"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

CHERTKOV, I. L., et al., Problemy Gematologii i Perelivaniya Krovi, Vol 16, No 3, Mar 71, pp 45-53

considerably milder and promoted regeneration of hematopoiesis of the donor type. Histological examinations indicated that bone marrow stem cells play an important role in the development of the secondary disease.

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UDC 378.121

USSR

AGEYEV, D. V., GLEBOVICH, G. V., LEZIN, YU. S., MALANOV, V. V., MORUGIN, L. A., SMORGONSKIY, V. YA.

"Gor'kiy Polytechnic Institute"

Kiev, Izvestiya vysshikh uchebnykh zavedeniy--Radioelektronika, Vol XIV, No 8, 1971, pp 954-960

Abstract: A review of the scientific research work performed by the radio engineering department of Gor'kiy Polytechnic Institute is presented. Abstracts and bibliographic listings of many of the papers published by members of the radio engineering faculty are presented. The fields of study covered include improving the noise immunity of radio technical systems, the theory of pulse-duration modulation and pulse amplification of low-frequency electrical oscillations, improvement of the speed of pulse devices, automatic phase control and wave guide theory, and utilization of the research results in the training process. Specific lecture courses at the university in which the scientific research papers are used are listed.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

UDC 624.07:534.1

ARSON, L. D., MALASHENKO, L. A.

"Statistical Analysis of the Strength and Rigidity of Thin-Walled Systems"

Samoletostr. i tekhn. vozd. flota. Resp. mezhved. temat. nauch.-tekhn. sb. (Aircraft Construction and Air Force Engineering. Republic Interdepartmental Thematic Scientific-Technical Collection), 1971, No. 24, pp 53-57 (from RZh-Mekhanika, No 3, Mar 72, Abstract No 3V454)

Translation: The strength and rigidity of thin-walled systems (shells, plates, thin-walled rods) for a random nature of the external loads, physical characteristics of the material, and thicknesses of the elements in the presence of a correlation between the random value are investigated. Probability theory and mathematical statistics are applied. The average values and the limiting deviations of bends and stresses of plates under transverse bending, of critical stresses under compression shift and local stability of thin-walled profiles, of critical stresses of cylindrical shells under axial compression and the action of radial pressure, of finite bending moments and of temperature effects are found on the basis of theorems concerning mathematical expectation and dispersion of random quantities. The results of the calculations establish

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

ARSON, L. D., MALASHENKO, L. A., Samoletostr. i tekhn. vozd. flota. Resp. mezhved. temat. nauch.-tekhn. sb., 1971, No. 24, pp 53-57

the considerable difference in the limiting deviations of strength and rigidity characteristics of thin-walled systems from nominal values. 7 ref. Authors abstract.

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

UDC 669.017.3:548.735.6

TOFPENETS, R. L., MALASHENKO, L. M., and SOKOLOV, YU. V.,
Physico-Technical Institute, Academy of Sciences BSSR

"Grain Formation During Rolling of the D16 Alloy"

Minsk, Izvestiya Akademii Nauk BSSR, Seriya Fiziko-Tekhnicheskikh Nauk, No 4, 1973, pp 22-24

Abstract: This article contains the results of a grain analysis of the D16 alloy deformed by rolling at room temperature (ε = 75%) in the quenched, aged (t_{age} = 150° C, τ = 10 hours) and annealed states. Pole figures {111} and {200} are constructed.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

TOFFENETS, R. L., Izvestiya Akademii Nauk BSSR, Seriya Fiziko-Tekhnicheskikh Nauk, No 4, 1973, pp 22-24

Aging the alloy in conditions which ensure a zone stage of decay does not change the character of the deformation orientation. Comparison of the intensities of the major orientations (112) [1$\bar{1}$1], and (110) [1$\bar{1}$2] shows a slowdown in transverse glide in the aged alloy in comparison with pure aluminum and the annealed alloy. Slow-down in the transverse glide is manifested by change in the energy of packing defects in the alloy containing disperse zones G-P.

Pole figures {111} and {200} are illustrated for the D16 alloy deformed by 75% after quenching at 500° C, after quenching and aging at 150° C for 10 hours, and after slow cooling from the quenching temperature.

The article contains 1 illustration and 8 bibliographic references.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR UDC 669.35:621.78

GOREV, K. V., TOFPENETS, R. L., and MALASHENKO, L. M., Physico Technical Institute Academy of Sciences Belorussian SSR

"Electron Microscope Study of Stress Relief of a 3.2% Titanium Alloy of Copper"

Minsk, Izvestoya Akademii Nauk BSSR, Seriya Fiziko-Tekhnicheskikh Nauk, No 4, 1971, pp 29-32

Abstract: Results are presented from a study of stress relief of deformed precipitation-hardening 3.2% titanium alloy of copper during various subsequent annealing temperatures. During repeated heating of deformed pre-aged alloy both processes connected with complete decomposition of the solid solution and the stress relief processes (recovery, pllygonization, and recrystallization) take place. The curve for the variation of the alloy characteristics is in this case the resultant, and it cannot be used to describe the stress relief kinetics. The best method of studying recovery is the electron microscope. Results are presented from an electron microscope study of aging alloy Cu + 3.2%

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

GOREV, K. V., et al., Izvestiya Akademii Nauk BSSR, Seriya Fiziko-Tekhnicheskikh Nauk, No 4, 1971, pp 29-32

Tr permitting the variation of the dislocation structure of the alloy matrix to be traced during its deformation and complete recrystallization annealing. The structure of the deformed alloy is analogous to the structure of pure copper and is characterized by nonuniform dislocation distribution. For samll annealing times at 350°C no significant changes in structure were observed. The possibility of developing polygonization at this temperature and during recrystallization at 600°C is demonstrated.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

MALASHENKO, Yu. Ye.

"A Problem in Linear Dynamic Programming with Delay"

Zh. Vychisl. Mat. i Mat. Fiz. [Journal of Computer Mathematics and Mathematical Physics], 1972, Vol 12, No 6, pp 1572-1578 (Translated from Referativnyy Zhurnal Kibernetika, No 4, 1973, Abstract No 4V552, by the author).

