"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

UDC 681.3.06:51

USSR

MIRENKOV, N. N., Vychisl. Sistemy, No 42, Novosibirsk, 1970, pp 34-46.

The solution of this problem is performed in three stages; in the first stage, the set of problems is converted to a set of enlarged problems with identical solution times; in the second stage the realization of problems in the system is planned for the new set of problems; in the third stage, the results of the first two stages are used to select a strategy for realization of the initial set.

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USSR

POTAPOV, V. I. and MIRENKOV, P. V.

"The Structural Complexity and Technical Realization of Formal Neurons Using Magnetic Flux Switches"

Probl. Bioniki. Resp. Mezhved. Temat. Nauch.-Tekhn. Sb. [Problems of Bionics. Republic Interdepartmental Thematic Scientific and Technical Collection], 1973, No 10, pp 3-15 (Translated from Referativnyy Zhurnal Kibernetika, No 10, 1973, Abstract No 10V801)

Translation: Problems of the technical realization of multifunctional and monofunctional formal neurons are discussed. The general structural complexity of the following types of formal neurons is analyzed: with blocking fibers, with permitting fibers, with combining fibers and with combinations of spontaneous and blocking fibers. 11 Biblio. Refs. Author's view

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UDC: 681.3.055

USSR

POTAPOV, V. I., MIRENKOV, P. V., VORONKOVA, L. V., Omsk Polytechnical Institute

"A Multifunctional Threshold Element"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 10, Apr 72, Author's Certificate No 332575, Division H, filed 13 Jul 70, published 14 Mar 72, p 225

Translation: This Author's Certificate introduces a multifunctional threshold element based on magnetic cores with rectangular hysteresis loop. The element operates in accordance with the principle of current distribution, and contains a unit for setting the threshold value, and also threshold cores carrying series-connected windings for recording the weight coefficients of variables and threshold windings. As a distinguishing feature of the patent, the logic possibilities are extended by adding units for input of the code for weight coefficients of variables, and units for recording the weight coefficients on the threshold cores. The distribution windings of the units for recording the weight coefficients on the threshold cores and of the unit for setting the threshold value are con-

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

USSR

POTAPOV, V. I. et al., USSR Author's Certificate No 332575

nected to the windings for recording the weight coefficients of variables and to the threshold windings, while the distribution windings of the units for input of the code for weight coefficients are connected in series with the corresponding controlling windings of the units for recording the weight coefficients on the threshold cores.

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AA0038806

UR 0482

Soviet Inventions Illustrated, Section I, Chemical, Derwent, 3/70

238029 PUSHER-TYPE ELECTRIC VACUUM FURNACE with continuous operation for the heat treatment of articles placed in cassettes is a rectangular vacuum channel which is separated into working zone 11 and pre-degasification zone 7 by dynamic shutters 8,15. The cassettes 1 are charged through hatch 2 into loading-unloading chamber 3 and moved along the furnace by push rods. A high-vacuum pump is connected at 21 and a medium-vacuum pump to the cooling sections 14,18, at 22. 12.5.62. as 777837 24-7. A.I.MIRER, G.A. FOMIN. (16.7.69.) Bul.9/ 20.2.69. Class 21h. Int.Cl. H05b.

19740012

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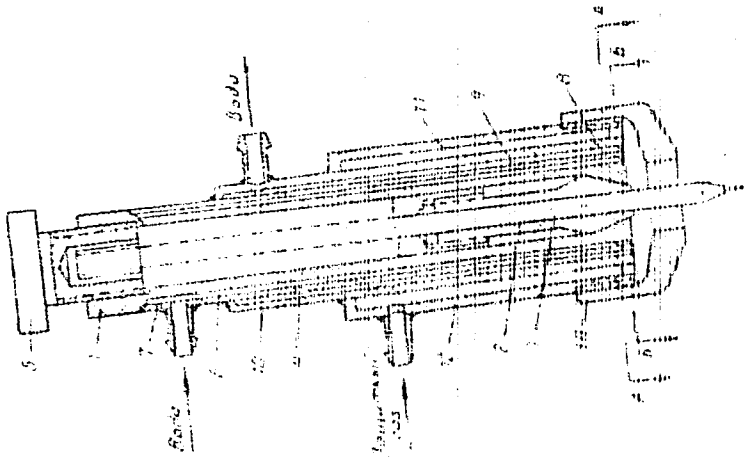
AA0038805



19740013

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

ELECTRICAL ENGINEERING

Materials

UDC: 621.317.8(088.8)

USSR

GAL'PERIN, B. S., SOLDATOVA, L. P., MIRETSKAYA, I. Ye.

"A Resistive Composition"

USSR Author's Certificate No 283367, filed 24 Jun 69, published 22 Dec 70 (from RZh-Radiotekhnika, No 6, Jun 71, Abstract No 6V364 P)

Translation: This Author's Certificate introduces a resistive composition based on a resin binder containing particles of a current-conducting substance in the form of carbon black distributed through the resin. As a distinguishing feature of the patent, resistance limits are extended and resistance characteristics are improved by using highly dispersed partially oxidized destroyed carbon black as the current-conducting material. The carbon black is used in quantities of 6-40 volumetric percent.

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JPRS 59268
6 73

4

VI-66. DISTRIBUTION COEFFICIENTS OF TELLURIUM AND ZINC FOR CRYSTALLIZATION OF GaSb-InSb MELTS

[Article by M. S. Mirgalovskaya, I. A. Strel'nikova, A. S. Ilyushin, V. N. Ufimtsev, Moscow: Novosibirsk, III Simposium po Protsessam Rosta i Sinteza Poluprovodnikovykh Kristallov i Plenok, Myeslan, 12-17 June, 1972, p 76]

Experimental studies were made of the distribution coefficients of Te and Zn in GaSb-InSb solutions under the conditions of drawing crystals by the Czochralski method. It was demonstrated that in contrast to the GaAs-InAs system, the dependence of the distribution coefficients of both alloying elements on the composition of the GaSb-InSb melts is characterized by strong negative deviation from the additive straight line. In the case of tellurium the curve passes through a minimum. This behavior of tellurium and zinc is obviously connected with the appearance of intermolecular interaction in the GaSb-InSb solutions leading to the formation of ordered structures.

Experimental studies were made of the viscosity and the electrical conductivity of liquid solutions of GaSb-InSb. The existence of singular peaks corresponding to compositions of 33.3 and 66.6 mole percent GaSb and stable in a broad temperature range was detected. The latter indicates the defined degree of ordering for these compositions. It was established that the concentration dependence of the molar volume is characterized by negative deviation from the laws of ideal solutions which makes the formation of associates of atoms in the GaSb-InSb solutions thermodynamically possible.

MIRGALOVSKAYA, M.S.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

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JPRS 59208
6-73

VI-6a. CHARACTERISTICS OF THE DISTRIBUTION OF IMPURITIES IN WEAKLY ALLOYED InSb SINGLE CRYSTALS

[Article by M. S. Mirgalovskaya, Ye. B. Korob, M. R. Reukhman, M. C. Sorokina, Moscow; Novosibirsk, III Simposium po Protsessam Rosta i Sistemu Poluprovodnikovykh Kristallov i Plenok, Russian, 12-17 June, 1973, p 77]

A study was made of weakly alloyed InSb single crystals with commensurate concentrations of impurities of the donor and acceptor types. The methods of raster electron microscopy and measuring the relative values of the thermal emf (m_{rel}) were used to discover the macroinhomogeneities arising on growth of such single crystals by the Czochralski method: the growth strata, the face effect and also the circular transitions, the appearance of which is connected with the specific nature of the admixture distribution and the degree of compensation of the material.

The methods of raster electron microscopy were used to demonstrate for the first time that the region of annular transition comprises a series of microtransitions formed in the growth strata at the conjugation points of the n-type material (on the face) and the p-type material (outside the face).

In the investigated single crystals with extended p-n-junctions in certain cases additional p-n-junctions were detected (the arrangement was parallel to the basic arrangement) arising in the growth strata as a result of overcompensation of the basic carriers for the formation of the extended p-n-junction.

The method of taking curves of the current-diode signal was used to reveal the differences in distribution gradients of the impurity near the p-n-junctions by which it is possible to judge the sharpness of the junction.

The method of raster electron microscopy was used in the InSb p and n-type single crystals to define the diffusion lengths of the minority carriers the values of which are in good agreement with the calculated data.

MIRGALOVSKAYA, M.S.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

UDC 621.315.592

USSR

AGAYEV, Ya., MIRGALOVSKAYA, M. S., MIKHAYLOV, A. R., STREL'NIKOVA, I. A.,
Physicotechnical Institute, Academy of Sciences of the Turkmen SSR

"Electrical Properties of p-Aluminum Antimonide Single Crystals"

Ashkhabad, Izvestiya Akademii Nauk Turkmenskoy SSR, Seriya Fiziko-Tekhnicheskikh, Khimicheskikh i Geologicheskikh Nauk, No 6, 1971, pp 9-14

Abstract: The authors studied the electrical properties of p-aluminum antimonide single crystals grown by the Czochralski method. The material was synthesized and the crystals were pulled in the same installation in a helium atmosphere. The specimens cut from the ingots measured approximately 2-2.5 x 3-4 x 12 mm. Platinum or molybdenum probe-leads were attached by spark-discharge welding. The wire leads were 0.05 mm in diameter. The electrical conductivity and Hall effect were measured by the compensation method, using direct current, at temperatures of 80-1300°K. The carrier (hole) concentration of the specimens was $4.6 \cdot 10^{17}$ - $2 \cdot 10^{18}$/cc. No inversion in the sign of the Hall coefficient was observed throughout the entire temperature range. The width of the forbidden band was found to be 1.61 eV in the region of intrinsic conductivity, and the acceptor level was found to be approximately 0.02 eV in the region of extrinsic conductivity.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

MIRGORODSKIY, L. I.

JPRS 56003

16 May 1972

UDC 621.791.011:669.14.018.44

DEVELOPMENT OF CRACKS DURING WELDING OF EP199 ALLOY

[Article by Candidate of Technical Sciences V. P. Moiseyenko, Engineer L. I. Mirgorodskiy, Engineer O. G. Krasnov, Engineer O. A. Samokhvalova; Moscow, Svarochnoye Proizvodstvo, Russian, No 8, 1970, pp 28-29]

Thermally hardened nickel-based EP199 alloy, alloyed with chromium, titanium and molybdenum, is used extensively for welded assemblies intended for operation in aggressive media at temperatures up to 950°C. According to operating conditions cracks are not permitted to form in weld seams. Welding experience indicates, however, that the most frequent defects are microcracks in the near-seam zone, appearing at the points of closing of round and annular seams, and also at the intersection of round seams with longitudinal seams. Their elimination by auxiliary welding increases weld deformations and the amount of labor involved in manufacturing the products.

One of the causes of microcracks in the near-seam zones of such seams, as is known [1], is the low plasticity of zones of the metal enriched with eutectic and their inadequate resistance to the formation of cracks as the seam cools.

The total amount of eutectic produced and the character of its distribution depend on the degree of overheating of the metal during welding and the time it spends at the dangerous temperature, i.e., on the thermal cycle of welding.

Round heads were formed for the purpose of selecting the optimum method of welding assemblies of EP199 alloy. The round form made it possible to simulate the unfavorable conditions of heating of full-scale seams. The methods and conditions of argon-arc welding with a nonfusing electrode are presented in Table 1. Metallographic analyses of templates cut from various parts of the seam (Figure 1) revealed the amount of eutectic formed, its distribution in the various parts of the near-seam zone and its influence on the formation of cracks.

The presence of a eutectic component of linear character was noted at a distance of 0.01-0.025 mm from the line of fusion in all specimens.

