26'118.07

LASKORIN, B. N., YAKSHIN, V. V., KREMNEVA, Ye. V., and SKOROVAROV, D. I.

"A Method of Making Monoethers of N-Substituted Thiocarbamoylphosphonic Acids"

Moscow, Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, No 5, Feb 71, Author's Certificate No 292987, Division C, filed 11 Oct 69, published 15 Jan 71, p 101

Translation: This Author's Certificate introduces: 1. A method of making monoethers of N-substituted thiocarbamoylphosphonic acids. As a distinguishing feature of the patent, monosubstituted salts of monoalkylphosphites are interacted with alkyl- or arylisothiocyanates in the presence of heat in an organic solvent such as benzene, with subsequent treatment of the resultant product in a mineral acid such as hydrochloric acid, and isolation of the goal product by conventional methods. 2. A modification of this method distinguished by the fact that the process is carried out in the presence of a catalyst such as triethylamine.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC 547.341.26'118.07

LASKORIN, B. N., YAKSHIN, V. V., KREMNEVA, Ye. V., and SKOROVAROV, D. I.

"A Method of Making Monoethers of N-Substituted α-Aminoalkylphosphonic Acids"

Moscow, Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, No 5, Feb 71, Author's Certificate No 292986, Class C, filed 11 Oct 69, published 15 Jan 71, p 101

Translation: This Author's Certificate introduces: 1. A method of making monoethers of N-substituted α-aminoalkylphosphonic acids by interacting phosphites with Schiff bases in the presence of heat with subsequent treatment of the resultant product in a mineral acid such as hydrochloric acid. As a distinguishing feature of the patent, the process is simplified by using monosubstituted ammonium, alkali or alkaline earth salts of monoalkylphosphites as the phosphite, and carrying out the process in the presence of a catalyst such as triethylamine. 2. A modification of this method distinguished by the fact that heating is done to a temperature of 110-120°C.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

1/2 012

UNCLASSIFIED

TITLE--ELECTRODIALYSIS OF INDUSTRIAL CYANIDE SOLUTIONS AND SLURRIES -U-

PROCESSING DATE--02OCT70

AUTHOR-(03)-SHIVRIN, G.N., LASKORIN, B.N., SHIVRINA, E.M.

COUNTRY OF INFO--USSR

SOURCE--TSVET. METAL. 1970, 43(1), 89-93

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ION EXCHANGE MEMBRANE, CYANIDE, AQUEOUS SOLUTION, GOLD, SILVER, COPPER, ZINC, IRON, ALUMINUM, CHEMICAL PRECIPITATION, ELECTRODIALYSIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1989/0744

STEP NO--UR/0136/70/043/001/0089/0093

CIRC ACCESSION NO--AP0107286

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

2/2 012

UNCLASSIFIED

CIRC ACCESSION NO--AP0107286 PROCESSING DATE--02OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ELECTRODIALYSIS USING ION EXCHANGE MEMBRANES IS STUDIED AS A POSSIBLE PROCESS FOR THIS PURPOSE. PRACTICALLY ALL OF THE MATERIALS OF INTEREST (AU, AG, CU, ZN, FE) ARE PRESENT IN THE CYANIDE SOLNS. AND SLURRIES AS METAL CYANIDE COMPLEX ANIONS. THE FEATURES OF THE PROCESS ARE PRESENTED IN DETAIL. IF THE MEAN PRODUCT CONTAINS A CONSIDERABLE AMT. OF CU (5-10 G-DM PRIME3), THEN THE CU MUST BE REMOVED FROM SOLN. BY PPTN. WITH AL. THIS ALSO REMOVES ZN FROM THE SOLN. THE CHEM. PPTN. OF THE METALS FROM CYANIDE SOLNS. MUST BE DONE IN THE ABSENCE OF DISSOLVED O DUE TO THE POSSIBLE REVERSE REACTION OF METAL DISSOLN. THIS FACTOR IS ESP. IMPORTANT AT LOW CONCNS. OF THE DISSOLVED METAL. THE POSSIBLE WAYS OF DECREASING THE CONSUMPTION OF ELEC. ENERGY DURING ELECTRODIALYSIS ARE DISCUSSED.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC 669.715'884:539.4

KOPELIOVICH, B. A., LASHKOV, N. I., and OVECHKIN, B. I.