Translation: An algorithm is presented for solution of a linear dynamic problem with delay. Necessary and sufficient conditions for optimality of the solutions of the problem are produced. The relationship of the algorithm to the methods of solution of the problem of linear programming is demonstrated. 11 biblio. refs.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

Acc. Nr: AP0047325 Ref. Code: UR 0300

PRIMARY SOURCE: Ukrayns'kiy Biokhimichnyy Zhurnal, 1970, Vol 42, Nr 1, pp 56-59

DEPENDENCE OF THE SIALIC ACID CONTENT IN TISSUES ON FUNCTIONAL STATE OF THE HYPOPHYSIS-ADRENAL SYSTEMS

E. V. Malashenok

Institute of Physiology, Academy of Sciences, Byelorussian SSR, Minsk

Summary

The content of neuramine derivatives in the cerebral hemispheres, liver myocardium and blood serum was determined by the thiobarbituric method by Worren in the intact and adrenalectomized rats under conditions of hydrocortisone, prednisolone, ACTH and adrenaline. It is shown that administration of corticosteroides and ACTH to the intact animals results in a pronounced deficit of sialic acids in the liver and myocardium, but does not change their content in the brain. Under analogous conditions in adrenalectomized animals an increase was observed in the sialic acid level in all the tissues under study after injection of prednisolone, in the brain, liver and blood serum — with administration of hydrocortisone in the liver and heart — with that of ACTH.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

1/2 020 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--REGENERATION OF THE IRON FORM OF TYPE X ZEOLITE AS A CATALYST OF CARBON MONIXIDE OXIDATION -U-

AUTHOR--YERMOLENKO, N.F., MALASHEVICH, L.N., SARAYEVA, M.L.

COUNTRY OF INFO--USSR

SOURCE--VESTSI AKAD. NAVUK BELARUS. SSR, SER. KHIM. NAVUK 1970, (1), 95-8

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ZEOLITE, CARBON MONOXIDE, IRON OXIDE, OXIDATION, CRYSTAL STRUCTURE, ADSORPTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1987/1666 STEP NO--UR/0419/70/000/001/0095/0098

CIRC ACCESSION NO--AP0104888

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

2/2 020 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0104888

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE ACTIVITY OF AN FE X TYPE ZEOLITE CONTG. 4.9 WT. PERCENT FE SUB2 O SUB3 WITH A 39.5PERCENT NA YIELDS FE EXCHANGE DEGREE WAS STUDIED EXPTL. DURING THE OXIDN. OF AN AIR MIXT. CONTG. 5-7 VOL. PERCENT CO IN A FLOW APP. AT 350DEGREES. THE INITIAL OXIDN. DEGREE (ALPHA) DECREASES LINEARLY FROM ALPHA EQUALS 84PERCENT TO SIMILAR TO 45-50PERCENT AFTER 35 HR AND THEN REMAINS CONST. FOR 38 HR. THE ADSORPTION CAPACITY OF ZEOLITE IS SIMILAR TO 22PERCENT LOWER THAN THAT OF THE FRESH ZEOLITE AS DETD. FROM THE ADSORPTION OF AQ. VAPORS ON SAMPLES HEATED TO 300DEGREES AT 10 PRIME NEGATIVE5 TORR FOR 6 HR. THE CRYST. STRUCTURE OF THE ZEOLITE DID NOT CHANGE DURING THE REACTION. TO RECOVER THE CATALYST ACTIVITY, THE FOLLOWING METHODS WERE USED: (1) OXIDN. REGENERATION BY DRY AIR AT 350DEGREES FOR 6 HR WITH A RESULTING ALPHA EQUALS 60PERCENT, (2) A FLOW OF DRY N AT 350DEGREES FOR 6 HR DID NOT INCREASE ALPHA, (3) THE REGENERATION BY H SUB2 O AT 25DEGREES WITH RESULTING ALPHA EQUALS 55PERCENT, (4) AND THE REGENERATION WITH H SUB2 O AT 90-95DEGREES WITH RESULTING ALPHA EQUALS 81.6PERCENT. THE RECOMMENDED MANNER FOR MAINTAINING ALPHA SIMILAR TO 80-82PERCENT IS A 1 HR OXIDN. REGENERATION EVERY 5TH HR COMBINED WITH A H SUB2 O REGENERATION AT 95DEGREES EVERY 25TH HR.

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USSR

MALASHEVICH, YA.

"The Level of Sialic Acid Exchange in Liver and in Miacord of Rats Subjected to X-ray Irradiation"

Vestsi AN BSSR, Ser. Biyal. n., Izv. AN BSSR, ser. biol. n. (News of the Academy of Sciences BSSR, Biol. Sc. Series), 1973, No 4, pp 73-76 (from RZh - Biologicheskaya Khimiya, No 22, Nov 73, Abstract No 1415)

Translation: The content of sialic acids in the liver and heart muscle of Vistar rats subjected to 10 and 20 week fractional irradiation at a total dose of 50 roentgen has been investigated. In some periods of postirradiation effect, deviations have been observed from the controls in the content of sialic acids, which had no pathological meaning. Possible reasons for the changes in the quantity of sialic acids in the irradiated organisms have been indicated. The type of disturbances and possible role of liver in their regeneration have been discussed.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

1/2 039 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--LEVELS OF SIALIC ACIDS IN THE TISSUES OF INTACT AND ADRENALECTOMIZED RATS UNDER THE INFLUENCE OF SMALL DOSES OF IONIZING

AUTHOR--MALASHEVICH, YA.V.

M

COUNTRY OF INFO--USSR

SOURCE--VESTSI AKAD. NAVUK BELARUS. SSR, SER. BIYAL, NAVUK 1970, [1], 96-8

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--ORGANIC ACID, BRAIN, HEART, ADRENAL GLAND, SURGERY, X RAY IRRADIATION, NEUTRON IRRADIATION, RADIATION BIOLOGIC EFFECT, HYDROCORTISONE, EPINEPHRINE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1998/0508 STEP NO--UR/0440/70/000/001/0096/0098

CIRC ACCESSION NO--AP0121182

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

2/2 039 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0121182

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IN INTACT WISTAR RATS THE ONLY CHANGS IN SIALIC ACIDS (I) CONTENT WERE FOUND IN BRAIN (X RAY IRRADN., 40 R) AND IN HEART MUSCLE (NEUTRON IRRADN., 13.5 RAD). IN ADRENALECTOMIZED RATS 19PERCENT INCREASE OF I CONTENT WAS SEEN IN THE HEART MUSCLE WHILE A SIGNIFICANT DROP OCCURRED IN THE LIVER AND MYOCARDIUM OF SHAM OPERATED ANIMALS. FOLLOWING ADMINISTRATION OF HYDROCORTISONE OR ADRENALINE (2.5 MG AND 20 MU G-100 G, RESP.) ON THE 3RD-6TH POSTOPERATIVE DAYS, BRAIN, LIVER, AND SERUM CONTENTS OF I WERE SIMILAR TO THOSE SEEN IN NORMAL ANIMALS WHILE THE MYOCARDIUM CONTENT DECREASED BY 20PERCENT AS IN OPERATED RATS. NEUTRON IRRADIATED ANIMALS SHOWED A GREATER DEFICIT OF I IN BRAIN (27PERCENT) THAN INTACT ONES. THEIR LIVER CONTENT WAS HIGHER, HEART AND SERUM CONTENTS WERE NORMAL. FOLLOWING SUBSTITUTION THERAPY THE I CONTENT GREATLY INCREASED IN BRAIN (22PERCENT) AND SERUM (31PERCENT). X RAY IRRADN. OF ADRENALECTOMIZED ANIMALS SUBJECT TO SUBSTITUTION THERAPY GAVE CHANGES SIMILAR TO THOSE IN INTACT RATS. FACILITY: INST. FIZIOL., MINSK, USSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

