Acc. Nr: AP0047202 Ref. Code: UR0524

PRIMARY SOURCE: Terapevticheskiy Arkhiv, 1970, Vol 42, Nr 1, pp 39-46

MYOCARDIAL DYSTROPHY IN FOCAL INFECTION

B. L. Moushovich

Summary

The author observed 205 patients; rheumatism was diagnosed in 81 patients, tonsillitis in 97, «masked» chronic cholecystitis (cholecytocholangitis) with cardiac symptoms prevailing — in 29 cases. There is an opinion that cardiac changes in focal infection cannot be explained by a reflex factor alone. Taking into consideration the presence of the signs of protein and carbohydrate metabolism they can be regarded as dystrophic. The problem of differential diagnosis of myocardial dystrophy in focal infection with rheumatic carditis is disscussed. A summary table of differential diagnosis is presented.

REEL/FRAME
19790702

USSR UDC: 621.396.622.2

MOVSHOVICH, M. Ye., SENINA, R. S.

"Characteristics of Mixer Circuits Designed for Use in Microelectronics"

V sb. Materialy Nauch.-tekhn. konf. Leningr. elektrotekhn. in-t svyazi. Vyp. 3 (Materials of the Scientific and Technical Conference of Leningrad Electrical Engineering Institute of Communications--collection of works, No 3), Leningrad, 1971, pp 213-218 (from RZh-Radiotekhnika, No 3, Mar 72, Abstract No 3D41)

Translation: The authors determine the parameters of frequency conversion when using transistors connected in a differential circuit which is extensively used in micromodules with the difference that resistors are added in the emitter circuit to linearize the transistor characteristics. It is assumed that the transistor characteristics are exponential. N. Ch.

1/1

USSR

UDC 669.71.053.2(088.8)

GROSHEV, G. L., DANOV, S. M., YURLOVA, Z. I., SHILOVA, A. V., CHAUSOVSKIY, D. A., MOVSHEVICH, Yu. M., and SHAROV, A. V.

"Method of Producing Anhydrous Aluminum Chloride"

USSR Author's Certificate No 268397, Filed 8/04/68, Published 13/07/70 (Translated from Referativnyy Zhurnal-Metallurgiya, No 2, 1971, Abstract No 2 G132 P)

Translation: A method is presented for producing anhydrous $AlCl_3$ from Na tetrachloroaluminate at elevated temperatures. To simplify the process, the Na tetrachloroaluminate is treated with gaseous NH_3, the ammoniates formed are evaporated and condensed, and metallic Al is added to them with subsequent heating to 800-850° in a medium of an inert gas such as N_2.

1/1

1/2 013 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--IMPAIRMENT OF THE SPINE STABILITY AFTER EXTENDED LAMINECTOMY -U-

AUTHOR--MOVSHOVICH, I.A.

COUNTRY OF INFO--USSR

SOURCE--ORTOPEDIYA, TRAVMATOLOGIYA I PROTEZIROVANIYE, 1970, NR 6, PP 44-46

DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--BONE DISEASE, ORTHOPEDIC SURGERY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3003/0907 STEP NO--UR/9115/70/000/006/0044/0046

CIRC ACCESSION NO--AP0129972

UNCLASSIFIED

2/2 013 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0129972

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. EXTENDED LAMINECTOMY ACCOMPANIED BY RESECTIN OF THE ARTICULAR VERTERRAL PROCESSES RESULTS IN IMPAIRMENT OF THE SPINE STABILITY WITH SERIOUS STATIC DYNAMIC AND NEUROLOGICAL DEVIATIONS. THE CLINICAL OBSERVATIONS OF 12 PATIENTS WHO UNDERWENT EXTENDED LAMINECTOMY DIRECTED AT APPROACH TO THE DISCAL HERNIA OR EXCISION OF BENIGN TUMOURS ARE REPORTED IN THE ARTICLE. SINCE LAMINECTOMY WAS NOT FOLLOWED BY SPINE FIXATION, "SUBSIDENCE" OF SPINE WITH RADICULAR PAINS WAS OBSERVED POSTOPERATIVELY, AND DISLOCATION OF BODY OF IV LUMBAR VERTEBRA OCCURRED IN 1 PATIENT. TO STABILIZE THE SPINE THE PATIENTS WERE SUBJECTED TO ANTERIOR, ANTERO POSTERIOR AND POSTERIOR SPONDYLODESIS. IN EXTENDED LAMINECTOMY THE AUTHOR RECOMMENDS OBLIGATORY TERMINATION OF THE OPERATION BY POSTERIOR SPONDYLODESIS.

FACILITY: TSENTRAL'NOGO INSTITUTA TRAVMATOLOGII I ORGOPEDII.

UNCLASSIFIED

1/2 010 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--DYEING CELLULOSE FIBERS WITH FIBER REACTIVE DYES. ANALYSIS OF KINETIC EQUATIONS -U-
AUTHOR-(03)-SADOV, F.I., KRICHEVSKIY, G.YE., MOVSHOVICH, I.M.

COUNTRY OF INFO--USSR

SOURCE--IZV. VYSSH. UCHEB. ZAVED., TEKHNOL. TEKST. PROM. 1970, (1), 76-80

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--KINETIC EQUATION, DYE, CELLULOSE RESIN, DIFFUSION COEFFICIENT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--2000/0946 STEP NO--UR/0324/70/000/001/0076/0080

CIRC ACCESSION NO--AP0124606
UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--30OCT70

2/2 010

CIRC ACCESSION NO--AP0124606

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE KINETICS OF DYEING CELULOSE FIBERS WITH FIBER REACTIVE DYES DEPEND ON THE EFFECTIVE DYE PENETRATION DEPTH (L); L EQUALS (D OVER K) PRIME0.5 (D IS THE DYE DIFFUSION COEFF. IN THE FIBER AND K IS THE RATE CONST. OF THE DYE FIBER REACTION). THE VALUES OF L DET. THE KINETIC REGION OF DYEING (TIME DEPENDENT, DIFFUSION RATE CONTROLLED, OR TRANSITIONAL). FACILITY: MOSK. TEKST. INST., MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC 621.375.016.35

M

MOVSHOVICH, M. YE.

"Calculating the Stabilizing Characteristics of Transistor Feed Circuits"

Materialy nauchno-tekhn. konferentsii. Leningr. elektrotekhn. in-t svyazi. Vyp. 2 (Materials of the Scientific and Technical Conference. Leningrad Electrotechnical Communications Institute. Vyp. 2), Leningrad, 1970, pp 173-176 (from RZh-Radiotekhnika, No 9, Sep 70, Abstract No 9D132)

Translation: This article contains an investigation of a known transistorized amplifier feed circuit in which, in order to stabilize the operating point of the amplifier, a resistor is used in the emitter circuit, and a voltage divider one end of which is connected to the minus power supply (for the case of p-n-p type transistors) and the second end, to the plus power supply, and the midpoint, to the base of the transistor is also used. The emitter current is represented by an exponent coupling the null current of the emitter to the base voltage. The collector current and the base current are represented by known relations relating the emitter current, the amplification coefficient with respect to current in the circuit with a common base and the null current of the collector. Formulas are derived for the instability of the amplifier emitter current without a stabilization circuit and with a stabilization circuit.

1/1

USSR

UDC 621.396.622.2:621.372.622

MOVSHOVICH, M. YE.

"Dynamic Ranges of Modern Frequency Converters"

Materialy nauchno-tekhn. konferentsii. Leningr. elektrotekhn. in-t svyazi Vyp. 3 (Materials of the Scientific and Technical Conference. Leningrad Electrotechnical Communications Institute. Vyp. 3), Leningrad, 1970, pp 214-218 (from RZh-Radiotekhnika, No 9, Sep 70, Abstract No 9D22)

Translation: The relations between the dynamic ranges of the simple and complex converters and also possible values of these characteristics are determined.

1/1

1/2 CC9 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--CHROMATOGRAPHIC DETERMINATION OF THE COMPOSITION OF A MIXTURE OF PRODUCTS OBTAINED DURING BURYRIC ACID SYNTHESIS -U-
AUTHOR-(03)-KOSTANYAN, G.G., USTYAN, L.O., MOVSISYAN, A.A.

COUNTRY OF INFO--USSR

SOURCE--ARM. KHIM. ZH. 1970, 23(2), 134-9

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHROMATOGRAPHY, BUTYRIC ACID, ALDEHYDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3002/1503 STEP NO--UR/0426/70/023/002/0134/0139

CIRC ACCESSION NO--AP0128898
UNCLASSIFIED

2/2 009 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0128898

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. OPTIMUM PARAMETERS FOR THE CHROMATOGRAPHIC DETN. OF RAW CROTONALDEHYDE (I) ARE AS FOLLOWS: COLUMN (4 M TIMES 6 MM INSIDE DIAM) PACKED WITH DIATOMACEOUS EARTH (0.25-0.50 MM) COATED WITH 23PERCENT POLYETHYLENE GLYCOL ADIPATE, COLUMN TEMP. 88DEGREES, CARRIER GAS H AT 4.51-HR, DETECTOR CURRENT 120 MA. FOR THE ANAL. OF RAW BUTYRIC ACID (II) THE FOLLOWING CONDITIONS ARE RECOMMENDED: COLUMN TEMP. 135DEGREES, CARRIER GAS FLOW RATE 2.81 HR, 26PERCENT COLUMN COATING, DETECTOR CURRENT 140 MA. RELATIVE RETENTION VOLS. OF 17 AND 25 COMPONENT MIXTS. OF I AND II, RESP., ARE TABULATED. ANAL. TIME WAS 60-5 MIN, SENSITIVITY BASED ON ME SUB2 CO DETN. 0.001 WT.PERCENT.

FACILITY: GOS. NAUCH.-ISSLED. PROEKT. INST. POLIM. KLEEV, KIROVAKAN, USSR.

UNCLASSIFIED

USSR

UDC: 621.372.81.011.2

MOVSISYAN, A. M. and AVETISYAN, Yu. O., Yerevan State University

"Investigating the Conductivity of a Waveguide With Dynamic Slippage Between Particle Bunches and Wave"

Yerevan, Izvestiya Akademii Nauk Armyanskoy SSR -- Fizika, vol 7, No 4, 1972, pp 283-287

Abstract: This paper is based in part on an earlier article in the same journal noted above (Zhileyko, G. I., et al, 5, 205, 1970) which investigated the longitudinal dynamics of charged particles in the field of a traveling electromagnetic wave with independent variable-equilibrium energy. The purpose of the present paper is to determine how the field and the equilibrium phase depend on the waveguide conductivity, whose magnitude is a function of the waveguide geometry and the velocity of the electromagnetic wave propagated through it. To determine the waveguide conductivity, the authors use the generally accepted equation of the power of the side field (the oscillator field) as the sum of the grouped particle beam power and the waveguide field power. An expression is obtained for the dynamic slippage phase including the waveguide

USSR UDC: 621.372.81.011.2

MOVSISYAN, A. M., et al, Izvestiya Akademii nauk armyanskoy SSR -- Fizika, vol 7, No 4, 1972, pp 283-287

conductivity. It is found that for a given beam current, oscillator power, equilibrium phase, and waveguide conductivity, the amplitude and phase of the radiation field in any section of the waveguide can be determined.

1/1

USSR

UDC 576.895.4

MULYARSKAYA, L. V., KOROBEYNIKOV, A. S., DZHEBRAILOV, D. D., BABAYEV, A. G., SHASHNIKOVA, N. V., and MOVSUMOV, M. A.

"Trombiculid Mites (Acariformes, Trombiculidae) of Western Azerbaydzhan"

Baku, Izvestiya Akademii Nauk Azerbaydzhanskoy SSR, Seriya Biologicheskikh Nauk, No 3, 1971, pp 77-82

Abstract: The Institute of Zoology, Academy of Sciences Azerbaydzhan SSR, conducted a study of the distribution of trombiculid mites in Western Azerbaydzhan in 1967-68 jointly with the Azerbaydzhan Antiplague Station. The principal host of these blood-sucking parasites in Western Azerbaydzhan was found to be the red-tailed gerbil (Meriones erythrourus) because of the large number of animals of this species. Some significance as hosts of trombiculid mites can also be ascribed to the Asia Minor gerbil (Meriones tristrami), house mouse, common and social voles, and the weasel. The number of mites varied with the season and with climatic conditions at various elevations of this mountainous area. The largest number of Trombiculidae species (nine species) infested Meriones erythrourus. Weasels were infested exclusively with Hyatrombicula caucasica. The bird mite Neoschoengastia thomasi was found on forest dormice and the

R

ULYARSKAYA, L. V., et al., Izvestiya Akademii Nauk Azerbaydzhanskoy SSR, Seriya Biologicheskikh Nauk, No 3, 1971, pp 77-82

mite Trombicula callosa, which usually infests lizards, was found to occur on hedgehogs. The most numerous species of trombiculid mites was Microtrombicula azerbaidjanica, which was followed by Leewenhoekia major.