"Study of the Effect of Lithium on the State of Grain Boundaries and the Character of Failure in Aluminum-Base Alloys"

Tekhnol. legkikh splavov. Nauch.-tekhn. byul. VIISa (Technology of Light Alloys. Scientific and Technical Bulletin of All-Union Institute of Light Alloys), 1971, No 4, p 96 (from RZh-Metallurgiya, No 1, Jan 72, Abstract No 1I709 by I. Yeroshenkova)

Translation of Abstract: In Al-Li alloys at 100-500° Li enriches grain boundaries. At 100° in Al-55% Li alloy the excess Li content along the boundaries is 0.36%, at 400° 0.16%. With a rise in temperature from 100 to 550° and with Li content of the alloy remaining constant, the Li excess along the grain boundaries declines and segregation thereof does not result in intercrystalline embrittlement. The failure mechanism of Al-4% Cu-1% Li and VAD 23 alloys has the character of transcrystalline shear. Failure arises on particles of the intermetallides lined up inside grains, with the formation of X-shaped cracks in the matrix. The fusion of these cracks causes transcrystalline failure.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC 629.78.015:533.6.011.5

GRODZOVSKIY, G. I., LASHKOV, YU. A., SVISHCHEV, G. P., and SOKOLOVA, I. P.

"Investigation of the Effect of Perforated Nozzles With Longitudinal Slots on the Resistance of a Body Rotating at Supersonic Velocities"

Uch. Zap. Tsentr. Aerogidrodinam In-ta (Scientific Writings of the Central Aerohydrodynamics Institute), Vol 3, No 2, 1972, pp 21-27 (from Referativnyy Zhurnal--Raketostroyeniye, No 8, 1972, Abstract No 8.41.92)

Abstract: Results of an investigation on the effect of rear, thin-wall perforated nozzles with a different number of longitudinal slots on the bottom resistance of a body rotating at Mach numbers of 1.75, 2.25 and 4.0 have been presented. It was shown that the use of thin-wall nozzles with longitudinal slot perforation gives a noted decrease of the total resistance of a rotating body at Mach 1.75-2.25. The change of total resistance of a rotating body agrees well in this instance with increased bottom pressure. Author's view, 9 illustrations, 5 bibliographical references.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

LASHNEVA, N. V.

JPRS 55320
1 Mar 72

UDC: 616.36-089.873-07:616.34-003.
93-02:615.277.4:582.825.123

MECHANISM OF ACTION OF APHLATOXIN ON REGENERATED HYPERTROPHIC LIVER FOLLOWING PARTIAL HEPATECTOMY

[Article by A.A. Pokrovskiy, M.Ya. Nikolayeva, N.V. Lashneva, M.M. Gapparov, A.I. Shcherbakova, L.A. Kozeruikov, K.E. Arenova, Institute of Nutrition, USSR Academy of Medical Sciences, Moscow; Moscow, Vestnik Akademii Meditsinskikh Nauk SSSR, Russian, No 1, 1972, pp 49-56]

Present conceptions about the mechanism of action of aphlatoxins (a group of highly toxic hepatocarcinogenic metabolites of some species of mold fungus) are reflected in several surveys (Wogan, 1968; Rees; A.A. Pokrovskiy; 1967; King and Nicholson). To date extensive factual material has been accumulated which suggests that one of the mechanisms of toxic action of aphlatoxins (necrosogenic lesion to the liver, on the one hand, and marked hepatocarcinogenic effect, on the other) consists of interaction between aphlatoxins and liver cell DNA (Clifford and Rees, 1969). It was shown that aphlatoxins, like actinomycin D, forms complexes with the DNA molecule through attachment to adenine and guanine amino groups, so that the pentose-phosphate groups remain unaffected. Such interaction leads to impairment of the transcription process (Enfergo and Fravelnet), i.e., to impairment of DNA-dependent DNA polymerase synthesis. The consequence of this disturbance is inhibition of DNA- and RNA-polymerase synthesis which, in turn, is associated with rapid and visible inhibition of hepatic DNA and RNA synthesis. The latter is demonstrable in particular in the case of a regenerated hypertrophic liver (Bernstein et al., 1968; Lyet, 1968).