1/2 031 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--QUANTITATIVE DESCRIPTION OF POST RADIATION CHANGES OF SIALIC ACIDS IN WHITE RAT TISSUES -U-

AUTHOR--MALASHEVICH, YE.V.

M

COUNTRY OF INFO--USSR

SOURCE--DOKL. AKAD. NAUK BSSR:14: 72-3(JAN 1970)

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--BRAIN, LIVER, HEART MUSCLE, BLOOD SERUM, WHITE RAT, MALE RAT, RADIATION BIOLOGIC TISSUE EFFECT, NEUTRON RADIATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/1103 STEP NO--UR/0250/70/014/000/0072/0073

CIRC ACCESSION NO--AT0119962

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

2/2 031 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AT0119962

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. GRAPHIC DATA WERE CONSTRUCTED ON THE DYNAMICS OF THE CHANGES IN SIALIC ACIDS IN TISSUES (BRAIN, LIVER, CARDIAC MUSCLE, AND BLOOD SERUM) IN WHITE MALE RATS WEIGHING 180 TO 220 G AND EXPOSED TO NEUTRON DOSES OF 13.5 RAD. THE CURVES EXHIBITED THE CHANGES TAKING PLACE 1, 3, AND 6 HR AND 1, 3, 7, 15, AND 30 DAYS FOLLOWING EXPOSURE. FACILITY: INST. OF PHYSIOLOGY, MINSK.

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

UDC 662.62

YERMOLENKO, I. N., Corresponding Member of the Academy of Sciences Belorussian SSR, MALASHEVICH, ZH. V., BEZUKH, B. A., and KUZ'MIN, A. N., Institute of General and Inorganic Chemistry, Academy of Sciences Belorussian SSR, and Institute of Physics, Academy of Sciences Belorussian SSR

"Plasma Effect on Carbon and Metallocarbon Fibers"

Minsk, Doklady Akademii Nauk BSSR, Vol 17, No 5, May 73, pp 431-433

Abstract: The action of plasma from a non-electrode high-frequency induction discharge was studied for carbon fibers produced by pyrolysis of oxidized cellulose and its salts. Helium was used as the plasma material. The effect of metals added to the carbon fibers on the natyre of plasma radiation was also studied, and a detailed analysis of the spectra showed the time of plasma radiation before the metals were affected, which revealed the presence of non -nolatile compounds of metals in the carbon fibers. X-Ray diffraction studies of metallocarbon (Al, Ce, Cr) samples yielded pictures of completely amorphous substances, i.e., the high temperatures acting on metallocarbon fibers for a short time, (1-3 min) does not lead to the formation of crystalline Al, Ce, Cr or their compounds and does not graphitize the carbon residue. Samples
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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

YERMOLENKO, I. N., et al., Doklady Akademii Nauk BSSR, Vol 17, No 5, May 73, pp 431-433

subjected to a longer plasma treatment (10-15 min) had traces of erosion, which may have formed from the action of radiation and thermal fluxes. Thus, it is possible to use a plasma treatment mode which will not cause deep structural alterations in the volume of a carbon fiber and is an important consideration in the modification of carbon fiber surfaces. One figure, one table, 12 bibliographic references.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

Organometallic Compounds

USSR

UDC 549.21+541.6

YERMOLENKO, I. N., SAFONOVA, A. M., and MALASHEVICH, ZH. V., Institute of General and Inorganic Chemistry, Academy of Sciences Belorussian SSR

"Study of the Structure of Metallocarbon Filaments Obtained from Salts of Oxidized Cellulose"

Minsk, Izvestiya Akademii Nauk BSSR, Seriya Khimicheskikh Nauk, No 6, 1972, pp 60-66

Abstract: Hydrocarbon filaments containing Al, La, and Ba in their structure have previously been synthesized and their rather unique properties determined. This study presents data on the elemental composition, X-ray analysis, and electron micrographs of carbon and metallocarbon filaments. These were obtained from monocarboxycellulose and its Al and Fe salts at temperatures of 400-1600°C. The carbon particles have a flaky structure and show structural anisotropy. The aluminocarbon and carbon samples were similar in external form and X-ray patterns. The ferrocarbon form, however, exhibited significant differences. The latter may be due to the reduction of the iron ion to metallic iron, which reduces the order in the hydrocarbon structure.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

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UDC 666.189.211

KOLESOV, YU. I., MALASHKINA, T. G., and PLATONOV, R. I., All-Union Scientific-Research Institute of Glass Plastics and Glass Fibers

"The Effect of Certain Technological Factors on the Degree of Volatilization of B_2O_3 in the Melting of Non-Alkaline Alumoborosilicate Glass for the Production of Fiberglass"

Moscow, Steklo i Keramika, No 5, May 70, pp 19-22

Abstract: The volatility of B_2O_3 was studied during melting of alumoborosilicate glass E in three types of vat ovens: regenerative, recuperative, and direct heat gas-electric oven. It was determined that maximum volatilization of B_2O_3 -- 70-90% -- is observed at the stage of the vitrification of the furnace charge. In the gas-electric oven the loss of B_2O_3 in the light zone is several-fold higher than in gas ovens. To lower the losses of B_2O_3 it is proposed that the period of glass formation be shortened by increasing the temperature at the point of the furnace charge loading and that boron anhydride be added to the furnace charge in the form of calcium boride. The increase in the mass exchange between the depth and surface layers of the glass forming material in the oven results in higher losses of B_2O_3.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

1/2 009 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--SYNTHESIS OF 4,ARYLVALERIC ACIDS, 5,ARYLHEXANOLS, AND SOME OF THEIR HALO DERIVATIVES -U-

AUTHOR-(03)-LAGIDZE, D.R., SANIKIDZE, N.S., MALATSIDZE, YU.L.