[I - USSR - I]

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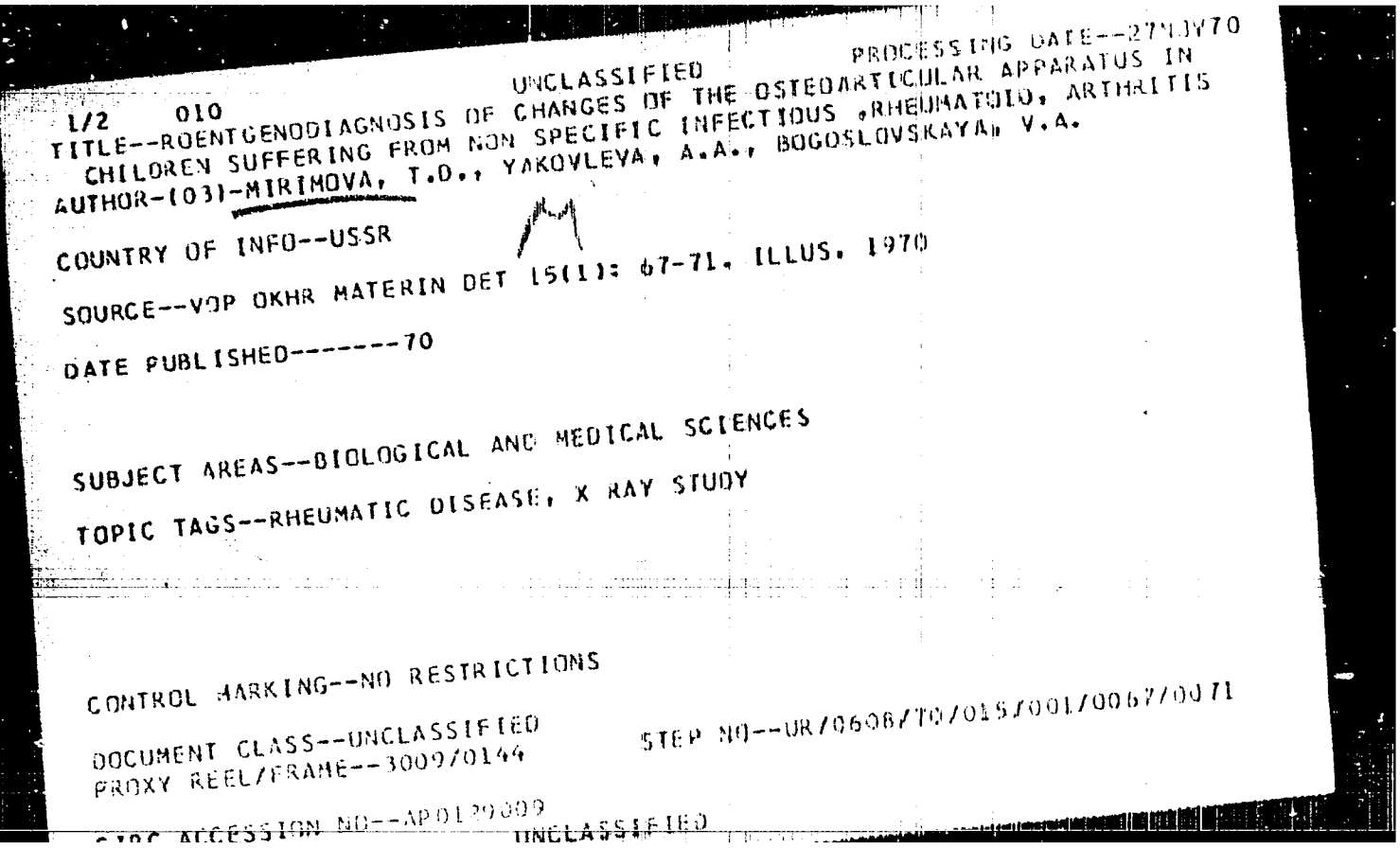

UNCLASSIFIED PROCESSING DATE--27NOV70

1/2 010

TITLE--ROENTGENODIAGNOSIS OF CHANGES OF THE OSTEOARTICULAR APPARATUS IN CHILDREN SUFFERING FROM NON SPECIFIC INFECTIOUS ,RHEUMATOID, ARTHRITIS

AUTHOR-(03)-MIRIMOVA, T.D., YAKOVLEVA, A.A., BOGOSLOVSKAYA, V.A.

COUNTRY OF INFO--USSR

SOURCE--VOP OKHR MATERIN DET 15(1): 67-71, ILLUS. 1970

DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--RHEUMATIC DISEASE, X RAY STUDY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3009/0144

STEP NO--UR/0608/70/015/001/0067/0071

CIRC ACCESSION NO--AP0129009

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

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UNCLASSIFIED PROCESSING DATE--27NOV70

2/2 010
CIRC ACCESSION NO--AP0129009
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ROENTGENOLOGICAL EXAMINATION WAS MADE OF 1,168 JOINTS IN 225 CHILDREN SUFFERING FROM RHEUMATOID ARTHRITIS. A COMPARATIVELY BENIGN JOINT FORM OF RHEUMATOID ARTHRITIS WAS SEEN IN 134 PATIENTS, AND A SEVERE JOINT VISCERAL FORM IN 91. THE EXTENT OF ROENTGENOLOGICAL CHANGES DEPENDED ON THE FORM OF THE DISEASE. IN CHILDREN LOCALIZATION AND THE INCIDENCE OF AFFECTION OF THE JOINTS SOMEWHAT DIFFERED FROM THOSE IN ADULTS. BESIDES, A DIFFERENTIAL FEATURE OF RHEUMATOID ARTHRITIS IN CHILDHOOD IS THE CHARACTER AND THE EXTENT OF INJURY OF THE NUCLEI OF OSSIFICATION, DISTURBANCE OF THEIR GROWTH AND DEVELOPMENT, AND, CONSEQUENTLY, DERANGEMENT OF THE CHILD'S GROWTH.
FACILITY: INST. PEDIAT., ACAD. MED. SCI. USSR, MOSCOW, USSR.

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

Hydraulic

UDC: 621-546.8

USSR

MIRINSKIY, D. S., SHURIN, Ya. I., Institute of Inorganic Chemistry, Siberian Department of the Academy of Sciences of the USSR

"A Check Valve for up to 20 kbar"

Moscow, Pribory i Tekhnika Eksperimenta, No 2, Mar/Apr 72, pp 193-194

Abstract: The article describes a check valve for up to 20 kbar with flat contact surfaces. The valve is diagrammed in the figure. The valve body 2 is made of hardened KhVG steel and has a shut-off orifice of 1.5 mm. The orifice is closed by cap 7 prestressed with low forces by plate spring 5 and centered in sleeve 4 which is held in the valve body by screws. The valve body is held in the high-pressure channel by nut 1 and sealed by beryllium bronze and teflon rings 3. Dents and scratches on the working surface of the valve cap can be worked out with lapping compound. Tests with glycerin and PMS-5 liquid showed reliable operation over long periods. One figure, bibliography of two titles.

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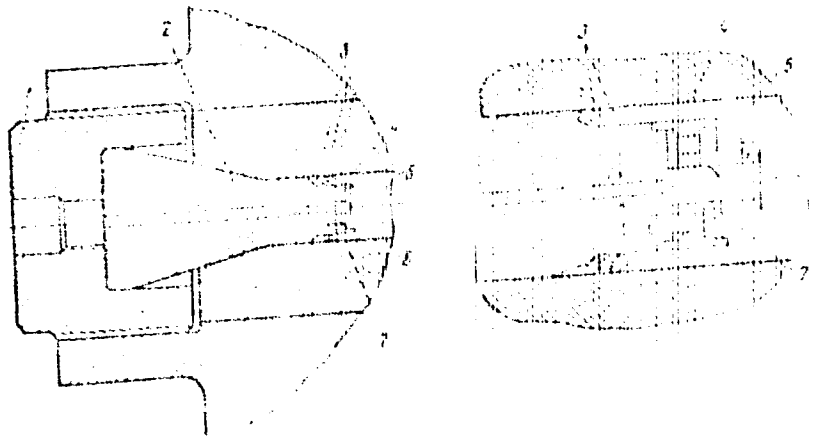
USSR

MIRINSKIY, D. S., SHURIN, Ya. I., Pribory i Tekhnika Eksperimenta, No. 2, Mar/Apr 72, pp 193-194



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Immunology

USSR

MIRZAAKHMEDOV, T. P., MIRISMAILOV, M. I. and BAKHIMOVA, F. I., Tashkent
Scientific Research Institute of Vaccines and Sera

"Some Immunological Shifts During Rabies Vaccination"

Tashkent, Meditsinskiy Zhurnal Uzbekistana, No 10, 1972, pp 76-77

Abstract: The effect of rabies vaccination on the dynamics of formation of specific virus-neutralizing antibodies and of autoantibodies to liver, spleen and brain was studied in healthy rabbits. The passive hemagglutination reaction, Nikolaev's method of fractionating the "unprecipitated antigen-antibody" complex and neutralization reactions in white rats were used to measure antibody levels. It was found that autoantibodies began to appear on day 7, peaked on day 21, diminished by day 30 and were rarely detectable on day 37. The specific virus-neutralizing antibodies appeared on day 7, increased markedly between days 14-21 and reached maximal titers by days 30-37.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

Polymers and Polymerization

UDC 541.64:547.458.81

USSR

MIRKAMILOV, I. M., AZIZOV, U., SADYKOV, M. U., and USMANOV, KH. U., Scientific Research Institute of Chemistry and Cotton Cellulose Technology

"Radiation Induced Graft Copolymerization of Methyl Methacrylate From the Vapor Phase Onto Cellulose"

Moscow, Vysokomolekulyarnyye Soyedineniya, Vol 14, No 8, Aug 72, pp 1704-1708

Abstract: The characteristics of grafting copolymerization of methyl methacrylate from vapor phase have been investigated, the main thrust being in the direction of the development of grafting conditions which would preclude the formation of homopolymers. The grafting was studied under conditions of γ-irradiation of the system cellulose-monomer as well as when the preirradiated cellulose was treated with methyl methacrylate vapor. Co^{60} was the source of radiation. It was established that grafting carried out with concurrent irradiation was accompanied by intensive homopolymerization of the monomer. Grafting onto preirradiated cellulose in presence of water vapor proceeds at a higher rate without the formation of a homopolymer. The yield of the grafted copolymer of polymethylmetacrylate depends on the structure of cellulose preparation, decreasing in the order: cotton > flax > ramie.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

UDC 661.185.23

USSR

MILUSHEVA, A. Sh., MIRKAMILOVA, M. S.

"Synthesis and Study of Cation Exchange Resins Based on Polycondensation Products of Furfural and Diphenyl Oxide"

Tashkent, Uzbekskiy Khimicheskiy Zhurnal, No 2, 1972, pp 40-42.

Abstract: Condensation-type ion-exchange resins based on furan compounds have high thermal and radiation stability. This work describes the synthesis and study of cation exchange resins by the reaction of polycondensation of diphenyl oxide and furfuran with subsequent sulfuration. The polycondensation process is influenced by the type and quantity of solvent added. The exchange capacity of cationites based on DPO and furfuran in a solvent medium is significantly higher than without the solvent. As the quantity of catalysts -- conc. H_2SO_4 -- added is increased, the exchange capacity increases, apparently due to preliminary sulfuration during polycondensation. The cation exchange resins produced both with and without the solvents had good physical and chemical properties, high thermal and radiation stability.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

UDC 661.183.3+547.724.1

USSR

MIRKAMILOVA, M. S., IBRAGIMOVA, G. T., and DZHALILOV, A. T., Tashkent Polytechnical Institute

"Synthesis and Investigation of Anion Exchange Resins Made From the Polycondensation Products of Furfural and Diamines"

Tashkent, Uzbekskiy Khimicheskiy Zhurnal, No 5, 1970, pp 84-86

Abstract: The anion exchange resin was obtained by condensing furfural with p-phenylenediamine in presence of dimethylformamide and $ZnCl_2$. p-Phenylenediamine was dissolved at 60-70° in dimethylformamide in a tetranck flask equipped with a stirrer, reflux condenser and thermometer; $ZnCl_2$ was added in an amount equal to 2% of the weight of the reagent. When a freshly distilled furfural was added dropwise. The mixture was kept for 7-8 hrs at 80-85°, the dark gel-like material was placed in a dessicator kept at 110-115° and left there for 24 hrs. The mass solidified in the dessicator; it was ground, washed and dried. The exchange resin thus obtained proved to have good physico-chemical properties and high thermal stability.