Some authors observed injury to the ribosomal system, consisting of disaggregation of polysomes and change in their profile (Feng and Wogan, 1969), for this reason one would have expected aphlatoxin to suppress protein synthesis. This was confirmed in in vitro experiments (Smith; Clifford and Rees, 1967). Yet in vivo experiments failed to demonstrate distinct changes in incorporation of labelled precursors in the rat's liver proteins following administration of aphlatoxin (Shank and Wogan). In addition, it was possible to demonstrate aphlatoxin induced blocking of hormonal and substrate induction of some enzymes (Reddy and Friedman; Feng and Wogan, 1969).

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC 577.174.5

POKROVSKIY, A. A., KUSHMANOVA, O. D., SHATERNIKOVA, I. S., MIRZOYEV, B. M. and LASHNEVA, N. V., Chair of Biochemistry, Second Moscow Medical Institute imeni N. I. Pirogov, and Scientific Research Institute of Civil Aviation

"Data on the Functional State of the Adrenal Cortex during Experimental Insomnia in Rats"

Kiev, Ukrainskiy Biokhimicheskiy Zhurnal, Vol 42, No 3, 1970, pp 353-356

Abstract: Experimental insomnia was evoked in rats by placing them in a slowly rotating drum. During the first day, more than a threefold increase in 11-hydroxycorticosteroid content was observed in blood plasma and cholesterol in the adrenals was lowered by 50% and total lipids by 20%. On the fourth day the content of 11-hydroxycorticosteroids dropped by 33% in comparison to the original level, while cholesterol and total lipids were depressed 78% and 50%, respectively. The content of ascorbic acid in adrenal tissue decreased mainly at the expense of its reduced form, while in the blood serum the concentration increased, particularly that of dehydroascorbic acid. Animals evidently succumb in experimental insomnia because of insufficient synthesis of steroid hormones by the adrenals, which in turn may be the result of a breakdown in cholesterol synthesis and a low level of the reduced form of ascorbic acid.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

1/2 038 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--FABRICATION OF OHMIC CONTACTS TO GAAS IN HIGH VACUUM -U-

AUTHOR-(03)-BELEVSKIY, V.P., IVANOV, V.N., LASMNIK, V.M.

COUNTRY OF INFO--USSR

SOURCE--PRIBORY I TEKHNIKA EKSPERIMENTA, JAN.-FEB. 1970, P. 225-227

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--METAL VAPOR DEPOSITION, GALLIUM ARSENIDE SEMICONDUCTOR, ELECTRON BOMBARDMENT, CRYSTAL SURFACE, RESISTIVITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1988/1547 STEP NO--UR/0120/70/000/000/0225/0227

CIRC ACCESSION NO--AP0106293

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

2/2 038 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0106293

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DESCRIPTION OF EQUIPMENT FOR DEPOSITION OF METALLIC CONTACTS ON P OR N TYPE GASS SURFACES USING THE METHOD OF VACUUM EVAPORATION BY ELECTRON BOMBARDMENT. THE SAMPLE IS INITIALLY PURIFIED BY AN ARGON GLOW DISCHARGE, AND VAPOR DEPOSITION IS THEN CONDUCTED ON THE HEATED SEMICONDUCTOR SURFACE. THE PROCEDURE REDUCES THE WORKING TEMPERATURES TO A RANGE BETWEEN 300 AND 500 DEG C, AND IT IS POSSIBLE TO OBTAIN LOW RESISTANCE CONTACTS TO SAMPLES WITH IMPUTITY CONCENTRATIONS OF 10 TO THE 13TH POWER PER CU CM.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

Acc. Nr: AP0051917 Ref. Code: UR0475

PRIMARY SOURCE: Vrachebnoye Delo, 1970, Nr 7, pp35-37

ADRENAL CORTEX ACTIVITY IN OLD AGED PERSONS AND CHANGES OF ITS FUNCTION UNDER THE EFFECT OF CARNOSINE AND VITAMIN B_{15}

S. V. Maksimov, L. P. Motova and A. I. Lashchenko (Kharkov)

A study of 59 persons (age: 60—87 years) indicates that old aged subjects show a weakened adrenal cortex function, though the reserves of corticoid function to administration of ACTH is preserved.

