"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

UNCLASSIFIED PROCESSING DATE--20NOV70

2/2 024

CIRC ACCESSION NO--AP0129077

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE PAPER DEALS WITH OBSERVATIONS OVER 51 PATIENTS WITH POSTINFARCTION CARDIOSCLEROSIS. FO THE LATTER IN 14 CASES ANEURYSMOF THE LEFT CARDIAC VENTRICLE WAS REVEALED. THE CLINICAL SYMPTOMS ARE DESCRIBED AND THE IMPORTANCE OF THE X RAY METHOD IN THE RECOGNITION OF CARDIAC ANEYRYSM IS EMPHASIZED. THE SIGNS OF THIS DISEASE ARE DISCUSSED IN DETAIL. ON THE BASIS OF CONFRONTATION OF DATA OF ROENTGENOLOGICAL STUDY, SCANNING OF THE CARDIAC CAVITIES, CLINICAL INVESTIGATION AND, IN A NUMBER OF CASES, AUTOPSY FINDINGS OR DYNAMIC OBSERVATION THE AUTHORS REVIEW THE VALUE OF ROENTGENOLOGICAL SIGNS DURING ROUTINE X RAY INVESTIGATION, ROENTGENOSCOPY, AIMED AND WIDE RANGE ROENTGENOGRAPHIES WITH ROENTGENOGRAMMOMETRY. EMPHASIS IS MADE OF THE FACT THAT SUCH AN X RAY INVESTIGATION DOES NOT ALWAYS ESTABLISH THE DIAGNOSIS OF CARDIAC ANEURYSM, THIS COMPELLING TO SUSPECT THE LATTER AND TO TRANSFER TIMELY THE PATIENT FOR SPECIAL STUDY, INCLUDING ROENTGENOKYMOGRAPHY AND ELECTROKYMOGRAPHY. THE REFERRED TO TECHNIQUES ARE PARTICULARLY EXPEDIENT FOR THE RECOGNITION OF ANEURYSMS OF THE LEFT CARDIAC VENTRICLE. FACILITY: INSTITUT MEDITSINSKOY RADIOLOGII, AMN, SSSR, CENISK.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

UNCLASSIFIED PROCESSING DATE--13NOV70

1/2 013

TITLE--RADIOCARDIOGRAPHIC STUDY OF THE HEMODYNAMICS IN PATIENTS WITH POSTINFARCTION CARDIAC ANEURYSM -U-

AUTHOR--KUZNETSOV, N.S.

COUNTRY OF INFO--USSR

SOURCE--KARDIOLOGIYA 10(1): 28-32, 1970

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--HEART DISEASE, ANEURYSM, IODINE ISOTOPE, ALBUMIN, CHEMICAL LABELLING, DIAGNOSTIC MEDICINE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3004/0545 STEP NO--UR/0495/70/010/001/0028/0032

CIRC ACCESSION NO--AP0131169

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

UNCLASSIFIED PROCESSING DATE--13NOV70

2/2 018

CIRC ACCESSION NO--AP0131169

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. RADIOCARDIOGRAPHY WAS USED TO EXAMINED 20 HEALTHY PERSONS AND 105 PATIENTS WHO IN THE PAST SUSTAINED 1 OR SEVERAL MYOCARDIAL INFARCTIONS, WHICH IN 62 CASES WERE COMPLICATED BY ANEURYSMS OF THE LEFT CARDIAC VENTRICLE. THE PATIENTS WERE DIVIDED INTO 3 GROUPS IN ACCORDANCE WITH THE STAGE OF CARDIAC INSUFFICIENCY. RADIOIODINE ALBUMIN IN DOSES OF 30-40 MU CI WAS EMPLOYED. WITH THE AID OF RADIOCARDIOGRAPHY THE CARDIAC OUTPUT, CIRCULATION RATE IN THE SYSTEMIC AND PULMONARY CIRCULATION AND GENERAL PERIPHERAL RESISTANCE WERE STUDIED. SUSTAINED MYOCARDIAL INFARCTION EVEN IN PATIENTS WITHOUT CIRCULATORY INSUFFICIENCY LEADS TO ALTERNATION OF ALL HEMODYNAMIC INDICES. THIS REDUCTION RUNS A PARALLEL COURSE WITH THE DEGREE OF CIRCULATORY DISTURBANCE AND DOES NOT DEPEND ON THE PRESENCE OR ABSENCE OF CARDIAC ANEURYSM. DECOMPENSATION IN PATIENTS WITH POSTINFARCTION ANEURYSM IN MOST CASES OCCURS WITHIN THE 1ST YR AFTER THE INFARCTION, WHEREAS IN PATIENTS WITHOUT ANEURYSMS, 4 OR MORE YEARS LATER.

FACILITY: DEP. RADIOISOTOP. DIAGN., INST. MED. RADIOL., ACAD. MED. SCI. USSR, OBNINSK, USSR.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

Acc. Nr. AP0034228

Abstracting Service: CHEMICAL ABST. 4-70

Ref. Code UR 0079

K

74258y Bis(tricyanophosphine)decaborane. Kuznetsov, N. T.; Klimchuk, G. S. (Inst. Obshch. Neorg. Khim. im. Kurnakova, Moscow, USSR). *Zh. Neorg. Khim.* 1970, 15(1), 105-5 (Russ). $B_{10}H_{14}$ reacts with $P(CN)_3$ in C_6H_6 in an Ar atm. to form $B_{10}H_{12}[P(CN)_3]_2$ (I), having ν(B-H) shifted 20-25 cm^{-1} toward lower frequencies compared to $B_{10}H_{14}$. ν(CN) shifts from 2210 cm^{-1} in $P(CN)_3$ to 2300 cm^{-1} in I. This proves coordination to $B_{10}H_{12}$ via N atoms of the CN groups. I decomp. exothermally at ≥120°. HMJR

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REEL/FRAME 19710881

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

USSR UDC 539.214;539.374

KUZNETSOV, N. V., BOGDANOV, V. N., BEKIN, N. G.

"Certain Problems in the Theory of Rolling of a Porous Material"

Sb. nauch. tr. Yaroslav. tekhnol. in-t (Collection of Scientific Works of Yaroslavl' Technological Institute), 1972, Vol. 31, pp 38-44 (from RZh-Mekhanika, No 3, Mar 73, Abstract No 3V469)

Translation: The rolling of a porous powdery material is discussed theoretically. The rolling is assumed to be one-dimensional, the rate is taken to be constant with respect to the transverse cross section of the rolled material and normal stresses are also averaged over a transverse cross section assumed to be smooth. The movement of the powder mass under rolling is considered as the motion of a viscous incompressible liquid through a grid with a variable width of the gaps, thus imitating the compressibility of a porous material due to a decrease in cavities. The magnitudes of the contact tangential stresses are functions of displacements of powder particles over the surface of the roller and statistical characteristics of their rates are used to determine these. A technique is developed using probability laws for calculating the distribution of normal contact pressure over a capture arc in the rolling of the porous

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

USSR

KUZNETSOV, N. V., et al, Sb. nauch. tr. Yaroslav. tekhnol. in-t, 1972, Vol. 31, pp 38-44

mass. An example is given for calculating contact pressures in the rolling of asbestos-friction molded masses. A graph is constructed showing the distribution of normal pressure of the asbestos mass on the roller along the arc of contact. It is pointed out that the calculated value of the rolling forces are in good agreement with experimental data obtained by measuring the deformation forces using hydraulic dynamometers. 9 ref. Ye. M. Tretyakov.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

Microelectronics

USSR

UDC: 621.396.6.049.75(088.8)

BOGACHEV, M. P., BAZAITOV, V. F., KUZNETSOV, N. V., LYUBIMOV, A. I., MIKHAYLOV, N. A., NESTERENKO, Yu. F., PODOL'SKAYA, T. I., PROLOVA, I. S., KHVOSTOV, V. I.

"A Multilayered Printed Circuit Board"

USSR Author's Certificate No 265201, filed 18 Mar 68, published 23 Jun 70 (from RZh-Radiotekhnika, No 1, Jan 71, Abstract No 1V254 P)

Translation: A multilayered printed circuit board is proposed in which sections of foil which are a continuation of printed conductors entering holes in the board are used as leads from layer to layer. To cut down on the number of transitional connecting elements and to produce contact areas, the above-mentioned leads are fastened to the outer layer of the printed circuit board and used as contact areas for unsoldering circuit elements and wiring leads.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

1/2 030 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--ELECTROLYTIC PROPERTIES OF GASEOUS SOLUTION OF SODIUM CHLORIDE AT HIGH PRESSURE AND TEMPERATURE -U-

AUTHOR--FURSENKO, V.F., KUZNETSOV, N.V.

K

COUNTRY OF INFO--USSR

SOURCE--TEPLOENERGETIKA 1970, 17(2), 78-80

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--SODIUM CHLORIDE, GAS, HIGH TEMPERATURE EFFECT, HIGH PRESSURE, DISSOCIATION CONSTANT, ELECTRICAL CONDUCTIVITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1981/0866 STEP NO--UR/0096/70/017/002/0078/0080

CIRC ACCESSION NO--AP0050860

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

2/2 030

CIRC ACCESSION NO--AP0050860 UNCLASSIFIED PROCESSING DATE--11SEP70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A CONDUCTANCE OF GASEOUS SOLNS. OF NACL WAS MEASURED AT PRESSURES OF 12.5, 13.75, AND 15.0 MN-M PRIME2. THE SALT CONCNS. OF THE LIQ. PHASE WERE IN THE REGION OF 2750 TO 82,150 MG-KG. THE SP. CONDUCTANCE OF THE GASEOUS SOLNS. N(OHM PRIME NEGATIVE) CM PRIME NEGATIVE1) WHICH IS A FUNCTION OF THE NACL CONCN. WAS EXPRESSED BY N EQUALS N SUBG MINUS N SUBS, WHERE N SUBG AND N SUBS ARE THE SP. CONDUCTANCES OF THE GASEOUS SOLN. AND STEAM, RESP. THE DEPENDENCE OF N ON SALT CONCN. IS EXPRESSED BY N EQUALS AS SUBG PRIME0.518 EQUALS C SUBG PRIME0.518 AND S SUBG EQUALS C SUBG-58,500, WHERE S SUBG(MG-KG) THE NACL IN THE GASEOUS PHASE, C SUBG (G EQUIV.-KG) THE NACL CONCN. IN THE GASEOUS PHASE, AND A AND B ARE EMPIRICAL COEFFS. WHICH DEPEND ON PRESSURE. THE EQUIV. CONDUCTANCE AT INFINITE DILN. LAMBDA WAS DETD. GRAPHICALLY BY SUCCESSIVE APPROXNS. THE DISSOCN. CONSTS. OF NACL IN THE GASEOUS SOLN. WERE CALCD. BY ONSAGER, OSTWALD, AND FUOSS EQUATIONS. THE FOLLOWING DATA WERE OBTAINED FOR GASEOUS SOLNS. OF NACL (PRESSURE IN MN-M PRIME2, D. IN KG-M PRIME3, DISSOCN. CONSTS. AND LAMBDA SUB0 IN CM PRIME2-OHM G EQUIV GIVEN): 12.50, 72.2, 3.3 TIMES 10 PRIME NEGATIVE8, 1835; 13.75, 82.4, 4.72 TIMES 10 PRIME NEGATIVE8, 1766; 15.0, 93.8, 7.87 TIMES 10 PRIME NEGATIVE8, 1720.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

UNCLASSIFIED

TITLE--EFFECT OF THE HYDROLYSIS OF SODIUM CARBONATE ON THE FOAMING OF BOILER WATER -U-

PROCESSING DATE--13NOV70

AUTHOR-(02)-PALETSKIY, D.L., KUZNETSOV, N.V.