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USSR

GARSEVANISHVILI, V. R., KADYSHEVSKIY, V. G., MIR-KASIMOV, R. M., SKACHKOV, N.B.,
Joint Institute of Nuclear Research

"A Concept of the Relativistic Amplitude of Scattering at High Energies"

Moscow, Teoreticheskaya i Matematicheskaya Fizika, Vol 7, No 2, May 1971,
pp 203-216

Abstract: A concept of the realativistic amplitude of scattering at high energies is presented in the framework of the quasi-potential approach. The key point in the entire consideration is Fourier analysis of the three-parameter, non-Abelian translation group embedded as a subgroup in the Lorentz group. The concept presented is a generalization of the eikonal approximation in quantum mechanics. 29 bibliographic entries.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

1/2 012 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--THREE DIMENSIONAL RELATIVISTIC EQUATIONS FOR A SYSTEM OF TWO PARTICLES WITH UNEQUAL MASSES -U-

AUTHOR-(03)-KADYSHEVSKIY, V.G., MATEYEV, M.D., MIRKASIMOV, R.M.

COUNTRY OF INFO--USSR

SOURCE--YAD. FIZ. 1970, 11(3), 692-700

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--RELATIVISTIC PARTICLE, PARTICLE MOTION, SCHROEDINGER EQUATION, PARTICLE INTERACTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1992/0377 STEP NO--UR/0367/70/011/003/0692/0700

CIRC ACCESSION NO--AP0111570

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

2/2 012 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0111570

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE RELATIVISTIC QUASI POTENTIAL EQUATION IS GENERALIZED IN THE CASE OF PARTICLES WITH UNEQUAL MASSES. THE RELATIVISTIC 2 BODY PROBLEM CAN BE REDUCED TO THE PROBLEM OF MOTION OF A PARTICLE WITH A MASS EQUAL TO THE GEOMETRIC MEAN OF THE 2 MASSES IN A QUASI POTENTIAL FIELD. THE LIPPMAN-SCHWINGER EQUATION IS DERIVED FOR THE CASS OF UNEQUAL MASS; THE RELATIVISTIC SCHROEDINGER EQUATION FOR GAMMA PRESENTATION IS GIVEN. FACILITY: OB'EDIN. INST. YAD. ISSLED., DUBNA, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

1/2 009 UNCLASSIFIED PROCESSING DATE--27NOV70

TITLE--ACRYLOYLCYTISINE -U-

AUTHOR-(04)-MUSAYEV, U.N., MIRKHIDOYATOV, M.N., TILLAYEV, R.S., USMANOV, KH.U.

COUNTRY OF INFO--USSR

SOURCE--U.S.S.R. 264,394

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

DATE PUBLISHED--03MAR70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--ALKALOID, CHEMICAL PATENT, ACRYLIC ACID, ACID CHLORIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3004/1854 STEP NO--UR/0482/70/000/000/0000/0000

CIRC ACCESSION NO--AA0132119

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

2/2 009 UNCLASSIFIED PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AA0132119

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ACRYLOYLCYTISINE IS PREPD. BY TREATING CYTISINE WITH THE ACID CHLORIDE OF ACRYLIC ACID IN THE PRESENCE OF SODA IN AN ORG. SOLVENT, E.G. CHLOROFORM, AT 65-70DEGREES.

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

1/2 027 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--THE LIVER FUNCTION IN DISEASES OF THE THYROID GLAND -U-

AUTHOR--KLYACHKO, V.R., MIRKHODZHAYEV, A.KH.

COUNTRY OF INFO--USSR

SOURCE--MEDITSINSKAYA RADIOLOGIYA, 1970, VOL 15, NR 3, PP 35-38

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--LIVER FUNCTION, THYROID GLAND, GOITER, THYROID HORMONE, HEMODYNAMICS, BLOOD CIRCULATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1985/1691 STEP NO--UR/0241/70/015/003/0035/0038

CIRC ACCESSION NO--AP0101746

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

2/2 027 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0101746

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE PAPER PRESENTS THE RESULTS OF INVESTIGATION OF THE HEPATIC CIRCULATION, THE PROPORTION OF ITS PARTICIPATION IN MINUTE BLOOD VOLUME, SECRETORY ACTIVITY OF POLYGONAL CELLS, RATE OF BILE FORMATION AND PATENCY OF BILE DUCTS. ON THE BASIS OF THE DATA DERIVED IT WAS ESTABLISHED THAT IN SPORADIC NODULAR EUTHYROID GOITER NO DISTURBANCES OF THE LIVER FUNCTION WERE OBSERVED; IN THYROTOXICOSIS DISTURBANCES WERE ASSOCIATED NOT ONLY WITH THE SPECIFIC ACTION OF EXCESS OF THYROID HORMONES, BUT ALSO WITH THE RELATIVE INSUFFICIENCY OF ITS BLOOD SUPPLY; IN HYPOTHYROSIS FUNCTIONAL DISORDERS OF THE LIVER WERE MAINLY ASSOCIATED WITH ALTERATION OF THE CENTRAL HEMODYNAMICS AND HEPATIC BLOOD CIRCULATION.

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

USSR UDC 621.791.16.037

KHOLOPOV, Yu. V. (Cand. of Techn. Sciences), SMIRNOV, A. S., MIRKIN, A. M., KASHCHEYEVA, L. P., IGNAT'YEV, A. S., and ERLIKH, M. G. (Engineers)

"MTU-0,4-4 Ultrasonic Welder for Plastics and Metals"

Moscow, Svarochnoye proizvodstvo, No 5, May 72, pp 47-48

Abstract: The New MTU-0,4-4 welder is a prototype of the MTU-0.4-3 machine with a redesigned welding head furnished with two types of mechanical oscillatory systems. The new unit is suited for welding plastic components in the radio engineering and electronics industry including micromotors, condensers, batteries, filters, cells, etc. The machine will join plastics with metals by pressing them into polymers, and will weld copper, aluminum, and nickel. The MTU-0.4-3 model has been successfully operated for several years at radio engineering plants and has shown yearly savings ranging from 5000 to 10,000 rubles. The technical specifications for the new ultrasonic model are cited. The serial production project has been assigned to the Kaliningrad Plant of Electrical Equipment. (1 illustration)
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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

1/2 008 UNCLASSIFIED PROCESSING DATE--09OCT70
TITLE--ON THE POSSIBLE MECHANISM OF PACHINI BODIES EXCITATION -U-

AUTHOR-(03)-CHERNIGOVSKIY, V.N., MASHANSKIY, V.F., MIRKIN, A.S.

COUNTRY OF INFO--USSR

SOURCE--IZVESTIYA AKADEMII NAUK SSSR, SERIYA BIOLOGICHESKAYA, 1970, NR 2, PP 214-223
DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--NERVE, EXCITED STATE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1990/0948 STEP NO--UR/0216/70/000/002/0214/0223

CIRC ACCESSION NO--AP0109105
UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

2/2 008 UNCLASSIFIED PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0109105

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE ROLE OF BIOPHYSICAL AND ULTRASTRUCTURAL PECULIARITIES OF THE PACHINI BODIES AND THE MECHANISM OF THEIR EXCITATION ARE DISCUSSED. THE NEWLY DISCOVERED EFFECT OF BIOMECHANICAL RESONANCE IS COMPARED WITH THE PRESENCE OF ACTIVE SITES OF THE RECEPTIVE SURFACE OF THE NERVE TERMINATION. A MODEL OF A POSSIBLE MECHANISM OF THE APPEARANCE OF EXCITATION IN MECHANORECEPTORS IN THE PACHINI BODIES IS PROPOSED. FACILITY: I. P. PAVLOV INSTITUTE OF PHYSIOLOGY, ACADEMY OF SCIENCES USSR INSTITUTE OF CYTOLOGY, ACADEMY OF SCIENCES USSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

USSR UDC 51

MIRKIN, B. G.

"On the Principles of Relation Matching"

V sb. Mat. analiz ekon. modeley. Ch. 3 (Mathematical Analysis of Economic Models. Part 3 -- Collection of Works), Novosibirsk, 1972, pp 112-125 (from RZh-Matematika, No 3, Mar 73, Abstract No 3V494 by A. MORMEL'MAN)

Translation: Let $A = \{a_1, a_2, \ldots, a_n\}$, $n \geq 3$, be a set of alternatives, and $R \subset A \times A = \{(a,b) \mid a,b \in A\}$ a binary relation on A. Let D and E be certain given sets of relations R. $F: D^m \to E$ (F is a group sampling function, $m \geq 2$) is defined for all $(R_1, R_2, \ldots, R_m) \in D^m = D \times \ldots \times D$. Certain conditions are imposed on elements D, but it is not required that all $R \subset D$ be transitive, while relations in E are assumed to be transitive. Four conditions, which are modifications of Arrow's first four axioms, are imposed on the mapping F. It is proved that if F satisfies conditions 1-4, F is defined by the set of indices $V \subset M = \{1, \ldots, m\}$, as follows: $R = F(R_1, \ldots, R_m) \Leftrightarrow \ldots$

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

MIRKIN, B. G., Mat. analiz. ekon. modeley. Ch. 3, 1972, pp 112-125

Here the meet of any set from D must belong to E.

In particular, conditions 1-4 define dictatorial rule F if and only if $D \subset E$, but

$$\{R \mid R = R' \cap R'', \text{ where } R', R'' \in D\} \not\subset E.$$

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

USSR

MIRKIN, B. G.

"The Arrow Approach to the Problem of Matching Opinions"

Matematika i Sotsiologiya [Mathematics and Sociology -- Collection of Works], Novosibirsk, 1972, pp 254-262 (Translated from Referativnyy Zhurnal, Kibernetika, No 1, 1973, Abstract No 1 V664 by the author).

Translation: The axiomatic approach of Arrow to the analysis of the principles of matching individual preferences is extended to the case when the individual preferences are expressed by arbitrary binary relationships. Natural modifications are formulated for the first four conditions of Arrow and an analytic description is presented of all the principles of matching, satisfying them. As a result, a sequence of statements is produced on the possibility or impossibility of matching relationships of various types.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

USSR UDC: 51:330.115

GERSHENZON, M. A., MILRKIN, B. G.

"On Cost Recovery of Capital Expenditures in the Intersectoral Dynamic Model"

V sb. Probl. narodnokhoz. optimuma (The Problem of the National Economic Optimum--collection of works), vyp. 3, ch. 1, Novosibirsk, 1970, pp 176-195 (from RZh-Kibernetika, No 7, Jul 71, Abstract No 7T644)

Translation: A model constructed on the basis of coefficients of incremental output-capital ratio is used for studying some properties of sectoral indices of cost recovery and their effect on stability. D. Epshteyn.

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

USSR UDC 512.25/.26+519.3.330.115

KUPERSHTOKH, V. L., MIRKIN, B. G.

"One Classification Algorithm and the Ford-Falkerson Theorem"

Mat. Vopr. Formir. Ekon. Modeley [Mathematical Problems of Formation of Economic Models -- Collection of Works], Novosibirsk, 1970, pp 151-161 (Translated from Referativnyy Zhurnal Kibernetika, No. 4, April, 1971, Abstract No. 4 V547).

No Abstract.

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

USSR

UDC 51.330.115

MIRKIN, B. G.

"One Class of Preference Relationships"

Mat. Vopr. Formir. Ekon. Modeley [Mathematical Problems of Formation of Economic Models -- Collection of Works], Novosibirsk, 1970, pp 90-102 (Translated from Referativnyy Zhurnal Kibernetika, No. 4, April, 1971, Abstract No. 4 V5Z6 by A. Morkelyunas).