2/2

USSR

UDC 615.787:612.014.46

SHIKHIYEV, I. A., AKHUNDOV, E. A., MOVSUMZADE, E. M., ISAYEV, E. M., and KLUGYL', T. A.

"The Synthesis and Psychotropic Properties of Some Acetylene Derivatives of Phthalimide"

Baku, Azerbaydzhanskiy Meditsinskiy Zhurnal, Vol 50, No 3, Mar 73, pp 14-18

Abstract: In earlier work by the authors of this article, the synthesis of 3-phthalimido-1-propyne and of some of its amino derivatives was investigated. In the present work the neuropharmacological characteristics of the compounds of this type that had been synthesized were subjected to study in experiments on white mice. The preliminary pharmacological study indicated that some of the compounds of this class resembled with respect to their activity tranquilizers of the unsaturated carbinol type such as ethchlorovinol, oblivon, and oblivon K.

1/1

USSR

UDC 547.313:66.062.539.094.404

MOVSUMZADE, M. M., SHABANOV, A. L., MOVSUMZADE, S. M., and GURBANOV, P. A., Azerbaydzhan Petroleum and Chemical Institute imeni M. Azizbekov

"Conjugated Bromination of Oxirane-Olefin Mixtures. I. Synthesis of Cyclic 2,2'-Dibromethers"

Leningrad, Zhurnal Organicheskoy Khimii, Vol 7, No 6, Jun 71, pp 1106-1108

Abstract: By the action of Br_2 on a mixture of cyclohexene with cyclohexene oxide in CCl_4, 2,2'-dibromocyclohexyl ether (I; b. 155-6°/2 mm) was prepared with a good yield. With increasing molar ratios of cyclohexene oxide to cyclohexene, the maximum yield of I (71.2%) was reached at the ratio of 8:1. Changing of the reaction temperature in the minus 10 - plus 50° range or carrying out the reaction in a different solvent ($HCCl_3$, ether, or hexane) did not alter the yield significantly. Similarly, conjugated bromination of cyclopentene oxide and cyclopentene, cyclohexene oxide and cyclopentene or cyclopentene oxide and cyclohexene, cyclohexene oxide and 1-methylcyclopentene, and cyclohexene oxide and 1-methylcyclohexene led to the formation of 2,2'-dibromodicyclopentyl ether (60.8%, b. 116-17°/2 mm), 2-bromocyclopentyl-2-bromocyclohexyl ether (82.8%, b. 129-30°/2 mm), 2-bromo-1-methylcyclopentyl-2-bromocyclohexyl ether (68.4%, b. 132-4°/mm), and 2,2'-dibromo-1-methyldicyclohexyl ether (71.7%, b. 150-3°/2mm), respectively. Dibromides of the olefins used formed as byproducts of the conjugated bromination.

1/1

USSR

UDC 547.313.:66.062.539.094.404

SHABANOV, A. L., MOVSUMZADE, M. M., MOVSUMZADE, S. M., and GURBANOV, P. A., Azerbaydzhan Petroleum and Chemical Institute imeni M. Azizbekov

"Conjugated Bromination of Oxirane-Olefin Mixtures. I. Synthesis of 2,2'-Dibromoalkyl Ethers"

Leningrad, Zhurnal Organicheskoy Khimii, Vol 7, No 6, Jun 71, pp 1109-1110

Abstract: By the conjugated bromination in CCl_4 at 0-5° of ethylene oxide and ethylene that was passed through the reaction mixture, 2,2'-dibromodiethyl ether (b. 56-59°/2 mm) was prepared with a yield of 66.4%. By applying the same reaction of conjugated bromination, 2,2'-dibromoethers were prepared from trimethylethylene and cyclohexene oxide, trimethylethylene and cyclopentene oxide, 1-methylcyclohexene and cyclopentene oxide, and styrene and cyclohexene oxide with a yield of 41.4 (b. 126°/3 mm), 85.4 (b. 132-4°/2 mm), 72.6 (b. 101-2°/2 mm), and 74.0% (b. 181.3°/2 mm), respectively. Addition to the double bond proceeded according to the Krasuskiy rule. On conjugated chlorination of ethylene oxide together with ethylene in CCl_4 at minus 10 - 0°,2,2'-dichlorodiethyl ether was obtained with a yield of 90% vs. 45% when chlorination of the same substances was carried out without a solvent, as indicated in French Pat. 713140, Chem. Abs. 1, 3476 (1935)

1/1

UDC 547.313.:66.062.539.094.404

USSR

SHABANOV, A. L., MOVSUMZADE, M. M., MOVSUMZADE, S. M., and GURBANOV, P. A., Azerbaydzhan Petroleum and Chemical Institute imeni M. Azizbekov

"Conjugated Bromination of Oxirane-Olefin Mixtures. I. Synthesis of 2,2'-Dibromoalkyl Ethers"

Leningrad, Zhurnal Organicheskoy Khimii, Vol 7, No 6, Jun 71, pp 1109-1110

Abstract: By the conjugated bromination in CCl_4 at 0-5° of ethylene oxide and ethylene that was passed through the reaction mixture, 2,2'-dibromodiethyl ether (b. 56-59°/2 mm) was prepared with a yield of 66.4%. By applying the same reaction of conjugated bromination, 2,2'-dibromoethers were prepared from trimethylethylene and cyclohexene oxide, trimethylethylene and cyclopentene oxide, 1-methylcyclohexene and cyclopentene oxide, and styrene and cyclohexene oxide with a yield of 41.4 (b. 126°/2 mm), 85.4 (b. 132-4°/2 mm), 72.6 (b. 101-2°/2 mm), and 74.0% (b. 181.3°/2 mm), respectively. Addition to the double bond proceeded according to the Krasuskiy rule. On conjugated chlorination of ethylene oxide together with ethylene in CCl_3 at minus 10 - 0°,2,2'-dichlorodiethyl ether was obtained with a yield of 90% vs. 45% when chlorination of the same substances was carried out without a solvent, as indicated in French Pat. 713140, Chem. Abs. 1, 3476 (1935)

1/1

USSR

UDC 547.313:66.062.539.094.404

MOVSUMZADE, M. M., SHABANOV, A. L., MOVSUMZADE, S. M., and GURBANOV, F. A., Azerbaydzhan Petroleum and Chemical Institute imeni M. Azizbekov

"Conjugated Bromination of Oxirane-Olefin Mixtures. I. Synthesis of Cyclic 2,2'-Dibromethers"

Leningrad, Zhurnal Organicheskoy Khimii, Vol 7, No 6, Jun 71, pp 1106-1108

Abstract: By the action of Br_2 on a mixture of cyclohexene with cyclohexene oxide in CCl_4, 2,2'-dibromocyclohexyl ether (I; b. 155-6°/2 mm) was prepared with a good yield. With increasing molar ratios of cyclohexene oxide to cyclohexene, the maximum yield of I (71.2%) was reached at the ratio of 8:1. Changing of the reaction temperature in the minus 10 - plus 50° range or carrying out the reaction in a different solvent ($HCCl_3$, ether, or hexane) did not alter the yield significantly. Similarly, conjugated bromination of cyclopentene oxide and cyclopentene, cyclohexene oxide and cyclopentene or cyclopentene oxide and cyclohexene, cyclohexene oxide and 1-methylcyclopentene, and cyclohexene oxide and 1-methylcyclohexene led to the formation of 2,2'-dibromodicyclopentyl ether (60.8%, b. 116-17°/2 mm), 2-bromocyclopentyl-2-bromocyclohexyl ether (82.8%, b. 129-30°/2 mm), 2-bromo-1-methylcyclopentyl-2-bromocyclohexyl ether (68.4%, b. 132-4°/mm), and 2,2'-dibromo-1-methyldicyclohexyl ether (71.7%, b. 150-3°/2mm), respectively. Dibromides of the olefins used formed as byproducts of the conjugated bromination.

1/1

1/2 021 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--ON REFLEX CHANGES OF THE REGIONAL VASCULAR RESISTANCE IN ISCHEMIA OF THE HEART ISOLATED FROM THE CIRCULATION -U-

AUTHOR--MOYBENKO, A.A.

COUNTRY OF INFO--USSR

SOURCE--BYULLETEN' EKSPERIMENTAL'NOY BIOLOGII I MEDITSINY, 1970, VOL 69, NR 3, PP 26-27

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--DOG, BLOOD CIRCULATION, MYOCARDIUM, REFLEX, SMALL INTESTINE, KIDNEY, HYPOXIA, CARDIOVASCULAR SYSTEM

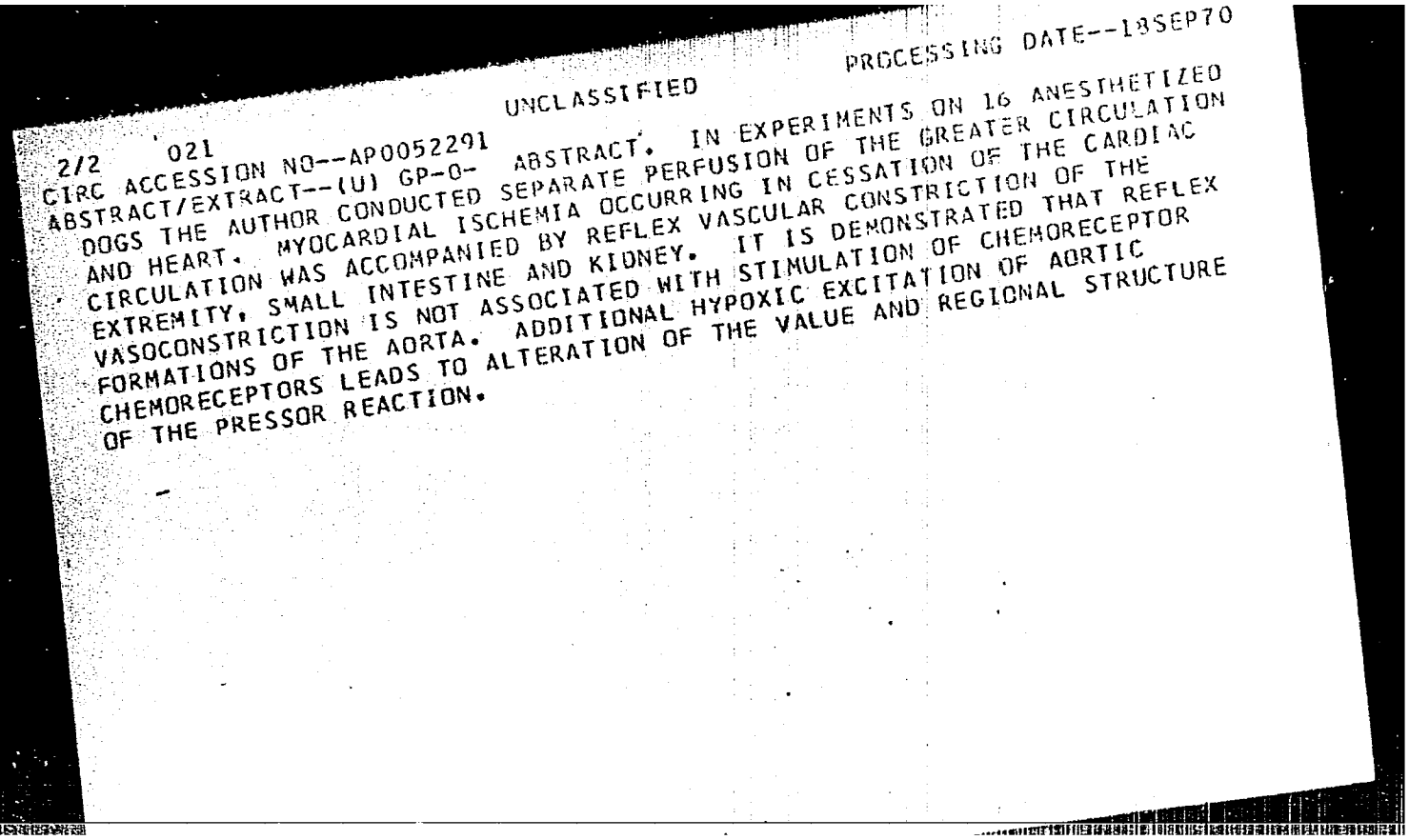
CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1982/0857 STEP NO--UR/0219/70/069/003/0026/0027

CIRC ACCESSION NO--AP0052291

UNCLASSIFIED



2/2 021 UNCLASSIFIED PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0052291

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IN EXPERIMENTS ON 16 ANESTHETIZED DOGS THE AUTHOR CONDUCTED SEPARATE PERFUSION OF THE GREATER CIRCULATION AND HEART. MYOCARDIAL ISCHEMIA OCCURRING IN CESSATION OF THE CARDIAC CIRCULATION WAS ACCOMPANIED BY REFLEX VASCULAR CONSTRICTION OF THE EXTREMITY, SMALL INTESTINE AND KIDNEY. IT IS DEMONSTRATED THAT REFLEX VASOCONSTRICTION IS NOT ASSOCIATED WITH STIMULATION OF CHEMORECEPTOR FORMATIONS OF THE AORTA. ADDITIONAL HYPOXIC EXCITATION OF AORTIC CHEMORECEPTORS LEADS TO ALTERATION OF THE VALUE AND REGIONAL STRUCTURE OF THE PRESSOR REACTION.