Use of carnosine exerts a stimulating effect on the functional activity of the adrenal cortex.

Vitamin B_{15} exerts a stimulating effect on the functional activity of the adrenal cortex and also regulates the corticoid activity in old aged persons.

REEL/FRAME
19820400

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC 621.317.7.087.92-932

DIDENKO, K. I., LASKAVYY, V. N., LYSYY, L. T., CHEREPAKHA, A. K.

"Convertor of Frequency Signal to Amplitude Signal"

USSR Author's Certificate No 290440, Filed 7/08/69, Published 12/04/71, (Translated from Referativnyy Zhurnal Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, No 11, 1971, Abstract No 11 A185 P from the Resume).

Translation: A device which converts a frequency signal to an ac amplitude signal is suggested, containing a condensor frequency convertor. In order to increase the accuracy and simplify the device, it contains an additional transformer, the primary winding of which is connected to an ac voltage supply of constant frequency, while the secondary winding is connected in series with the power supply of the convertor. 1 Figure.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC 66.074.7:546.56

LASKORIN, B. N., YUZHINA, A. D., SMIRNOVA, N. M., SADOVNIKOVA, G. I., NOVIKOV, YU. P., and VITKOVSKAYA, A. A.

"Ion Exchanging Fibers and Fabrics . III. Extraction of Gold From Cyanide Solutions and From Pulps by Means of Ion Exchanging Fabrics"

Leningrad, Radiokhimiya, Vol 15, No 2, 1973, pp 236-240

Abstract: The possibility of extracting gold from cyanide solutions and pulps obtained after leaching out the gold containing ores by means of ion exchange fabrics has been studied. The capacity for gold of the medium and strongly basic anion exchange fabrics under static conditions (0.8-1.4 mg/g) is comparable to the capacity of the granular sorbent AM (1.74 mg/g). Under identical conditions the fabrics absorb 5.6 times less admixtures than the resin AM, the rate of gold absorption being 20-30 times faster than by the resin. The fabrics are easily regenerated with hydrochloric solutions of thiourea. Under dynamics conditions 62.2% of gold is removed from the fabric by three volumes of the regenerating solution.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC 669.2:541.18

LASKORIN, B. N., GOLDOBINA, V. A., and KOPANEV, A. M.

"Sorption of Nonferrous Metal and Iron Ions by Inorganic Titanium-Base Ion-Exchange Resins"

Moscow, Tsvetnyye Metally, No 1, Jan 73, pp 22-24

Abstract: Results are reported on studies of the sorption of several nonferrous metal and iron ions by titanium phosphate Ti-P and a hydrated titanium dioxide Ti-OH. Tests were conducted under static conditions at 20±2°C, and the ratio of ion-exchange resin (g) to solution (ml) was 1:500. Contact time (24 hours) was adequate for establishing equilibrium. Sorption of all the investigated metals on the sorbents Ti-P and Ti-OH from sulfate solutions at low pH values, with the exception of trivalent iron cations, were insignificant, but sorption grew with increased solution pH and was especially sharp for Cu^{2+} and Zn^{2+}. The maximum capacity for cations Fe^{3+}, Cu^{2+}, Zn^{2+}, Co^{2+}, and Ni^{2+} during sorption from sulfate solutions was achieved at pH values of the solutions close to the pH at the start of precipitation of the corresponding hydroxides. It was found that the sorptability series of elements in sulfate solutions was the same as for Ti-P and Ti-OH and almost coincident with the solubility series of the hydrates of these same elements (in the order of increasing solubility). 3 figures.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC: 542.61

LASKORIN, B. N., BUCHIKHIN, V. P., FEDOROVA, L. A.