COUNTRY OF INFO--USSR

SOURCE--SOOBSHCH. AKAD. NAUK GRUZ. SSR 1970, 57(2), 333-6

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--GRIGNARD REAGENT, HEXANOL, BROMINATED ORGANIC COMPOUND, CHLORINATED ORGANIC COMPOUND, BENZENE DERIVATIVE, CHEMICAL SYNTHESIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3002/1223 STEP NO--UR/0251/70/057/002/0333/0336

CIRC ACCESSION NO--AP0128641

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

2/2 009 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0128641

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE PREPNS. OF ARCHMECH SUB2 CH SUB2 CO SUB2 H (I), ARCHMECH SUB2 CH SUB2 COCL (II), ARCHME(CH SUB2) SUB4 OH (III), AND ARCHME(CH SUB2) SUB4 BR (IV) STARTING WITH ARCHMECH SUB2 CH SUB2 BR (V) ARE DESCRIBED. SOLID CO SUB2 WAS ADDED TO A GRIGNARD REAGENT PREPD. FROM MG AND V (AR EQUALS PH) (VI) IN ET SUB2 O WITH COOLING UNTIL A THICK MASS WAS OBTAINED, A MIXT. OF CONCD. HCL AND H SUB2 O ADDED GRADUALLY WITH COOLING, AND THE PRODUCT WORKED UP IN THE USUAL MANNER TO GIVE I(AR EQUALS PH) AS SHOWN IN THE TABLE SHOWN ON MICROFICHE (THE OTHER I WERE PREPD. SIMILARLY). I AND DRY SOCL SUB2 (AT A M RATIO OF 1:1.5) HEATED IN DRY REFLUXING C SUB6 H SUB6 FOR 4-5 HR GAVE THE CORRESPONDING II. A SOLN. OF ETHYLENE OXIDE AND ABS. ET SUB2 O WAS ADDED DROPWISE TO A GRIGNARD REAGENT PREPT. FROM MG AND VI IN ABS. ET SUB2 O WITH COOLING AND STIRRING, THE MIXT. BOILED MILDLY FOR 1-1.5 HR, COOLED, AND WORKED UP TO GIVE III (R EQUALS PH) (VII) AS GIVEN IN THE TABLE. A MIXT. OF VII, 40PERCENT AQ. HBR, AND CONCD. H SUB2 SO SUB4 WAS HEATED AT 120-40DEGRESS FOR 10-12 HR AND DILD. WITH H SUB2 O, THE OILY LAYER FORMED EXTD. WITH ET SUB2 O, DRIED, EVAPD., AND THE RESIDUE TREATED WITH CONCD. H SUB2 SO SUB4 TO REMOVE IMPURITIES, WASHED WITH WATER UNTIL NEUTRAL, DRIED OVER CACL SUB2, AND DISTD. IN VACUO TO GIVE IV (AR EQUALS PH) AS GIVEN IN THE TABLE.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

UDC: 621.791.793

SEMENOV, V. M., All-Union Scientific Research, Planning and Design Institute of Hoisting and Conveying Machinery, Loading, Unloading and Warehouse Equipment and Containers, Kramatorsk, and YEREGIN, L. P., and MALAY, A. YE., New Kramatorsk Machinery Plant imeni V. I. Lenin

"Deformations During the Electro-Slag Welding of Alloyed Grades of Steel"

Kiev, Avtomaticheskaya Svarka, No 10, Oct 73, pp 52-54

Abstract: The authors study the nature and the magnitude of the shift in edges which are to be joined in conjunction with the necessity for the electro-slag welding of large products made from the 20KhNMF, 25Kh2GMT, and 20Kh2MA high-strength grades of steel. For comparison, the authors studied deformations during the electro-slag welding of dimensionally analogous parts made from the 25GS grade steel. Marks were made along the seams and measured for changes before, during and after welding. The results show that the magnitude and the nature of the shifting of the edges are diverse during the electro-slag welding of annular and straight seams. The results provided correction factors for the errection clearances between the parts to be welded. These data may also be useful in developing the technology for the electro-slag welding of other parts. The existing data have made it possible to weld a large hydraulic press and a hammer.

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USSR

UDC 621.791.755:621.785

BRAUN, M. P., ABRAMOVA, B. P., VINOKUR, B. D., MATANSON, M. A., IVANOVA, R. N., KHIL'CHEVSKAYA, T. V., and MALAY, A. Ye., Institute of Casting Problems, Academy of Sciences UkrSSR

"Seam Zone Phase Composition of Complex Alloyed Steel"

Kiev, Avtomaticheskaya Svarka, No 10, Oct 70, pp 1-5

Abstract: A description is given of experiments performed to clarify the nature of the processes responsible for the embrittlement of the material near a welding seam. These experiments involved quantitative chemical analysis of the carbide deposit precipitated after welding, as well as other products of thermal treatment. Specimens 10 mm in diameter and 100 mm in length were dissolved in the course of an hour in an electrolyte made up of 50 g of glucose and 100 g of ammonium chloride in 800 ml of water. The current density for the electrolysis was 0.03 a/cm^2. The composition of the precipitate was determined by x-ray diffraction with direct photography in cobalt or chromium radiation, checked by the microdiffraction method, and subjected to chemical analysis. For the detection of titanium carbide, the precipitate was boiled in a 0.05% solution of hydrochloric acid for five hours. Other details are given. It is concluded that the titanium and molybdenum carbides are not responsible for the embrittlement of the steel.

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Surgery

USSR

MALAYEV, A., Scientific Associate, Candidate of Medical Sciences Moscow Scientific Research Institute of Eye Diseases imeni Gelmgolts

"Hand in Hand With Cybernetics"

Tbilisi, Zarya Vostoka, 1 Sep 70, p 4

Translation: The development of modern medicine is inextricably involved with the achievements of technology. Technology has revealed new ways and possibilities of treating various diseases, in particular eye diseases. The complexity and small size of the human eye make it especially difficult to diagnose and treat diseases of this organ.

The operating field of the eye surgeon is extremely small, and microscopes must therefore be used for many operations. The success of surgical operations depends to a great extent on the technical quality of the instruments, as well as on the efficiency of illuminating inaccessible sections of microscopic size. In recent years the so-called light guide has been used in many areas of technology. These tubes make it possible to transmit illumination from a light source of any capacity over considerable distances. The diameter of the tube can vary from several millimeters to several centimeters and more. The eye

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USSR

MALAYEV, A., Zarya Vostoka, 1 Sep 70, p 4

surgeon's work area is best illuminated by a light tube.