Acc. Nr: AP0052314 Ref. Code: UR0238

PRIMARY SOURCE: Fiziologichniy Zhurnal, 1970, Vol 16, Nr 2, pp228-236

ON REFLEX CARDIOGENOUS MECHANISMS FOR REGULATION OF VASCULAR TONE

M. M. Gorev, O. O. Moybenko

The A. A. Bogomoletz Institute of Physiology, Academy of Sciences, Ukrainian SSR, Kiev

Summary

The article deals with the analysis of reflex interrelations between the heart activity and periphery vessel tone.

In the experiments on dogs with applying the method of artificial circulation, the separate perfusion of systemic circulation and heart was realized.

The left-ventricle zone is shown to be a basic reflexogenic zone of heart taking part in regulating the tone of the systemic circulation vessels. Reflectory vasomotor shifts with stimulation of this zone receptors are of adaptive character.

1/2

REEL/FRAME
19820893

2

AP0052314

A high sensitivity is observed of the receptor apparatus of the left heart to the changes in its work regime, which makes possibile to substantiate the statement on an important role of this reflexogenic zone in regulating the vascular tone under physioiogical conditions.

Essential differences in the character and manifestation of the vasomotor reflexes when stimulating different receptor zones of heart enable one to come to a conclusion on functional heterogeneity of the heart receptor field, on different role of its separate reflexogenic zones in regulating the vascular tone.

2/2

19820894

1/2 013 UNCLASSIFIED PROCESSING DATE--09OCT70

TITLE--PROBLEMS OF ALCOHOLIC PARAPHRENIA -U-

AUTHOR--MOYEFES, S.M.

COUNTRY OF INFO--USSR

SOURCE--ZHURNAL NEVROPATOLOGII I PSIKHIATRII IMENI S. S. KORSAKOVA, 1970, VOL 70, NR 5, PP 740-743

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--ALCOHOL, PSYCHOSIS, HALLUCINATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

STEP NO--UR/0246/70/070/005/0740/0743

PROXY REEL/FRAME--1994/1126

CIRC ACCESSION NO--AP0115145

UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--090CT70

2/2 013

CIRC ACCESSION NO--AP0115145

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EXISTENCE OF AN ALCOHOLIC PARAPHRENIA IS A CLINICAL REALITY. DEPENDING UPON THE FORMATION OF IDEAS OF GRANDEUR, ALL PATIENTS WITH ALCOHOLIC PARAPHRENIA CAN BE DIVIDED INTO 2 GROUPS: WITH THE SYNDROME OF MENTAL AUTOMATISMS (IDEATORY AUTOMATISMS) AND THE SYNDROME OF VERBAL HALLUCINOSIS. THE PARAPHRENIC SYNDROME IS NOT SEEN IN PATIENTS WITH ALCOHOLIC PARANOID STATES. IN ALCOHOLIC PARAPHRENIA THERE IS NO DELUSIONAL EVOLUTION AND A PREVELENCY OF PERCEPTIVE DISORDERS IS MARKDE. IT IS ALSO NOT CHARACTERIZED BY RETROSPECTIVE INTERPRETATIONS; FALSE RECOGNITIONS AND DELUSIONAL FANTASIES. FACILITY: LENINGRAD PSIKHONEVROLOGICHESKAYA BOL'NITSA NO 2.

UNCLASSIFIED

USSR UDC 51:330.115

IVANILOV, Yu. P., MOYISEYEV, N. N., PETROV, A. A.

"Some Mathematical Problems of Programmed Control of an Economic System"

Kibernetiku -- na Zluzhbu Kommunizmu. T. 6 [Cybernetics in the Service of Communism, Vol 6 -- Collection of Works], Moscow, Energiya Press, 1971, pp 9-22, (Translated from Referativnyy Zhurnal, Kibernetika, No 10, 1971, Abstract No 10 V702 by D. Epshteyn).

Translation: A program method of control of the national economy is defined. The program refers to a set of s operations which must be performed to achieve the desired goal. A program of development of production supporting the entire set of programs of development of an economic system is particularly noted. An s-digit number $z = k_1, k_2, \ldots, k_s$ is used to describe the state of the program, where k_i defines the degree of fulfillment of the ith operation in a scale selected such that all $k_i \leq m$ and $z = mm...m$ means that the program has been fulfilled. A system of equations is concluded describing the fulfillment of a certain program for a simple multibranch dynamic production model. Control u(t) refers to an s digit number containing the intensity of fulfillment of the ith operation at moment t in the ith digit. A dead end control refers to a control under which it is impossible to increase the intensity of fulfillment of any

USSR UDC 51:330.115

IVANILOV, Yu. P., MOYISEYEV, N. N., PETROV, A. A., Kibernetiku -- na Zluzhbu Kommunizmu. T. 6, Moscow, Energiya Press, 1971, pp 9-22.

operation due to resource limitations. It is proven that the dead end control include the control providing for fulfillment of the program in the minimum time. A search algorithm is constructed leading to the construction of this optimal control with a maximum excess of resources at the end. An arbitrary example of calculation of a program for a linear, single-product model is presented.

2/2

UDC 612.821-053

USSR

VOLKOV, L. V., and MOYISEYEVA, Kiev Institute of Physical Culture, Kiev

"Determination of the Type of Higher Nervous Activity on the Basis of the Aftereffects Produced by a Multidimensional Stimulus"

Kiev, Fiziolohichniy Zhurnal, Vol 19, No 3, May/Jun 73, pp 297-30

Abstract: To determine the type of higher activity in experiments conducted on school children, the aftereffects (latent reaction periods) following the action of a multidimensional (visual and auditory) stimulus were measured by means of a portable transistor reflexometer. On the basis of psychophysiograms that were plotted by using the data obtained, one could differentiate between four types of higher nervous activity (excited, balanced, inhibited, and inert) among the subjects on whom the experiment was performed.

MOYKOVOSKIY, I. I.

CHANGE IN HUMAN HEAT EXCHANGE INDICES UNDER THE INFLUENCE OF MICROCLIMATIC STRESSORS

Article by S. S. Lonov and I. I. Moykovskiy, Moscow, Aktual'nyye Voprosy Kosmicheskoy Biologii i Meditsiny (Current Problems in Space Biology and Medicine), Russian, 1971, pp 111-117

Heat exchange indices were studied in nine healthy male volunteers over a seven-month period. After collecting control data (5.5 months) the volunteers were subjected to 30 days isolation, during which twice each five days extremal conditions were created: first factor -- increase in ambient temperature to 34°C and increase in absolute humidity to 33 mm; second factor -- temperature increase to 39°C and absolute humidity to 22 mm and carbon dioxide to 2%.

The following were registered by remote control: body temperature, skin temperature at five points, temperature of the exhaled air and mucosa, heat flux, perspiration, heat and pain thresholds of heat sensation. Upon termination of the experiment data on interoception cards were employed in an analysis of the subjective sensations of these subjects.

Analysis of objective (measurements) and subjective data revealed that the subjects experienced the greatest stressing of the heat-regulating mechanism during the period of exposure to the first factor. All the studied heat exchange indices increased with a reliability greater than 98-99.9% other than the heat flux, which decreased sharply ($P < 0.001$) and the temperature difference between the pain and heat thresholds, which also decreased reliably ($P < 0.001$).

During the period of exposure to the second factor this stress of the heat-regulating apparatus was not observed, possibly due to a weakening of the effect of the "high temperature - high humidity" combination, possibly not without

SPRS 26,499
14 July 72

MOYKOVSKIY, I. I

JPRS 56,499

14 Oct 72

SOME DATA ON THE FUNCTIONAL STATE OF THE HUMAN CARDIOVASCULAR SYSTEM DURING PROLONGED PRESENCE IN A TIGHTLY SEALED SPACE UNDER THE INFLUENCE OF HIGH CARBON DIOXIDE CONCENTRATIONS

/Article by I. I. Moykovskiy, Moscow, Aktual'nyye Voprosy Kosmicheskoy Biologii i Meditsiny (Current Problems in Space Biology and Medicine), Moscow, 1972, pp 395-411/

Space physiology is now devoting much attention to the functional state of the body in "emergency situations." During prolonged space flights in individual cases conditions may arise when as a result of malfunctions in the air conditioning and regeneration systems at some time changes will occur in the stipulated parameters of microclimate and atmosphere. As a result of the arising emergency situation there may be a significant increase in the CO_2 concentration in the spaceship cabin.

We investigated the functional state of the human cardiovascular system during prolonged (200 hours) presence in a tightly enclosed room with a modified atmosphere. The O_2 content was 17-18% and the CO_2 content was 4%.

For the purpose of routine monitoring the pulse and respiration rates were registered constantly not less than once an hour for each of the six subjects. In a study of the collected data we noted a quite clear diurnal rhythm of the pulse rate and respiration rate. During exposure to the modified atmosphere the diurnal rhythm of these parameters remains true and even becomes more clearly expressed. Beginning with the second or third day of the experiment some impairment in the diurnal rhythm was exhibited by subjects F-n and M-y; this may be associated with a change in their sleep schedule. No other data of interest were noted in the routine monitoring materials. Only in subject M-n beginning on the fifth-sixth day of the experiment was there a clearly expressed tachycardia.

USSR

UDC 669.295.5'27

MOYNOV, S. G., REZNICHENKO, V. A., SOLONINA, O. P., ULYAKOVA, N. ..., and YEGOROV, S. I., Moscow

"Production of Ti-W Alloys by Coreduction of Chlorides, and Some of Their Mechanical Properties"

Moscow, Izvestiya Akademii Nauk SSSR, Metally, No 1, Jan-Feb 1970, pp 26-32

Abstract: Results are presented of investigations on the development of a direct metal-thermal method of producing binary Ti-W alloys. The method involves diffusion of hexachloride tungsten in tetrachloride titanium and reduction of the solution by metallic magnesium. The quantity of tungsten chloride introduced into the solution is determined by the composition of the obtained alloy. As a result of coreduction of chlorides and subsequent vacuum separation of the products of reduction, a tungsten-doped titanium sponge is produced from which it is possible to obtain ingots with a uniform distribution of alloy component. Increase of tungsten content in the alloy up to 10 percent raises the tensile strength of titanium with insignificant reduction of ductility in the hot-forging state. A considerable effect of work hardening at room temperature can be obtained by means of heat treatment of Ti-W alloys. A considerable

1/2

USSR

MOYNOV, S. G., et al, Izvestiya Akademii Nauk SSSR, Metally, No 1, Jan-Feb 1970, pp 26-32

softening of the Ti-W alloys was observed in the 300-550° C temperature interval. In alloys with 6 and 10% tungsten at temperatures above 400°C an anomalous change in the magnitude of transverse reduction was observed, a fact which points to increased creep resistance of the alloys.

2/2

USSR UDC 669.295'28.3

REZNICHENKO, V. A., MOYNOV, S. G., MAKAROV, S. B., IVANOV, A. N., and ORLOVA, N. V., Moscow

"Study of the Process of Alloy Formation by the Joint Magnesiothermal Reduction of Titanium and Molybdenum Chlorides"

Moscow, Izvestiya Akademii Nauk SSSR Metally, No 1, Jan/Feb 74, pp 27-30

Abstract: Results are presented from studying the formation of alloys by the joint reduction of titanium and molybdenum chlorides and subsequent vacuum separation of the reaction masses. The phase composition of the reduction products was a mixture of alpha-titanium and two body-centered cubic, titanium- and molybdenum-base solid solutions and it was determined that the alpha-titanium is formed directly in the reduction process and not during the vacuum separation process at 850 to 1000° C. Extended soaking of the reaction masses at 800-850° C after reduction did not change phase composition of the produced metal. Evidently, particles of the b.c.c-solid solutions and alpha-Ti in the reaction mass were separated from each other by sublayers which hindered diffusion equalization of the concentration. After complete vacuum separation at 1000° C it was established that the main phase constituent is the b.c.c-solid solution which contains about 35% Mo in the titanium. One figure, two tables, one bibliographic references.