"Investigation of the Behavior of Organophosphorus Acids in Aqueous and Nonaqueous Media"

Leningrad, Radiokhimiya, Vol 14, No 3, 1972, pp 356-366

Abstract: The method of potentiometric titration was used to determine the dissociation constants of a number of dialkylphosphoric, phosphonic and phosphinic acids in water, 75% ethyl ethanol and acetone. A linear relation was established between the sum of the induction constants of substituents and the logarithms of the constants of acid dissociation of the investigated organophosphorus acids in these solvents. The induction constants of long-chain alkyl and alkoxyl radicals were calculated. The method of distribution was used to determine the constants of distribution and dimerization of the homologous series of dialkylphosphoric and phosphinic acids for the benzene-water system. It was found that there is a linear relation between the values of log K_d of organophosphorus acids and the total number of carbon atoms (ΣC) in their molecules ($\Sigma C < 16$). An empirical method of characteristics is proposed for the distribution of organophosphorus acids between the organic and aqueous phases, utilizing distribution parameters which characterize the

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

LASKORIN, B. N., et al., Radiokhimiya, Vol 14, No 3, 1972, pp 356-366

change in free energy of the distribution process with a change in the structure of the radical. The paper presents a graph of the constants of dimerization of dialkyl phosphoric and phosphinic acids as functions of the number of carbon atoms in the molecules of these compounds.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC: 547.241'284:543.422.4'6

LASKORIN, B. N., YAKSHIN, V. V., SOKAL'SKAYA, L. I.

"Synthesis and Spectral Properties of Organophosphorus Compounds Containing a Keto Group"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), No 6, Jun 72, pp 1261-1269

Abstract: A series of compounds of the general formula $R_2P(O)(CH_2)_nC(O)R'$ ($R = CH_3$, CH_3O; $n = 0, 1, 2$; $R' = CH_3$, C_6H_5, substituted methyl) were synthesized as a basis for studying the electron interaction of the tetracoordinated phosphorus atom with the carbonyl group. The effect of the higher atomic orbitals of phosphorus on the physical and chemical properties of the synthesized compounds was studied. The influence of the overall induction effect of the substituents associated with the phosphorus atom on the degree of conjugation between the carbonyl group and the tetrahedral phosphorus atom was determined.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC 541.12.542.61.541.6.547.1'118

KABACHNIK, M. I., LASKORIN, B. N., BERTINA, L. E., MEDVED', T. YA., KOSSYKH, V. G., YUDIN, K. S., BERKMAN, Z. A., and NEFRYAKHIN, A. M., Institute of Hetero-Organic Compounds, USSR Academy of Sciences

"Dependence of the Extraction Ability of the Dioxides of Tetraarylmethylene Diphosphines Upon Their Structure"

Moscow, Izvestiya Akad. Nauk SSSR, Seriya Khimicheskaya, No 1, Jan 72, pp 65-70

Abstract: The connection between extraction ability and structure is currently being widely studied, but so far only in the case of monodentate nuetral organophosphorus compounds; the corresponding bidentate compounds, with two phosphoryl groups in the molecule, have gone completely unstudied.

Using the extractant dilution method, the authors determined the composition of the extracting complexes of uranyl nitrate with dioxides of the tetraarylmethylene diphosphines containing various substituents in the meta- and para-positions of the phenyl rings. Effective extraction constants of uranyl nitrate for a series of tetra-substituted dioxides of the methylene-diphosphines were computed. Effective extraction constants for complexes with three molecules of the extractant were found to correlate well with the Hammet constant, and with the σ^{f} constant -- something not observed in the case of

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

KABACHNIK, M. I., et al., Izvestiya Akad. Nauk SSSR, Seriya Khimicheskaya, No 1, Jan 72, pp 65-70

complexes with two molecules of the dioxide. Finally, the connection between the extraction ability of the diphosphines and their alkalinity was found to be a linear one. Various tables and graphs are included in the paper.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR UDC 541.132+66.061.5

LASKORIN, B. N., Corresponding Member of the USSR Academy of Sciences, and SHIVRIN, G. N.