The Division for the Study of Eye Injuries at the Moscow Scientific Research Institute of Eye Diseases imeni Gelmgolts has been cooperating with the Institute of Cybernetics at the Academy of Sciences Georgian SSR since 1968. Khanzerifa Il'inichna Gaprindashvili, the manager of one of the divisions of this Institute and a Candidate of Technical Sciences, has helped doctors solve a number of problems. Having learned about the needs of eye surgeons, she has very actively participated in the development of special surgical instruments using light guides. This work was based on not only the problem of illumination but also on the transmission of magnified images of various objects.

As an example we will mention several instruments using fiberglas. When a foreign body enters the eye, great difficulties arise because of the impossibility of locally illuminating the area where the fragment is located. After making an incision, the surgeon removes the fragment with the help of tweezers, almost by feel, because of insufficient illumination of the work area. The special tweezers that we have designed have a light guide mounted on them and

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USSR

MALAYEV, A., Zarya Vostoka, 1 Sep 70, p 4

These examples of the use of fiber optics in eye surgery are evidence of the importance of the problems being studied. Staff members at the Institute of Cybernetics of the Academy of Sciences Geprgian SSR are giving the nation's eye surgeons invaluable help. We now have unique instruments manufactured by Institute workers with great skill and technical perfection.

The cooperation between Moscow eye surgeons and Georgian scientists has been very fruitful.

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USSR

MALAYEV, A., Zarya Vostoka, 1 Sep 70, p 4

directly illuminate the area where the fragment is located and thus permit it to be clearly seen. A similarly small light guide mounted on the scalpel permits local, intensive illumination of the incision and eliminates the instrument's shadow.

Ophthalmology also makes use of the diaphanoscope, an instrument which illuminates the eyeball in order to locate accurately fragments in the eye and to diagnose cataracts and certain other diseases. Existing diaphanoscopes have insufficient light. In addition, it is not possible to use powerful lamps here, since they emit large amounts of heat energy capable of damaging delicate eye tissue. The use of a special diaphanoscope with a light guide makes it possible to transmit illumination from powerful lamps located a considerable distance from the surgeon's working area.

The so-called "phacon" is used to transmit images. It is also made of fiberglas, which enables one to see magnified images of inaccessible areas of the eye and facilitates diagnosis during the operation.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

1/2 022 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--CYBERNETICS IN MEDICINE -U-

AUTHOR--MALAYEV, A.

COUNTRY OF INFO--USSR

SOURCE--ZARYA VOSTOKA, SEPTEMBER 1, 1970, P 4, COLS 1-4

DATE PUBLISHED--01SEP70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--CYBERNETICS, MEDICINE, EYE DISEASE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3008/1627 STEP NO--UR/9029/70/000/000/0004/0004

CIRC ACCESSION NO--AN0138603

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

2/2 022 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AN0138603

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE RESEARCH DEPARTMENT OF THE OPHTHALMOLOGICAL TRAUMA OF THE MOSCOW SCIENTIFIC RESEARCH INSTITUTE OF EYE DISEASES HAS BEEN COLLABORATING SINCE 1968 WITH THE INSTITUTE OF CYBERNETICS OF THE GEORGIAN ACADEMY OF SCIENCES IN DEVELOPING SPECIAL SURGICAL INSTRUMENTS THAT MAKE USE OF LIGHT GUIDES. CANDIDATE OF TECHNICAL SCIENCES KHANZERIFA IL'INICHNA GAPRINDASHVILI, DEPARTMENT HEAD OF THE INSTITUTE, CONTRIBUTES GREATLY TO THE SUCCESS OF THIS PROJECT. AMONG SURGICAL INSTRUMENTS DESIGNED JOINTLY BY THE TWO ORGANIZATIONS ARE TWEEZERS, A DIAPHANOSCOPE, AND THE SO CALLED "FACON", WHICH PRODUCES THE MAGNIFIED IMAGES OF EYE AREAS THAT ARE DIFFICULT TO REACH.

FACILITY: MOSCOW SCIENTIFIC RESEARCH INSTITUTE OF EYE DISEASES IMENI GEL'MGOL'TS.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

1/2 045 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--EFFECT OF DIFFRACTION AT THE EDGES OF THE FOCUSING LENS ON THE ANGULAR DISTRIBUTION OF LASER RADIATION -U-

AUTHOR--MALAYEV, V.V.

M

COUNTRY OF INFO--USSR

SOURCE--MALAYEV, V. V.

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--LASER RADIATION, LIGHT DIFFRACTION, OPTIC LENS, RADIATION INTENSITY, ANGULAR DISTRIBUTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1996/1509 STEP NO--UR/0051/70/028/000/0588/0590

CIRC ACCESSION NO--AP0118496

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

2/2 045 UNCLASSIFIED

CIRC ACCESSION NO--AP0118496 PROCESSING DATE--30OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. STUDY OF THE REDISTRIBUTION OF LASER POWER OCCURING AS A RESULT OF DIFFRACTION AT THE EDGES OF FOCUSING LENSES OF SMALL SIZE. A SERIES OF FORMULAS IS DERIVED FOR SOLVING THIS PROBLEM, AND THE FIELD DISTRIBUTION FOR THE ZERO MODE IS CONSIDERED AS AN EXAMPLE.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

MAL'CHENKO, T. M.

UDC 532.78

INVESTIGATION OF DIRECTED CRYSTALLIZATION OF EUTECTIC ALLOYS

[Article by O.I. Fomichev, D.G. Borshchovskaya, T.M. Mal'chenko, Dnepropetrovsk State University, Department of Experimental Physics; Ordzhonikidze, Izvestiya VUZ: Tsvetnaya Metallurgiya, Russian, No 6, 1971, signed to press 8 February 1971, pp 130-132]

Many investigators are concerned with studying the rules governing the formation of regular structures during directed crystallization of eutectic alloys [1-6]. This is because materials with an ordered filamentary (laminar) structure possess anisotropic structure-sensitive properties and are finding wide-spread usage in various branches of contemporary technology. We know the following to be the basic conditions which permit obtaining a stable directed structure [2, 3, 5]: high purity of the original components, high temperature gradient in the liquid at the interface of the liquid and solid phases and a low crystallization rate. Nevertheless there are alloys which can not be directionally crystallized even with strict satisfaction of the above conditions [7-9]. Apparently there are factors that are as yet unknown which determine the formation of directed structures.

If we pay attention to the crystallographic orientation of the eutectic phases [2], we can then state that their conjunction is near the densest packing, which must give minimal fractures at the boundary of the contact and minimal increase in the total free energy of the two-phase aggregate. Consequently we can predict the possible crystallographic planes of conjunction and their number for both phases. Then to obtain a directed structure it is necessary that the number of possible planes of conjunction be minimal. In such case after nucleation of the eutectic column, the growth will take place only in one direction since the others are energetically unjustified.