1/1

1/2 030 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--PREPARATION OF TITANIUM TUNGSTEN ALLOYS BY COREDUCTION OF THEIR CHLORIDES, AND SOME MECHANICAL PROPERTIES OF THE ALLOYS -U-

AUTHOR--MOYNOV, S.G., REZNICHENKO, V.A., SOLONINA, O.P., ULYAKOVA, N.M., YEGOROV, S.I.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, METAL. 1970, (1), 26-32

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--TITANIUM ALLOY, TUNGSTEN ALLOY, MECHANICAL PROPERTY, CHLORIDE, BINARY ALLOY, METAL HEAT TREATMENT, MAGNESIUM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1988/0539 STEP NO--UR/0370/70/000/001/0026/0032

CIRC ACCESSION NO--AP0105524

UNCLASSIFIED

2/2 030 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0105524

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A NEW METALLOTHERMIC METHOD OF OBTAINING BINARY TI-W ALLOYS AND SOME OF THE MECH. PROPERTIES OF THESE ALLOYS ARE DESCRIBED. THE METHOD FUNDAMENTALLY CONSISTS IN DISSOLVING THE WCL SUB6 IN TICL SUB4 AND IN REDUCING THE SOLN. BY METALLIC MG. THE AMT. OF WCL SUB6 DISSOLVED DEPENDS ON THE DESIRED QUALITIES OF THE ALLOY. AFTER COREDN. OF THE CHLORIDES AND AFTER VACUUM SEPN. OF THESE REACTION PRODUCTS, A TI TUBE ALLOYED WITH W IS FORMED, FROM WHICH CASINGS CONTG. AN EVENLY DISTRIBUTED ALLOYING ELEMENT CAN BE OBTAINED. BY INCREASING THE W CONTENT TO 10PERCENT, THE BREAKING STRENGTH OF THE TI ALLOY IS INCREASED. BY HEAT TREATMENT OF THE TI-W ALLOYS, AN IMPORTANT IMPROVEMENT OF MECH. PROPERTIES AT ROOM TEMP. CAN BE OBTAINED.

UNCLASSIFIED

1/2 030 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--PREPARATION OF TITANIUM TUNGSTEN ALLOYS BY COREDUCTION OF THEIR CHLORIDES, AND SOME MECHANICAL PROPERTIES OF THE ALLOYS -U-

AUTHOR--MOYNOV, S.G., REZNICHENKO, V.A., SOLONINA, O.P., ULYAKOVA, N.M., YEGOROV, S.I.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, METAL. 1970, (1), 26-32

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--TITANIUM ALLOY, TUNGSTEN ALLOY, MECHANICAL PROPERTY, CHLORIDE, BINARY ALLOY, METAL HEAT TREATMENT, MAGNESIUM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1988/0539 STEP NO--UR/0370/70/000/001/0026/0032

CIRC ACCESSION NO--AP0105524

UNCLASSIFIED

2/2 030 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0105524

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A NEW METALLOTHERMIC METHOD OF OBTAINING BINARY TI-W ALLOYS AND SOME OF THE MECH. PROPERTIES OF THESE ALLOYS ARE DESCRIBED. THE METHOD FUNDAMENTALLY CONSISTS IN DISSOLVING THE WCL SUB6 IN TICL SUB4 AND IN REDUCING THE SOLN. BY METALLIC MG. THE AMT. OF WCL SUB6 DISSOLVED DEPENDS ON THE DESIRED QUALITIES OF THE ALLOY. AFTER COREDN. OF THE CHLORIDES AND AFTER VACUUM SEPN. OF THESE REACTION PRODUCTS, A TI TUBE ALLOYED WITH W IS FORMED, FROM WHICH CASINGS CONTG. AN EVENLY DISTRIBUTED ALLOYING ELEMENT CAN BE OBTAINED. BY INCREASING THE W CONTENT TO 10PERCENT, THE BREAKING STRENGTH OF THE TI ALLOY IS INCREASED. BY HEAT TREATMENT OF THE TI-W ALLOYS, AN IMPORTANT IMPROVEMENT OF MECH. PROPERTIES AT ROOM TEMP. CAN BE OBTAINED.

UNCLASSIFIED

UDC 620.186.5

USSR

ZHIROVETSKIY, V. M., NOYSA, M. I., PLYATSKO, G. V., and TURCHENKO, N. P., Institute of Physics and Mechanics of the Academy of Sciences UkrSSR, L'vov

"Some Peculiarities of the Change in Properties of Alloys After Laser Beam Treatment"

Kiev, Fiziko-Khimicheskaya Mekhanika Materialov, Vol 8, No 1, 1972, pp 84—87

Abstract: Investigation results of the effect of local pulsed heating with a laser beam on the structure and microhardness changes of different steel brands, including tool steels U8, U10, high-chromium steel Kh12M, nine other steel brands, and Armco iron, are discussed by reference to microstructures and diagrams. After cooling, the structure and physico-mechanical properties of the metal of former smelted state differ substantially from its initial condition: specific needle-shaped desintegration of grains and increased microhardness resulted in all investigated cases, including Armco iron. The laser beam

USSR

ZHIROVETSKIY, V. M., et al., Fiziko-Khimicheskaya Mekhanika Materialov, Vol 8, No 1, 1972, pp 84-87

treated zone of tool steels U8 and U10 was found to consist of martensite, residual austenite, Fe_3C carbide, and Fe_3O_4 oxide. Supposedly, the high heating rates of steels affect favorably the dissolution process of carbides. The laser-beam treatment of annealed Kh12M steel, apparently, comminutes the net of carbides effecting a local conversion of Fe_2WC in the WC carbide and the W_2C β-phase, developing by 2600°C, and at the same time the microhardness increases from 240 to 520 kg/mm^2. The observed decrease in microhardness of the hardened Kh12M steel from 720 to 460 kg/mm^2 is probably due to the fact that Va, which decreases the overheating sensitivity, is bonding a part of carbon in poorly soluble VC carbides. Four illustr., seven biblio. refs.

2/2

USSR

UDC: 547.26.118'221.07

VIGALOK, I.V., MOYSAK, I.YE., and SVETLAKOV, N.V., Kazan' Chemical Technological Institute imeni S.M. Kirov, Kazan, Ministry of Higher and Secondary Specialized Education RSFSR

"A New Method for the Synthesis of Dialkyl Fluorophosphates"

Leningrad, Zhurnal Obshchey Khimii, Vol 40, No 4, Apr 70, p 936

Abstract: Perchloryl fluoride fluorinates on the phosphorus atom, interact with salts of dialkylphosphorous acid after the pattern of the Michaelis-Becker reaction to give dialkyl fluorophosphates.

1/1

1/2 016 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--SYNTHESIZING DIALKYL FLUOROPHOSPHATES -U-

AUTHOR-(03)-VIGALOK, I.V., MOISAK, I.E., SVETLAKOV, N.V.

M

COUNTRY OF INFO--USSR

SOURCE--ZH. OBSHCH. KHIM. 1970, 40(4), 936

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ORGANIC PHOSPHATE, FLUORINATED ORGANIC COMPOUND, ORGANIC SYNTHESIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3006/1517 STEP NO--UR/0079/70/040/004/0936/0936

CIRC ACCESSION NO--AP0135178
UNCLASSIFIED

CIRC ACCESSION NO--AP0135178

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. TO A SOLN. OF 0.064 MOLE (RO) SUB2 PHO AND 0.064 G ATOM NA IN C SUB6 H SUB6 WAS ADDED FCLO SUB3 AT LESS THAN 10DEGREES TO YIELD (RO) SUB2 POF (AND EFIDENTLY NACLO SUB3 IN SOLN.): R EQUALS BU, 50PERCENT ISO,C SUB5 H SUB11, 52.5PERCENT; AND C SUB6 H SUB13, 53PERCENT.

1/2 047 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--PRIME210 PB AND PRIME210 PO IN ARCTIC REGIONS OF THE NORTHEAST -U-

AUTHOR-(05)-LITVER, B.YA., RAMZAYEV, P.V., MOYSEYEV, A.A., TROITSKAYA, M.N., KRISYUK, E.M.
COUNTRY OF INFO--USSR

SOURCE--(AEC-TR-7128, PP 180-93) TRANSLATION OF REPORT A-AC-82-G-L-1293

DATE PUBLISHED--------70

SUBJECT AREAS--NUCLEAR SCIENCE AND TECHNOLOGY, BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--RADIATION BIOLOGIC EFFECT, NUCLEAR WEAPON TEST, BONE, LEAD ISOTOPE, FOOD CONTAMINATION, RADIOACTIVE CONTAMINATION, ARCTIC TEST

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1983/1745 STEP NO--UR/0000/70/000/000/0180/0193

CIRC ACCESSION NO--AT0054587

UNCLASSIFIED

2/2 047 UNCLASSIFIED PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AT0054587

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE LICHEN REINDEER MAN FOOD CHAIN HAS BEEN FOUND TO EXERT A CUMULATIVE ACTION ON RADIOISOTOPES. IN THIS CONNECTION, STUDIES WERE CARRIED OUT TO DETERMINE THE PRIME210 PB CONTENT OF BIOSAMPLES FROM SUBARCTIC REGION, COLLECTED BOTH BEFORE AND AFTER THE ATOMIC BOMB TESTS; IN ADDITION, THE PRIME226 RA AND PRIME228 TH CONTENT OF LICHENS AND REINDEER BONES WAS ALSO DETERMINED. THE SPECIMENS WERE COLLECTED IN THE MURMANSK AND NENETS REGIONS; THE BONES OF NATIVE INHABITANTS OF ARCTIC REGIONS WERE OBTAINED FROM THE LENINGRAD MUSEUM. THE RESULTS INDICATED THAT THE PRIME210 PB CONTENT IN THE NORTHERN FOOD CHAIN BEFORE (1900 TO 1945) AND AFTER (1958, 1965-66) THE ATOMIC TESTS DID NOT DIFFER SUBSTANTIALLY. THE PRIME210 PB DATA OF REINDEER BONES ALSO REVEALED THAT THE CONENTRATION OF THIS ELEMENT DOES NOT CHANGE WITH TIME. THE DIFFERENCES OBSERVED IN HUMANS MAY BE ATTRIBUTED TO CONTAMINATION. IT WAS CONCLUDED THAT THE PRIME210 PB CONTENT IS PROBABLY DUE TO THE NATURAL DECAY OF PRIME226 RA; THE EFFECT OF ATOMIC TESTING IS SMALL. THE INTERNAL SKELETAL DOSE OF REINDEER POLONIUM WAS CALCULATED TO AMOUNT TO 0.8 RAD-YEAR UP TO 1900, 1 RAD-YEAR FROM THE 1900 TO 1945 AND 1945 TO 1966 PERIODS. THE DATA ALSO INDICATE THAT PRIME210 PB IS CUMULATED IN REINDEER BY A FACTOR OF 4 AND PRIME226 RA BY A FACTOR OF 8; THESE VALUES ARE MUCH LOWER THAN THOSE REPORTED FOR MAN. FACILITY: GOSUDARSTVENNYI KOMITET PO ISPOL'ZOVANIYU ATOMNOI ENERGII SSSR, MOSCOW.

UNCLASSIFIED

USSR

GERMEYER, Yu. B., MOYSEYEV, N. N.

"Some Problems in the Theory of Hierarchical Control Systems"

Probl. Prikl. mat. i Mekh. [Problems of Applied Mathematics and Mechanics -- Collection of Works], Moscow, Nauka Press, 1971, pp 30-43, (Translated from Referativnyy Zhurnal, Kibernetika, No 3, 1972, Abstract No 3 V463 from the Resume).

Translation: A number of problems are stated on the optimization of the results of operation of a system consisting of a center and producer when their interests do not coincide. Control by means of distribution of resources among producers by the center is studied and the corresponding problems in optimal control are stated. An example is used to show that control of resources from the standpoint of the interests of the center may be ineffective. Then, control using a system of rewards and penalties is studied in a linear statement. With a sufficient range in the system, complete controlability of producers in the interests of the center is demonstrated. The corresponding optimization problems are formulated in general form. The initial point of this control system is the assumption of precise knowledge of the interests and behavior of the producers by the center. Complications arising if the information is inaccurate are indicated.
1/1

1/2 030 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--DEPENDENCE OF CORPUSCULAR RADIATION INTENSITY IN THE UPPER ATMOSPHERE ON SOLAR ACTIVITY -U-

AUTHOR-(04)-TULINOV, V.F., MOYSEYEV, YU.N, SHAPIRO, I.G., ULANOVA, L.A.

COUNTRY OF INFO--USSR

SOURCE--KOSMICHESKIE ISSLEDOVANIIA, VOL. 8, MAR-APR, 1970, P 307-309

DATE PUBLISHED--------70

SUBJECT AREAS--ASTRONOMY,ASTROPHYSICS, ATMOSPHERIC SCIENCES

TOPIC TAGS--SOLAR ACTIVITY, RADIATION INTENSITY, SOLAR CORPUSCULAR RADIATION, UPPER ATMOSPHERE, GEIGER COUNTER, GEOMAGNETIC DISTURBANCE, ATMOSPHERIC SOUNDING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1994/1762 STEP NO--UR/0293/70/008/000/0307/0309

CIRC ACCESSION NO--AP0115591

UNCLASSIFIED

APPROVED FOR RELEASE: 07/20/2001 CIA-RDP86-00513R002202120010-1"

UNCLASSIFIED

2/2 030 UNCLASSIFIED PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0115591

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DISCUSSION OF UPPER ATMOSPHERIC SOUNDINGS IN WHICH ENDWINDOW GEIGER COUNTER WERE MOUNTED ON THE ROCKET

UNCLASSIFIED

USSR UDC 616.155.3-008.13:576.858.13.095.383

BOCHAROV, A. F., MOYSIADI, S. A., AMCHENKOVA, A. M., VORONINA, F. V., and KHESIN, YA. YE., Chair of Virology, Central Institute of Advanced Training of Physicians, Ministry of Health USSR, and Institute of Epidemiology and Microbiology imeni N. F. Gamaleya, Academy of Medical Sciences USSR, Moscow

"The Effect of Immunological Reactivity of Rabbit Leukocytes and Macrophages on Interferon Production in the Presence of Herpes Virus"

Moscow, Voprosy Virusologii, No 6, Nov/Dec 71, pp 725-731

Abstract: Upon contact with herpes virus in vitro, interferon is produced in small amounts by leukocytes obtained from the peripheral blood of control rabbits, in larger amounts of leukocytes and macrophages obtained from the peritoneal exudate of control rabbits, and in the largest amounts and at the fastest rate by peritoneal leukocytes and macrophages of perviously immunized rabbits. After vaccination, white blood cells mobilized in the peritoneal exudate have a faster metabolic rate, including a higher activity of oxidative and hydrolytic enzymes and a greater RNA concentration, than in the control state, and they also absorb the antigen more readily. Evidence indicates that these factors are responsible for the augmented production of interferon.