Translation: The presence of a distinction threshold means assumption that the degree of preference of object $a \in A$ is evaluated not by a single number but rather by an entire interval x_a on the real number axis. This work establishes the property of the binary relationship $P \subset A \times A$ (A is a finite set), that (A,P) can be isomorphically represented in some system of intervals on the real number axis between which the binary relationship $\subset$ is defined as follows. For intervals x and y, we assume $x \subset y$ if and only if the left end of interval x is greater than right end of interval y. It is also assumed that $(a, a) \notin P$ for all $a \in A$.

It is demonstrated that the system of intervals I with this relationship "$\subset$" exists and is isomorphic to system (A,P) if and only if

$$P(a) \subset P(b), \text{ или } P(b) \subset P(a)$$

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

USSR UDC 51.330.115

MIRKIN, B. G., Mat. Vopr. Formir. Ekon. Modeley, Novosibirsk, 1970, pp 90-102.

for all a, b$\in$P, where $P\langle a\rangle = \{b \mid (a, b) \in P\}$.

This indicates transitiveness of P.

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

USSR UDC 019.941(045)633/635:581.524.44)

MIRKIN, B. M., (Reviewer), Bashkir State University, Ufa

Agrofitotsenoz i protsess ego stanovleniya, V Knl Teoreticheskiye voprosy fitotsenologii i biogeotsenologii. Trudy Mosk. obshch. ispyt, prir, XXXVIII, pp 108-116 (Agrophytocoenosis and the Process of Its Establishment, the Question of Phyloagrocoenogenesis. Works of the Moscow Society of Naturalists, Vol 38, by M. V. Markov

Leningrad, Botanicheskiy Zhurnal, No 7, 1971, pp 1037-1038

Abstract: Some original concepts in phytogeography are advanced which contribute t[illegible]rrent thinking on the phytocenotic aspect of crop analysis. The process [illegible] general patterns of phyloagrocenogenesis are discussed for the first time. Markov is considered the leader of the Kazan school of geobotany.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

II. Combinatory Analysis and Graph Theory

A. General Combinatory Analysis Theory

USSR UDC: 519.1

MIRKIN, B. G., CHERNYY, L. B.

"Some Problems of a Space of Partitions"

Novosibirsk, Mat. analiz ekon. modeley--sbornik (Mathematical Analysis of Economic Models--collection of works), Ch. 3, 1972, pp 126-147 (from RZh-Kibernetika, No 5, May 73, abstract No 5V426 by A. Lapshin)

Translation: The authors consider the problem of measuring the proximity between different partitions of a finite set of objects. On the basis of some fairly natural conditions the authors introduced a system of requirements to be satisfied by the measure of proximity of partitions, and showed that this system of requirements uniquely characterizes the unknown measure of proximity, namely the Hamming distance between the contiguity matrices of the partitions. A number of expressions are introduced which relate the distances between partitions to specific features of different types. It is found in particular that the mutual relations of ordered

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

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MIRKIN, B. G., CHERNYY, L. B., Mat. analiz ekon. modeley, Ch. 3, 1972, pp 126-147

and unordered partitions in the resultant space do not appear sufficiently natural; this shows that the measure of proximity found by the authors should be used very carefully in the presence of arbitrary features, although this does not preclude its use for features of identical type.

The appendix gives an a-program for calculating the measure of proximity between qualitative features of arbitrary type in accordance with formulas given in the article.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

USSR UDC 547.436

KOSTYUKOVSKIY, Ya. L., BRUK, Yu. A., PAVLOVA, L. V., SLAVACHEVSKAYA, N. M., KOKUSHKINA, A. V., MIRKIN, B. S., BELEN'KAYA, I. A.

"Alkanethiols and Their Derivatives. I. Acid-Base Properties of N-Substituted β-Aminoalkanethiols"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), No 3, Mar 72, pp 662-665

Abstract: The acid-base properties of a number of N-substituted β-aminoalkanethiols and some related compounds are studied under standard conditions to evaluate the effect of structural singularities of thiol on the acidity of the SH-group, and hence on sulfhydryl reactivity. The results of the studies show that increased acidity of the SH group is determined chiefly by the capacity of the given compounds to form a zwitter-ion structure, and to a lesser degree by the nature of the alkyl substituents associated with the nitrogen atom. The effect of alkyl substituents on the basicity of the amino group is not so clearly expressed as a consequence of other factors connected with the inductive effect.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

1/2 026 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--MICROSCOPIC PLASTIC DEFORMATION, ASSOCIATED WITH, STRESS RELAXATION, IN STEELS AND ALPHA IRON -U-

AUTHOR-(03)-MIRKIN, I.L., PETROPAVLOVSKAYA, Z.N., ILINYKH, S.A.

COUNTRY OF INFO--USSR

SOURCE--METALLOVEDENIE I TERM. OBRABOT. METALLOV, 1970, (3), 62-64

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--PLASTIC DEFORMATION, STRESS RELAXATION, CARBON STEEL, ALLOY STEEL, CHROMIUM STEEL, INTERMETALLIC COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3005/0924 STEP NO--UR/0129/70/000/003/0062/0064

CIRC ACCESSION NO--AP0133013

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

2/2 026 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0133013

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE NATURE OF THE MICROSCOPIC PLASTIC DEFORMATIONS (STRAINS) TAKING PLACE IN C AND ALLOY STEELS AND ALPHA-FE DURING STRESS RELAXATION AT HIGH TEMP. WAS STUDIED BY AN INTERFERENCE METHOD. IN STEELS THE MICROSCOPIC STRAINS WERE IN GENERAL VERY NON UNIFORM. IN ALPHA-FE THE STRAINS TENDED TO HAVE AN INTERGRANULAR CHARACTER AND WERE SHARPLY LOCALIZED. IN THE PRESENCE OF FINE CARBIDE OR INTERMETALLIC HARDENING PHASES INTRAGRANULAR STRAINS IN CR STEELS TENDED TO TAKE PLACE PREFERENTIALLY.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

1/2 054 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--PROSPECTS FOR DEVISING NEW HEAT RESISTANT MATERIALS FOR STEAM POWER PLANT EQUIPMENT -U-

AUTHOR-(03)-MIRKIN, I.L., LANSKAYA, K.A., TRUSOV, L.P.

COUNTRY OF INFO--USSR

SOURCE--METALLOVED. TERM. OBRAB. METAL. 1970, (4), 8-15

DATE PUBLISHED--------70

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

TOPIC TAGS--HEAT RESISTANT MATERIAL, DISPERSION HARDENING, GRAIN BOUNDARY, MICROALLOYING, INTERMETALLIC COMPOUND, STEAM BOILER, STEAM TURBINE, CARBIDE, POWER PLANT, SOLID SOLUTION, ALLOY STEEL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3005/0903 STEP NO--UR/0129/70/000/004/0008/0015

CIRC ACCESSION NO--AP0132992

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

2/2 054 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0132992

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THIS REVIEW OF THE DEVELOPMENT OF NEW STEELS FOR THIS PURPOSE INCLUDES (1) INCREASING AND RETAINING FOR A LONGER OPERATIONAL TIME THE REFRACTORINESS OF THE FUNDAMENTAL SOLID SOLN., (2) DEVELOPMENT OF A MORE STABLE AND SLOWLY COALESCING DISPERSION HARDENING PHASE: IN LOW ALLOY STEELS THE DISPERSION HARDENING PHASE IS THE CARBIDE PHASE, IN MEDIUM AND HIGH ALLOY STEELS IT IS ALSO THE CARBIDE PHASE, AND ALSO THE INTERMETALLIC PHASES (LAVES PHASES OF THE AB SUB2 TYPE), (3) STRENGTHENING OF THE GRAIN BOUNDARIES BY MICRO ALLOYING.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

USSR

UDC 669.14.018.35

MIRKIN, I. L., LANSKAYA, K. A., TRUSOV, L. P., Central Scientific Research Institute of Manufacturing Technology, Central Scientific Research Institute of Ferrous Metallurgy im. I. P. Bardin

"Prospects for the Development of New Heat-Resistant Materials for Steam Power Energy Equipment"

Moscow, Metallovedeniye, No 4, Apr 70, pp 8-15

Abstract: Analysis of steels presently used by the steam power industry in both the Soviet Union and abroad indicates that low-carbon low-alloy ferrite-perlite-type steels are best suited to meet the requirements for basic parts of steam boilers and turbines. The maximum total content of alloying elements in these steels is 4 percent. Chromium, molybdenum, and vanadium are the principal alloying elements. Tungsten, niobium, and other elements are used less frequently. Practical experience of operating steam power and gas turbine equipment shows that with strict adherence to the recommended technology of processing and treatment of power equipment components, and proper design and calculation of assembly conditions, the steels would afford 100,000

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

USSR

MIRKIN, I. L., et al., Metallovedeniye, No 4, Apr 73, pp 8-15

hours of service. Today's trend of technical progress in power engineering is toward higher operating temperatures and pressures, coupled with ever increasing unit outputs. To meet the new requirements in heat resistance and workability, the development of new steels must be conducted in the following directions: 1) extending and maintaining the service life of the basic solution; 2) creating a more stable and slowly coagulating [illegible] strengthening phase. In low-alloy steels the carbide phase is the strengthening phase; in medium- and high-alloy steels -- the carbide phase as well as intermetallides (Laves phases); 3) strengthening the grain boundaries by microalloying. In the USSR work is presently in progress on establishing models of basic alloying elements, such as chromium and vanadium, in steel. Higher molybdenum contents raise the long-resistant properties of the steel, provided most of it is ferrite and remains so (without going to the carbide phase) for long-term service. For this the basic part of the carbon must be combined with the other alloying elements, such as vanadium, into double

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

USSR

MIRKIN, I. L., et al., Metallovedeniye, No 4, Apr 70, pp 8-15

carbides. The separation of Laves phase particles in austenitic steels requires more time and much higher temperatures than in ferrite steels. This separation contributes to strengthening the steel. Plasticity for the entire service period is an essential characteristic which must be considered when selecting the steel. Creep limit is equally important, as is resistance to fatigue failure. The effort of raising the reliability of long-term service (100,000 hr.) of large power installations requires exact determination of creep rate and time before failure as a function of stress and temperature. The problem is complicated by the fact that during long-term service the heat-resistant steel sustains phase and structural changes, carbide transformations, coagulation of carbide particles, changes in carbide composition and in the basic solid solution with respect to the alloying elements and, finally, changes in its substructure. Most of these processes are related to diffusion phenomena. Successful solution of the basic problems in physical metallurgy and the technology of heat resistant steels, as well as advanced designs

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

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MIRKIN, I. L., et al., Metallovedeniye, No 4, Apr 70, pp 5-[illegible]

will make it possible to considerably increase the reliability and service life of high-capacity power equipment.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

1/2 008 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--COMPARISON OF LINEAR AND NONLINEAR METHODS FOR EXTRAPOLATION AND INTERPOLATION OF A MARKOV SIGNAL -U-
AUTHOR-(02)-MIRKIN, L.I., STRATONOVICH, R.L.

COUNTRY OF INFO--USSR

SOURCE--VESTNIK MOSKOVSKOGO UNIV. FIZ. ASTRON. USSR, VOL. 11, NO. 1, P. 26-34 1970
DATE PUBLISHED--------70

SUBJECT AREAS--MATHEMATICAL SCIENCES, PHYSICS

TOPIC TAGS--FILTER THEORY, MARKOV PROCESS, ALGORITHM, NONLINEAR THEORY, LINEAR FUNCTION, INTERPOLATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1990/1329 STEP NO--UR/0188/70/011/001/0026/0034

CIRC ACCESSION NO--AP0109413
UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

2/2 008 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0109413

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. COMPARISON IS MADE OF LINEAR AND NONLINEAR METHODS OF FILTERING. ALGORITHMS ARE PROVIDED FOR INTERPOLATION AND EXTRAPOLATION OF BINARY MARKOV SIGNALS. THE RESULTS OBTAINED ARE COMPARED WITH THOSE DERIVED FROM LINEAR FILTERING.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

USSR UDC: 621.385.63

BESSONOV, V. I., ZHELEZOVSKIY, B. Ye., MIRKIN, V. I.