Similar conjunctions obviously are possible in systems which are formed either by strongly differing crystallographic phases or by highly symmetrical phases or by phases with a hexagonal structure.

In the present paper we investigated the possibility of obtaining a directed eutectic structure in the systems Pb-Sn, Bi-Cd, Cd-Zn, and Bi-Sn. The directional hardening of alloys was done by the methods of

JPRS 55880
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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

MAL'CHENKO, T. M.

JPRS 55880
11 May '72

UDC 533.78

INVESTIGATION OF DIRECTED CRYSTALLIZATION OF EUTECTIC ALLOYS

[Article by Q.I. Fomichev, Q.C. Borshchevskaya, T.M. Mal'chenko, Dnepropetrovsk State University, Department of ~~Experimental Physics~~ Ordzhonikidze, Izvestiya VUZ: Tsvetnaya Metallurgiya, Russian, No 6, 1971, signed to press 8 February 1971, pp 130-132]

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

1/2 017 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--METHOD OF ALLOYING STEEL -U-

AUTHOR-(05)-SHUSHLEBIN, G.A., KOZLOV, N.P., ALYMOV, A.A., PALCHENKO, T.V., KNYAZEV, V.N.

COUNTRY OF INFO--USSR

SOURCE--U.S.S.R. 263,634
REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRAZTSY, TOVARNYE ZNAKI 1970,
DATE PUBLISHED--10FEB70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--CHEMICAL PATENT, CRYOLITE, FLUORITE, ALLOY STEEL, ZIRCONIUM STEEL, STEEL MANUFACTURE PROCESS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3004/1822 STEP NO--UR/0482/70/000/000/0000/0000

CIRC ACCESSION NO--AA0132087

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

2/2 017 UNCLASSIFIED

CIRC ACCESSION NO--AA0132087 PROCESSING DATE--20NOV70

ABSTRACT/EXTRACT--(U) CP-0- ABSTRACT. STEEL IS ALLOYED ZR BY INTRODUCING A ZR CONTG. ALLOY WITH PARTICLE DIMENSIONS SMALLER THAN OR EQUAL TO 20 MM SMALLER THAN OR EQUAL TO 1PERCENT ON THE LIQ. STEEL WT. AND A MIXT. CONTG. 3 PARTS CRYOLITE TO 1 PART FLUORITE LARGER THAN OR EQUAL TO 0.1PERCENT ON THE LIQ. STEEL WT. INTO THE MOLD. FACILITY: TSENTRAL'NYY NAUCHNO-ISSLEDOVATEL'SKIY INSTITUT CHERNOY METALLURGII IM. I. P. BARDINA.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR UDC 620.193.5

MIGAY, L. L., KOZLOVA, N. N., LYAPUNOV, A. I., MAL'CHEVSKIY, YE. G., BEKETOV, B. I., State Scientific Institute of the Rare Metal Industry

"Oxidation of Heat-Resistant Steels and Alloys"

Moscow, Zashchita Metallov, Vol 8, No 6, 1972, pp 722-723

Abstract: A study was made of the oxidation rate of several standard and experimental steels and alloys in a current of technical oxygen and in a calm air atmosphere at 1000°. Sheet specimens 2 mm thick were used to determine the oxidation resistance by the increase in mass after oxidation and its loss after removal of the scale.

The difference in oxidation resistance of the investigated materials in a calm air atmosphere is not so great as in technical oxygen. The Kh25N20S2 chromium-nickel steel alloyed with silicon is the least oxidation resistant, and materials alloyed with aluminum were the most oxidation resistant. Analogous results were obtained during prolonged experiments in the air for 5000-10,000 hours [N. N. Kozlova, et al., Struktura i svoystva zharoprochnykh metallicheskikh materialov, Moscow, Nauka, 306, 1967]. The OKh13S2Yu2BT (EP 676) steel without nickel and KhN45Yu (EP 747) alloys sparingly alloyed with nickel had the greatest oxidation resistance in oxygen and air.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

UDC 620.793.27

MIGAY, L. L., MAL'CHEVSKIY, Ye. G., ARONS, V. I., DRUZHININA, I. P., and VOROB'YEVA, L. P., State Scientific Research and Planning Institute of Rare Metals Industry

"Corrosion Resistance of Vanadium and Its Titanium Alloys in a 3% NaCl Solution"

Moscow, Zashchita Metallov, Vol 7, No 6, Nov-Dec 71, pp 699-700

Abstract: The corrosion resistance and mechanical properties of Va alloyed with 5-20% Ti were investigated. Ingots weighing 10-12 kg, smelted in an electric furnace, were forged and rolled to 2 mm- and 0.3-mm-thick sheets. An increased Ti-content increased the corrosion resistance in a naturally aerated solution. The corrosion rate of the alloy with 5 % Ti is considerably lower than 0.001 mm/year, which is the standard limit of ideal corrosion resistance of metals. Electrochemical investigations carried out in a naturally aerated 3 % HCl-solution revealed that Va and its alloys with Ti are not passivated at potentials of 0.05 —0.7 v relative to a normal hydrogen electrode, but with increasing Ti-content a decrease of the anodic current takes place. According to measurements of stationary electrode potentials, a refining of potentials of Va and its alloys takes place in time. One illustr., one table.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

1/2 011 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--X RAY DIFFRACTION STUDY OF SOME TRANS DIHALOTETRA AMMINOPLATINUM SALTS -U-

AUTHOR-(03)-MIRONOV, YU.I., BAKAKIN, V.V., MALCHIKOV, G.D.