1/1

USSR UDC 620.179.15

TOKMAKOV, V. S. and MOYSH, YU. V., Institute of Physical Metallurgy and Metal Physics, Central Scientific Research Institute of Ferrous Metallurgy imeni I. P. Bardina

"Quality Control of Welded Pipe Seams Using an RETU-1 X-ray Television Unit"

Sverdlovsk, Defektoskopiya, No 4, Jul-Aug 72, pp 142-144

Abstract: The possibilities of quality control of weld seams in large diameter pipe were investigated using an RETU-1 television unit, developed on the basis of an RUP-150-10 x-ray unit, a URI-135T x-ray brightness amplifier with an electron-optical converter, and a PTu-111 commercial television set. With this unit the weld seams can be inspected on pipe with diameters between 529 and 1420 mm. The technical and operational characteristics of the unit were investigated at the Chelyabinsk Pipe Rolling Plant in the detection of different types of defects in weld seams on pipe 820 mm in diameter.

Data are given for the modes of operation to provide the best method sensitivity, such as: 110 kv, 2 ma for pipe with a 9-11 mm wall thickness and 115 kv, 2 ma for a 11-12 mm wall thickness when using the electron-optical system of image amplification; and 120 kv, 2ma for 9-10 mm thickness and 125 kv, 2 ma for a 11-12 mm thickness using the television screen. Improvement of

1/2

USSR

TOKMAKOV, V. S. and MOYSH, YU. V., Defektoskopiya, No 4, Jul-Aug 72, pp 142-144

the x-ray electron-optical converters, over those now used at the Moscow Electrovacuum Instruments Plant, will make it possible to expand the applications of RETU-1 units. 2 figures, 1 bibliographic reference

2/2

1/2 015 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--INTERFERON PRODUCTION AND SOME HISTOCHEMICAL CHANGES IN RABBIT LEUKOCYTES -U-
AUTHOR-(04)-SUROKIN, A.M., MOYSIADI, S.A., AMCHENKOVA, A.M., VORONINA, E.V.
COUNTRY OF INFO--USSR

SOURCE--VOPORSY VIRUSOLOGII, 1970, NR 3, PP 291-295

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--INTERFERON, LEUKOCYTE, DEHYDROGENASE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--2000/1854 STEP NO--UR/0402/70/000/003/0291/0295

CIRC ACCESSION NO--AP0125465
UNCLASSIFIED

2/2 015 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125465

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CAPACITY OF LEUKOCYTES OF 24 HOUR AND 72 HOUR PERITONEAL EXUDATES AND OF LEUKOCYTES OF THE PERIPHERAL BLOOD OF RABBITS TO PRODUCE INTERFERON WAS STUDIED. CELLS OF THE PERITONEAL EXUDATA WERE FOUND TO PRODUCE INTERFERON IN EQUALLY HIGH TITERS REGARDLESS OF THE PREVALENCE IN IT OF ANY CELLULAR FORMS. LEUKOCYTES FO THE PERIPHERAL BLOOD PRODUCED LESS INTERFERON THAN THOSE OF THE EXUDATE. INTERFERON PRODUCTION BY LEUKOCYTES OF THE PERITONEAL EXUDATE WAS ACCOMPANIED BY ENHANCED INTENSTIY OF THEIR REACTION TO RNA, INCREASED ACTIVITY OF GLUCOSO,6,PHOSPHATEDEHYDROGENASE AND ACTIVATION OF LYSOSOME APPARATUS. FACILITY: KAFEDRA VIRUSOLOGII TSENTRAL'NOGO INSTITUTA USOVERSHENSTOVOVANIYA VRACHEY, OTDEL VIRUSOLOGII INSTITUTA EPIDEMILOGII I MIKROBIOLOGII IMENI N. F. GAMALEV AMN SSSR, MOSKVA.

UNCLASSIFIED

USSR UDC: 537.525.5

DYUZHEV, G. A., KAPLAN, V. B., MOYZHES, B. Ya., and YUR'YEV, V. G.

"Arc Discharge With a Strongly Ionized Cesium Plasma"

Leningrad, Zhurnal Tekhnicheskoy Fiziki, vol. 41, No. 2, 1971, pp 453-456

Abstract: A description is given of experimentation involving an arc discharge in cesium vapor at a pressure of 0.1 to 2 mm Hg, with a potential difference between electrodes of from 5 to 100 volts, and at high current densities of from 10 to 100 a/cm^2. The purpose of the experimentation was to study the characteristics of plasmas of short, low-voltage arcs with high current densities and to investigate the possibility of getting high discharge current densities with distributed thermoelectronic emission from a cathode without transition to discharges with a cathode spot. The volt-ampere characteristics of the arc are plotted, and the current saturation they evince are discussed. The authors of this brief communication express their gratitude to B. I. Tsirkel' for developing the electric circuit, to V. P. Sachkov for preparing the experimental equipment, to S. M. Shkol'nik for assistance with the measurements, and to F. G. Baksht for his comments. They are connected with the Leningrad Semiconductor Institute.

1/1

USSR UDC 621.355.8(088.8)

MOZALEVSKAYA, V. A., SHIL'NIKOV, A. I., YABLOKOVA, I. Ye., KAZAKEVICH, G. Z.

"An Alkaline Battery"

USSR Author's Certificate No 300914, Filed 11/09/69, Published 26/05/71, (Translated from Referativnyy Zhurnal, Khimiya, No 2, 1972, Abstract No 2 L217 P from the Resume).

Translation: An alkaline battery is suggested, for example a silver-zinc battery, containing an additional electrode (E), connected to the positive E of the battery, differing in that in order to stabilize the voltage during the process of operation of the battery, this additional E, made for example, of manganese dioxide, is made with a more positive redox potential than the positive E. The additional E is made by smearing an active mass with graphite (10%) and binder (3% PVA solution) on a copper lattice.

1/1

M

24

USSR

ADO, YU. M., ZHURAVLEV, A. A., LOGUNOV, A. A., MYAE, E. A., NAUMOV, A. A., PISAREVSKIY, V. YE., ROGOZINSKIY, V. G., TUSHABRAMISHVILI, K. Z., SHUKEYLO, I. A., BOYKO, S. N., KOMAR, YE. G., MALYSHEV, I. F., MOZIN, I. V., MONOSZON, N. A., MOZALEVSKIY, I. A., SPEVAKOVA, F. M., STOLOV, A. M., TITOV, V. A., VOLOPYANOV, F. A., KUZ'MIN, A. A., KUZ'-MIN, V. F., MINTS, A. L., RUBCHINSKIY, S. M., UVAROV, V. A., GUTNER, B. M., ZALMANZON, V. B., PROKOP'YEV, A. I., and TEMKIN, A. S.

"Some Results of the Overall Adjustment and Start-up of the 70-Gev Proton Synchrotron of the Institute of High-energy Physics"

Moscow, Atomnaya Energiya, Vol 28, No 2, Feb 70, pp 132-136

Abstract: The physical part of the plan for the 70-Gev proton synchrotron was executed by the Institute of Theoretical and Experimental Physics. The electromagnet with feed system, the vacuum chamber, and the injection devices were developed at the Scientific Research Institute of Electrophysical Apparatus imeni D. V. Yefremov. The radio-electronic systems for acceleration process control and generation of

1/4

USSR

ADO, YU. M., et al., Atomnaya Energiya, Vol 28, No 2, Feb 70, pp 132-138

the accelerating field, as well as the radiotechnical measurement and beam observation systems, were developed by the Radiotechnical Institute of the Academy of Sciences USSR. "Tyazhpromelektroproyekt" [State Planning Institute for the Planning of Electrical Equipment for Heavy Industry] designed the general-purpose electrotechnical devices and cable connections. The plan for the construction complex of the accelerator was developed by the State All-Union Planning Institute. The construction of the accelerator was under the general supervision of the State Committee for the Use of Atomic Energy USSR. The adjustment of individual systems and the overall adjustment and start-up of the accelerator were carried out by the Institute of High-energy Physics and the developers of the accelerator systems. The basic beam work was done by the Institute of High-energy Physics with the participation of the Radiotechnical Institute. The construction of the accelerator was begun in 1960, and all the basic construction and assembly work was completed at the beginning of

2/4

USSR

ADO, YU. M., et al., Atomnaya Energiya, Vol 28, No 2, Feb 70, pp 132-138

1967. At the initial stage of construction, before the formation of the Institute of High-energy Physics in 1963, the work was coordinated by the Institute of Theoretical and Experimental Physics. The linear accelerator injector was started on 28 July 1967, the operation of the individual systems was adjusted by September 1967, and the physical start-up of the accelerator was accomplished on 14 October.

A description is given of the work done to adjust the annular electromagnet (including the electromagnet cooling and feed systems), the injection system (consisting of matching channel and injection device), the vacuum system, the radioelectronic system (including the accelerating field generation system, the acceleration process control system, and the radiotechnical measurement system), and the beam observation system (which provides for beam observation in the first revolution and during acceleration). In the physical start-up of the accelerator the main efforts were directed towards obtaining accelerated protons of the planned energy, and the problem of obtaining high

3/4

USSR

ADO, YU. M., et al., Atomnaya Energiya, Vol 28, No 2, Feb 70, pp 132-138

intensity of the accelerated proton was not raised.

The article gives a listing of the principal parameters of the proton synchrotron, as well as a schedule of the individual stages of the start-up of the accelerator. Photographs include a view of the part of the ring hall in the beam injection area and a general view of the hall of ignitron rectifiers.

4/4

1/2 013 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--ELECTRONIC STRUCTURE OF THE BENZYL RADICAL TAKING INTO ACCOUNT THE TOTAL CONFIGURATION INTERACTION -U-

AUTHOR-(03)-KRUGLYAK, YU.A., MOZDOR, E.V., KUPRIEVICH, V.A.

COUNTRY OF INFO--USSR

SOURCE--DOKL. BOLG. AKAD. NAUK 1970, 23(1), 89-92

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ELECTRON STRUCTURE, BENZENE DERIVATIVE, FREE RADICAL, GROUND STATE, CALCULATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1997/1126 STEP NO--BU/0011/70/023/001/0089/0092

CIRC ACCESSION NO--AT0119980
UNCLASSIFIED

2/2 013 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AT0119980

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE TITLE CALCN. WAS CARRIED OUT BY TAKING INTO ACCOUNT THE GROUND AND 403 EXCITED EXCITED CONFIGURATIONS OF BENZYL RADICAL (I) BY USING THE PARISER-PARR HAMILTONIAN AND ASSUMING THE RESONANCE INTEGRAL EQUALS 2.274 EV, C-C BOND LENGTH EQUALS 1.4 ANGSTROM, AND ALL BOND ANGLES EQUAL 120DEGREES. BOND ORDERS AND ELEMENTS OF THE SPIN D. MATRIX ARE GIVEN FOR THE GROUND STATE OF I. THE RESULTS DO NOT CONFIRM THE GENERAL VIEW THAT IT IS SUFFICIENT TO CONSIDER EXCITED CONFIGURATIONS ONLY ONCE IN THE CALCN. OF THE ELECTRON STRUCTURE OF RADICALS. FACILITY: INST. FIZ. KHIM. IM. PISARZHEVSKOGO, KIEV, USSR.

UNCLASSIFIED

Acc. Nr: AP0055525 Abstracting Service: CHEMICAL ABST. 5-70 Ref. Code: US0000

93462b Full configuration interaction for the benzyl radical. Kuprievich, V. A.; Kruglyak, Yu. A.; Mozdor, E. V. (Div. Theor. Chem. Struct. Reactiv., L. V. Pisarzhevskii Inst. Phys. Chem., Kiev, USSR). *Int. J. Quantum Chem.* 1970, 4(1), 73-87 (Eng). The electronic structure of the benzyl radical in its ground state has been computed by using a model Hamiltonian due to Pariser-Parr with full configuration interaction as well as with different truncated configurational sets built on SCF open-shell orbitals. The correlation energy corresponding to this model was equal to −0.929722 eV. With the singly excited configurations only 18% of this energy is taken into account. By extending the basis to include the doubly excited configurations, one can account for 94% of the correlation energy. An anal. of the accuracy of the proton hyperfine splitting calcn. caused by inaccurate computation of the wave function is given. If only singly and even doubly excited configurations are taken into account, one cannot hope to obtain splittings with an accuracy of more than 0.5 G. Inclusion of triply excited configurations lowers this error by one order. In addn., the use of the simple McConnell relation may lead to an error in splitting calcns. of no less than 1.5 G. RCMS

1/1

REEL/FRAME
19840823

1/2 013 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--COMPLETE CONFIGURATION INTERACTION FOR BENZYL RADICAL -U-

AUTHOR-(03)-KURGLYAK, YU.A., MOZDOR, YE.V., KUPRIYEVICH, V.A.