"Nature of Ion-Exchange Extraction and Sorption Processes"

Moscow, Doklady Akademii Nauk SSR, Vol 196, No 4, 1971, pp 862-865

Abstract: This article contains an analytical and experimental investigation of the nature of ion-exchange extraction and sorption processes. The theoretical equation for calculating the exchange constant for an ion in the organic phase by other different ions is presented, and its applicability for calculating the exchange constant of various single-charge ions is considered. The revised equation is investigated in the example of exchange of single-charged anions by the base tetraoctyl ammonia in toluene. It is pointed out that comparison of the calculated and experimental exchange constants depends on the assumed magnitude of the degree of substitution of the water molecules in the first solvate shell by toluene molecules. It is considered that the exchange constant of single-charge ions during ion-exchange extraction by quaternary ammonia compounds does not in practice depend on the interaction of the anions with the organic cations but is determined by the physical properties of the

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

LASKORIN, B. N., and SHIVRIN, G. N., Doklady Akademii Nauk SSR, Vol 196, No 4, 1971, pp 862-865

solvent and the distributed ion. The electrostatic nature of the ion-exchange processes of sorption by solid ion-exchange resins is indicated by the interrelation of the exchange constants of the ions during sorption by solid and liquid ion-exchange resins. The solid ion-exchange resin can be considered as an organic solvent characterized by defined physical properties, and the degree of dehydration of the ion in the ion-exchange phase is equivalent to the degree of substitution of water molecules in the first solvate layer by solvent molecules during extraction. It is also concluded that during ion-exchange extraction and sorption, the electrostatic interaction of the exchanged ions with the solvent must be considered to determine the selectivity of the exchange.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR UDC:542'61:541'69

LASKORIN B. N., SKOROVAROV, D. I., FEDOROVA, L. A., and SHATALOV, V. V.

"Basic Regularities of Extraction of Uranium with Phosphine Oxides"

Moscow, Atomnaya Energiya, Vol 28, No 5, May 70, pp 383-385

Abstract: The authors studied the influence of changes in the structure of radicals in mono-, di-, and polyphosphine oxides. The results showed that there is a general regularity of increasing extraction properties with the transition from triaryl to trialkyl and tricycloalkyl phosphine oxides. The removal of the electronegative substituent from the phosphorus atom causes an increase in the extraction properties of the phosphine oxides. However, the degree of this increase depends on the type of group introduced. The double bond in the alpha position in phosphine oxide radicals has a significant

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

LASKORIN B. N., SKOROVAROV, D. I., FEDOROVA, L. A., and SHATALOV, V. V., Moscow, Atomnaya Energiya, Vol 28, No 5, May 70, pp 383-388

influence on their extraction properties, decreasing the distribution factor. Further increases in the extraction properties can be achieved by increasing the number of phosphoryl groups in the molecule of the extraction agent. Comparison of the properties of phosphine oxides studied confirms the significant influence of the type of substituent radical (aromatic, alkyl, or alicyclic), then of its structure (benzyl greater than phenyl; octyl greater than cetyl; cyclohexylmethyl less than cyclohexyl). It is also shown that an increase in the number of phosphoryl groups in the phosphine oxide molecule helps to improve the extraction of uranium; the length of the alkylene bridge between the atoms of phosphorus is one of the main factors determining the properties of polyphosphine oxides.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

1/2 015 UNCLASSIFIED PROCESSING DATE--27NOV70

TITLE--PRINCIPAL RULES FOR URANIUM, EXTRACTION BY PHOSPHINE OXIDES -U-

AUTHOR-(04)-LASKORIN, B.N., SKOROVAROV, D.I., FEDOROVA, L.A., SHATALOV, V.V.

COUNTRY OF INFO--USSR

SOURCE--AT. ENERG. (USSR): 28: 383-8, MAY 1970

DATE PUBLISHED-------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--URANIUM, EXTRACTIVE METALLURGY, ORGANIC OXIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3008/0564 STEP NO--UR/0089/70/028/000/0383/0388

CIRC ACCESSION NO--AP0137649

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

2/2 015 UNCLASSIFIED PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0137649