COUNTRY OF INFO--USSR

SOURCE--ZH. STRUKT. KHIM. 1970, 11(1), 161-4

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--X RAY DIFFRACTION STUDY, PLATINUM COMPLEX, HALOGENATED ORGANIC COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1987/0446 STEP NO--UR/0192/70/011/001/0161/0164

CIRC ACCESSION NO--AP0104059

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

2/2 011 UNCLASSIFIED PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0104059

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE COMPDS.: (PT(NH SUB3) SUB4 CL SUB2) CL SUB2 (I), (PT(NH SUB3) SUB4) BR SUB2) BR SUB2 (II), (PT(NH SUB3) SUB4 I SUB2) I SUB2 (III), (PT(NH SUB3) SUB4 CL SUB2) (NO SUB3) SUB2 (IV), (PT(NH SUB3) SUB4 BR SUB2) (NO SUB3) SUB2 (V), AND (PT(NH SUB3) SUB4 I SUB2) (NO SUB3) SUB2 (VI) WERE EXAMD. BY THE POWDER METHOD BY USING DIFFRACTOMETER AND CU KALPHA RADIATION. THE COMPLEXES I AND II AND IV AND V ARE ISOTYPIC, RESP. THE FOLLOWING DATA WERE DETD. (SPACE GROUP, LATTICE PARAMETERS, ZETA): I, IOTA4-MMM, A EQUALS 7.455, C EQUALS 7.997 ANGSTROMS, 2; II, IOTA4-MMM, A EQUALS 7.698, C EQUALS 8.288 ANGSTROMS, 2; IV, MINUS, A EQUALS 8.57, B EQUALS 7.05, C EQUALS 6.50 ANGSTROMS, ALPHA EQUALS 114DEGREES 16MINUTES, BETA EQUALS 110DEGREES 05MINUTES, GAMMA EQUALS 111DEGREES 48MINUTES, 1; V, MINUS, A EQUALS 8.62, B EQUALS 6.92, C EQUALS 6.69 ANGSTROMS, ALPHA EQUALS 114DEGREES 36MINUTES, BETA EQUALS 111DEGREES 22MINUTES, GAMMA EQUALS 109DEGREES 40MINUTES, 1. TADEUSZ J. BARTCZAK.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

1/2 029 UNCLASSIFIED PROCESSING DATE--27NOV70

TITLE--EFFECT OF ADENINE NUCLEOTIDES OF THE ELECTRICAL AND MECHANICAL ACTIVITY OF TAENIA COLI OF THE GUINEA PIG AND OF THE CIRCULAR MUSCLE OF

AUTHOR-(02)-POSKONOVA, M.A., MALCHIKOVA, L.S.

COUNTRY OF INFO--USSR

SOURCE--DOKL. AKAD. NAUK SSSR 1970, 190(6), 1494-7

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--CESTODA, ANIMAL PARASITE, ADENINE, NUCLEOTIDE, GUINEA PIG, FROG, DIGESTIVE SYSTEM, MUSCLE PHYSIOLOGY, ELECTROPHYSIOLOGY, PHOSPHATE, ADENOSINE TRIPHOSPHATE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3002/1600 STEP NO--UR/0020/70/190/006/1494/1497

CIRC ACCESSION NO--AT0128990

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

2/2 029 UNCLASSIFIED PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AT0128990

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. INORG. PHOSPHATE (15MM), ATP, ADP, AND AMP INHIBITED ACTION POTENTIAL GENERATION AND CAUSED HYPERPOLARIZATION FO GUINEA PIG TAENIA COLI AND FROG STOMACH CIRCULAR MUSCLE, RESULTING IN A LOSS OF ELEC. AND MECH. ACTIVITY. THE STRONGEST EFFECT WAS CAUSED BY INORG. PHOSPHATE AND ATP, AND THE WEAKEST BY AMP AND ADENINE. APPARENTLY THE PHOSPHATE CONTENT OF THE NUCLEOTIDES IS CRIT. THE DEPOLARIZING EFFECT OF ACETYLCHOLINE WAS REDUCED BUT NOT ELIMINATED BY THESE COMPDS. FACILITY: MOSK. GOS. UNIV. IM. LOMONOSOVA, MOSCOW, USSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

1/2 047 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--THERMAL SELF FOCUSSING OF RADIATION FROM A FREE RUNNING LASER IN KDP AND ADP CRYSTALS -U-

AUTHOR-(03)-ZVERYEV, G.N., LEVCHUK, YE.A., MALDUTIS, E.K.

COUNTRY OF INFO--USSR

SOURCE--ZHURNAL EKSPERIMENTAL'NOY I TEORETICHESKOY FIZIKI, 1970, VOL 58, NR 5, PP 1487-1490

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--LASER SELF FOCUSING EFFECT, LASER BEAM, ANISOTROPY, Q SWITCHED PULSE LASER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3002/0018 STEP NO--UR/0056/70/058/005/1487/1490

CIRC ACCESSION NO--AP0127668

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

2/2 047 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0127668

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SELF FOCUSSING FILAMENTS PRODUCED IN KDP AND ADP CRYSTALS BY THE RADIATION FROM A FREE RUNNING LASER ARE REPORTED. SELF FOCUSSING IS THE RESULT OF HEATING OF THE MATERIAL BY THE LASER BEAM. FILAMENTARY DEFECTS ARE PRODUCED ONLY UNDER THE ACTION OF E POLARIZED LIGHT ON THE SAMPLE. SELF FOCUSSING ANISOTROPY IS EVIDENTLY DUE TO ANISOTROPY OF DN-DT. THE POSSIBILITY OF OBSERVING THERMAL SELF FOCUSSING IN KDP AND ADP MATERIALS WITH A TABULAR VALUE DN-DT SMALLER THAN 0 IS ASCRIBED TO NONUNIFORM PULSED HEATING. IN CONTRAST WITH FREE RUNNING OPERATION CONDITIONS, SELF FOCUSSING OF A Q SWITCHED LASER RADIATION IS OF A STRICTIONAL NATURE.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

1/2 040 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--THERMAL SELF FOCUSSING OF LASER RADIATION IN SUBSTANCES WITH NEGATIVE DN,DT -U-

AUTHOR-(04)-ZVEREV, G.M., LEVCHUK, YE.A., MALDUTIS, E.K., PASHKOV, V.A.

COUNTRY OF INFO--USSR

SOURCE--PIS'MA, ZH. EKSP. TEOR, FIZ, 1970, 11(3), 117-81

DATE PUBLISHED-------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--LASER PULSE, LASER SELF FOCUSING EFFECT, THERMAL EFFECT, DIELECTRIC MATERIAL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1987/0150 STEP NO--UR/0386/70/011/003/0177/0181

CIRC ACCESSION NO--AP0103829

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

2/2 040 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0103829

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IT WAS SHOWN THEORETICALLY THAT IN SOLID BODIES WITH DN,DT SMALLER THAN 0 THERMAL SELF FOCUSSING IS POSSIBLE FOR LASER PULSES OF ANY DURATION. THIS WAS CONFIRMED EXPTL. WITH DIELECS., 20 TIMES 20 CM, HEATED WITH AN ND LASER, BEAM DIAM 1.5 MM.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

UNCLASSIFIED

TITLE--STATISTICAL ANALYSIS OF SPIN DEPENDENCE OF NEUTRON STRENGTH FUNCTIONS FOR NUCLEI -U-

PROCESSING DATE--09OCT70

AUTHOR-(04)-MALECKI, H., PIKELNER, L.B., SALAMATIN, I.M., SHARAPOV, E.I.