COUNTRY OF INFO--USSR

SOURCE--UKRAINSKIY FIZICHESKIY ZHURNAL, 1970, VOL 15, NR 1, PP 48-58

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS, CHEMISTRY

TOPIC TAGS--ELECTRON STRUCTURE, FREE RADICAL, GROUND STATE, PROTON

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1995/1216 STEP NO--UR/0185/70/015/001/0048/0058

CIRC ACCESSION NO--AP0116681

UNCLASSIFIED

APPROVED FOR RELEASE: 07/20/2001 CIA-RDP86-00513R002202120010-1"

2/2 013 UNCLASSIFIED PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0116681

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ELECTRONIC STRUCTURE OF BENZYL RADICAL IN ITS GROUND STATE WAS COMPUTED ON A MODEL HAMILTONIAN DUE TO PARISER-PARR WITH REGARD FOR A COMPLETE CONFIGURATION INTERACTION AS WELL AS WITH DIFFERENT LIMITED CONFIGURATIONAL SETS BUILT ON SCF OPEN SHELL ORBITALS. CORRELATION ENERGY CORRESPONDING TO THIS MODEL WAS FOUND TO BE EQUAL TO 0.929722 EV. WITH THE SINGLY EXCITED CONFIGURATIONS ONLY 18PERCENT OF THIS ENERGY ARE TAKEN INTO ACCOUNT. EXTENSION OF THE BASIS DUE TO DOUBLY EXCITED CONFIGURATIONS LEADS TO AN ACCOUNT OF 94PERCENT OF CORRELATION ENERGY. ANALYSIS OF ACCURACY OF THE PROTON HYPERFINE SPLITTING CALCULATION CAUSED BY UNACCURATE COMPUTATION OF THE WAVE FUNCTION IS GIVEN. IF ONLY SINGLY AND EVEN DOUBLY EXCITED CONFIGURATIONS ARE TAKEN INTO ACCOUNT, THEN ONE CANNOT HOPE TO OBTAIN SPLITTINGS WITH AN ACCURACY OF MORE THAN 0.5 G. INCLUSION OF TRIPLY EXCITED CONFIGURATIONS PERMITS THIS ERROR TO BE LOWERED BY ONE ORDER. IN ADDITION, THE USE OF THE SIMPLE MCCONNEL RELATION MAY LEAD TO AN ERROR IN SPLITTING CALCULATION OF NOT LESS THAN 1.5 G. FACILITY: INSTITUT FIZICHESKOY KHIMII AN USSR, KIEV.

UNCLASSIFIED

RMN / E-960/5-MN '73
Dec 72

MOZEROV, N.P.

VII. ATMOSPHERIC PHYSICS

Denisiktov, Ye. A., G. V. Bukin, Yu. V. Kushnevskiy, S. N. Matyugin, N. P. Mozerov, Yu. K. Perekhvatov, and M. D. Fligel'.

Reception of Kosmos-381 signals from a conjugate point region. Kosmicheskiye issledovaniya, no. 2, 1972, 302-305.

An attempt is described to detect satellite r-f signals from a conjugate point, with the object of precluding the possible anomalous magnetospheric or ionospheric modes that may be excited from ground-based transmitters in conjugate point experiments. The tests were done in December, 1970 using the Kosmos-381 satellite which broadcast at 2, 3.2, 5.6, 8.6, 10.4 and 12.# MHz. Pulse power was 1 kW, and pulse width was 150μs at a 48 Hz repetition rate; reception was monitored with wideband delta or rhombic arrays at both the Moscow and Gor'kiy tracking stations. During part of the test period the orbital plane included both the receiver and conjugate points; the remaining orbits included the conjugate point only.

In the 13th recording session with transmission at 12.8 MHz, a signal from the conjugate point (lat. 39.5° S, long. 55° E) was clearly received at Moscow for an interval of 20 seconds, corresponding to a satellite travel of 150 km. The magnetosphere channel width was however somewhat less than this value, since the satellite path was presumably at some inclination to it, and also because the channel tends to "trap" the transmitted signal near its boundaries. Analogous reception at Gor'kiy was only for 0.25 to 0.5 sec, evidently because the satellite only grazed the waveguide channel. In some cases conjugate point reception was obscured by noise in the 12.8 MHz range; however there were cases where clear line-of-sight signals were recorded with no corresponding conjugate point reception.

USSR UDC 537.582

REKOVA, L. P., MOZGIN, V. V., KISEL', O. V. and FOGEL', YA. M., Physicotechnical Institute of the Academy of Sciences UkrSSR

"Effect of Gases on Thermoion Emission by Plastically Deformed Metals"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, No. 3, Mar 71, pp 567-570

Abstract: The effect of oxygen on the emission of K^+ thermoions was used to study the plastic deformation of heated nickel strips during their stretching by a constant load. The idea of the experiment was to establish the mechanism of the effect of a gas on the thermoemission of ions of alkali metals in order to determine the nature of processes occurring under the plastic deformation of metals. According to current assumptions, it was expected that the effect of the action of the gas on thermoion emission of a heated metal, which disappears upon introducing dislocations into the motion with a sufficiently high velocity, should be restored upon stopping dislocations, independent of the method by which the dislocations were stopped. If this is so, the effect can disappear and then be restored upon the application of a stretching load to a metal strip, which will take it first into a state of temperature creep, after which there will then follow

APPROVED FOR RELEASE: 07/20/2001 CIA-RDP86-00513R002202120010-1"

a state of strengthening of the strip characterized by the disappearance of temperature creep. These changes in the nature of the action of a gas on thermoion emission follow from current ideas about plastic deformation of metals according to which the state of temperature creep is associated with the motion of dislocations and the state of strength is associated with stopping them. These experiments support these hypotheses.

2/2

USSR

UDC 577.1:615.785.3:577.153

MOZGOVA, Ye. M., Dnlpropetrovsk Medical Institute

"Change in Tissue Cholinesterase Activity under the Influence of the Curariform Preparations Ditiline and Diplacin"

Kiev, Ukrainskyy Biokhimicheskiy Zhurnal, Vol 42, No 4, 1970, pp 433-438

Abstract: Intravenous administration of ditiline and diplacin (3 mg/kg) produced myorelaxation and a change in acetylcholinesterase activity in the muscle and liver tissue of dogs. Dithiline, a depolarizing curariform compound, inhibits cholinesterase in both liver tissue and muscle, while the nondepolarizing myorelaxant diplacin acts as an activator. Under analogous conditions, the relaxants have no effect on brain acetylcholinesterase activity which indicates that they do not penetrate the blood-brain barrier. When ditilin is applied directly to brain tissue, it inhibits enzymatic activity while application of diplacin exerts no activating effect whatsoever. It is assumed that one of the reasons for the different mechanisms of the nerve-muscle block developing under the influence of depolarizing and nondepolarizing myorelaxants is the specific change in muscle acetylcholinesterase activity.

1/1

USSR

UDC 615.217.34.099.07:616-008.934.5

ROZENGART, V. I., CHETVERIKOVA, Ye. K., and MOZGOVAYA, I. A., Chair of Biochemistry, First Leningrad Medical Institute imeni I. P. Pavlov

"Carbohydrate Metabolism During Intoxication by the Cholinesterase Inhibitor O-Ethyl S-Hexyl Methylthiophosphonate"

Moscow, Voprosy Meditsinskoy Khimii, No 4, 1971, pp 403-407

Abstract: Intraperitoneal injection of white rats with 10 mg/kg of the cholinesterase inhibitor O-ethyl S-hexyl methylthiophosphonate (LG-63) produced symptoms of intoxication within 10 to 15 min and death 15 to 30 min later, at which time the animals were dissected and their organs analyzed chemically. LG-63 decreased the glycogen content of the liver, while increasing the sugar content of the blood and liver, and also the amount of bisulfite-binding substances, pyruvic acid, and ketone bodies. Ketone bodies and pyruvic acid accumulated in the skeletal muscles and myocardium, but decreased in the brain. One of the causes of these metabolic disorders may be hypoxia, which usually develops after intoxication by organophosphorus compounds.

1/1

USSR UDC: 621.394.441:621.376.55(088.8)

ZIBIN, G. V., MOZGOVOY, A. V., CHERNYSHEV, V. D.

"A Device for Reception of Signals With Phase-Pulse Modulation"

USSR Author's Certificate No 259134, filed 16 Sep 68, published 15 May 70 (from RZh-Radiotekhnika, No 1, Jan 71, Abstract No 1D62 P)

Translation: The proposed device contains a pulse generator, synchronization module and PM pulse demodulator. To improve the quality of communications with use by the maximum permissible number of subscribers simultaneously, the input of the device is connected through a circuit comprised of an element for delay by half the cadence period and an adder to the demodulator and simultaneously to the first input of a flip-flop. The second input of the flip-flop, which corresponds to reset to the initial state, is connected through an element for delay by the duration of a pulse to the output of the cadence pulse generator, which is connected to the second input of the adder through an AND circuit whose inhibit input is connected to the output of the flip-flop.

1/1

USSR

MOZGOVOY, Ye. N., BLUM, E. Ya., TSEBERS, A. O.

"Flow of a Ferromagnetic Fluid in Thin Capillaries"

7-ye. Soveshch. po Magnit. Gidrodinamike. T. 1. [Seventh Conference on Magnetic Hydrodynamics, Vol 1 -- Collection of Works], Riga, Zinatnye Press, 1972, pp 193-195, (Translated from Referativnyy Zhurnal, Mekhanika, No 10, 1972, Abstract No 10 B78, by I. Ye. Tarapov).

Translation: Results are presented from an experimental study of the effective viscosity of a ferrosuspension (iron particles measuring about 30 A in toluene) in a capillary viscosimeter (tube diameter 0.4-1.2 mm), placed in a homogeneous magnetic field, perpendicular to the flow. The magnetic field causes an increase in the measured effective viscosity as a function of particle concentration; the curves of increasing viscosity become saturated with fields on the order of 0.2 wb/m^2. In fields greater than 0.4 wb/m^2, a viscosity decrease is observed, caused by precipitation of the metal.

1/1

USSR UDC: 621.385.623.4

BURNEYKA, K. P., KANAVETS, V. I., MOZGOVOY, Yu. D., SANDALOV, A. N.

"On the Optimum Parameters of Multicavity Klystron Bunchers"

Elektron. tekhnika. Nauch.-tekhn. sb. Elektron. SVCh (Electronic Technology. Scientific and Technical Collection. SHF Electronics), 1971, vyp. 2, pp 29-37 (from RZh-Elektronika i yeye Primeneniye, No 6, Jun 71, Abstract No 6A155)

Translation: The parameters of bunchers in klystrons with 2-6 cavities are optimized for quality. Numerical methods of solving equations are used, employing a disc model of the beam. It is shown that Coulomb forces can be used to improve electron bunching. Optimum bunching is achieved under conditions where nonlinear processes take place in the space-charge waves. Optimum phase shifts between the cavity fields and the current correspond to energy transfer from the beam to the fields of the cavities. The quality index increases with an increase in the total number of klystron cavities. As the number of the drift region increases, the optimum value of the length of the drift region gradually decreases, while the alternating voltages of the gaps increase. Bibliography of 1 title. Resumé.
1/1

USSR UDC 669.245.018.28:669.018.44

MOZHARENKO, I. P., BRAUN, M. P.

"Factors of Thermal Fatigue of EP375 Alloy"

Liteyn. proiz.-vo (Casting Production), 1970, No 10, pp 24-25 (from RZh-Metallurgiya, No 4, Apr 71, Abstract No 4I773)

Translation: Although the cast heat-resistant nickel-base alloy EP375 is superior to deformable alloys with respect to stress-rupture strength, it is inferior to them with respect to resistance to thermal fatigue as a result of large grain, microscopic chemical inhomogeneity, and interdendritic and intradendritic porosity. The resistance to thermal fatigue is increased by refining the dendritic cells by ultrasound and also by heating to 1,200° and holding for 4 hours before cooling in the air to remove supersaturation by the intermetallic phases. There are 3 illustrations.

1/1

1/2 030 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--MICRODISTRIBUTION OF YTTRIUM BETWEEN PHASE AND STRUCTURAL COMPONENTS OF CAST IRON -U-

AUTHOR-(03)-BALAN, L.N., LYUBCHENKO, A.P., MOZHAROV, M.V.