"Parametric Amplification and Frequency Conversion in a Two-Section Traveling Wave Tube"

Kiev, IVUZ: Radioelektronika, Vol 15, No 3, Mar 72, pp 290-295

Abstract: A two-section parametric traveling wave tube is considered in which the first amplification section is also a noise transformer for cooling the fast waves of the space charge. An analysis of expressions for the coupling coefficients of the waves in the tube shows that the electron stream can be cooled in the first section while simultaneously attaining high values of gain and conversion. Because optimum operating conditions are only slightly different for minimizing the noise factor and maximizing the gain and conversion factor, the two-section parametric traveling wave tube should make an effective low-noise microwave amplifier.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

1/2 018 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--ANODIC METHOXYLATION OF 1,3-BUTADIENE -U-

AUTHOR-(03)-ZHUKINOV, A.ZH., MIRKIND, L.A., FIOSHIN, M.YA.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK KAZ. SSR, SER. KHIM. 1970, 20(2), 57-60

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ELECTROLYSIS, METHOXY COMPOUND, BUTADIENE, GAS CHROMATOGRAPHY, CHEMICAL REACTION MECHANISM, HEXENE, BUTENE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3001/0264 STEP NO--UR/0360/70/020/002/0057/0060

CIRC ACCESSION NO--AP0126036

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

UNCLASSIFIED PROCESSING DATE--13NOV70

2/2 018

CIRC ACCESSION NO--AP0126036

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE ELECTROLYSIS OF MECH,KOH,H SUB2 C:CHCH:CH SUB2 MIXT. GAVE A MIXT. OF 1,6,DIMETHOXY,2,VINYL,4,HEXENE, 1,HYDROXY 4,METHOXY,2,BUTENE, AND 1,8,DIMETHOXY,2,6,OCTADIENE. THE PRODUCTS WERE SEPD. AND IDENTIFIED BY GAS CHROMATOG. THE REACTION MECHANISM IS DISCUSSED. FACILITY: MOSK. KHIM. TEKHNOL. INST. IM. MENDELEEVA, MOSCOW, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

UNCLASSIFIED PROCESSING DATE--03JUL70

TITLE--SYNTHESIS OF FISHER ALPHA, OMEGA DICHLOROOLEFINS BY THE ANODIC CONDENSATION OF OMEGA CHLOROCARBOXYLIC ACIDS AND 1,3, BUTADIENE. II. -U-

AUTHOR--KHRIZOLITOVA, F.A., MIRKIND, L.A., FICSHIN, M.YA.

COUNTRY OF INFO--USSR

SOURCE--ZH. ORG. KHIM. 1970, 6(2) 219-22

DATE PUBLISHED--------70

14
19

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHLORINATED ORGANIC COMPOUND, ELECTROLYSIS, CARBOXYLIC ACID, BUTADIENE, GAS CHROMATOGRAPHY, CHEMICAL SYNTHESIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1980/1738 STEP NO--UR/0366/70/006/002/0219/0222

CIRC ACCESSION NO--AP0043916

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

Acc. Nr. AP0049816 Abstracting Service: CHEMICAL ABST. 5/70 Ref. Code UR 0366

106533h Synthesis of higher α,ω-dichloroolefins by the anodic condensation of ω-chlorocarboxylic acids and 1,3-butadiene. II. Khrizolitova, M. A.; Mirkind, L. A.; Fioshin, M. Ya. (USSR). *Zh. Org. Khim.* 1970, 6(2), 210–22 (Russ). The electrolysis of $Cl(CH_2)_nCO_2H$ (I) or $Cl(CH_2)_nCO_2H$ (II) in the presence of $H_2C{:}CHCH{:}CH_2$ gave the following products (identified by gas chromatog.): from I, $Cl(CH_2)_7CH{:}CH(CH_2)_3Cl$, $Cl(CH_2)_4CH(CH{:}CH_2)(CH_2)_3Cl$, $Cl(CH_2)_7CH{:}CHCH_2CH_2CH{:}CH(CH_2)_3Cl$, $Cl(CH_2)_7CH(CH{:}CH_2)CH_2CH{:}CH(CH_2)_3Cl$; and from II, $Cl(CH_2)_4CH{:}CH(CH_2)_3Cl$, $Cl(CH_2)_4CH(CH{:}CH_2)(CH_2)_3Cl$, $Cl(CH_2)_4CH{:}CH(CH_2)_3CH{:}CH(CH_2)_3Cl$, $Cl(CH_2)_4CH(CH{:}CH_2)CH_2CH{:}CH(CH_2)_3Cl$. CPJR

REEL/FRAME
19801738

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

by means of the decomposition of carbonates formed when [illegible] removal of the calcium with the ion exchange technique. Scrubbed water was used for the regeneration of cation exchange resin. It was shown that it is possible to carry out a long-lasting cyclic process. The technology of such a process was developed. Effective exchange capacity of sulfonated coal and cation exchange resin KU-2 was determined.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

1/2 028 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--OXYGEN VACANCIES IN CHROMIUM DOPED RUTILE CRYSTALS -U-

AUTHOR-(03)-SOCHAVA, L.S., KESHINA, I.I., MIRLIN, D.N.

COUNTRY OF INFO--USSR

SOURCE--FIZ. TVERD. TELA 1970, 12(4), 1214-21

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY, EARTH SCIENCES AND OCEANOGRAPHY

TOPIC TAGS--DOPED ALLOY, EPR, TITANIUM OXIDE, MINERAL, OXYGEN, CRYSTAL VACANCY, ELECTRON TRAP, VACUUM TECHNIQUE, MINERAL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3001/0375 STEP NO--UR/0181/70/012/004/1214/1221

CIRC ACCESSION NO--AP0126130

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

2/2 028 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0126130

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. BY EPR, CONDITIONS WERE INVESTIGATED OF THE APPEARANCE IN CR DOPED TIO SUB2 CRYSTALS OF COMPLEXES OF SUBSTITUTING CR PRIMED POSITIVE IONS AND O VACANCIES IN THE 2ND COORDINATION SHPERE. THE ABOVE COMPLEXES ARE PRODUCED BY VACUUM REDN. OF THE CR DOPED TIO SUB2 CRYSTALS AT 500-700DEGREES DUE TO THE FORMATION OF DEFECTS OF STOICHIOMETRY, O VACANCIES. DEEP ELECTRONIC TRAPS FILLED AT STRONGER REDN. OF THE CRYSTALS AT 800-1000DEGREES ARE RELATED TO CR VACANCY COMPLEXES. FILLING OF THESE TRAPS DETS., APPARENTLY, OPTICAL ABSORPTION IN THE REGION 1.1 EV OBSD. IN THE REDUCED CR DOPED TIO SUB2 CRYSTALS. FOR CONCNS. OF CR LARGER THAN 0.15 AT. PERCENT, THE CR VACANCY COMPLEXES ARE STABLE EFFECTS WHICH FREQUENTLY AFFEC THE CHARGE COMPENSATION IN THESE CRYSTALS. FACILITY: INST. ELEKTROV., LENINGRAD, USSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

1/2 035 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--ELECTRON MICROSCOPIC STUDY OF THE INTERACTION OF OPPOSITELY CHARGED POLYELECTROLYTES IN SOLUTIONS -U-

AUTHOR-(03)-ROGACHEVA, V.B., MIRLINA, S.YA., KARGIN, V.A.

COUNTRY OF INFO--USSR

SOURCE--VYSOKOMOL. SOEDIN., SER. B 1970, 12(5), 340-3

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ELECTROLYTE, ELECTRON MICROSCOPY, POLYMER, ACRYLIC ACID, VINYL COMPOUND, PYRIDINE, BROMINATED ORGANIC COMPOUND, POLYMER STRUCTURE, STYRENE, SULFONIC ACID

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3007/0990 STEP NO--UR/0460/70/012/005/0340/0343

CIRC ACCESSION NO--AP0136420

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

2/2 035 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0136420

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A REACTION OF POLY(ACRYLIC ACID) (I) WITH POLY (4,VINYL,1,ETHYLPYRIDINIUM BROMIDE) IN AQ. SOLNS. GAVE GLOBULAR STRUCTURES, WHEREAS IN AQ. SOLNS. CONTG. ETOH OR DMF, CROSSLINKED FIBRILLAR STRUCTURES WERE FORMED. NEUTRALIZAION OF POLY (4,VINYL,1,BENZYLPYRIDINIUM HYDROXIDE) WITH I OR POLY(STYRENESULFONIC ACID) AFFORDED ELONGATED UNITS COMPOSED OF A LARGE NO. OF MACROMOLS, BUT HAVING NO DEFINITE STRUCTURE. FACILITY: MOSK. GOS. UNIV. IM. LOMONOSOVA, MOSCOW, USSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

USSR

UDC 621.43.011:533+621.5:533

MIRMOVICH, L. A.

"Experimental Study of the Velocity and Temperature Fields of a Free Jet of a Jet Engine"

Tr. Ukr. n.-i. gidrometeorol. in-t (Works. Ukrainian Scientific Research Hydrometeorological Institute), 1971, No. 99, pp 72-80 (from RZh-Mekhanika, No 3, Mar 72, Abstract No 3B377)

Translation: The results of an experimental study of the velocity and temperature fields in the initial and basic sections of a free jet of the VK-1 engine are presented. A diagram of the free jet and graphs of the velocity and temperature fields for different cross sections in different operating modes of the engine are constructed. A nomogram is constructed for determining the true velocity of the jet for a given temperature and instrument velocity. It is shown that a change in the temperature of the pickup due to retardation in the range of velocities measured has practically no effect on the magnitude of the true velocity as determined. Deviation is not more than 4%. 13 ref. Author's abstract.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

MIRNIK, I.R.

Medical Service

J-9505

65

UDC 616.5-002.3:613.155

Voyenno-Meditsinskiy Zhurnal, No 11, 1956, pp 54-55

Combined Effects of Unfavorable Factors and the Microflora in the Air

I. R. Mirnik, Lieutenant-Colonel, Medical Service

S. N. Kalyuzhnyy, Captain, Medical Service

Despite the constant improvement of sanitary-hygienic conditions, appreciable disease among personnel serving in tropical areas continues attributable to military personnel serving a fixed term of duty.

The principal cause for such prevalence are dirty skin damage to the integrity of the skin cover as a result of minor wounds, defective and [illegible] excessive nervous tension, etc.; diseases of internal organs; the lowering of the immunobiological properties of the skin; hypovitaminosis, etc. (S. I. Perlov, Ye. Ya. Armenial). However, investigations conducted in recent years have also established the possibility of exogenous infection. This is confirmed by clinical observations involving veterans of operations disease among newborn babies, a high incidence of pyodermites among personnel in industrial heat-treatment centers, etc. Through laboratory research, G. N. Chistovich has established that: a) upper respiratory passages in humans are a basic natural reservoir of pathogenous staphylococci; b) extensive seeding of the surrounding medium with microorganisms results from carriers, who spread the infection via the air-drop method as well as from individuals with purulent injuries; and c) exposed parts of the body are more often copiously covered with staphylococci both in well persons and in those suffering from pyodermatitis.

A. E. Izmerov came to the conclusion that staphylococci acquire highly toxic properties in the atmosphere, because of the high concentration of carbon dioxide in the air being exhaled [illegible]. This is, apparently, what explains the predominance of streptolytic forms in the human environment; the air, various objects, clothing, and skin surface. In this case it could be assumed that individuals suffering from infectious diseases of the respiratory tract would be spreading highly pathogenous staph and strep organisms (especially while coughing or sneezing).

And, indeed, in studying the incidence of disease in military units, we noted an direct content relationship an increase in pyodermatitis in those cases where there was a high incidence of angina and acute respiratory diseases such as the flu, acute rhinitis, laryngitis, tracheitis and bronchitis. The rise in the incidence of pyoderma during the fall and winter months, as a rule, coincided with an increase of acute respiratory infections. Pyoderma is most frequently encountered in those cases where the disease is the result of a staph infection: folliculitis, furunculosis, furunculosis, with predominant localization in the exposed parts of the body.