COUNTRY OF INFO--USSR

SOURCE--PROM. ENERG. 1970, 25(1), 50-2

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--STEAM BOILER, CARBONATE, SODIUM HYDROXIDE, SOLUTION ACIDITY, HYDROLYSIS, FOAM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3006/1424

STEP NO--UR/0094/70/025/001/0050/0052

CIRC ACCESSION NO--AP0135098

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APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

UNCLASSIFIED

CIRC ACCESSION NO--AP0135098 PROCESSING DATE--13NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. TO EXPLAIN THE GREATER FOAMING OF BOILER WATER CONTG. NA SUB2 CO SUB3 WITH RESPECT TO THAT CONTG. NACH, THE PH AND COND. OF BOILING WATER CONTG. NA SUB2 CO SUB3 AND NACH WERE DETD. IN A SPECIALLY DESIGNED APP. AT VAPOR PRESSURE UP TO 15 MN-M PRIME2. UNDER EXPTL. CONDITIONS THE HYDROLYSIS OF NA SUB2 CO SUB3 IS NOT COMPLETE. THUS, GREATER FOAMING OF BOILER WATER CONTG. NA SUB2 CO SUB3 CAN BE EXPLAINED BY THE PRESENCE OF CO SUB3 PRIME2NEGATIVE IONS WHICH STRENGTHEN CONSIDERABLY THE STRUCTURE OF VAPOR BUBBLE FILM. FACILITY: ROSTOV.-NA-DONU INST. INZH. ZHELEZNODOROZH. TRANSP., ROSTOV-ON-DON, USSR.

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JPRS 59208

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XII-8. STUDY OF THE AUTOEPITAXIAL LAYERS OF GERMANIUM OBTAINED FROM HYDRIDES

[Article by Y. A. Zevska, U. A. Tolomasov, O. A. Kuznetsov, L. N. Kornev, S. A. Rubtsov, Gor'kiy; Novosibirsk, III Simposium po Protsessam Rosta i Sinteza Poluprovodnikovykh Kristallov i Plenok, Russian, 12-17 June 1972, p 171]

1. Layers of germanium were grown by the hydride method in a quartz reactor with high frequency heating and in a metal reactor with direct filament heating on strongly alloyed germanium substrates.

2. The alloyed layers of germanium were grown from a mixture of hydrides (germanium with diborane or phosphine).

3. The morphology, the structure and the electrical parameters of the germanium layers were investigated as functions of the crystallization conditions: the growth temperature, the hydride concentration, the linear flow rate, and the state of the substrate surface.

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KUZNETSOV, O.A.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

USSR

KUZNETSOV, O. M., POPOV, S. G., FEOKTISTOV, V. V.

"Discrete Vortices in a Planar Medium at $M_\infty<1$ and Unstable Boundary Layer at a Plate"

Moscow, Mekhanika Zhidosti i Gaza, No 5, Sep-Oct 70, pp 176-179

Abstract: Experiments in a wind tunnel qualitatively and quantitatively indicate the propagation of density waves above a plate at zero angle of attack with $M_\infty<1$; the oscillating frequencies of density in this area are identical to the frequency of discrete vortices formed in the wake of the plate. Studies were performed using a shadow device with parallel light beam with defocused diaphragm and a Schlieren interferometer.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

1/2 020 UNCLASSIFIED PROCESSING DATE--09OCT70

TITLE--CLAUSTROXENOSCOPOPHOBIA IN EXPERIMENTAL ISOLATION AS A MODEL OF OBSESSIONAL SYNDROME FORMATION -U-

AUTHOR--KUZNETSOV, O.N.

COUNTRY OF INFO--USSR

K

SOURCE--ZHURNAL NEVROPATOLOGII I PSIKHIATRII IMENI S. S. KORSAKOVA, 1970, VOL 70, NR 4, PP 551-556

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--MENTAL DISORDER, PSYCHOSIS, ISOLATION CHAMBER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1988/1669 STEP NO--UR/0246/70/070/004/0551/0556

CIRC ACCESSION NO--AP0106415

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

2/2 020 UNCLASSIFIED PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0106415

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE AUTHOR REPORTS OF AN OBSESSIONAL STATE OCCURRING AS A RESULT OF A SPECIFIC FACTOR, OPEN SOLITUDE, (A PERMANENT DEPERSONALIZED OBSERVATION BY EXPERIMENTATORS) IN CONDITIONS OF DURATIVE ISOLATED SURDOCHAMBER STUDIES. THE PROPOSED TERM CLAUSTROXENOSCOPOPHOBIA IMPLICATES, THAT A PHOBIA TO OUTSIDE OBSERVATIONS OCCURS ONLY IN SECLUDED EXPERIMENTAL PREMISES. THE PAPER CONCERNS THE PHYSIOLOGICAL, PSYCHOLOGICAL AND SOCIOPSYCHOLOGICAL ASPECTS OF OPEN SOLITUDE. IT IS SHOWN, THAT IN THE DEVELOPMENT OF A CLAUSTROXENOSCOPOPHOBIA A BIG PART IS BEING PLAYED BY MISTAKES OF OPPOSITE TENDENCIES, A DISTUR ANCE OF ONCE ELABORATED STEREOTYPES, BY INSUFFICIENT INFORMATION, INTERPERSONAL RELATIONS. THE AUTHOR FINDS SIMILARITY OF THEIR PHENOMENA WITH PSYCHIC AUTOMATISMS AND A PARANOID ATTITUDE. THIS PHENOMENA MAY BE ENCOUNTERED IN SOME PROFESSIONAL AND EVERYDAY SITUATIONS INCLUDING CONDITIONS OF OPEN SOLITUDE.

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USSR

KUZNETSOV, O. P.

UDC: 577.4

"Complex Computations in Unidimensional Iterative Structures"

Moscow, V sb. Avtomaty, gibridn. i upravlyayushch. mashiny (Automatons, Hybrid and Control Machines--collection of works) "Nauka," 1972, pp 24-32 (from RZh--Matematika, No 8, 1972, Abstract No 8V430)

Translation: A variant is proposed for the determination of the computability of arithmetic functions in unidimensional iterative structures. Algorithms are presented for computing some simple functions. S. Marchenkov

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

USSR UDC: 577.4

KUZNETSOV, O. P.

"Concerning the Complexity of Calculations in One-Dimensional Iterative Structures"

V sb. Avtomaty, gibridn. i upravlyayushch. mashiny (Automata, Hybrid and Control Computers--collection of works), Moscow, "Nauka", 1972, pp 24-32 (from RZh-Kibernetika, No 8, Aug 72, Abstract No 8V430)

Translation: The paper proposes a variant of determining the computability of arithmetic functions in one-dimensional iteration structures. Algorithms are given for computing certain simple functions. S. Marchenkov.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

UDC: 681.325.6:512.93

USSR

KUZNETSOV, O. P., Moscow

"Orthogonal Systems of Boolean Functions and Their Application for Analysis and Synthesis of Logic Networks"

Moscow, Avtomatika i Telemekhanika, No 10, 1970, pp 117-128

Abstract: Methods for orthogonalization of systems of Boolean functions are described. The methods are used for analysis and synthesis of logic networks with large numbers of input variables. Orthogonalization refers to the process of finding the least orthogonal representation of the system of functions. A set-theory method is used for orthogonalization.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

USSR UDC 519.281

KUZNETSOV, P. G.

"Generalized Standard for Initial Alphabet of Classes"

Avtomat. Ustroystva Ucheta i Kontrolya [Automatic Accounting and Test Devices -- Collection of Works], No 6, Izhevsk, 1970, pp 72-81, (Translated from Referativnyy Zhurnal, Kibernetika, No 6, 1971, Abstract No 6 V157 by V. Noskov).

Translation: In an identification problem, the alphabet of classes $A = \{A_1, A_2, \ldots, A_m\}$ is fixed, each of which is characterized by the conditional distribution of a system of n characteristics $f(x_1, x_2, \ldots, x_n/A_i) = f\left(\bigcup_{k=1}^{n} x_k/A_i\right)$. The generalized standard of the fixed alphabet of classes is the probabilistic measure fixed in set x, $f_m(x) = \sum_{i=1}^{m} P(A_i) f\left(\bigcup_{k=1}^{n} x_k/A_i\right)$, where $P(A_i)$ is the probability of appearance of the ith class. This article studies the properties of this generalized standard in the case of deterministic and random characteristics and analyzes the case $m \to \infty$.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

USSR

UDC: 518.5:681.3.06

KUZNETSOV, P. G.

"Resolving Rules in Identification"

V sb. Avtomat. ustroystva ucheta i kontrolya (Automatic Devices for Computation and Checking--collection of works), vyp. 6, Izhevsk, 1970, pp 89-101 (from RZh-Kibernetika, No 7, Jul 71, Abstract No 7V783)

Translation: The author considers the following problem. Let a space of characteristics $\Omega(x)$ be given together with a standard of any i-th class of the initial alphabet of classes. The instantaneous realization belonging to the i-th class (or not belonging to it) is compared with the standard and the "distance" ("measure of proximity") between them is established. This "distance" is compared with some threshold x_{0i} and the decision "inside" is made if the "distance" is less than x_{0i}, while the decision "outside" is made if the distance is greater than x_{0i}, i. e. the introduction of the threshold x_{0i} isolates from the space of characteristics a region $\Omega_i(x)$ into which the instantaneous realization falls if it corresponds to making the decision "inside". A threshold x_{0i} is

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

KUZNETSOV, P. G., Avtomat. ustroystva ucheta i kontrolya, vyp. 6, Izhevsk, 1970, pp 89-101

sought such that the average risk of identification R_{11} is a minimum. As an example the author considers the structure of a system of identification for the case where each class is described by normal distribution of independent characteristics with identical variances with respect to all coordinates and for all classes. The generalized standard f(x) is described by the law of uniform density. Then the optimum resolving rules are described by equations of the form

$$\sum_{k=1}^{n} (x_k - m_k^j)^2 = \eta_j^2.$$

where m_k^j is the mathematical expectation of the k-th characteristic for the j-th object of identification; η_j^2 is the threshold value. V. Mikheyev.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

USSR

UDC 51:155.001.57:681.3.06

KUZNETSOV, P. G.

"One Approach to the Recognition of Voices"

Avtomat. Ustroystva Ucheta I Kontrolya, [Automatic Accounting & Control Devices--Collection of Works], No 6, Izhevsk, 1970, pp 82-88, (Translated from Referativnyy Zhurnal Kibernetika, No 5, 1971, Abstract No. 5V677 by V. Mikheyev).

Translation: A statistical method is suggested for recognition of voices which, in contrast to the classical method of pattern recognition (comparison of the current realization with standards of all classes), suggests comparison of the realization only with its standard description (identification system). The comparison confirms or denies the a priori assumption that a given voice belongs to a given person. A block diagram is suggested for the identification system and the basic definitions for objects of identification are given, as well as two forms of errors of identification (false refusal and false admission). The concept of identification risk is introduced, as a lost matrix (penalty matrix) for both types of errors. The optimal identification system means a system having the minimum identification risk.

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KUZNETSOV, A.L.