COUNTRY OF INFO--USSR

SOURCE--LITEINOE PROIZVOD. 1970, (4), 42-4

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--PHASE ANALYSIS, CAST IRON, YTTRIUM, GRAPHITE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3004/1931 STEP NO--UR/0128/70/000/004/0042/0044

CIRC ACCESSION NO--AP0132192

UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--13NOV70

2/2 030

CIRC ACCESSION NO--AP0132192

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. EMPLOYED METHODS ARE DESCRIBED BY I. L. MIRKIN ETT AL. (1956), AND BY YU. N. TARAN (1965). THE Y ADDNS. WERE VARIED 0.005-0.84PERCENT; THE GLOBULIZATION OF GRAPHITE WAS PRODUCED ONLY AT Y 0.17-0.20PERCENT, WHILE AT Y EQUALS 0.30PERCENT PROGRESSIVE DEGLOBULIZATION OCCURRED. THE MICRODISTRIBUTION OF Y VARIED WITH THE RESIDUAL Y CONCN. IN THE CAST IRON: AT 0.01-0.005PERCENT Y, IT IS LOCALIZED CLOSE TO THE COARSE PLATES OF PRIMARY GRAPHITE. AT OPTIMAL Y CONCN. (0.21PERCENT) INCREASED Y CONCNS. ARE PRESENT CLOSE TO GLOBULAR GRAPHITE 0.17-0.25PERCENT, AT BOUNDARIES OF FERRITE (0.16-0.24PERCENT) AND IN PEARLITE ALONG THE BOUNDARIES OF AUSTENITE GRAPHITE EUTECTIC COLONIES (0.27-0.47PERCENT). WITH 0.30PERCENT Y IN CAST IRON THE Y IS LOCALIZED ALONG THE BOUNDARIES OF THE PRIMARY AUSTENITE (0.46-0.80PERCENT). THE FORMATION OF CHEM. COMPDS. RICH IN Y (LIKE FE SUB4 Y) WAS DETD.; THESE ARE HELD RESPONSIBLE FOR THE LOWERING OF THE CONCN. OF Y ATOMS WITHIN THE MELT.

UNCLASSIFIED

Acc. Nr.: AP0046765 Ref. Code: UR0125

UDC 621.791:14.011.539.163

USSR

SELEZNEV, A. G., KHRISTOFOROV, A. I., MOZHAROV, M. V., BUGAYEV, G. P.

"Radioactive Isotope Investigation of the Structure of the Transition Layer During Spin Welding"

Kiev, Avtomaticheskaya Svarka (Automatic Welding), No 1, 1970, pp 21-24 (from Avtomaticheskaya Svarka, No 1, 1970, p 79)

Translation: Results are presented from using tagged atoms to study the structure of the contact layer during spin welding of heterogeneous metals. During spin welding of steel 30 and R18 and also steel 30 and armco-iron, no essential movement of the carbon atoms is observed. The absence of carbon atom diffusion is demonstrated to a depth of more than 5-10 microns. There are 2 illustrations and a 6-entry bibliography.

1/1

Reel/Frame
19730069

UDC 8.74

USSR

MOZHAROV, R. V., RUBTSOV, N. A.

"Simple Algorithm for Compressing the Programs for All-Purpose Digital Computers"

V sb. Ekon.-mat. metody i programmir. plan.-ekon. zadach (Mathematical Economic Methods and Programming Economic Planning Problems--collection of works), Moscow, 1972, pp 167-170 (from RZh-Kibernetika, No 12, Dec 72, Abstract No 12V449)

Translation: In determining the redundancy of the programs written for the Minsk-22 digital computer, a study was made on the basis of which the following procedure is proposed for a decrease in redundancy. Each construction of the program is divided into four parts: the operation code — 7 bits, the index code — 6 bits, and 2 addresses of 12 bits each. All parts of the instruction are written in the cell one after the other (if chey are not equal to zero); when any part of the program is equal to zero, it is not written in the cell. After the first instruction of the program, the second is written, and so on. Each instruction is placed in correspondence to a four-bit characteristic code (one bit for each part of the instruction). A one in the first bit of the characteristic code denotes the presence of a non-zero operation code of the instruction; a zero in the first bit of the characteristic code denotes the operation code of the instruction equal to zero, and so on. The 4-bit characteristic codes are written one after the other just as the parts of the instructions.

1/1

USSR

UDC 621.378.325

LEONTOVICH, A.M., MOZHAROVSKIY, A.M.

"Self-Quenching Of Free Oscillation In A Ruby Laser At Low Temperature"

Kvantovaya elektronika (Quantum Electronics), Moscow, No 6(12), 1972, pp 69-73

Abstract: Duration of generation and the energy output of free oscillations in a ruby laser at low temperature are investigated. The experiments were conducted with two standard specimens of ruby with a rough-transparent lateral surface with plane-parallel ends without reflective coatings. The specimens were 120 mm long and 12 mm in diameter. Pumping was accomplished in a two-ellipse narrow illuminator by two pulse xenon IFP-2000 lamps with power supply from a bank of capacitors with a capacitance of 1200 mkf. The pumping energy changed in the limits from 0.9 (threshold) to 4.3 kilojoule. The ruby was located in a glass tube through which gaseous nitrogen was blown which had previously passed through a coil immersed in liquid nitrogen. The temperature of the crystal reached minus 180° C. It is determined that duration of generation is decreased with an increase of the pumping energy. In the process, saturation of the output radiation energy also takes place. It is shown that the duration of generation in a resonator with a low figure of merit is determined by the time of

1/2

APPROVED FOR RELEASE: 07/20/2001 CIA-RDP86-00513R002202120010-1"

USSR

LEONTOVICH, A. M., et al., Kvantovaya elektronika, No 6(12), pp 69-73

equalization of the transverse distribution of inverse population in the process of generation, which leads to an additional decrease of the figure of merit. Formulas are obtained which determine the duration of generation and the output radiation energy. The authors thank Prof. M.D. Galanin for discussion of the work and V.N. Smorchkov for assistance in the work. 3 ill. 9 ref. Received by editors, 3 Dec 1971.

2/2

USSR UDC 629.178.3

MOZHAROVSKIY, N. S., ANTIPOV, Ye. A., Kiev

"Long Term Strength and Creep of Heat-Resistant Materials with Programmed Temperature Change"

Problemy Prochnosti, No 11, 1971, pp 3-9.

ABSTRACT: Experimental results are presented from the study of heat-resistant materials with programmed changes in temperature under conditions of creep and long term strength. Dependences are produced, allowing quantitative determination of the influence of the type of temperature cycle with a given program of temperature changes in a given range of stresses on the creep rate, and also to produce the long term strength in the case of any program of change of temperature with a given value of σ if the long term strength at the maximum and minimum cycle temperatures and the cyclical change in temperature are known.

USSR

UDC 539.011

MOZHAROVSKIY, N. S., Kiev

"Regularities of Deformation and Rupture of Type 1Kh18N9T Steel During Thermal Cyclical Loading as Functions of Duration of Holding of the Metal at the Maximum Temperature"

Problemy Prochnosti, No 11, 1971, pp 56-59.

ABSTRACT: Results are presented from studies of Type 1Kh18N9T Steel under thermal cyclical loading depending on the duration of the temperature cycle. An analytic dependence is established, allowing quantitative estimation of the influence of creep on thermal fatigue rupture.

1/1

USSR

UDC 630.178.3

MOZHAROVSKIY, N. S., ANTIPOV, Ye. A. (Kiev), Kiev Polytechnical Institute

"The Plasticity and Destruction of Refractory Materials at Elevated Temperatures and Unsteady Loading"

Kiev, Problemy Prochnosty, No 12, December 1971, pp 3-8

Abstract: The present article gives results of a study of the behavior of refractory materials at elevated temperatures and unsteady loading according to various programs with a fixed value of stress change. Laws governing the plastic deformation and destruction of refractory materials during elevated temperatures and unsteady loading are presented. Analytic relationships are obtained, which make it possible to perform a quantitative evaluation of the influence of the nature of the unsteady loading cycle, with a given interval of change and a given temperature, upon the value of the accumulated plastic deformation all the way to destruction, as well as of the time elapsed until destruction is obtained. 1 table. 6 figures. 12 references.

1/1

USSR

UDC: 539.4.011

MOZHAROVSKIY, N. S., Kiev

"Deformation and Rupture of Materials Under Heat-Cycle Loading"

Kiev, Problemy Prochnosti, No 11, 1970, pp 31-36

Abstract: The question of the influence of the parameters of the temperature mode and boundary conditions on the mechanics of deformation in specimens subjected to cyclical heating is studied. Nonlinear dependences are determined between stresses and strains for any cycle of thermal loading. Generalized thermal fatigue equations are produced, quantitatively describing the influence of various factors on the processes of thermal fatigue rupture. The dependences between durability and energy dissipated per unit volume of material per cycle are concluded, allowing the mechanical significance of the parameters included in the thermal fatigue equations to be determined, and defining the limits of the intervals of irreversibly absorbed energy as functions of the number of heating cycles to rupture, and a relative estimate is produced for the resistance of various materials to cyclical thermal loading under identical mechanical and thermal conditions.

1/1

Acc. Nr: AP0046649 Abstracting Service: INTERNAT. AEROSPACE ABST. Ref. Code: 5-70 21R 3663

A70-25293 # Buildup of plastic strains during multiple thermal loadings causing alternating yield (O nakoplenii plasticheskikh deformatsii pri mnogokratnykh teplovykh nagruzheniiakh, vyzyvaiushchikh znakoperemennuiu tekuchest'). N. S. Mozharovskii (Kievskii Politekhnicheskii Institut, Kiev, Ukrainian SSR). *Problemy Prochnosti*, vol. 2, Feb. 1970, p. 32-34. In Russian.

Derivation of relations for the buildup of plastic strains during thermal cycling. On the basis of these expressions a relation is established between the plastic strain interval and the number of thermal cycles to failure for all strain-hardening materials. It is shown that in the case of strain-hardening materials the accumulated plastic deformation until failure is a nonlinear function of the plastic deformation per half-cycle and that the nonlinearity depends on the tendency of the material to undergo cyclic strain hardening. A.B.K.

REEL/FRAME
19781962

USSR

UDC 539.388.1

ANTIPOV, Ye. A., MOZHAROVSKIY, N. S., (Kiev)

"Deformation and Rupture of Heat-Resistant Materials Under Conditions of Thermal Fatigue and Creep as Functions of the Nature of the Temperature Change Cycle and the Boundary Conditions"

Kiev, Problemy Prochnosti, No 8, 1972, pp 13-17.

Abstract: This article presents formulas allowing quantitative estimation of the influence of the nature of the temperature change cycle and boundary conditions accumulated plastic deformation and time to rupture of material. The studies of type 1Kh18N9T steel with thermal cycling sign-changing loading with the specimen at the maximum temperature of the cycle indicate that the hypothesis recommended by the authors of earlier works, based on the Coffin formula, is not always confirmed. The studies performed produce a quantitative estimation of the influence of variable thermal stresses resulting from cyclical temperature changes, the nature of the temperature change cycle and the boundary conditions on processes of deformation and rupture of heat-resistant materials under conditions of thermal fatigue and creep.

APPROVED FOR RELEASE: 07/20/2001 CIA-RDP86-00513R002202120010-1"

1/2 020 UNCLASSIFIED PROCESSING DATE--20NOV70
TITLE--FUNCTIONAL CHANGES OF THE LIVER IN MUSHROOM POISONING -U-

AUTHOR-(04)-GRECHISHKIN, D.K., MOZHAYEV, G.A., KLODCHENKO, N.N., GONCHAROV, A.I.
COUNTRY OF INFO--USSR

SOURCE--VRACHEBNOYE DELO, 1970, NR 5, PP 60-62

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--FUNGUS, POISON EFFECT, LIVER FUNCTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3001/0433 STEP NO--UR/0475/70/000/005/0060/0062

CIRC ACCESSION NO--AP0126186
UNCLASSIFIED

2/2 020 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0126186

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. RESULTS ARE ANALYSED OF A STUDY OF THE CARBOHYDRATE, PIGMENTARY AND ENZYMATIC LIVER FUNCTIONS IN PATIENTS POISONED WITH THE AGARICUS BULBOSUS MUSHROOM. IT WAS FOUND THAT AS A RESULT OF THE EFFECT OF AGARICUS BULBOSUS TOXINES ABNORMAL CHANGES DEVELOP OF THE PIGMENTARY AND ENZYMATIC FUNCTIONS OF THE LIVER, THE CARBOHYDRATE FUNCTION REMAINING UNCHANGED. HEPATOPROTECTING THERAPY IS RECOMMENDED. FACILITY: VOROSHILOVGRADSKOGO MEDITSINSKOGO INSTITUTA.

UNCLASSIFIED

EXTENSIVE CROP ROTATION RECOMMENDED FOR KAZAKHSTAN

Article by [illegible], Chief Agronomist of the Ministry of Agriculture, Kazakh SSR, under rubric "Crop Rotation and the Harvest", Alma-Ata, Kul'tura Kazakhstana, No 6, 1971, pp 16-187

This five-year plan envisions further stepping up the production of cereals and other agricultural crops mainly through increasing the yield and raising soil fertility to the utmost. The mastering of rational crop rotation is an important prerequisite for successfully solving this important problem.