B. I. Il'yin attributes the development of skin abscesses to occupational soiling of the hands. He found microbreaks to be the direct cause of such infections in 10 percent of the cases. I. G. Shchedrin attributed the increased incidence of suppurative disease among the population during the influenza pandemic of 1957 to a decline in the natural

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UNCLASSIFIED PROCESSING DATE--27NOV70

1/2 028

TITLE--OHMIC RESISTANCE OF AN INHOMOGENEOUS PLASMA -U-

AUTHOR-(03)-BREYZMAN, B.N., MIRNOV, V.V., RYUTOV, D.D.

COUNTRY OF INFO--USSR

SOURCE--ZHURNAL EKSPERIMENTAL'NOY I TEORETICHESKOY FIZIKI, 1970, VOL 58, NR 5, PP 1770-1783

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--ELECTRIC RESISTANCE, ELECTRIC CURRENT, PLASMA DYNAMICS, FREE PATH, ELECTRON, ELECTRON CAPTURE, ELECTRIC CONDUCTIVITY, ELECTRON COLLISION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3001/2230 STEP NO--UR/0056/70/058/005/1770/1783

CIRC ACCESSION NO--AP0127592

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

UNCLASSIFIED PROCESSING DATE--27NOV70

2/2 028

CIRC ACCESSION NO--AP0127592

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE FLOW OF A CURRENT THROUGH AN INHOMOGENEOUS PLASMA IS CONSIDERED UNDER CONDITIONS WHEN THE ELECTRON MEAN FREE PATH CONSIDERABLY EXCEEDS THE CHARACTERISTIC INHOMOGENEITY DIMENSIONS. IT IS SHOWN THAT THE PRESENCE OF A LARGE NUMBER OF CAPTURED ELECTRONS LEADS TO A STRONG INCREASE OF THE OHMIC RESISTANCE COMPARED TO THE CASE OF A HOMOGENEOUS PLASMA. THE EFFECTIVE CONDUCTIVITY IS CALCULATED BY SIMULTANEOUSLY TAKING INTO ACCOUNT ELECTRON ELECTRON AND ELECTRON HOLE COLLISIONS. THE SPATIAL DISTRIBUTION OF THE ELECTRIC FIELD APPLIED TO THE PLASMA IS FOUND. INSTITUT YADERNOY FIZIKI, SIBIRSKOGO OTDELENIYA, AKADEMII NAUK SSSR.

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

1/2 020 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--TEMPERATURE AND AMOUNT OF HEAT NECESSARY FOR IMPARTING THE DESIRED FLUIDITY OF AMMONIUM NITRATE EXPLOSIVES -U-

AUTHOR-(04)-KHANUKAYEV, A.N., DOLGOV, K.A., EIST, YU.A., MIRNYY, V.N.

COUNTRY OF INFO--USSR

SOURCE--IZV. VYSSH. UCHEB. ZAVED., GORN. ZH. 1970, 13(2), 64-9

DATE PUBLISHED--------70

SUBJECT AREAS--ORDNANCE

TOPIC TAGS--AMMONIUM NITRATE, EXPLOSIVE LOADING, TRINITROTOLYENE, WATER, CELLULOSE, LIQUID EXPLOSIVE/(U)CM CELLULOSE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3001/2095 STEP NO--UR/0150/70/013/002/0064/0069

CIRC ACCESSION NO--AP0127468

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

UNCLASSIFIED PROCESSING DATE--23OCT70

2/2 020

CIRC ACCESSION NO--AP0127468

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. EXPERIENCE OBTAINED WITH WATER FILLED EXPLOSIVES ("AQUATOLS") SHOWS THAT WATER DOES NOT PRODUCE AT ROOM TEMP. THE REQUIRED FLUIDITY OF EXPLOSIVES DUE TO HEAT ABSORPTION BY DISSOLVING NH SUB4 NO SUB3. USE OF HOT WATER FOR SATN. OF DRY "AQUATOL" MIXTS. AND A HOT FLUID EXPLOSIVE CONTG. 65PERCENT OF A 90PERCENT AQ. SOLN. OF NH SUB4 NO SUB3, 32PERCENT GRANULATED TNT, AND 3PERCENT NA CM CELLULOSE, GIVES AT 70-90DEGREES A CONSISTENCY THAT MAKES IT POSSIBLE TO EASILY INJECT THE EXPLOSIVES INTO THE PIPES AND HOSES FOR SUBSEQUENT FILLING OF THE BOREHOLES. EQUATIONS ARE GIVEN FOR CALCN. OF THE TEMP. OF THE RESULTING AQ. NH SUB4 NO SUB3 SOLNS. AND THE TEMP. OF THE RESULTING "AQUATOL" MIXT. EXAMPLES OF CALCNS. ARE PRESENTED AND THE THEORETICAL VALUES ARE COMPARED WITH EXPTL. RESULTS. FACILITY: LENINGRAD. GORN. INST. IM. PLEKHANOVA, LENINGRAD, USSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

1/2 015 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--PREPARATION OF DISPERSIONS OF INGREDIENTS FOR LATEX MIXTURES -U-

AUTHOR-(05)-MAZINA, G.R., MIROKHINA, G.A., PUTYATINA, Z.P., VOOVCHENKOVA, M.K., ABRAMOVA, YE.N.
COUNTRY OF INFO--USSR

SOURCE--KAUCH. REZINA 1970, 29(2), 19-21

DATE PUBLISHED-------70

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

TOPIC TAGS--LATEX, MICROSCOPE, BUTYL RUBBER, FILLER, SULFUR, ZINC COMPOUND, ROLLING MILL/(U)V200 VIBRATORY MILL, (U)MBI6 MICROSCOPE, (U)GIPI LKP BEAD MILL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1999/0096 STEP NO--UR/0138/70/029/002/0019/0021

CIRC ACCESSION NO--AP0122362

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

2/2 015 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0122362

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. S, ZNO, ZN(S SUB2 CNET SUB2) SUB2, AND ZN(S SUB2 CNETPH) SUB2 DISPERSIONS WERE PREPD. IN A BEAD MILL GIPI-LKP (HAVING GLASS BEADS 0.63-1 MM IN DIAM.), A VIBRATORY MILL M-200, AND A BALL MILL, AND THE PARTICLES WERE EXAMD. UNDER A MBI-6 MICROSCOPE. SEDIMENTATION ANAL. INDICATED THAT THE DEGREE OF DISPERSION OF THE INGREDIENTS WAS IDENTICAL REGARDLESS OF THEMILL USED, BUT THE BEAM MILL WAS THE MOST PRODUCTIVE. BUTYL RUBBER FILMS FILLED WITH THE VARIOUS DISPERSIONS HAD SIMILAR PHYSICOMECH. PROPERTIES.

FACILITY: NAUCH.-ISSLED. INST. REZIN. LAT. KSNYKH IZDELII, MOSCOW, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

UNCLASSIFIED PROCESSING DATE--03JUL70

TITLE--REACTION OF TETRACALCIUM ALUMINOFERRITE WITH SODIUM METASILICATE IN A SODIUM CHROMATE SOLUTION -U-

AUTHOR--RYABIN, V.A., MUKASHEVA, G., MIKOLYUCV, E.V.

23
5
28

COUNTRY OF INFO--USSR

SOURCE--ZH. PRIKL. KHIM. (LENINGRAD) 1970, 43(1), 32-5

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--AQUEOUS SOLUTION, CHEMICAL SEPARATION, CHROMATE, SILICATE, ALUMINUM COMPOUND, FERRITE, SODIUM COMPOUND, HYDROLYSIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1979/1200 STEP NO--UR/0080/70/043/001/0032/0035

CIRC ACCESSION NO--APO046123

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

Acc. Nr. AP0046123 Abstracting Service: CHEMICAL ABST. 5/70 Ref. Code 21R0080

92460n Reaction of tetracalcium aluminoferrite with sodium metasilicate in a sodium chromate solution. Mirolyubov, B. V.; Ryabin, V. A.; Mukasheva, G. (Ural. Nauch.-Issled. Khim. Inst., Sverdlovsk, USSR). *Zh. Prikl. Khim. (Leningrad)* 1970, 43(1), 32–5 (Russ). When chromate is leached from melts by water or Na_2CrO_4 solns., insol. hydrated Ca chromate-aluminate (I) forms because of hydrolysis of tetracalcium aluminoferrite (II). Na_2SiO_3 (≧1.5 g/l. SiO_2 in soln.) prevents the formation of I by slowing the hydrolysis of II. Most of the Na_2SiO_3 remains in soln. The Na_2SiO_3 must be present in the leach solns. before leaching begins; it has no effect on chromate leaching after I has formed. Mary Frances Richardson

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REEL/FRAME 19781200

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

1/2 024 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--SATURATION OF CHROMATE SLURRIES BY A GAS WITH A LOW CARBON DIOXIDE CONTENT -U-

AUTHOR--MIROLYUBOV, B.V., RYABIN, V.A., VILNYANSKIY, YA.YE.

COUNTRY OF INFO--USSR

SOURCE--ZH. PRIKL. KHIM. (LENINGRAD) 1970, 43(2), 442-5

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--CHROMATE, SLAG, FERROCHROMIUM, CHROMIUM OXIDE, CALCIUM OXIDE, MAGNESIUM OXIDE, SILICON DIOXIDE, IRON OXIDE, ALUMINUM OXIDE, CALCIUM CARBONATE, CRYSTAL HYDRATE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REFL/FRAME--1983/0924 STEP NO--UR/0080/70/043/002/0442/0445

CIRC ACCESSION NO--AP0053848

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

2/2 024 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0053848

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SLAG (400 G), FROM THE PRODUCTION OF FERROCHROMIUM CONTG. CRO SUB3 22.47PERCENT, CAO 28.53, MGO 8.99, SIO SUB2 10.03, FE SUB2 O SUB3 5.49, AND AL SUB2 O SUB3 4.56PERCENT WAS GROUND TO A 150 MESH POWDER AND STIRRED INTO A SOLN. OF 9 G NA SUB2 CO SUB3 IN 700 G H SUB2 O. THE CHROMATES DISSOLVE ONLY PARTIALLY BECAUSE OF THE FORMATION OF INSOL. HYDRATES OF CHROMOALUMINATES OF CAO. FURTHERMORE, FILTRATION IS DIFFICULT BECAUSE OF COLLOIDAL HYDRATES OF ALUMINATES AND ALUMINOFERRATES OF CAO. SATG. THE PULP WITH STACK GAS CONTG. 4-5PERCENT CO SUB2 INCREASES THE YIELD OF SOL. CHROMATES BY 10PERCENT. NEUTRALIZATION BY CO SUB2 TO PH 8.3 CAUSES THE FORMATION OF EASY TO FILTER CACO SUB3 AND AL(OH) SUB3 AND CHROMATES ARE SET FREE. THE DURATION OF THE REACTION AND THE CONCN. OF CO SUB2 IN THE WASTE GASES ARE NOT ESSENTIAL. IN THE RESIDUE, 3CAO.AL SUB2 O SUB3.CACO SUB3.11H SUB2 O WAS DETECTED.

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

USSR/M11/RU

Dateline SGF, 8 Dec

KOROL'KOV, N., Col, author of article about Hungarian Komsomol members visiting a guards chast. He identified the following who received Hungarian awards:

GOLUBEV, S., Maj Gen Avn, Commander of the Air Forces of the SGF,
KIROLYUBOV, V., Maj Gen Avn,
TISHIN, A., Lt,
POTEMKIN, A., Sr Lt.

Krasnaya Zvezda, 9 Dec 71, p 4, col 5

(5)

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

USSR

UDC 621.59 (088.8)

KAGANER, M.G., MIROLYUBSKAYA, YU. A.