[illegible]

PROBLEMS AND PROSPECTS OF CONTROLLING MALARIA IN TROPICAL AFRICAN COUNTRIES

[Article* by [illegible], Moscow, Sovetskoye Zdravookhraneniye, [illegible], 13 June 1972, pp 59-62]

At the present time, when malaria has been eradicated from the European countries and more than half of the entire population of Asian and American countries live in areas that have been totally or partially freed of this ailment, in the countries of tropical Africa, as it was the case many centuries ago, virtually the entire population suffers from malaria, and 500,000 children up to five years of age die every year.

The reasons for the serious lag of African countries with regard to control of malaria, in relation to other parts of the world are complex and diverse. They are related first of all to the recent historical past of these countries, as indicated by the very history of the control of this disease over the vast territories of the African continent.

We can distinguish three periods in the history of active war against malaria in tropical Africa. The first period goes from the start of the 19th Century to the end of the 1940s. Its typical distinction was that malaria control measures were performed only amongst colonial troops and the colonial administration. The limited measures in this area that were performed among the local population in the 1930s-1940s were motivated usually by strategic or economic considerations. The rural population of tropical Africa was virtually without any medical care.

The second period, which is referable to the 1950s, was a transitional one. It coincided with the upsurge of the national liberation movement and the start of disintegration of the colonial system on the African continent, and it was characterized by the fact that faced with

*The data were reported to the Fifth International Congress on Rural Medicine (10-15 May 1972, Bulgaria).

JPRS 58117
31 Jan 73

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

UDC: 614(5/6-22)

URGENT PROBLEMS OF RURAL MEDICINE IN DEVELOPING NATIONS (ACCORDING TO THE RESULTS OF THE FIFTH INTERNATIONAL CONGRESS ON RURAL MEDICINE)

[Article by [illegible] (Moscow)] Moscow, Sovetskoye Zdravookhraneniye, Russian, No 11, 1972, pp 89-91]

Problems pertaining to rural medicine occupy a prominent place among other problems of medical science and public health practice in both developed and developing countries of Asia, Africa, and Latin America. However, while in economically developed countries some problems of rural medicine have already been solved in part, specifically, rural public health services have been created which fight against infectious and parasitic pathology in rural regions and implement measures to improve sanitary and hygienic conditions, in countries that were recently liberated from colonial dependence everything has to be started from scratch, beginning with organization of public health services in rural areas.

In view of mechanization and automation of agriculture and extensive use of chemical fertilizers and pesticides, especially in developed countries, new problems arise with which rural medicine has to deal. In the near future such problems will also be pressing in developing countries.

In order to investigate problems dealing with rural medicine in all countries of the world, to discuss and adopt the necessary measures to protect the people from adverse factors related to rural living and working conditions, in 1961 the International Association of Rural Medicine (MASM) was founded. Since its inception, the association held four international congresses on rural medicine: in Tours (France) in 1961, in Bad Kreuznach (FRG) in 1964, in Prague (Czechoslovakia) in 1966, and in Osaka (Japan) in 1969.

The Fifth International Congress on Rural Medicine convened in Bulgaria (Zolotyye Peski) from 10 to 15 May 1972. At this congress there were 687 delegates from 31 countries, including the USSR. A total of 389 papers were delivered on the following topics: epidemiology of infectious and parasitic disease in rural areas, hygiene of agricultural labor and

KUZNETSOV, R.L.

JPRS 57875
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KUZNETSOV, S. A.

CONTROL RODS FOR FAST REACTORS WITH SODIUM COOLANTS

[Article by S. A. Kuznetsov, V. Ye. Helemed, V. K. Novorotin, and V. V. Pohamarenko; Dimitrovgrad, Poglashchayushchiye materialy i sterzhni regulirovaniya bystrykh reaktorov (Absorbing materials and control rods for fast reactors), Russian, International Working Group for Fast Reactors Specialists Meeting, Dimitrovgrad, [illegible]]

1. Introduction

In the practice of reactor construction, various methods of regulating the nuclear reaction occuring are known. The most widely distributed method for fast reactors with a sodium coolant is absorption of the neutrons by regulating rods. At the present time, this method is being used in reactors that have been built or are under construction: the BOR-60, BN-350 and BN-600 [1].

The basic functions of the regulating rod (control rods) of fast reactors are:

- compensation of temperature and power effects;
- compensation of burn-up;
- regulation of power;
- emergency stopping.

In distinction from water-cooled, water-moderated reactors, control rods of fast reactors have a number of principal features, associated with the specifics of the operating conditions in the reactor. All the control rods developed at the present time are intended for operation in a medium of liquid sodium in a temperature range of 400 -- 700°C at maximum fast neutron fluxes of up to 1×10^{16} n/cm² per second. The hard spectrum, high neutron fluxes and high temperatures, and the aggressive medium impose a number of specific requirements upon the materials of the control rods with respect to efficiency, permissible energy liberation and burn-up, physico-chemical properties, and radiation stability.

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1/2 010 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--UNSATURATED DIAMINES -U-

AUTHOR-(02)-KUZNETSOV, S.G., LIBMAN, N.M.

COUNTRY OF INFO--USSR

SOURCE--ZH. ORG. KHIM. 1970, 6(3), 442-6

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CONDENSATION REACTION, AMINE DERIVATIVE, ETHYLENE, ACETYLENE, TERTIARY AMINE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1992/1665 STEP NO--UR/0366/70/006/003/0442/0446

CIRC ACCESSION NO--AP0112659

UNCLASSIFIED

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

2/2 010 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0112659

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CONDENSATION OF HNME SUB2 WITH DIYNES GAVE THE FOLLOWING MANOAMINES R SUB2 NCH SUB2 C TRIPLE BOND C(CH SUB2) SUBN C TRIPLE BOND CH OR DIAMINES R SUB2 NCH SUB2 C TRIPLE BOND C(CH SUB2) SUBN C TRIPLE BOND CCH SUB2 NR SUB2 IN 54-89PERCENT YIELDS. HNET SUB2 OR HN(PR-ISO) SUB2 ALSO REACTED WITH DIYNES, BUT THE YIELDS WERE LOW (4.5-36PERCENT). ALSO, ME SUB2 NCH SUB2 C TRIPLE BOND C(CH SUB2) SUB4 C TRIPLE BOND CCH SUB2 N(PR-ISO) SUB2 WAS PREPD.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

1/2 008 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--REARRANGEMENT OF DIMETHYLBENZYL,2,HYDROXYETHYLAMMONIUM CHLORIDE -U-

AUTHOR-(02)-KUZNETSOV, S.G., CHIGAREVA, S.M.

COUNTRY OF INFO--USSR

SOURCE--ZH. ORG. KHIM. 1970, 6(4), 881-2

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--MOLECULAR STRUCTURE, ALKYLATION, AMMONIUM CHLORIDE, BENZENE DERIVATIVE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/2159 STEP NO--UR/0366/70/006/004/0881/0882

CIRC ACCESSION NO--AP0125742

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2/2 008 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125742

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. HEATING (MOCH SUB2 CH SUB2 NME SUB2 CH SUB2 PH) PRIME POSITIVE CL PRIME NEGATIVE AT 175-800EGREES SIMILAR TO 6 HR IN A SEALED TUBE GAVE PHCH SUB2 OCH SUB2 CH SUB2 NME SUB2.HCL (I), TOGETHER WITH SMALL AMTS. PHCH SUB2 OCH SUB2 CH SUB2 NMECH SUB2 PH (II). LONGER HEATING INCREASED THE AMT. II AND DECREASED THE AMT. I. I IS FORMED BY AN INTRAMOL. REARRANGEMENT AND II BY INTERMOL. N-ALKYLATION. FACILITY: INST. MOKSIKOL., LENINGRAD, USSR.

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USSR

KUZNETSOV, S. I.

"Monitor of Dialogue System Controlled by Input Language Grammar"

Vychisl. Mat. i Vychisl. Tekhn. [Computer Mathematics and Computer Technology -- Collection of Works], No 3, Khar'kov, 1972, 58-59 [Translated from Referativnyy Zhurnal Kibernetika, No 6, 1973, Abstract No 6V686, by the author).

Translation: A dialogue system is described, controlled by an input language grammar fixed by metalinguistic formulas in a standardized form.

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USSR UDC 622:242+553

KARAVAYKO, G. I., KUZNETSOV, S. I., GOLOMZIK, A. I.

"The Role of Microorganisms in Leaching of Metals from Ores"

Rol' Mikroorganizmov v Vyshchelachivanii Metallov iz Rud. [English Version Above], Nauka Press, Moscow, 1972, 248 pages.

Translation of Introduction: The leaching of nonferrous metals from ores includes oxidation of sulfide minerals and washing of the soluble salts of these metals thus formed from the ores. Leaching is easiest for metals present in the ore in the form of oxides. In this process, weak solutions of sulfuric acid are most frequently used as the solvent. As we know, rare elements are present in the crystalline lattices of many sulfides, isomorphically replacing such elements as copper, zinc, lead, etc. The actual sulfides of the rare elements are rarely encountered. During oxidation of sulfide minerals, their crystalline lattice is broken down, the rare elements go over into solution if the conditions are favorable, and are extracted from the ore.

Thus, leaching of nonferrous and rare metals is based on two processes: oxidation of the sulfide mineral and washing out of the metals with solutions.

In the leaching of nonferrous and other metals, great significance is given to the activity of microorganisms. The sulfide ores of nonferrous

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USSR

KARAVAYKO, G. I., KUZNETSOV, S. I., GOLOMZIK, A. I., Rol' Mikroorganizmov v Vyshchelachivanii Metallov iz Rud., Nauka Press, Moscow, 1972, 248 pages.

metals are most suitable for bacterial leaching; therefore, in studying processes of bacterial leaching of these metals, primary attention is given to thiogenic bacteria.

The approach to determination of the suitability of the bacterial method for leaching of nonferrous metals from ores of a given deposit consists of three aspects: analysis of data characterizing the deposit (reserves of ore, geology, degree of exploitation, geochemical situation, etc.), presence of the corresponding groups of microorganisms in the deposit itself, and laboratory and pilot-scale studies of individual types of ore. This allows efficient selection of the corresponding technology and object of leaching of the metals.

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KARAVAYKO, G. I., KUZNETSOV, S. I., GOLOMZIK, A. I., Rol' Mikroorganizmov v Vyshchelachivanii Metallov iz Rud., Nauka Press, Moscow, 1972, 248 pages.

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KARAVAYKO, G. I., KUZNETSOV, S. I., GOLOMZIK, A. I., Rol' Mikroorganizmov v Vyshchelachivanii Metallov iz Rud., Nauka Press, Moscow, 1972, 248 pages.

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KARAVAYKO, G. I., KUZNETSOV, S. I., GOLOMZIK, A. I., Rol' Mikroorganizmov v Vyshchelachivanii Metallov iz Rud., Nauka Press, Moscow, 1972, 248 pages.

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KARAVAYKO, G. I., KUZNETSOV, S. I., GOLOMZIK, A. I., Rol' Mikroorganizmov v Vyshchelachivanii Metallov iz Rud., Nauka Press, Moscow, 1972, 248 pages.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

1/3 033 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--STUDY OF COSMIC RAYS AND THE RADIATION BELTS BY A VERTICAL SPACE PROBLE -U-

AUTHOR-(05)-VERNOV, S.N., VAKULOV, P.V., KUZNETSOV, S.N., LUGACHEV, YU.I., LOPATINA, G.B.