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE DEPENDENCE OF EXTRACTION OF URANIUM FROM HNO SUB3, HCL, AND H SUB2 SO SUB4 SOLUTIONS BY MONO, DI, AND POLYPHOSPHINE OXIDES OF DIFFERENT STRUCTURE WAS INVESTIGATED. THE LARGEST COEFFICIENTS OF DISTRIBUTION WERE OBSERVED AMONG TRI(ALKYL)PHOSPHINE OXIDES WHEN THE LENGTH OF CHAIN WAS C SUB8 MINUS C SUB10. TRI(ARYL)PHOSPHINE OXIDES WERE FOUND TO HAVE VERY POOR EXTRACTION PROPERTIES. THESE PROPERTIES FOR MIXED DERIVATIVES INCREASED FROM TRI(ARYL) YIELDS DIARYLALKYL YIELDS ARYLDIALKYL. TRI(CYCLOHEXYL)PHOSPHINE OXIDE HAS THE BEST EXTRACTION PROPERTIES. THE MAIN REGULARITIES OF EXTRACTION WERE INVESTIGATED ON TRI(OCTYL)PHOSPHINE OXIDES; COMPLEXES GENERATED WITH URANIUM SULFATE WERE DEFINED. TO DEFINE CHARACTERISTICS OF EXTRACTION PROPERTIES OF PHOSPHINE OXIDES INTERDEPENDENCE BETWEEN PHYSICAL PROPERTIES (VP EQUALS 0) AND DISTRIBUTION COEFFICIENT OF URANIUM WAS INVESTIGATED. THE INFLUENCE OF LENGTH ALKYLENE BRIDGE BETWEEN PHOSPHORUS ATOMS ON URANIUM EXTRACTION WAS INVESTIGATED FOR BIDENTATE PHOSPHINE OXIDES. IT WAS SHOWN THAT COMPOUNDS WITH ETHYLENE BRIDGE HAVE THE LARGEST EXTRACTION PROPERTIES.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

CREATION OF TECHNOLOGICAL PROCESSES EXCLUDING THE HARMFUL EFFECT OF INDUSTRY ON THE BIOSPHERE

[Report of Corresponding Member of the AS USSR N. N. Laskorina, Moscow, Vestnik Akademii Nauk SSSR, Russian, No 9, September 1973, pp 27-34]

Even in the first years of Soviet power a number of important decisions were adopted on the conservation of the air and water basins. Rigid standards were established in the USSR for the maximum allowable concentration of harmful substances in discharges into the atmosphere and hydrosphere. In the compilation of those standards, the starting premise was that harmful impurities in the air and bodies of water not only must not cause pathological reactions in the human body or have a noticeable effect on flora and fauna, but also must not lead to considerable stress of protective and adaptive mechanisms.

Considerable resources are expended on the purification of large volumes of air and water by complex multistage processes. The construction of purification equipment, as a rule, involves large capital investments, which at times reach 20-30% of the cost of the entire industrial complex. Several billion rubles will be expended on the construction of purification equipment in the main branches of industry in the USSR by 1985. The operation of such equipment already costs many hundreds of millions of rubles annually.

However, these measures do not solve the task of protecting the biosphere against the harmful effect of industry.

If known technological processes, methods and their apparatus formulation are used, 100% purification of air and water at industrial enterprises is economically inadvisable. Historically formed in all countries is the practice of wide use of the self-purifying capacity of the atmosphere and hydrosphere without consideration of the damage done to natural resources.

JPRS 60661
30 Aug 73

LASKORINA, N.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR

UDC 636.612

LASKOV, A. A., All Union Scientific Research Institute of Horse Breeding

"The Effect of Acute Hypoxia on Large Animals"

Moscow, Sel'skokhozyaystvennaya Biologiya, No 2, 1971, pp 201-205

Abstract: The indexes of external respiration and blood circulation (pulse and respiratory rates, lung ventilation), transport function of blood (erythrocyte count, hemoglobin concentration, oxygen capacity), oxyhemometric shifts, hematopoiesis, cell and tissue metabolism, gas metabolism, and thermoregulation were studied in 25 horses after the effect of acute hypoxia induced by inhalation of various oxygen-nitrogen-carbon dioxide mixtures corresponding to simulated altitudes of 2.5, 5, and 10 km for 5 to 20 minutes daily for 3 to 7 days. All the systems and functions studied revealed evidence of adaptation. The shifts reflected not only autonomic reactions but also the development of an oxygen depot, lowering of the oxidation level to save on oxygen consumption, change in the relationship between anaerobic and aerobic processes, and stimulation of energy formation and enzyme systems. Thus, acute hypoxia is a generalized stressor acting on many of the body's systems. Adaptation increases systemic or nonspecific resistance not only to oxygen insufficiency but to a variety of unfavorable factors.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

UDC: 51

USSR

LASN, E.