"Method Of Application Of Vacuum--Multilayer Insulation"

USSR Author's Certificate No 298790, filed 8 May 68, published 14 May 71 (from RZh:Elektronika i yeye primeneniye, No 1, Jan 72, Abstract No 1A454P)

Translation: A method is proposed for application of vacuum--multilayer insulation on vessels of cylindrical form for storage of cyrogenic liquids, by virtue of which strips of insulation are wound on the lateral face of the cylinder and insulating disks are applied at the bottom of the vessels. The method differs in the fact that with the object of increasing the productivity of labor and simplification of the installation of insulation for insulated bottoms, disks are used with a diameter larger than the diameter of the vessel, the protruding edges of which are cut into rectangular tongues and then turned back into the cylindrical part of the vessel and overlapped with respect to the perimeter of the insulation strips.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

USSR UDC: 681.323

SULIMA, L. A., BONDAREV, V. B., MIROLYUBSKIY, V. M., REDCHENKO, V. I., KAYETKIN, R. A.

"A Device for Modeling a Neuron"

Moscow, Otkrytiya, Izobretneiya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 48, Dec 73, Author's Certificate No 409245, Division G, filed 24 Apr 72, published 30 Nov 73, p 121

Translation: This Author's Certificate introduces a device for modeling a neuron. The device contains a power supply and integrators. As a distinguishing feature of the patent, the device is simplified by adding a balanced differential amplifier covered by negative and positive feedback loops. Connected to the first input of the amplifier are integrators and a scaling resistor unit and also switching elements whose controlling inputs are connected to the power supply. The first output of the balanced differential amplifier is connected to the output of the first switching element, while the second output of the balanced differential amplifier is connected to the output of the second switching element, which is connected in turn to the first switching element, to the zero potential line, and to the second input of the balanced differential amplifier.
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UNCLASSIFIED PROCESSING DATE--20NOV70

1/2 018

TITLE--NEUTRON DIFFRACTION STUDY OF ZIRCONIUM NITRIDE HYDRIDE -U-

AUTHOR-(05)-BYKOV, V.N., GOLOVKIN, V.S., LEVCIK, V.A., KALININ, V.P., MIRCA, N.F.

COUNTRY OF INFO--USSR

SOURCE--KRISTALLOGRAFIYA 1970, 15(2), 376

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--NEUTRON DIFFRACTION, ZIRCONIUM NITRIDE, HYDRIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1995/0899 STEP NO--UR/0070/70/015/002/0376/0376

CIRC ACCESSION NO--AP0116409

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

2/2 018 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0116409

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ZRN SUB0.36 H SUB0.80 WAS STUDIED BY NEUTRON DIFFRACTION TO DET. THE LOCALIZATION OF N AND H ATOMS AND THE EFFECT OF N ON THE DISTRIBUTION OF H ATOMS IN THE HYDRIDE LATTICE. THE CLOSEST AGREEMENT BETWEEN THE EXPTL. AND CALCD. DATA WAS OBTAINED FOR THE P6AR3M1 MODEL. THE N ATOMS ARE LOCATED ON THE OCTAHEDRONS EVERY OTHER LAYER AND H ATOMS ON ALL TETRAHEDRONS, BUT THE NO. OF H ATOMS IN THE LAYERS CONTG. N ATOMS IS 4 TIMES SMALLER THAN IN THE N FREE LAYERS.

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USSR

UDC: 51:621:391

KOLESNIK, V. D., MIRONCHIKOV, Ye. T.

"The Number of Information Symbols in Polynomial Codes"

Tr. Leningr. In-t Aviats. Priborostr. [Leningrad Institute of Aviation Instrument Building], 1972, No 74, pp 60-70 (Translated from Referativnyy Zhurnal Kibernetika, No 11, 1972, Abstract No 11V371, by V. Zinov'yev)

Translation: The polynomial codes introduced by Kasami, Lin and Peterson have been studied by many authors. This class of codes is interesting in that it includes many known classes of codes such as R-M codes, BFC codes, dual geometric codes, etc. The purpose of the present article is to describe a simple method of determination of the number of information symbols in polynomial and other related codes. In certain particular cases, this method leads to simple recurrent or explicit formulas which are either known or generalizations of known formulas, or are new. For example, a formula is produced for the number of information symbols in the case of Euclidean geometric codes.

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USSR

KOLESNIK, V. D., MIRONCHIKOV, Ye. T.

"Distribution of Probabilities in Finite Abelian Groups and Analysis of Decoding Algorithms"

Informatsionnye Materialy. Nauch. Sovet po Kompleks. Probl. "Kibernetika" AN SSSR [Information Materials, Scientific Council on the Complex Problem of "Cybernetics," Academy of Sciences USSR], No 3(50), 1971, pp 166-186, (Translated from Referativnyy Zhurnal, Kibernetika, No 3, 1972, Abstract No 3 V359 by E. Gabidulin).

Translation: Real functions defined in elements of a finite Abelian group and their Fourier transforms are studied. In particular, the distributions of probability are fixed in the group and the problem of decoding error is studied. Characteristic functions (Fourier transforms of the probability distribution) are used to describe a broad class of channels including a channel without memory, and the upper boundary is produced for the probability of false decoding. Let us present a characteristic partial result: for a binary symmetrical channel, the probability of error has the estimate

$P_{er} \leq \sum_{w=1}^{n} N(w) (2\sqrt{p_0 q_0})^w$, , where p_0 is the probability of error in a symbol, $N(w)$

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KOLESNIK, V. D., MIRONCHIKOV, Ye. T., Informatsionnye Materialy. Nauch. Sovet po Kompleks. Probl. "Kibernetika" AN SSSR, No 3(50), 1971, pp 166-186.

is the spectrum of the code. It is pointed out that the method of operations can be used for the solution of other similar problems.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

1/2 007 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--OUTER SPHERE AND INNER SPHERE COMPLEXES OF COBALT II, NICKEL II, AND COPPER II -U-

AUTHOR-(04)-MIRONOV, V.YE., MAKASHEV, YU.A., MAVRINA, I.YA., KRYZHANOVSKIY, M.M.

COUNTRY OF INFO--USSR

SOURCE--ZH. NEORG. KHIM. 1970, 15(5), 1301-4

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--COBLAT COMPLEX, NICKEL COMPLEX, COPPER COMPLEX, CHLROINE, BROMINE, NITRATE, SULFATE, STABILITY CONSTANT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3008/0943 STEP NO--UR/0078/70/015/005/1301/1304

CIRC ACCESSION NO--AP0137971

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

2/2 007 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0137971

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. STABILITY CONSTS. WERE DETD. FOR INNER AND OUTER SPHERE COMPLEXES OF CO(II), NI(II), AND CU(II) HEXAAQUA IONS WITH HALIDES, THIOCYANATE, SULFATE, AND NITRATE IONS. THE TENDENCY TO INNER AND OUTER SPHERE INTERACTION DECREASES IN GOING FROM CL PRIME NEGATIVE TO BR PRIME NEGATIVE. THIS IS ATTRIBUTED TO THE ELECTROSTATIC NATURE OF THE OUTER SPHERE BONDS. THE TENDENCY FOR NITRATE AND SULFATE IONS IN THE CU COMPLEXES TO ENTER THE INNER SPHERE IS SMALL AND APPROX. THE SAME. THE HIGHER STABILITY OF THE CU SULFATE COMPLEXES IS RELATED TO THE HIGH STABILITY OF INNER SPHERE SULFATE ASSOCNS. FACILITY: LENINGRAD. GOS. PEDAGOG. INST. IM. GERTSENA, LENINGRAD, USSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

USSR

UDC: 629.7.018.1

TARASENKOV, A. M., POTAPIN, Yu. P., [redacted]

"A Model Which Simulates Longitudinal Oscillations of an Aircraft."

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 2, Jan 72, Author's Certificate No 324645, Division G, filed 30 Nov 69, published 23 Dec 71, pp 159-160

Translation: This Author's Certificate introduces a model which simulates longitudinal oscillations of an aircraft. The model contains a fuselage with horizontal stabilizers and hinged elevator, control levers, springs and measuring equipment. As a distinguishing feature of the patent, in order to demonstrate the longitudinal motion of an aircraft, the model is hinged at the center of gravity and the focus on clamped rods which move in grooves lengthwise of the model. The rods are coupled to springs and control levers. The spring for the rod fastened to the focus of the model, and the elevator, are fastened through tie rods to the control lever.

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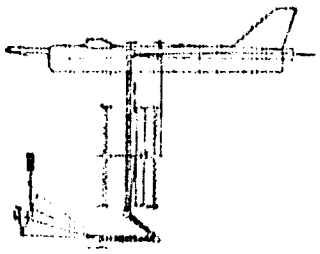
USSR

TARASENKOV, A. M. et al., Soviet Patent No 324645



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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

1/2 026 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--EFFECT OF NEROBOLIL ON THE DEVELOPMENT OF REPARATIVE PROCESSES IN THE MYOCARDIUM OF RABBITS DURING EXPERIMENTAL MYOCARDIAL INFARCTION -U-

AUTHOR-(03)-KNYAZEVA, G.D., MYAZDRIKOVA, A.A., MIRONENKO, A.I.

COUNTRY OF INFO--USSR

SOURCE--FARMAKOL. TOKSIKOL. (MOSCOW) 1970, 33(2), 182-7

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--ANDROGEN, HEART DISEASE, ELECTROCARDIOGRAPHY, TISSUE REGENERATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/0181 STEP NO--UR/0390/70/033/002/0182/0187

CIRC ACCESSION NO--AP0119177

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

UNCLASSIFIED PROCESSING DATE--16OCT70

2/2 026

CIRC ACCESSION NO--AP0119177

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. NEROBOLIL ADMINISTERED I.M. AT 10 MG-KG TO RABBITS WITH EXPTL. MYOCARDIAL INFARCTION NORMALIZED THE SERUM ALBUMINSTO GLOBULINS AND THE BETA LIPOPROTEINS TO ALPHA LIPOPROTEINS RATIOS, RESTORED THE DECREASED LECITHIN TO CHOLESTEROL RATIO, AND IMPROVED THE ELECTROLYTE BALANCE AND ELECTROCARDIOGRAM. NEROBIL FASTENED REGENERATIVE PROCESSES BY STIMULATING FORMATION OF GRANULATION TISSUE DURING RESORPTION OF NECROSIS, AND ACCELERATED DIFFERENTIATION OF THE CELLULAR ELEMENTS. SCAR TISSUE FORMED MORE RAPIDLY AND AS A RESULT COVERED LESS AREA. FACILITY: I. MOSK. MED. INST., I.M. SECHENOVA, MOSCOW, USSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

Acc. Nr.: AP0042563

Ref. Code: UR0362
JPRS 50162

Measurement of Turbulent Moisture Fluxes with IR Hygrometer

(Abstract: "Measurements of Turbulent Moisture Fluxes with an Infrared Hygrometer," by L. G. Yelagina, V. I. Gorshkov and S. T. Mirgorodko, Institute of Physics of the Atmosphere; Moscow, Izvestiya Akademii Nauk SSSR, Fizika Atmosfery i Okeana, Vol VI, No 1, 1970, pp 92-95)

During the summer of 1968 the State Hydrological Institute made systematic measurements of moisture fluxes with an infrared hygrometer at the Valday Scientific Research Hydrological Laboratory for comparing the results with data obtained using the large-model hydraulic evaporator. The latter instrument is a precise apparatus for measuring evaporation from the earth's surface by constant weighing. The instrument's surface area is 5 m^2 and it holds a monolith of earth weighing 40 tons; weighing accuracy is 5 grams. The spectroscopic method, based on water-vapor absorption of radiation in the IR region, has advantages in comparison with other methods for measuring humidity; in particular, it is direct, inertialess and suitable for determining humidity at below-zero temperatures. On the other hand, it is difficult to use because the transmission function of water vapor in the working region of the spectrum must be measured with

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a great accuracy and it cannot be used in measuring relative humidities close to saturation. The results given in this paper were obtained using the water vapor absorption band at 1.9 μ. Detailed results obtained under specific circumstances are given. The distance between the compared instruments, the IR hygrometer and the large-model hydraulic evaporator, was 1.5 km. It was found that the mean daily values of the moisture fluex as registered by the two instruments were quite close.