COUNTRY OF INFO--USSR

SOURCE--MOSCOW, KOSMICHESKIYE ISSLEDOVANIYA, VOL VIII, NO 3, 1970, PP 408-417

DATE PUBLISHED--------70

SUBJECT AREAS--ATMOSPHERIC SCIENCES, MISSILE TECHNOLOGY, PHYSICS

TOPIC TAGS--COSMIC RAY, RADIATION BELT, UPPER ATMOSPHERE, SOUNDING ROCKET, ELECTRON SPECTRUM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3005/0554 STEP NO--UR/0293/70/008/003/0408/0417

CIRC ACCESSION NO--AP0132740

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

2/3 033 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0132740

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THIS PAPER GIVES THE RESULTS OF PROCESSING OF DATA OBTAINED USING A VERTICAL SPACE PROBE LAUNCHED ON 12 OCTOBER 1967 FOR OBTAINING AN INSTANTANEOUS CROSS SECTION OF THE UPPER ATMOSPHERE TO AN ALTITUDE OF ABOUT 4,000 KM. WITH RESPECT TO COSMIC RAYS: A) IT WAS POSSIBLE TO OBTAIN THE VERTICAL VARIATION OF COSMIC RAYS AT 1.7 LESS THAN L LESS THAN 2.2, WHICH FOR THE MOST PART CAN BE ATTRIBUTED TO CHANGE IN GEOMETRIC AND MAGNETIC SCREENING OF THE EARTH. B) IT WAS POSSIBLE TO DETERMINE THE COSMIC RAY MULTIPLICATION FACTOR FOR THE COUNTER SITUATED ON THE SURFACE OF THE OBJECT, WITH A MEAN LENGTH OF THE COSMIC RAY PATH IN THE MATTER OF THE OBJECT SIMILAR TO 50 G-CM PRIME2 THE COSMIC RAY MULTIPLICATION FACTOR ATTAINS VALUES SIMILAR TO 20PERCENT. C) THERE IS A MARKED ANISOTROPY OF THE FLUX OF ALBEDO COSMIC RAYS ATTAINING SIMILAR TO 40PERCENT. ACCORDINGLY, IN AN ANALYSIS OF COSMIC RAY DATA OBTAINED OVER THE ATMOSPHERE BY USE OF DETECTORS HAVING A GREAT LENGTH AND SMALL DIAMETER IT IS NECESSARY TO TAKE INTO ACCOUNT DETECTOR ORIENTATION RELATIVE TO THE MAGNETIC LINE OF FORCE. WITH RESPECT TO THE RADIATION BELTS: A) IT WAS POSSIBLE TO MEASURE THE ELECTRON SPECTRUM AT DIFFERENT L SHELLS IN THE RANGE 2 LESS THAN L LESS THAN 3. FOR A SPECTRUM IN THE FORM (N GREATER THAN E SUBE) SIMILAR TO EXP(MINUS E SUBE -E SUB0) IN THE ENERGY RANGE 40 LESS THAN E SUBE LESS THAN 300 KEV THE SPECTRUM IS SOFTENED WITH AN INCREASE IN L, WHEREAS FOR ENERGIES 300 LESS THAN E SUBE LESS THAN 600 KEV IT BECOMES HARDER. B) A STUDY WAS MADE OF THE PITCH ANGLE DISTRIBUTION OF ELECTRONS WITH E SUBE LESS THAN 40 KEV AT DIFFERENT L SHELLS (L EQUALS 1.2, 2.6, 3.0).

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3/3 033 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0132740

ABSTRACT/EXTRACT--APPROXIMATION OF THE PITCH ANGLE DISTRIBUTION BY THE FUNCTION N(ALPHA) SIN PRIMEN ALPHA GIVES FOR THE LEAKING PARTICLES AT L EQUALS 2.2 N VALUES FROM SIMILAR TO 4 TO SIMILAR TO 10, WHEREAS FOR L EQUALS 2.6 AND 3.0 N SIMILAR TO OR EQUAL TO 1. FOR NONLEAKING PARTICLES N SIMILAR TO OR EQUAL TO 1 AT ALL L. C) AN INCREASE IN THE FLUXES OF LEAKING ELECTRONS WITH AN INCREASE IN L WAS DISCOVERED.

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USSR UDC 612.744+612.825.4

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BERDINA, N. A., KOLENKO, O. L., KOTS, YA. M., KUZNETSOV, S. P., RADIONOV, I. M., SAVCHENKO, A. P., and TKHOREVSKIY, V. I., Department of Human and Animal Physiology, Biology-Soil Faculty, Moscow State University; Physiology Department of Roentgenology and Radiology, First Moscow Medical Institute; Physiology of Work Section, Institute of Industrial Hygiene and Occupational Diseases, Academy of Medical Sciences USSR, Moscow

"Efficiency and Blood Supply of Skeletal Muscles During Emotional Stress Induced by Mental Arithmetic"

Leningrad, Fiziologicheskiy Zhurnal SSR imeni I. M. Sechenova, No 4, 1971, pp 546-555

Abstract: Emotional stress arising from mental addition and subtraction produced in most human subjects an increase in the volumetric blood flow rate (by 85% on the average) in resting muscles of the forearm. When mental arithmetic was combined with voluntary muscular exertion (on a squeeze dynamometer) or isometric contraction of the antebrachial muscles elicited by electric stimulation of the nerve, muscular performance increased by 46 and 155%, respectively. This happened in only those subjects in whom mental

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

USSR

BERDINA, N. A., et al., Fiziologicheskiy Zhurnal SSR imeni I. M. Sechenova, No 4, 1971, pp 546-555

arithmetic intensified the blood flow in resting muscles. Intraarterial injection of atropine markedly slowed the increase in rate of blood flow in resting muscles due to mental arithmetic. It also reduced the length of time exertion on the squeeze dynamometer could be sustained. Stress-induced muscular efficiency is ascribed to increased blood flow not in the working muscles but in the resting muscles as a result of change in muscle metabolism brought about by the sympathetic nervous system.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

USSR UDC 621.373.826:621.396

ZEGE, E. P., IVANOV, A. P., KATSEV, I. L., KARGIN, B. A., KUZNETSOV, S. V., and MIKHAYLOV, G. A.

"Some Problems of Optical Pulse Radar in Natural Dispersing Formations"

Moscow, V sb. X Vses. konf. po rasprostr. radiovoln. Tezisy dokl. (Tenth All-Union Conference on the Propagation of Radio Waves; Report Theses--collection of works) "Nauka," 1972, pp 337-341 (from RZh--Radiotekhnika, No 10, 1972, Abstract No 10D440)

Translation: A method is given for computing the signal/noise ratio of an optical radar system combining receiver and transmitter, under the condition that the signal is propagated in a medium characterized by the probability Λ of photon survival. With increasing distance between the object and the transceiver, the signal/noise ratio varies according to the law

$$\eta \sim \sqrt{\tau} \exp -(+\gamma - 1 + \Lambda)\tau ,$$

where τ is the distance between the object and the radar and γ is the eigenvalue of the characteristic equation. Bibliography of five. A. L.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

USSR UDC 621.373.826:550.3

IVANOV, A. P., KARGIN, B. A., KUZNETSOV, S. V., and SKRELIN, A. L.

"Propagation of Short Light Pulses in the Upper Layers of the Atmosphere"

Moscow, V sb. X Vses. konf. po rasprostr. radiovoln. Tezisy dokl. (Tenth All-Union Conference on the Propagation of Radio Waves; Report Theses--collection of works) "Nauka," 1972, pp 335-336 (from RZh--Radiotekhnika, No 10, 1972, Abstract No 10D355)

Translation: Results are given of an analysis, by the Monte-Carlo method, of the radiation of a laser scattered back by the upper layers of a nonuniform atmosphere. The material obtained was used to estimate the signal/noise ratio in the observation of distant objects. Bibliography of one. A. L.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

Magnetohydrodynamics

USSR UDC 538.4

KUZNETSOV, S. YE.

"Rotation of a Cylinder in a Conducting Fluid in an Axial Magnetic Field"

Riga, Magnitnaya Gidrodinamika, No 2, Apr-Jun 73, pp 12-18

Abstract: The article considers the steady rotational motion of a long cylinder in a conducting fluid. The rotation of the cylinder is due to electromagnetic forces occurring in it as a result of the interaction of an applied axial magnetic field and a radial electric current. Some characteristics are determined for the device when it is used as an electric-to-mechanical energy converter. In this case it represents a variety of unipolar motor with a rotor immersed in a liquid metal. The flow of the fluid is assumed to be laminar and axisymmetric. An expression is obtained for the speed-torque characteristic of the converter. The effect of the principal parameters on the operating efficiency of the device is determined.

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USSR UDC 618.39:614(049.3)

KUDRYAVTSEVA, Ye. and KUZNETSOV, V. (Reviewers)

Sotsial'no-Gigiyenicheskiye Aspekty Regulirovaniya Razmerov Sem'i (Social and Hygenic Aspects of Regulation of Family Size), by Ye. A. Sadvakasova, Moscow, "Meditsina", 1969

Moscow, Zdravookhraneniye Rossiyskoy Federatsii, No 11, 1970, pp 39-41

Abstract: Data on abortion legislation, the number of abortions, and their effect on women's health, are presented and other facets of abortions in a number of nations are discussed. The first section, "The Abortion Problem Abroad and in the USSR", examines the problem from a historical perspective. The second section, "Abortion in the USSR after WW II," presents statistical data on the problem, showing that deaths resulting from abortions are declining. The USSR may not be giving enough publicity to birth control techniques. A questionnaire was sent to women who had had abortions, but only half were returned, indicating the difficulties of studying the problem. Data from medical institutions were also used, affording a more detailed breakdown. The reasons for abortions are analyzed.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

USSR UDC: 681.326

KUZNETSOV, V. A., KONTORER, V. G., TARANENKO, V. A., YAMPOL'SKIY, L. S., BRUNSHTEYN, Yu. G., KARLOV, A. G.

"A Digital Device for Measurement of Linear Displacements"

Kiev, Mekahnizatsiya i Avtomatizatsiya Upravleniya, No 2, Mar-Apr 73, pp 68-70.

Abstract: The Sevastopol' Instrument Building Institute has developed a device for measurement of linear displacements with output of the results of measurement in digital form. The device consists of a feeler threaded to mate with a revolving driver. As the driver turns to displace the feeler, the number of revolutions of the driver is sensed by counting the number of cycles of changing voltage in the circuit of a coil attached to the driver. The device can measure linear distances with an accuracy of ±0.05 mm.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

USSR

UDC: 621.317.729.2

KUZNETSOV, V. A., SHCHUKA, A. A., Moscow Physicotechnical Institute

"Using a Laser Probe to Study the Sorption Properties of Surfaces"

Moscow, Pribory i Tekhnika Eksperimenta, No 3, May/Jun 72, pp 171-173

Abstract: The laser probe method was used to study description of residual gases from the surface of chromium (film deposited on a copper substrate) and tungsten wire. The subcritical power of laser emission was determined by using a field-emission microscope to obtain an image of the irradiated surface of a point with magnification of 10^6 and resolution of 4 A. A diagram of the experimental installation is shown in the figure. The surface 6 of the study specimen was sealed in a highly evacuated chamber with known spectrum of the residual gases and total pressure of about 10^{-3} mm Hg. A localized inertialess heat source was produced on the specimen surface by ruby laser 1. Pulse duration was registered by oscilloscopic recording of the photocurrent from photomultiplier 11, and the energy was measured by calorimeter 10 with respect to the energy reflected by beam splitter 2. The radiation was focused by optical system 3 onto the specimen through the flat aperture 5 inside device 4. A high vacuum within device 4 was attained with the aid of ionization manometer 7. The mass spectrum of the residual gases was analyzed by omegatron gauge 8.