"Elaboration of a Monthly Plan for Production Output in an Instrument Making Plant"

Tr. vychisl. tsentra. Tartus. un-t (Works of the Computing Center. Tartu University), 1971, vyp. 20, pp 28-54 (from RZh-Kibernetika, No 5, May 72, Abstract No 5V472)

[No abstract]

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

USSR UDC: 621.396.69:621.372.412(088.8)

AL'TSHULLER, G. B., LASSOVIK, S. I.

"A Thermostat for Quartz Resonators"

USSR Author's Certificate No 259178, filed 15 Mar 68, published 4 Jun 70 (from RZh-Radiotekhnika, No 12, Dec '70, Abstract No 12V438 P)

Translation: This Author's Certificate introduces a thermostat for quartz resonators made in the form of an evacuated vessel equipped with a heating element. As a distinguishing feature of the patent, extraneous effects on the resonator are reduced by making the heating element in the form of an electroconductive coating applied directly to the inside surface of the vessel.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

1/3 030 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--POLYFUNCTIONAL CHARACTER OF THE RESPONSES OF SINGLE NEURONS OF THE VIGIL RAT VISUAL CORTEX -U-

AUTHOR-(02)-KUMAN, E.A., LATASH, L.P.

COUNTRY OF INFO--USSR

SOURCE--NEYROFIZIOLOGIYA, 1970, VOL 2, NR 3, PP 242-250

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--WHITE RAT, NEURON, GLASS ELECTRODE, VISION, CEREBRAL CORTEX

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1999/1632 STEP NO--UR/0660/70/002/003/0242/0250

CIRC ACCESSION NO--AP0123471

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9

2/3 030 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC. ACCESSION NO--AP0123471

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE FIRING ACTIVITY OF THE VISUAL CORTEX SINGLE NEURONS OF UNANAESTHETIZED, UNCURARIZED ALBINO RATS WAS STUDIED WITH EXTRACELLULAR GLASS MICROELECTRODES IN THE BACKGROUND STATE AND DURING PRESENTATION OF A CERTAIN PROGRAMMED STIMULATION INCLUDING SERIES OF REPEATED SPECIFIC (FLASHES, CONTINUOUS LIGHT) AND NON SPECIFIC (CLICKS, TONE) STIMULI WHICH WERE APPLIED APART AS WELL AS IN A COMPLEX. THE NEURONAL RESPONSES INDUCED BY FLASHES AND CLICKS WERE ANALYZED WITH THE POSTSTIMULUS HISTOGRAM METHOD. THE REGULAR NEURONAL ACTIVITY SHIFTS IN RESPONSE TO FLASHES (ONE PER SEC) RESULTED IN AN INCREASE OR-AND DECREASE IN FIRING RATE AND WERE OBSERVED NOT ONLY DURING THE FIRST 150-200 MSEC (SHORT LATENCY RESPONSE, SLR) BUT LATER, UP TO 800-900 MSEC (LONG LATENCY RESPONSE, LLR) AS WELL. LLR DIFFERED FROM SLR ALSO IN GREATER VARIABILITY (INCREASING OR DECREASING DURING REPEATED STIMULUS PRESENTATION), IN PRONOUNCED INTERACTION WITH THE NON SPECIFIC STIMULI WHICH AT THE SAME TIME INFLUENCES RARELY AND WEAKLY SLR AND VERY RARELY EVOKED THE VISUAL CORTEX NEURON REACTIONS BY THEMSELVES. THE NEURON COULD RESPOND WITH SEVERAL DIFFERENT LLR'S LATENCIES. IT IS SUGGESTED THAT ONE AND THE SAME NEURON IN EACH CYCLE OF ITS EVOKED ACTIVITY CAN BE INCLUDED INTO THE DIFFERENT FUNCTIONAL BRAIN SYSTEMS, WHICH SEEM TO PROVIDE BASIS FOR BOTH THE IMMEDIATE RECEPTION OF INFORMATION MESSAGES THAT COME VIA SPECIFIC SENSORY PATHWAYS AND THE FOLLOWING TRANSFORMATION OF THEM. IT SEEMS POSSIBLE TO IDENTIFY SUCH NEURONS (MORE THAN A HALF OF ALL STUDIED) AS POLYFUNCTIONAL ONES.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201720008-9"