Crop rotation must accord with the farm's specialization and comply the planting of the basic agricultural crops on the basis of their best predecessors. In various republic zones, depending on soil and climatic conditions, various kinds of crop rotation are being introduced. Thus in being applied in the Northern Caucasus, for example, are the fallow-cereals and fallow-cultivated crops varieties, with short rotation periods. There recent best to the problem of grain production. On solids with a light mechanical structure, soil protection crop rotation with belts of cereals and fallows, as well as perennial grass crops, is introduced to avoid wind erosion.

Crop rotation with a short rotation period creates favorable agro-technical prerequisites for planting and provides important organizational benefits. In light of the fact that the agrotechnical portion does not exceed 3 years, such crop rotation is more rapidly mastered than the ones introduced by rotation.

The yield of pure fallow in the basic link of the fallow-cereals and fallow-cultivated crops varieties of crop rotation. The fallow ensures the accumulation and retention in the soil of moisture and minerals for plants, a successful struggle against weeds, pests, and diseases of agricultural crops.

Practice has shown that farms of the republic's arid steppe regions filling fallows on time and in a good-quality manner gather a wheat harvest

MOZHAYEV, Ye. A.

JPRS 55320
1 MAR 72
UDC: 614.777.648.18

THE PROBLEM OF DETERGENTS IN WATER HYGIENE AND SANITARY PROTECTION OF RESERVOIRS

[Article by Ye.A. Mozhayev, V.F. Ostrovov, O.I. Yuravov, Yu.V. Lin'kov, N.N. Litvinov, and M.I. Kozyrev; Moscow, Vestnik Akademii Meditsinskikh Nauk SSSR, Russian, No 1, 1972, pp 42-47]

In the last few years a new branch of the chemical industry, production of synthetic surface active substances (SAS), has gained development in several countries, including the Soviet Union. These substances, which are often called detergents (from the Latin word, detergere, to purify), are used extensively in different branches of the economy, but especially in the production of synthetic washing agents. The latter products are intensively replacing the old traditional washing agent, soap, which appeared long before our times. The great demand for synthetic SAS is due first of all to their high cleaning properties. They have a good cleaning action not only under ordinary conditions but also in an acid medium and (unlike soaps) in hard and even salt water. Washing agents based on synthetic SAS destroy and discolor material less than soap, and they have a washing action even at a water temperature of 20-30° (S.M. Loktev, 1964).

Unlike the production of soap, no alimentary fats are needed to manufacture such agents, and this is important from the standpoint of the economy.

However, industry's interest in synthetic SAS is not solely related to their washing properties. These agents have revealed a number of other valuable properties: emulsifying, wetting, they improve technological processes and the quality of production, so that they could be used in the petroleum, construction, chemical, textile, pharmaceutical, and other industries, as well as in agriculture. The economic desirability of using SAS is the reason for the consistent increase in production thereof; considerable expansion of such production is expected in the near future.

The manufacture and extensive use of SAS cannot help but result in appearance of these agents in the environment, especially in reservoirs of water, including sources of domestic and drinking water. At the present time, of the chemicals that pollute water reservoirs, SAS are perhaps the most widespread,

USSR UDC 553.981/.985:551.31/.735.1(470.111+51)"313"

GOSTINTSEV, K. K., and MOZIAS, N. M., All-Union Petroleum Scientific Research Geologic Prospecting Institute

"Prospects for Oil and Gas Exploration in the Terrigenous Sediments of the Visean and Turnai Stages in the Timano-Pechora Area"

Moscow, Geologiya Nefti i Gaza, No 1, Jan 73, pp 6-9

Abstract: The tapering of the terrigenous deposits of the Visean stage, observed with many petroleum deposits, is said to indicate the likelihood of further discoveries south-west of the Yugigokoy structure. The formation of these deposits is briefly outlined. The most favorable zone is considered to be south of Ust'-voy. To the north-west of this point the sandy collectors are characterized as residually petroleum saturated, preserved from the disturbance of ancient deposits in a large stratographic pit. The prospects are basically connected to the upheaval of blocks and the subupthrust portions with tectonically shielded pits. In the Turnai deposits the lithologic inland pits, distributed tn the Verkhne-Pechora zone, are said to be the most promising, though only shallow deposits are expected. This is due to similarities with more westerly strata in which petroleum and gas are found, the widespread development of clay, and clayey alevorite in the superior portions on the crown layer, at the base of the subvisean substage.

1/1

APPROVED FOR RELEASE: 07/20/2001 CIA-RDP86-00513R002202120010-1"

1/2 024 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--NEUTRON DIFFRACTION STUDY OF CA SUB3 FE SUB3.5 V SUB1.5 O SUB12 FERRITE GARNET -U-

AUTHOR-(03)-DUKHOVSKAYA, E.L., LIPIN, YU.V., MOZIK, YU.Z.

COUNTRY OF INFO--USSR

SOURCE--LATV. PSR ZINAT. AKAD. VESTIS, FIZ. TEH. ZINAT. SER. 1970, (2), 124-6

DATE PUBLISHED--------70

SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY

TOPIC TAGS--NEUTRON DIFFRACTION, GARNET, FERRITE, VANADIUM, ION DISTRIBUTION, MAGNETIZATION, CRYSTAL LATTICE STRUCTURE, TEMPERATURE DEPENDENCE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3007/1265 STEP NO--UR/0371/70/000/002/0124/0126

CIRC ACCESSION NO--AP0136671

UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--04DEC70

2/2 024

CIRC ACCESSION NO--AP0136671

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. NEUTRON DIFFRACTION WAS USED TO SHOW THAT IN THIS FERRITE GARNET, THE IONS OF V ARE STATISTICALLY DISTRIBUTED OVER TETRAHEDRAL SITES, AND THE PARAMETERS OF THE O IONS DIFFER FROM THOSE IN Y SUB3 F SUB5 O SUB12. MEASURED WERE THE PARTIAL MAGNETIZATION FACTORS FOR OCTAHEDRAL AND TETRAHEDRAL SUBLATTICES AT ROOM TEMP. AND THE TEMP. DEPENDENCE OF THE MAGNETIC CONSTITUENT OF THE (220) REFLECTION FROM MINUS 120DEGREES TO THE CURIE POINT. FACILITY: INST. FIZ., RIGA, USSR.

UNCLASSIFIED

M 24

USSR

ADO, YU. M., ZHURAVLEV, A. A., LOGUNOV, A. A., MYAE, E. A., NAUMOV, A. A., PISAREVSKIY, V. YE., ROGOZINSKIY, V. G., TUSHABRAMISHVILI, K. Z., SHUKEYLO, I. A., BOYKO, S. N., KOMAR, YE. G., MALYSHEV, I. F., MOZIN, I. V., MONOSZON, N. A., MOZALEVSKIY, I. A., SPEVAKOVA, F. M., STOLOV, A. M., TITOV, V. A., VODOP'YANOV, F. A., KUZ'MIN, A. A., KUZ'MIN, V. F., MINTS, A. L., RUBCHINSKIY, S. M., UVAROV, V. A., GUTNER, B. M., ZALMANZON, V. B., PROKOP'YEV, A. I., and TEMKIN, A. S.

"Some Results of the Overall Adjustment and Start-up of the 70-Gev Proton Synchrotron of the Institute of High-energy Physics"

Moscow, Atomnaya Energiya, Vol 28, No 2, Feb 70, pp 132-138

Abstract: The physical part of the plan for the 70-Gev proton synchrotron was executed by the Institute of Theoretical and Experimental Physics. The electromagnet with feed system, the vacuum chamber, and the injection devices were developed at the Scientific Research Institute of Electrophysical Apparatus imeni D. V. Yefremov. The radioelectronic systems for acceleration process control and generation of

USSR

ADO, YU. M., et al., Atomnaya Energiya, Vol 28, No 2, Feb 70, pp 132-138

the accelerating field, as well as the radiotechnical measurement and beam observation systems, were developed by the Radiotechnical Institute of the Academy of Sciences USSR. "Tyazhpromelektroproyekt" [State Planning Institute for the Planning of Electrical Equipment for Heavy Industry] designed the general-purpose electrotechnical devices and cable connections. The plan for the construction complex of the accelerator was developed by the State All-Union Planning Institute. The construction of the accelerator was under the general supervision of the State Committee for the Use of Atomic Energy USSR. The adjustment of individual systems and the overall adjustment and start-up of the accelerator were carried out by the Institute of High-energy Physics and the developers of the accelerator systems. The basic beam work was done by the Institute of High-energy Physics with the participation of the Radiotechnical Institute. The construction of the accelerator was begun in 1960, and all the basic construction and assembly work was completed at the beginning of

2/4

USSR

ADO, YU. M., et al., Atomnaya Energiya, Vol 28, No 2, Feb 70, pp 132-138

1967. At the initial stage of construction, before the formation of the Institute of High-energy Physics in 1963, the work was coordinated by the Institute of Theoretical and Experimental Physics. The linear accelerator injector was started on 28 July 1967, the operation of the individual systems was adjusted by September 1967, and the physical start-up of the accelerator was accomplished on 14 October.

A description is given of the work done to adjust the annular electromagnet (including the electromagnet cooling and feed systems), the injection system (consisting of matching channel and injection device), the vacuum system, the radioelectronic system (including the accelerating field generation system, the acceleration process control system, and the radiotechnical measurement system), and the beam observation system (which provides for beam observation in the first revolution and during acceleration). In the physical start-up of the accelerator the main efforts were directed towards obtaining accelerated protons of the planned energy, and the problem of obtaining high

3/4

USSR

ADO, YU. M., et al., Atomnaya Energiya, Vol 28, No 2, Feb 70, pp 132-138

intensity of the accelerated proton was not raised.

The article gives a listing of the principal parameters of the proton synchrotron, as well as a schedule of the individual stages of the start-up of the accelerator. Photographs include a view of the part of the ring hall in the beam injection area and a general view of the hall of ignitron rectifiers.

4/4

USSR UDC 632.43-233.13

MOZOKHIN, N. G., NORMUKHAMEDOV, B. F., SYRKIN, P. E., Candidate of Technical Sciences. Gor'kiy Motor Vehicle Plant. Zavolzhskiy Motor Vehicle Plant.

"An Investigation of the Lubrication Conditions in the Crankshaft Bearings of the GAZ-53 Engine"

Moscow, Avtomobil'naya Promyshlennost', No 10, September 1971, pp 4-7

Abstract: The operation of GAZ-53 engines shows that the longevity of crankshafts necks and of their bearings is determined by the value the wear of the necks and bottom liners of the crankshaft bearings, the wear intensity of which is on the average 2 - 3 times greater than the wear intensity of the connecting rods and liners. In order to determine the reasons for this, measurements were made of the thickness of the lubricating layer in the crankshaft bearings and the connecting-rod bearing (and of the temperature field of the crankshaft bearings, not treated in this article). The thickness of the lubricating layer was determined by measuring it by means of a capacitance method, first developed in the USSR. The principle of measurement is described. It is shown that the thickness of the lubrication layer h in the connecting-rod bearings of the GAZ-53 engine is entirely sufficient

USSR

MOZOKHIN, N. G., et al, Avtomobil'naya Promyshlennost', No 10, September 1971, pp 4-7

to provide liquid friction under all conditions of engine operation. The investigations showed that the thickness of h in the crankshaft bearings has the greatest values in the zones situated on the crankshaft necks opposed to the counterweights. On the countrary sides, the values of h_{min} are sufficient at all conditions of engine operation. When the engine is idling, the values h_{min} in the regions of the lower and upper bearing liners are practically identical. With a load upon the engine, the loads upon the bottom liners increase considerably; here h_{min} decreases, and increases in the region in the upper bearing liners. Consequently, the longevity of the upper liners is considerably greater than that of the lower liners. The increased longevity of the connecting-rod necks and liners of the GAZ-53 engine is five times greater than that of the GAZ-51 engine, due mainly to the provision of sufficient values of h_{min} in the connecting-rod bearings at all conditions of engine operation; this, in turn, is caused by selection of the optimal design parameters of the associated parts. 5 figures. 5 tables. 6 references.

2/2

UDC 621.43.001.4

USSR

MOZOKHIN, N. G., VODENISOV, A. YA., Gor'kiy Motor Vehicle Plant, Zavolzhskiy Motor Plant

"The Longevity of the Model 320B (320) Stationary Engine"

Moscow, Avtomobil'naya Promyshlennost', No. 7, 1971, pp 2-3

Abstract: The article deals with the just-completed third stage of long-term tests of the indicated stationary engine. Data were obtained concerning the average wear of engine parts after 7,000 hours of tests, more precise information was obtained in the average calculated longevity of the basic engine parts, and the equivalent of one hour of operation of the engine under stationary conditions to the travel of the base model (in kilometers). 2 figures, 2 tables, 4 references.

1/1