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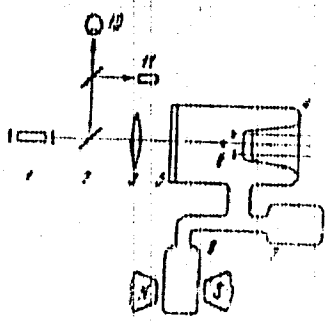
USSR

KUZNETSOV, V. A., SHCHUKA, A. A., Pribory i Tekhnika Eksperimenta, No 3, May/Jun 72, pp 171-173



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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

USSR

UDC 597:591.175

PROTASOV, V. R., BASOV, B. M., KRUMIN, V. M., ORLOV, A. A., and [redacted] Institute of Evolutionary Morphology and Ecology of Animals, USSR Academy of Sciences, Moscow

"Low-Frequency Electrical Discharges of Nonelectrical Fish"

Moscow, Zoologicheskiy Zhurnal, Vol 50, No 5, May 71, pp 779-782

Abstract: Electrical discharges from a number of nonelectric fish in the frequency range of 0.2 to 12.0 cycles were recorded. The fish used differed in their movements, their structural make-up, excitability, and respiratory activity. The oscillograms obtained could be separated into two groups: the first one reflects the respiratory processes of the fish. In this case, potentials can be recorded when the fish are in a quiet state close to the electrodes. Values of 5-20 microvolts were recorded. The second group of oscillograms reflects the motor activity of the fish during excitation. The amplitude of these potentials is considerably higher and reaches 150 microvolts. Amplitude and frequency of the impulses are increased with increasing excitation of the fish. These impulses are caused not only by neuromuscular activity but also by the movement of the fish between the electrodes. The potentials are specific for each fish species. It was concluded that degree

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PROTASOV, V. R., et al., Zoologicheskiy Zhurnal, Vol 50, No 5, May 71, pp 779-782

of excitation and fish mobility can be directly related to the oscillograms. The low-frequency impulses from some groups and schools of fish were recorded also. A summation effect of frequency as well as duration of the impulses was found. It was noted that there was some synchronization in the respiratory rhythm of the fish.

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USSR

BRAZHNIKOV, Ye. M.; KUZNETSOV, V. A.; MAMLINA, V. I.

"Functional Indexes of Perfusion With the Aid of Elevated Oxygen Pressure in an Oxygenerator-Air Pump (Experimental Investigation)"

Moscow, Voprosy Mediko-Biologicheskikh Issledovaniy. Materialy Konferentsii Molodykh Nauchnykh Rabotnikov Mediko-biologicheskogo Fakul-teta (Aspects of Biomedical Research. Materials of a Conference of Young Scientific Workers of the Biomedical Faculty), Ministerstvo Zdravookhraneniya SSSR, 1970, 93 pp, pp 42-44

Abstract: A new perfusion method using a newly developed oxygenerator-air pump to be utilized in extracorporeal circulation is described. The effect of the new method on hemodynamics, gaseous composition, acid-base equilibrium, and biophysical properties of the blood was also studied. The method was tested on dogs. The pathomorphological effect of the method on the internal organs was studied simultaneously. The tests were

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USSR

BRAZHNIKOV, Ye. M.; et al, Voprosy Mediko-Biologicheskikh Issledovaniy. Materialy Konferentsii Molodykh Nauchnykh Rabotnikov Mediko-Biologicheskogo Fakul-teta, 1970, 93 pp, pp 42-44

conducted under conditions of complete extracorporeal circulation for one hour with a volume of circulating blood equal to 1.2-3.5 min, maintained as a result of the 100-170 mm Hg pressure difference between the oxygenerator and the arterial pressure. Arterial pressure during the perfusion process was within limits of 55-85 mm Hg, venous pressure -- 0-4,5 mm Hg, while peripheral resistance was considerably increased. Arterialization of the venous blood was carried out by the bubble method, with oxygen pressure maintained at 120-280 mm Hg higher than that of the atmosphere. Blood saturation with oxygen increased from 94 to 100%; that of the venous blood decreased from 86 to 64%; shifts in the acid-base balance were characterized by the development of moderate metabolic acidosis and respiratory alkalosis. Biophysical blood indexes were marked by a decline in hemoglobin and blood viscosity. No nonreversible changes in internal organs were observed.

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USSR UDC 669.71.472(088.8)

YABLOKOV, V. G., KUZNETSOV, V. A.

"Machine for Loading the Anode Mass into the Anode Shells of Aluminum Electrolyzers"

USSR Author's Certificate No 254107, Filed 25 Oct 66, Published 17 Mar 70 (from RZh-Metallurgiya, No 4, Apr 71, Abstract No 4Q170P)

Translation: To improve the degree of mechanization, a design is proposed for a machine whose anode mass bin is made from several independently controlled sections and a common system for unloading them. The unloading system involves a receiving hopper, a guide chute, and spouts which are hinged to the metal structure of the machine. The machine is equipped with an auxiliary nozzle system for the formation of an air suspension over the open upper electrolysis section. There are 6 illustrations.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

USSR UDC: 621.373.421.13(088.8)

NARODITSKIY, I. A., FROMBERG, E. M., KUZNETSOV, V. A.

"A Device for Regulating Temperature"

USSR Author's Certificate No 286368, filed 17 Mar 69, published 12 Jan 71 (from RZh-Radiotekhnika, No 6, Jun 71, Abstract No 6D352 P)

Translation: A temperature controller is proposed which contains a temperature pickup, converter, pulse-duration modulator, and power amplifier. In order to obtain high long-term temperature stability, the device includes a self-excited oscillator with precision quartz resonator, and a self-excited oscillator with a quartz temperature resonator. These self-excited oscillators are connected through a mixer to the input of the discriminator. V. P.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

USSR UDC 669.71.042.63(088.8)

NIKIFOROV, V. P., KUZNETSOV, V. A., and TABLOKOV, V. G.

"Machine for Semicontinuous Casting of Ingots"

USSR Author's Certificate No 260837, filed 15/04/64, published 11/05/70, (from Referativnyy Zhurnal-Metallurgiya No 1, 1971, Abstract No 1 G114 P)

Translation: A machine is suggested for semicontinuous casting of ingots of Al and its alloys. The machine includes crystallizers and a platform with stools and counterweights, supported on flexible couplings and moving in guides. In order to eliminate the possibility of movement of the platform in any plane and to provide copying without spacing of the position of the platform guides, the platform is articulated to sprung guiding shoes. The weight of the counterweights exceeds the weight of the platform and ingots, in order to simplify the drive system.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

UDC 53.07/.08+53.001.5

USSR

KUZNETSOV, V. A., NIKOLASHIN, ZH. P., FOGEL'SON, M. S.

"Obtaining and Studying Uncompensated and Structurally Complete Single Crystals of Silicon Highly Doped With Arsenic"

V sb. Kremniy i germaniy (Silicon and Germanium -- Collection of Works), No. 2, Moscow, "Metallurgiya," 1970, pp 82-84 (from RZh-Fizika, No 1, Jan 71, Abstract No 1A884)

Translation: Ge single crystals doped with As up to concentrations of $1 \cdot 10^{15}$ - $4 \cdot 10^{19}$ at/cm^3 were obtained and studied. Conditions for growing and selecting the material to ensure obtaining Ge of perfect structure with a low degree of compensation are given. The variation, with temperature, of the specific resistance and Hall coefficient and the spectra of the electron paramagnetic resonance in the temperature interval 1.7-10°K confirm the low degree of compensation and the perfection of the structure of Ge single crystals highly doped with As. Authors abstract.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

1/2 013 UNCLASSIFIED PROCESSING DATE--09OCT70

TITLE--THE PROBLEMS OF MERCURY DEPOSITS GENESIS AND ORE MATERIAL SOURCES -U-

AUTHOR-(02)-KUZNETSOV, V.A., OBOLENSKIY, A.A.

COUNTRY OF INFO--USSR

SOURCE--GEOLOGIYA I GEOFIZIKA, 1970, NR 4, PP 44-56

DATE PUBLISHED--------70

SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY

TOPIC TAGS--MERCURY, METAL ORE, GEOCHEMISTRY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1993/0718 STEP NO--UR/0210/70/000/004/0044/0056

CIRC ACCESSION NO--AP0113582

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

2/2 013 UNCLASSIFIED PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0113582

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE AUTHORS PROVE THE PARAGENETIC RELATIONSHIP BETWEEN ORE MERCURY FORMATION DEPOSITS AND MANIFESTATIONS OF DEEP SEATED SUBCRUSTAL MAGMATISM. THE GENETIC RELATION OF MERCURY MINERALIZATION WITH SUBCRUSTAL CHAMBERS OF SUBALKALINE BASALTOID MAGMAS IS ESTABLISHED. THE CONCLUSION IS GROUNDED ON DEEP SUBCRUSTAL SOURCE OF MERCURY IN ORES. THE MERCURY MOBILIZATION BY HYDROTHERMAL SOLUTIONS FROM THE EARTH'S CRUST IS OF LESS SIGNIFICANCE. FACILITY: IGIG SO AN SSSR, NOVOSIBIRSK.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

1/2 014 UNCLASSIFIED PROCESSING DATE--11SE70

TITLE--ELECTROCAPILLARY PHENOMENA IN INDIUM BISMUTH ALLOYS -U-

AUTHOR--KUZNETSOV, V.A., KONYUKHOVA, N.P., DUDINA, N.A.

COUNTRY OF INFO--USSR

SOURCE--ELEKTROKHIMIYA 1970, 6(1), 108-10

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--SURFACE ACTIVE AGENT, INDIUM ALLOY, BISMUTH ALLOY, ELECTRODE POTENTIAL, POTASSIUM CHLORIDE, LITHIUM CHLORIDE, ELECTRODE POTENTIAL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1988/0681 STEP NO--UR/0364/70/006/001/0108/0110

CIRC ACCESSION NO--AP0105657

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

2/2 014 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0105657

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE ELECTROCAPILLARY PHENOMENA WERE STUDIED AT 450DEGREES BY USING AS ELECTROLYTE A EUTECTIC MIXT. OF LICL AND KCL. ADDN. OF BI TO IN LOWERED THE INTERFACIAL TENSION AND SHIFTED THE ZERO CHARGED POTENTIAL OF THE ALLOYS TOWARD THE POS. SIDE. AT POTENTIALS MORE NEG. THAN POSITIVE 0.2 V BI BEHAVED AS A SURFACE ACTIVE COMPONENT IN RELATION TO IN AND WAS ADSORBED ON THE SURFACES OF THE ALLOYS. AT POSITIVE 0.2 V THE INTERFACIAL TENSION IS INDEPENDENT OF THE ALLOY COMPN. AND THE ADSORPTION OF BI IS NIL. AT POTENTIALS MORE POS. THAN POSITIVE 0.2 V, IN BECOMES A SURFACE ACTIVE COMPONENT. THUS, THE CONCN. OF COMPONENTS IN THE SURFACE LAYER DEPENDS ON BOTH THE COMPN. OF THE ALLOY AND ON THE POTENTIAL, AND THEREFORE A CHANGE IN THE LATTER WILL CAUSE A CHANGE IN THE SIGN OF ADSORPTION. THE ZERO CHARGE POTENTIAL OF IN WAS NEGATIVE 0.52 V AND THAT OF BI NEGATIVE 0.18 V. THE RANGE OF COMPNS. WHERE A CHANGE IN COMPN. CAUSES A SHARP CHANGE IN INTERFACIAL TENSION IS CHARACTERIZED BY SHARP CHANGES OF THE ZERO CHARGE POTENTIALS. THIS INDICATES THAT THE ZERO CHARGE POTENTIALS ESSENTIALLY DEPEND ON THE COMPN. OF THE SURFACE LAYERS.