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USSR UDC: 621.372.852.2(088.8)

ANTONOV, N. N., VENDIK, O. G., DAKHNOVICH, A. A., MIRONENKO, I. G., Leningrad Electrical Engineering Institute

"A Capacitive Phase Shifter"

USSR Author's Certificate No 261493, filed 2 Dec 68, published 28 May 70 (from RZh-Radiotekhnika, No 1, Jan 71, Abstract No 1B212 P)

Translation: The proposed capacitive phase shifter contains a strip line and controllable capacitors based on a nonlinear dielectric. To keep phase displacement constant over a wide temperature range, the phase shifter is made in the form of a series circuit of capacitors connected in a break in the central conductor of the line. One illustration.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

USSR UDC: 661.143

MIKHALEV, A. A., MIRONENKO, V. M., MOROZOV, O. A., KOLESNIK, R. I., TETERYUKOVA, V. G., GUGEL', B. M.

"A Procedure for Predicting the Uniformity of the Luminescence Color of a BM-5 Phosphor Coating"

Sb. nauch. tr. VNII lyuminoforov i osobo chist. veshchestv (Collected Scientific Works of the All-Union Scientific Research Institute of Phosphors and Extra Pure Materials), 1971, vyp. 5, pp 125-132 (from RZh-Khimiya, No 7, Apr 72, Abstract No 7L178)

Translation: It was established by physical and chemical methods that in applying batches of [illegible] BM-5 luminescent compositions made by chemical plants, the large fraction settling on the screen frequently contains an excess of the composition with yellow luminescence color. For such batches of BM-5, the luminescence color of the screen is typically sound form with a whitish spot in the center. A method is proposed for evaluating the quality of Bm-5 luminescent composition with respect to the uniformity of the luminescence color on the screen [illegible] from the BM-5. The procedure is based on [illegible] into [illegible] followed by analysis of the [illegible]

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MIKHALEV, A. A., et al, Sb. nauch. tr. VNII lyuminoforov i osobo chist. veshchestv, 1971, vyp 5, pp 125-132

of the components. A coefficient of uniformity is derived which is equal to half the sum of the ratios of the weights of the F-3[illegible] and B-3[illegible] fractions of the composition, which contain particles from 16 to 20 microns, and greater than 20 microns, and the limiting value of the coefficient is established (2 or less). Determination of the coefficient is based on analysis of the behavior of more than 20 batches of BM-5 luminescent composition. Bibliography of 5 titles. Resumé.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

USSR

UDC: 621.317.337

SHATKOV, D. P., MIRONENKO, V. L., and PERESHCHENKO, A. I.

"Using Open Cylindrical Limited Resonators for Investigating the Dielectric Characteristics of a Material"

Kiev, Izvestiya VUZ -- Radioelektronika, Vol. 13, No. 10, 1970, pp 1085-1091

Abstract: Interest has been aroused by the ability of resonators of this type to find the dielectric capabilities of moving gaseous media as well as solid, liquid, or powdered substances partially or completely filling the resonator space. In the case considered by this article, the dielectric is in the shape of a cylindrical rod placed coaxially with the resonator and partially filling it. The measurement and its method are analyzed only for the case of type H_{011} oscillations. In the theoretical analysis, the walls of the circular cross-sectioned resonator are considered to be infinitely long. After the theoretical portion of the article, in which formulas are obtained for determining the parameters of solid, liquid, and powdered substances, there is an experimental

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BURTOVOY, D.P., et al, Izvestiya VUZ - Radioelektronika, Vol 13, No 10, 1970, pp 1085-1091

section giving details of the equipment and results of such measurements made with a resonator of finite length, 20 mm, and cut in the form of a cylindrical waveguide of 20 mm in diameter. A diagram of the resonator and a block diagram of the associated equipment are given. Also presented is a table of the results of the experimental work performed on a number of materials including ebonite, textolite, granulated table salt, and the like. The authors note that they also obtained formulas for determining the concentration of the plasma partially filling the resonator, and the effective collision frequency between the electrons and heavy particles. These formulas and the results of corresponding experiments are being separately published.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

Acc. Nr: AP0045009 Abstracting Service: 5/70 INTERNAT. AEROSPACE ABST. Ref. Code: UR0109

A70-23165 # Calculation of the frequencies of an open cutoff resonator of rectangular cross section (Raschet chastot otkrytogo predel'nogo rezonatora priamougol'nogo poperechnogo secheniia). P. Burtovoi, V. L. Mironenko, and A. I. Trishchenko. *Radiotekhnika i Elektronika*, vol. 15, Feb. 1970, p. 389-391. In Russian.

Study of an open cutoff resonator in the form of an infinite rectangular waveguide with a semiinfinite metal partition located at a certain distance from one of the narrow walls of the waveguide. The results of a calculation of the frequency dependence of the phase of the reflection coefficient and the relative length of the resonator are presented in the form of graphs. A.B.K.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

Acc. Nr: AP0037235 Ref. Code: UR 0301

PRIMARY SOURCE: Voprosy Meditsinskoy Khimii, 1970, Vol 16, Nr 1, pp 28-31

DISORDER IN ACCEPTOR FUNCTION OF TRANSFER RNA's FROM RABBIT LIVER AT INSULIN INSUFFICIENCY

Ya. L. Germanyuk, V. I. Mironenko

The Laboratory of Biochemistry Research Institute of Endocrinology and Metabolism, Kiev

The insulin insufficiency by means of alloxan administration has been induced in rabbits. From livers of both diabetic and healthy animals the total sRNA and aminoacyl RNA-synthetases have been isolated. The level of aminoacyl sRNA formation was studied. It was noted that "diabetic" sRNA less effectvly accepts I-C^{14}-lysine, I-C^{14}-methionine and I-C^{14}-leucine under catalytic action of "diabetic" as well as "healthy" aminoacyl RNA synthetases. At the same time "healthy" RNA's with "healthy" synthetases do it more readily. From these results one may conclude that one of the possible reasons for decreased level of aminoacyls sRNA formation in the liver of animals with insulin insufficiency is transfer RNA itself.

D. R.

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19730160

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202030010-1

UDC 613.34

USSR

POGOSOV, D. P., OMEL'YANETS, N. I., Candidate of Medical Sciences, Grigor'yeva, L. V. Doctor of Medical Sciences, MEDVEDEV, I. N., Candidate of Medical Sciences, MIRONETS, N. V., Kiev Institute of Public and Communal Hygiene imeni A. N. Marzeyev

"Hygienic Evaluation of Materials for Decontamination and Enrichment of Demineralized Water with Salt"

Moscow, Gigiyena i Sanitariya, No 8, 1972, pp 19-22

Abstract: Results are presented from a hygienic evaluation of A V - 7 x 8ch S anion-exchange resin in bicarbonate form and the contact granulated M-16 mineralizer for enrichment of desalinated water with salt and the asbestos-silver sterilizer for decontamination of desalinated water. The use of water which has been enriched with salt and decontaminated by the mentioned materials for drinking purposes is acceptable for a period of no more than 30 days. The procedures for applying the indicated materials for the mentioned purposes and testing the water obtained are described. The results of the sanitary-chemical, sanitary-bacteriological and sanitary-toxicological studies provide a basis for recommending AV-17-8ch8 anion-exchange resin (in bicarbonate form) and the M-16 granulated contact mineralizer as reagents for enriching water with salt for short-term utilization of it for drinking purposes. In connection

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POGOSOV, D. P, et al., Gigiyena i Sanitariya, No 8, 1972, pp 19-22

with absence in the mineralizer of fluorine compounds, the water cannot be used for drinking purposes over a prolonged period of time. The investigated asbestos-silver sterilizer is in need of further improvement in that its present output of silver ions is low and unstable. White rats were used to study the physiological effects of drinking the treated water.

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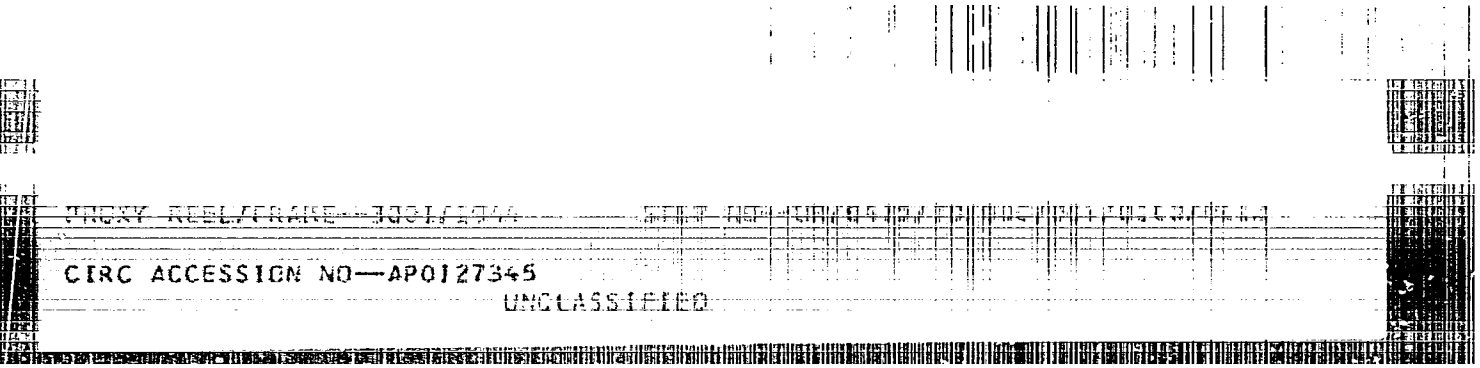

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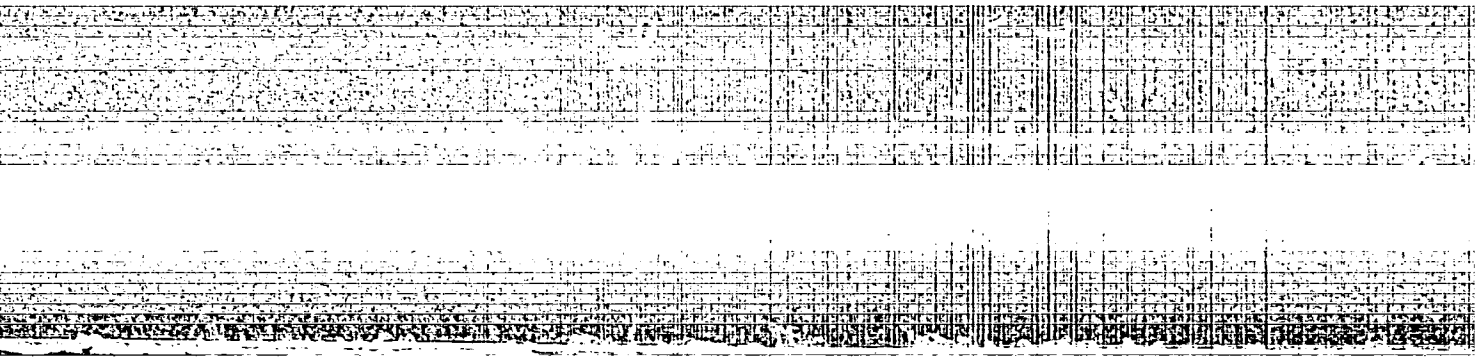

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USSR UDC 669.1[illegible].013.85

MIRKIN, I. L., [illegible], K. A., [illegible], L. P., Central [illegible] Research Institute of Manufacturing Technology, Central Scientific Research Institute of Ferrous Metallurgy im. I. O. Bardin

"Prospects for the Development of New Heat-Resistant Materials for Steam Power Energy Equipment"

Moscow, Metallovedeniye, No 4, Apr 70, pp 8-15

Abstract: Analysis of steels presently used by the steam power industry in both the Soviet Union and abroad indicates that low-carbon low-alloy ferrite-perlite-type steels are best [illegible] to meet the requirements for basic parts of steam boilers and turbines. The maximum total content of alloying elements in these steels is 4 percent. Chromium, molybdenum, and vanadium are the principal alloying elements. Tungsten, niobium, and other elements are used less frequently. Practical experience of operating steam power and gas turbine equipment shows that with strict adherence to the recommended technology of processing and treatment of power equipment components, and proper design and calculation of assembly conditions, the steels would afford [illegible]

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