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USSR UDC: 546.33'42'284

GANIYEV, R. M., KUZNETSOV, V. A., LIDER, V. V., ILYUKHIN, V. V., and BELOV, N. V., Institute of Crystallography, Academy of Sciences, USSR

"Synthesis and Certain Properties of Calcium-Sodium Silicate Single Crystals"

Moscow, Neorganicheskiye Materialy, Vol 6, No 2, Feb 70, pp 398-399

Abstract: The formation of calcium-sodium silicate phases is discussed, and a table illustrating their formation in the CaO--SiO_2--$NaOH$ system is given. Analysis of the first phase, using the 1KhA-3-type diffraction microanalyzer, gave the following results: CaO, 34.8%; SiO_2, 46%; Na_2O, 22%. Spectral analysis confirmed the given composition. The formula of the first phase may be written as $4CaO \cdot 5SiO_2 \cdot 2Na_2O$. The second phase of the composition $Na_2CaSi_3O_8$ was mentioned in earlier research and the given lattice parameters as well as the set of the interplanar spacings agree with the data of this study. Phase $4CaO \cdot 5SiO_2 \cdot 2Na_2O$ precipitates in the form of large, well formed single crystals of prismatic habit. The specimen features one sufficiently clearly pronounced and readily reproducible endothermic effect in the 980°C region; this effect is not attended by evolution of gaseous products and weight loss. It is suggested that the phase $4CaO \cdot 5SiO_2 \cdot 2Na_2O$ has no structural water and has a polymorphous transition in the 980°C region.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

1/2 027 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--SYNTHESIS AND SOME PROPERTIES OF CA NA SILICATE SINGLE CRYSTALS -U-

AUTHOR-(05)-GANIYEV, R.M., KUZNETSOV, V.A., LIDER, V.V., ILYUKHIN, V.V., BELOV, N.V.

COUNTRY OF INFO--USSR

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SOURCE--IZV. AKAD. NAUK SSSR, NEORG. MATER. 1970, 6(2), 398-9

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--SILICATE, CALCIUM COMPOUND, SODIUM COMPOUND, CHEMICAL SYNTHESIS, SINGLE CRYSTAL, PHASE ANALYSIS, CRYSTAL STRUCTURE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1988/0606 STEP NO--UR/0363/70/006/002/0398/0399

CIRC ACCESSION NO--AP0105589

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

2/2 027 UNCLASSIFIED PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0105589

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CONDITIONS FOR THE FORMATION OF CA NA SILICATE PHASES IN THE CAO MINUS SIO SUB2 MINUS NAOH SYSTEM WERE STUDIED. THE PHASES 4CAO.5SIO SUB2 .2NA SUB2 O AND NA SUB2 CASI SUB3 O SUB8 WERE PRESENT IN THIS SYSTEM, AS DETD. BY ELECTRON MICROPROBE ANAL. THE LATTICE PARAMETERS AND INTERPLANAR SPACINGS OBTAINED FOR THESE PHASES AGREE WELL WITH PREVIOUSLY REPORTED DATA. THE PHASE 4CAO.5SIO SUB2 .2NA SUB2 O PPTS. OUT IN THE FORM OF COARSE (1-3 MM) AND WELL FORMED SINGLE CRYSTALS OF PRISMATIC HABIT; IT HAS A D. OF 2.872 G-CM PRIME3. ITS OPTICAL CONSTS. WERE ALSO DETD. DTA DATA SHOW THE PRESENCE OF AN ENDOTHERMIC EFFECT AT 980DEGREES, WHICH IS NOT ACCOMPANIED BY THE PPTN. OF GASEOUS PRODUCTS OR WT. LOSSES. THIS INDICATES THAT THE 4CAO.5SIO.2NA SUB2 O PHASE DOES NOT CONTAIN STRUCTURAL WATER AND THAT IT EXHIBITS A POLYMORPHIC TRANSITION AT SIMILAR TO 980DEGREES.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

1/2 028 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--ELECTROOPTICAL PROPERTIES OF CUBIC ZINC SULFIDE CRYSTALS GROWN BY A HYDROTHERMAL METHOD -U-

AUTHOR-(05)-SHAMBUROV, V.A., KUZNETSOV, V.A., LOBACHEV, A.N., KHARITONOVA, I.V., SOSHNIKOV, V.G.

COUNTRY OF INFO--USSR

SOURCE--KRISTALLOGRAFIYA 1970, 15(2), 302-7

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--ELECTROOPTIC EFFECT, CRYSTALLIZATION, ZINC SULFIDE, CRYSTAL GROWING, LIGHT TRANSMISSION, CRYSTAL ORIENTATION, LIGHT MODULATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1996/1478 STEP NO--UR/0070/70/015/002/0302/0307

CIRC ACCESSION NO--AP0118467

UNCLASSIFIED

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

2/2 028 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0118467

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CRYSTN. OF CUBIC ZNS BY THE HYDROTHERMAL METHOD WAS STUDIED UNDER THE CONDITIONS USED BY R. LAUDISE, ET AL. (1965), AND THE SPECTRAL DEPENDENCE WAS STUDIED FOR THE LIGHT TRANSMISSION, THE HALF WAVE POTENTIAL, AND ELECTROOPTICAL COEFFS. OF THE CRYSTALS. THE DEVIATIONS WERE DETD. FROM OPTICAL ISOTROPY. CRYSTALS PREPD. IN THIS WAY CAN BE ORIENTED AS REQUIRED IN THE FORM OF RECTANGULAR PARALLELPIPEDS OF SUFFICIENT SIZE TO CARRY OUT ELECTROOPTICAL STUDIES. THE CRYSTALS THAT WERE OBTAINED ARE SUITABLE FOR PRACTICAL USE IN LIGHT MODULATION OVER THE RANGE OF WAVELENGTHS OF 0.4-13 MU. FACILITY: INST. KRISTALLOGR., MOSCOW, USSR.

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2/2 032 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0135065

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE BEHAVIOR OF NABH SUB4 -NABH MIXT., HAVING 0-100PERCENT CONCN. OF COMPONENTS, DURING HEATING (7-8DEGREES-MIN) WAS STUDIED THERMOGRAVIMETRICALLY. DUE TO INTERFERENCE OF EVOLVING H, ONLY A PARTIAL PHASE DIAGRAM OF THE SYSTEM IS CONSTRUCTED. AT 200-500DEGREES, THE SYSTEM FORMS A EUTECTIC TYPE EQUIL. AT SIMILAR TO 240DEGREES, H STARTS TO EVOLVE AND NAH AND NABO SUB2 FORM AS BY PRODUCTS. THE LAST 2 COMPDS. FORM A NEW EUTECTIC, M. 450DEGREES, WITH AN EXCESS OF NABH SUB4.

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USSR UDC 661.143

GUGEL', B. M., KUZNETSOV, V. B., and ROMANENKO, Z. G.

"CRT Screens with Cascade Excitation, High Resolution and Increased Durability"

Sb. nauch. tr. VNII lyuminoforov i osobo chist. veshchestv (Collected Scientific Works of the All-Union Scientific Research Institute of Phosphors and Extra Pure Substances), 1971, vyp 6, pp 61-70 (from RZh-Khimiya, No 17, Oct 72, Abstract No 17L171)

Translation: The paper describes cascade screens for radar cathode ray tubes with high resolution. Data are given on the luminescence characteristics of the screens.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

Hydrobiology

USSR UDC 591.185.3

SOKOLOV, V. YE., Corresponding Member, Academy of Sciences USSR and KUZNETSOV, V. B.

"Chemoreception in the Black Sea Dolphin Tursiops truncatus Mont."

Moscow, Doklady Akademii Nauk SSSR, Vol 201, No 4, 19 Apr 71, pp 998-1000

Abstract: It is generally believed that cetaceans lack a sense of smell, although some young animals appear to have that ability. Histological studies conducted by the authors revealed that three kinds of dolphins possessed at the base of the tongue epithelium covering what appeared to be taste sensors -- three to nine formations at the most. It was also noted that the taste nerves were well developed, indicating that while there were apparently no receptors, fully developed central structures of taste and smell did exist. Chemoreceptive capabilities in dolphins were tested. A female Black Sea (Tursiops truncatus) was used as the test animal. It was trained to react in a different manner to various stimulants sprayed into its mouth: to throw a ball after receiving pure water, or to go to the feeding place after receiving a stimulant. In the first part of the test series, sea water and a solution of trimethylamine were used. Trimethylamine resembles in taste and smell the fishes on which dolphins feed most frequently. In the majority of tests, the animal

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USSR

SOKOLOV, V. YE., et al., Doklady Akademii Nauk SSSR, Vol 201, No 4, 19 Apr 71, pp 998-1000

reacted correctly by swimming to the expected place and throwing the ball after receiving sea water, or waiting for the reward at the feeding place after receiving the chemical. The average decision time was 10.7 seconds after sea water, and 9 seconds after trimethylamine. In the second series, camphor and indole were added besides the trimethylamine. Results were again positive in between 74% to 77% of tests with the decision times averaging 12.4 seconds after receiving sea water, and between 7.9 and 8.9 seconds for stimulants. A surprising and unexpected phenomenon which occurred during this test was the ability of the dolphin to differentiate between stimuli breaking down after a certain number of tests, when the dolphin began reacting at random. A possible explanation which is suggested is the additional difficulty created by more than one active stimulus. Dogs are unable to react to situations of a similar complexity. Tests seem to inidcate that dolphins possess abilities to detect by means of taste and/or smell the desirable stimuli, and also to differentiate between them. Indole was the most effective stimulus in that sense, with the average decision time reaching 3 to 4 seconds.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

Instrumentation and Equipment

USSR

UDC: 621.791:061.43

POPOVSKIY, V. YU. and KUZNETSOV, V. D.

"All-Union Exhibition of Modern Welding Equipment"

Kiev, Avtomaticheskaya Svarka, No 10, Oct 73, pp 76-78

Abstract: The first all-union specialized exhibition of Soviet arc-welding equipment was held from 14 to 16 May, 1973 in Riga under the name "Welding - 73". The exhibition was organized by the following: VNIIESO (All-Union Scientific Research Institute of Electric Welding Equipment), IES imeni Ye. O. Paton (Institute of Arc Welding imeni Ye. O. Paton), Ministry of the Electrotechnical Industry of the USSR, and the State Planning Commission of the Latvian SSR. The exhibition was opened by M. L. Raman, Chairman of the Council of Ministers of the Latvian SSR and Chairman of the State Planning Commission of the Republic, and by V. M. Borushko, chairman of the organizational committee for the exhibition and Deputy Minister of the Electrotechnical Industry of the USSR. The exhibition included the products of more than 30 Soviet plants producing electric welding equipment. The following units were exhibited: the ADS-1000-3, TS-12, and ADF-2001 automata, designated for the direct current hidden-arc welding of butt and angular seams; the PDG-303-1 and PDG-304-1 semi-automata, used for the direct current welding of sheet steel in a gas shield; the A-1197 semi-automaton, used in shielded-arc welding, hidden-arc welding, open-arc welding, or powder rod welding; the [illegible]-101

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POPOVSKIY, V. YU., et al, Avtomaticheskaya Svarka, No 10, Oct 73, pp 76-78

unit, used for the direct current welding of copper and its alloys with a nonconsumable electrode in argon; the UDG-301 and UDG-501 units for alternating current welding of aluminum and its alloys; the MVT-1601 and MG-602 spot-welding machines; the MR-2507 machine, used for the projection welding of low-carbon grades of steel; the MSh-2001 machine, used for the seam welding of parts made from low-carbon and alloyed grades of steel; the K-555 machine, for the field contact butt welding of rails; the UDK-204 unit, for the contact arc welding of irreversible seams on water and gas pipelines; equipment developed by the Kiev Polytechnic Institute was demonstrated for welding with the electromagnetic mixing of the molten metal pool; the MSKhS-20-3 machine, used for welding copper trolley wire; the MKhSA--50-3, for welding copper contact plates to the leads of aluminum windings; the A-1281U and the MPU-RI-1 units, used for microplasma welding of stainless steel and nonferrous metals; the MPU-RI (A-1390) combination type power source for pulsed microplasma welding; the APR-401 unit, for the air-plasma cutting of low-carbon and stainless grades of steel, nonferrous metals and their alloys up to 100 mm thick; the A-612 and A-820K electro-slag welding units; the MTK-5-3 contact condenser machine, used for hermetizing semiconductor equipment; the MZU-0.4 ultrasonic welding unit; the TD-300 and TD-500 portable arc power source transformers; and other transformers, rectifiers, and defect control equipment.

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USSR

UDC 621.395.673

KUZNETSOV, V.D., TIMONINA, V.I.

"Medium-Wave Antenna System With Controlled Directional Diagram"

Elektrovyaz', No 9, Sept 1972, pp 1-9

Abstract: The paper describes the SV [medium-wave] (4 + 4) broad-band cophased antenna system with a controlled directional diagram in the horizontal plane in the sector plus or minus 30°. The SV(4 + 4) consists of eight antenna masts arranged in two rows. Four vertical active vibrators arranged in one row are fed from the transmitter; four others play the role of a passive tuned reflector. The distance between the vibrators in a row equals 110 m which amounts to 0.6 percent of the shortest wave of the operating range (188 m). The distance between the row of active and the row of passive vibrators equals 75 m, a distance which is optimum during use of the antenna in the 186--572 m band. The results of calculations and experimental studies of the antenna parameters are presented along with a series of graphs. 10 fig. 4 ref. Received by editors, 31 Dec 1971.

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USSR

UDC 621.372.833

KLIGER, G.A., KOMISSAROV, V.I., KUZNETSOV, V.D.

"Wide-Band Balancing Transformer (Short Report)"

Elektrosvyaz', No 9, Sept 1972, pp 17-19

Abstract: Previous works with V.D. Kuznetsov as a coauthor described a number of schemes for wide-band balancing adapters with transformation, which are used for accordant connections of symmetrical and nonsymmetrical lines with various wave impedances. Because it is difficult to make a symmetrical line with the low wave impedance required, particularly in the short wave range, the present paper presents a method for simplifying the design of such a balancing adapter and decreasing its length by half. The method is based on a scheme previously proposed by the authors (Author's Certificate No 343327, "Byulleten' Izobreteniy," No 20, 1972). An analysis is made of the adapter in order to determine the optimum magnitudes of the wave impedances W_T and W_S. 7 fig. 4 ref. Received by editors, 6 Sept 1971.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

USSR

UDC 621.396.679:621.372.3

KUZNETSOV, V.D., KOMISSAROV, V.I.

"Noncontact Tuning Of Traveling-Wave Feeder"

Elektrosvyaz', No 4, Apr 1972, pp 68-71

Abstract: A noncontact tuning system is described which permits smooth fine tuning of a traveling-wave feeder line for matching, without disconnecting the transmitter and to eliminate in practice the possibility of an incorrect abrupt mismatch of the line. Formulas and curves are presented which make it possible to produce a design of the device, and possible constructive schemes of the arrangement for a two-conductor symmetrical feeder are discussed. The electrical stability of the device is evaluated. 9 fig. Received by editors, 24 June 1971.

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Welding

USSR UDC 621.791.053.01:669.017.3:669.295

KUZNETSOV, V. D., MALINKIN, I. V. (Engineers), CHERNYSH, V. P. (Cand. of Techn. Sciences), and MAZOK, V. K. (Engineer)

"Effect of Electromagnetic Stirring of the Weldpool on Both the Structure and Properties of Weld Joints on VT6S Alloy"

Moscow, Svarochnoye proizvodstvo, No 5, May 72, pp 8-10

Abstract: It is shown that electromagnetic stirring (EMS) of the weldpool in welding titanium alloys provides higher plastic properties of the weld metal while maintaining its strength properties through thinning and decreasing the linear structural dimensions of the α-phase, and reducing the intergranular inhomogeneity. A comparative microstructural analysis shows a marked distinction in both the shape and type of α-phase segregations. The structure of the α-phase in welds done without the use of EMS is characterized by the presence of roughly lamellar elongated colonies intersecting in some areas the boundaries of the parent grain. In welding with ESM, the α-phase has a slightly elongated fine-needle shape with dispersion decay signs typical of fine-grained metal. (3 illustrations, 2 tables, 2 bibliographic references)

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USSR

UDC: 621.317.726(088.8)

OSTROUSHKO, A. I., MITSUK, V. I., ZUBTSOVSKIY, A. N., KUZNETSOV, V. D.

"An Amplitude-Time Converter"

USSR Author's Certificate No 256391, filed 6 Jul 68, published 23 Apr 70 (from RZh-Radiotekhnika, No 1, Jan 71, Abstract No 1A912 P)

Translation: This Author's Certificate introduces an amplitude-time converter which may be used for measuring the amplitudes of isolated pulses of various durations. The unit contains a storage capacitor, matching stages, switching diodes, a current-stabilizing discharge circuit, and a nonlinear divider controlled through an amplifier and multivibrator by the discharge voltage of the storage capacitor in the converter. As a distinguishing feature of the patent, the error of undercharging the storage capacitor is reduced by incorporating a delay line in the converter with its input connected to the output of the nonlinear divider, while the output and taps of the delay line are connected to the storage capacitor through the series-connected matching stages and the switching diodes.
E. L.

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USSR

UDC 621.372.852.1

KUZNETSOV, V. D.

K

"Frequency Multiplexing of Antenna Feeder Strips Without Using Resonators"

Moscow, Elektrosvyaz', No 7, 1970, pp 48-52

Abstract: The author proposes a method of frequency multiplexing whose results are much better than those previously used. Ordinarily, the multiplexing is done either through filters made up of resonators, or through the use of phase-frequency selective strips of various electrical lengths. In both methods, the losses increase rapidly with increasing bandwidth. The author's method uses the principle of branching off the compounded signals by bridge circuits such that the phase relation in the branches remains constant with only the amplitude relationship varying. The diagram of this system given in the article uses a directional coupler on the bridge system. The analysis is made through the method of successive summation of the waves passing through the system. The author notes that the important parameter is the amount of decoupling between the signal sources, and shows how his system can be used to enable two high-frequency or television transmitters to work through the same antenna.

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AA0043329 KUZNETSOV V.D. UR 0482

Soviet Inventions Illustrated, Section II Electrical, Derwent,

242254 EFFICIENT AERIAL FEEDER for addition and separation of two frequencies without resonators. To two identical bridges (3), (4) are applied signals (1) and (2). The bridges are interconnected by equal length of the lines (5). Then signals are passed through the transmission lines (6) and (7) to the third bridge (8) and to the absorbing load (10) and the output (9). This is shown in fig. (11).

When the load is used with the independent inputs, then the outputs of the bridges (3) and (4) can be connected to the load (11) as shown in the figure (2).

6.7.67 as 1171128/26-9. V.D.KUZNETSOV.(23.9.69) Bul 15/ 25.4.69. Class 21a^4. Int.Cl.H 01 p.

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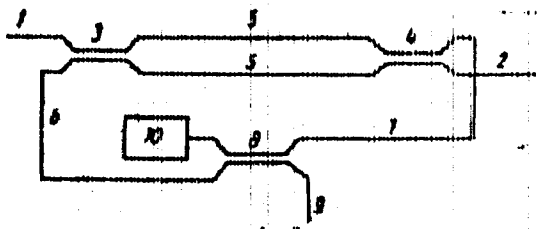
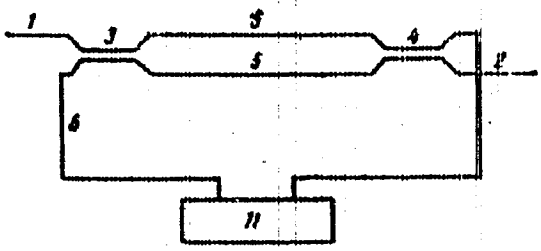


Фиг 1



Фиг 2

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

AA0052634 KUZNETSOV V.D. UR 0482

Soviet Inventions Illustrated, Section II Electrical, Derwent, 1/46

240787 AERIAL-FEEDER PATH. A passive and active communication between satellite and earth and vice versa can be quickly established by using a system comprising an aerial 1, movable by 90° polariser 2, circular waveguide 3, rectangular waveguide 4, dividing filter receiver-transmitter 5 and switches 6 and 7 of transmitters and receivers. 28.12.67. as 1206469/26-9. V.D.KUZNETZOV et alia. (29.8.69.) Bul.13/ 1.4.69. Class 21a4. Int.Cl. H01p.

Kuznetsov, V. D.; Model', A. M.; Krutikov, V. I.

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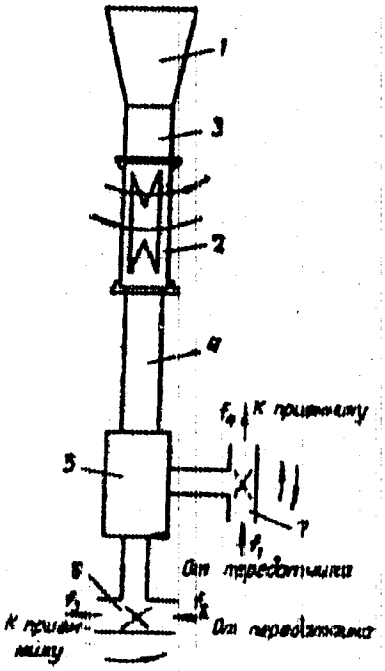
AA0052634



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USSR

UDC 621.317.726(088.8)

KUZNETSOV, V. D., OSTROUSHKO, A. I., LIPATOV, V. N., MITSUK, V. I.

"Meter for Measuring the Peak Values of Single Pulses"

USSR Author's Certificate No 250304, Filed 23 Mar 66, Published 13 Jan 70 (from RZh-Radiotekhnika, No 8, Aug 70, Abstract No 8A534 P)

Translation: Meters which measure the peak values of pulses containing a divider, a measuring converter with negative feedback consisting of a series included amplifier and a diode-capacitive storage element with an output circuit and a terminal recorder are known. In place of these meters with low reliability and insufficient accuracy, another meter is proposed which has the following distinguishing attributes: it is equipped with a "forbidden" circuit in the feedback circuit executed from a thyratron which is connected by the anode circuit to the input and by the control grid, through a switch, with the output of the measuring converter. The output circuit of the latter is assembled from a phantastron with a Schmidt trigger connected to the screen grid.

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USSR

KUZNETSOV, V. F.

"Minimization of Running Time of Algorithms in Mutli-Machine Computer Complexes"

Avtomatiz. Upr. Prom. Predyariyatiyami [Automation of Control of Industrial Enterprises -- Collection of Works], Kiev, Tekhnika Press, 1972, pp 54-63 (Translated from Referativnyy Zhurnal Kibernetika, No 4, 1973, Abstract No 4V673, by the author).

Translation: The problem of distribution of algorithms among computers in a multi-machine complex is studied. A simple and effective method is suggested for solving the problem, based on use of the results of queuing theory.

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USSR

UDC: 51

KUZNETSOV, V. F.

"Distribution of Resources for a Given Organization of Jobs"

Mekhaniz. i avtomatiz. upr. Nauch.-proizv. sb. (Mechanization and Automation of Control. Scientific-Production Collection), 1971, No 6, pp 1-4 (from RZh-Kibernetika, No 6, Jun 72, Abstract No 6V476)

Translation: The paper deals with the optimum distribution of resources assuming a given mutual relation between jobs performed. The proposed distribution minimizes the time of completion of the project. Author's abstract.

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USSR

UDC 512.25/.26+519.3:330.115

KUZNETSOV, V. F., BARANOVSKAYA, G. G.

"Algorithm for Solution of One Problem in Distribution of Heterogeneous Resources"

Mat. Metody Issled. i Optimiz. Sistem. Vyp 4 [Mathematical Methods of Investigation and Optimization of Systems, No 4 -- Collection of Works], Kiev, 1970, pp 42-53, (Translated from Referativnyy Zhurnal, Kibernetika, No 6, 1971, Abstract No 6 V538).

Translation: An approximate method is constructed, based on the idea of successive analysis of versions.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

USSR

UDC 51:330.115

BARANOVSKAYA, G. G., KUZNETSOV, V. F.

"Distribution of Dissimilar Resources in Minimization of Time for Completion of Work"

Mat. Metody Issled. I Optimiz. Sistem. Vyp. 3, [Mathematical Methods of Studying and Optimizing Systems, No. 3--Collection of Works], Kiev, 1970, pp 24-51, (Translated from Referativnyy Zhurnal Kibernetika, No 5, 1971, Abstract No. 5V589).

No abstract.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

USSR

UDC 576.3:612.017:615.5

KUZNETSOV, V. G.

"Vital Staining of Nerve Cells with Methylene Blue and Heliogen Blue", pp 12-13, Sintez Belka i Rezistentnost' Kletok, (Protein Synthesis and Cell Resistance), Leningrad, "Nauka," 1971, 104 pp

Abstract: For the vital staining of the parasympathetic nerve cells of frog auricle (Rana temporaria) a phthalocyanin stain -- heliogen blue -- was used. Auricle preparations were stained at various times after damage by hypotonia. It was observed that over a period of time the quantity of damaged nerve cells detected by heliogen blue and also by methylene blue, decreased. This phenomenon can indicate the process of restoration occurring after alteration.

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USSR

KOMISSARCHIK, YA. YU., and KUZNETSOV, V. G.

"Electron Microscope Investigation of Nerve Cells and Their Changes in Hypotonic Solutions by the Sighting Method Used for the Study of Single Cells", pp 19-28, Sintez Belka i Rezistentnost', Kletok, (Protein Synthesis and Cell Resistance), Leningrad, "Nauka," 1971, 104 pp

Abstract: A study was made of the ultrastructure of parasympathetic nerve cells in a frog auricle preparation (Rana temporaria) and their reaction to damage by distilled water. The article gives a description of the procedure which makes a sighting study of individual cells possible under both electron and light microscopes.

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USSR

UDC 621.317.3

BORODIN, V. Z., KUZNETSOV, V. G.

"Procedure for Determining the Coercive Force of a Photoelectric Field"

Elektron. tekhnika. Nauchno-tekhn. sb. Materialy (Electronic Engineering. Scientific and Technical Collection. Materials), 1970, vyp. 6, pp 109-125 (from RZh-Radiotekhnika, No 4, Apr 71, Abstract No 4A304)

Translation: The operation of an ordinary oscillographic circuit is analyzed considering nonlinearity of the ferroelectric capacitor. The conditions of undistorted reproduction of the dielectric hysteresis loop, the current oscillogram and reversible characteristics are proposed. The dispersion of the coercive force of $BaTiO_3$ crystals in the infrasound frequency range was studied experimentally. The conclusion is drawn of variation of the mechanism of the repolarization process of $BaTiO_3$ crystals in the indicated frequency band.

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USSR UDC 621.311.1.16.072.85

KUZNETSOV, V. G.

"Balancing Circuits with Mutual Inductance"

V sb. Probl. tekhn. elektrodinamiki (Problems of Technical Electrodynamics -- collection of works), vyp. 24, Kiev, Naukova Dumka Press, 1970, pp 67-72 (from RZh-Elektrotekhnika i Energetika, No 4, Apr 71, Abstract No 4 Ye240)

Translation: With corresponding selection of the voltage phases in the elements, the installed power of a balancing circuit can be reduced. The choice of phases is made, in particular, with the help of electromagnetic voltage dividers. The requirements which a divider must satisfy are discussed, the optimal (from the point of view of minimum possible power of the balancing elements) balancing conditions are presented, and a procedure is proposed for calculating the static balancing circuits with electromagnetic dividers. There are 6 illustrations and a 3-entry bibliography.

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MEDICINE
Aerospace Medicine

USSR UDC 612.921:350.4

KUZNETSOV, V. G. and ZHERNAVKOV, V. F.

"Effect of Some Flight Factors on the Perception of Time and Muscular Exertions"

Moscow, Voyenno-Meditsinskiy Zhurnal, No 2, 1971, pp 60-64

Abstract: Studies on pilots during actual flight and on a special apparatus simulating the conditions and dynamics of flight on a fighter plane showed that variable overloads (frequency 0.5 to 1.5 hz and amplitude 0.25 to 0.44 units) and high ambient temperatures (38 to 45°C for 4 hours) markedly distort the perception of time and muscular exertions. For example, 4-, 6-, and 8-second intervlas were misjudged by 26, 27, and 20%, respectively. High temperatures (in a thermal chamber) produced similar changes. In the effort to duplicate the exertions involved in handling the control stick after exposure to variable overloads, the subjects misjudged by as much as 46.5%. During actual flight (involving exposure to turbulent atmosphere and high ambient temperatures) the perception of small time intervals was distorted even more because of the additional influence of emotional stress.

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Acc. Nr: N0046372 Abstracting Service: INTERNAT. AEROSPACE ABST. 5-70 Ref. Code: 21R0208

A70-25190 Use of the Monte Carlo method to calculate the risk of exceeding a given dose of solar flare protons (Primenenie metoda Monte-Karlo dlia vychisleniia riska prevysheniia zadannoi dozy protonov solnechnykh vspyshek), V. I. Gancharov, V. I. Kolomenskii, V. G. Kuznetsov, and V. A. Sakovich. *Zhurnal Vychislitel'noi Matematiki i Matematicheskoi Fiziki*, vol. 10, Jan.-Feb. 1970, p. 247-250. 10 refs. In Russian.

Calculation of the radiation hazard presented to space vehicles by proton fluxes from solar flares, using the Monte Carlo method. An estimate is made of the probability of exceeding a given dose of solar flare protons. The distribution of the flares in time is simulated on a computer. At appropriate stages of the simulation the techniques of importance sampling and analytical averaging are applied. A.B.S.

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1/2 026 UNCLASSIFIED PROCESSING DATE--27NOV70

TITLE--PASSAGE OF REACTOR NEUTRONS AT OBLIQUE ANGLES THROUGH SHIELDS -U-

AUTHOR-(04)-KUZNETSOV, V.G., SAKOVICH, V.A., SAKHAROV, V.M., STOLPOVA, I.A.

COUNTRY OF INFO--USSR

K

SOURCE--VOP. DOZIM. ZASHCH. IZLUCH. 1969, NO. 9, 22-9

DATE PUBLISHED-------70

SUBJECT AREAS--NUCLEAR SCIENCE AND TECHNOLOGY

TOPIC TAGS--NEUTRON SHIELDING, REACTOR SHIELDING, ANGULAR DISTRIBUTION, NEUTRON SPECTRUM, IRON, NEUTRON SCATTERING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3007/1006 STEP NO--UR/2892/70/000/009/0022/0029

CIRC ACCESSION NO--AP0136433

UNCLASSIFIED

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

2/2 026 UNCLASSIFIED PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0136433

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. BY USING THE METHOD OF SPHERICAL HARMONICS, BOTH ENERGY SPATIAL AND ANGULAR DISTRIBUTIONS ARE STUDIED OF REACTOR N INCIDENT AT AN OBLIQUE ANGLE ON A PLANE PARALLEL FE SHIELD. THE ANGULAR DISTRIBUTION OF N VARIES WITH INCREASING WIDTH OF SHIELD AZIMUTHALLY SYM. WITH RESPECT TO NORMAL OF THE SHIELD. THE FORM OF THE DISTRIBUTION IS THEN IDENTICAL WITH THAT GENERATED AT NORMAL PASSAGE OF N BEAM THROUGH THE SHIELD.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4

1/2 020 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--SIGNIFICANCE OF PYRILENE TEST IN ROENTGENODIAGNOSIS OF PEPTIC ULCER -U-

AUTHOR-(03)-KANISCHEV, P.A., KUZNETSOV, V.G., GUYVIK, V.D.

COUNTRY OF INFO--USSR

SOURCE--TERAPEVTICHESKIY ARKHIV, 1970, VOL 42, NR 5, PP 29-30

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--DIGESTIVE SYSTEM DISEASE, GANGLIONIC BLOCKING AGENT, DUODENUM, LESION, DIAGNOSTIC MEDICINE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3001/0700 STEP NO--UR/0504/70/042/005/0029/0030

CIRC ACCESSION NO--AP0126412

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710013-4"

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2/2 020 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0126412

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IN INTENSIFIED PERISTALSIS, INCREASED TONE OF THE STOMACH AND THE DUODENUM, ACCELERATED EVACUATION, SPASMS OF THE PYLORUS OR BULB DETECTION OF A NICHE IS NOT ALWAYS POSSIBLE. TO DECREASE THE TONE AND DECELARATION OF PERISTALSIS, AS WELL AS FOR RELEAVING SPASMS A GANGLION BLOCKING AGENT PYRILENE WAS SUED. AFTER ROUTINE STUDY AND DETECTION OF THE ABOVE MENTIONED SIGNS OF DYSFUNCTION OF THE STOMACH AND THE DUODENUM A PATIENT WAS GIVEN 2 TABLETS OF (10 MG) OF PYRILENE AND REPEATED INVESTIGATION WAS CONDUCTED 60-75 MINUTES LATER. AS A RESULT OF HYPOTENSIVE ACTION OF PYRILENE PATHOLOGICAL PROCESSES WERE REVEALED IN 35 OUT OF 145 ONLY AFTER THE USE OF PYRILENE. FACILITY: OTDEL ZABOLEVANIY ZHELUDKA DNEPROPETROVSKOGO N-I INSTITUTA GASTROENTEROLOGII.

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USSR

KUZNETSOV, V. I.

Sokrovishchnitsa XXI veka (Treasure-House of the Twenty-First Century), Moscow, Znaniye, 1972, 78 pp, 85,000 copies printed

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Abstract of 'Radiation and heredity'; Harmful and beneficial effects of radioactive elements (radium, thorium, uranium, potassium 40, cobalt 60, etc.) on humans, animals and plants are discussed with particular emphasis on the genetic mutations that result. Irradiation is stressed as a means of solving the world food problem through the development of animals and plants with higher productivity and resistance to disease.

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USSR

KUZNETSOV, V. I., Znaniye, 1972, 78 pp,

Abstract of 'New means of insect control': The negative aspects of DDT and other insecticides are noted and the use of radioactive methods for tracing the migratory routes of insects, for the investigation of internal biological processes in insects, for the sterlization of male insects, and for the destruction of insects in granaries are discussed.

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