COUNTRY OF INFO--USSR

SOURCE--YAD. FIZ. 1970, 11(1), 111-21

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--STATISTIC ANALYSIS, NUCLEAR SPIN, NEUTRON, NUCLEUS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1976/0426

STEP NO--UR/0367/70/011/001/0111/0121

CIRC ACCESSION NO--AP0042462

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

2/2 009 UNCLASSIFIED PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0042462

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A SIMPLE ANAL. EXPRESSION IS OBTAINED FOR THE DISTRIBUTION OF THE NEUTRON STRENGTH FUNCTIONS OF NUCLEI. BY USING THIS EXPRESSION AS THE BASIS, THE DISTRIBUTION OF DIFFERENCE OF THE STRENGTH FUNCTIONS FOR 2 SPIN STATES IS OBTAINED. A STATISTICAL ANAL. FOR 28 NUCLEI SHOWED THAT THE EXPTL. OBSD. DIFFERENCES OF THE STRENGTH FUNCTIONS FOR VARIOUS SPIN SYSTEMS ARE MAINLY DETD. BY THE STATISTICAL FLUCTUATIONS OF THE N WIDTHS. THE EXPTL. DATA WERE EVALUATED STATISTICALLY FOR ALL THE NUCLEI OF KNOWN STRENGTH FUNCTION S(J). IT IS CONCLUDED THAT THERE IS NO BASIS FOR ASSUMING THE EXISTENCE OF A GENERAL AND ESSENTIAL RELATION BETWEEN THE STRENGTH AND THE SPIN FOR MOST OF THE NUCLEI. FACILITY: OB'EDIN. INS. YAD. ISSLED., USSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR UDC:215.5+662.23

DUBOVIK, A. V., BOBOLEV, V. K., MALEGA, N. S., Moscow

"Influence of Configuration of Gas-Filled Cavities in Nitroglycerine Charges on its Shock Sensitivity"

Novosibirsk, Fizika Goreniya i Vzryva, No 3, 1971, pp 412-418.

Abstract: Recent works have presented detailed studies of the mechanism of excitation of an explosion, considering the sensitizing role of gas inclusions for shock initiation of liquid explosives. The primary role in the initiation of the explosion, according to the mechanism suggested in these studies, is that of the effects accompanying the interaction of accumulative stream of fluid with the wall of a collapsing cavity. It was demonstrated that if the parameters of collapse and the state of the gas in the cavity satisfy a number of necessary conditions, the rate of collision of the stream with the cavity for nitroglycerine required for excitation of the explosion is over 100 m/sec. This article presents a study of the collapse of gas-filled cavities of the simplest elliptical shape. When an elliptical cavity collapses, due to the presence of sectors with various degrees of curvature, the conditions of excitation of the stream are more favorable than in the cylindrical case. The sensitivity of the

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR UDC: 215.5+662.23

DUBOVIK, A. V., BOBOLEV, V. K., MALEGA, N. S., Novosibirsk, Fizika Goreniya i Vzryva, No 3, 1971, pp 412-418.

nitroglycerine is determined as a function of the type of gas filling the cavity, placement of the cavity beneath impact hammer and the shape of the cavity.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR UDC 547.21'11

MALEKIN, S. I., SOKAL'SKIY, M. A., KRUGLYAK, Yu. L., and MARTYNOV, I. V.

"Phosphorylated Oximes. X. Reaction of 2-Alkoxy-1,3,2-azaoxaphospholans With α-Chloronitrosoalkanes"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(103), No 2, Feb 72, pp 302-305

Abstract: Dichlorofluoronitrosomethane reacts with 2-alkoxy-1-methyl-1,-3,2-azaoxaphospholans in an Allen type reaction. Depending on the structure of the initial phospholan, the carbon-oxygen bond in the alkoxyl radical is broken, or the bond is broken in the azaoxaphospholan ring. Analysis of the general pattern of the reaction shows that the carbon-oxygen bond in the alkoxyl radical breaks with increasing ease as the number of atoms of carbon in the radical decreases. Since there is only a slight difference in the reactivity of the carbon-oxygen bonds in the alkoxyl radical and the azaoxaphospholan ring, both types of reactions take place simultaneously in some instances.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

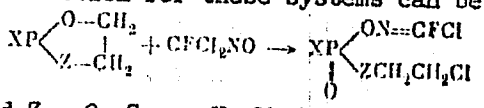
UDC 547.26'118

KRUGLYAK, YU. L., MALEKIN, S. I., and MARTYNOV, I. V.

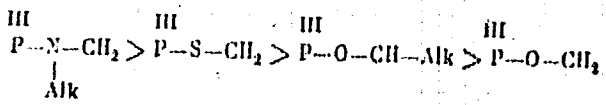
"Phosphorylated Oximes: XII. Reaction of 2-Halophospholanes With Dichlorofluoronitrosomethane"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), Vyp 4, 1972, pp 811-814

Abstract: The general reaction for these systems can be written as



where X = Cl⁻ or F⁻ and Z = O, S, or N-alkyl. The reaction goes with the phospholane ring breaking at the C-O bond; the P-N-C and P-S-C bonds do not break. This leads to an order of decreasing stability.



Physical properties, IR and elemental analysis data are given for the nine particular compounds studied.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

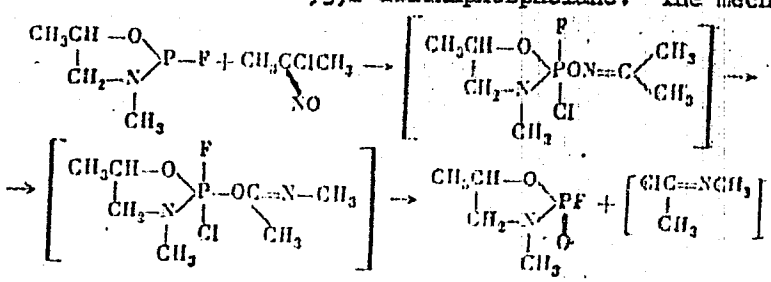
UDC 547.26'118

MALEKIN, S. I., KRUGLYAK, YU. L., MARTYNOV, I. V., and NEGREBETSKIY, V. V.

"Phosphorylated Oximes. XIII. Reaction of Fluorophospholanes With α-Monochloronitrosoalkanes. The Beckman Rearrangement"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), Vyp 4, 1972, pp 814-816

Abstract: The reaction of the penta-coordinate phosphorous compound 2-fluoro-1,3,2-azaoxaphospholanes with α-monochloronitrosoalkanes results in the formation of 2-fluoro-2-oxo-1,3,2-azaoxaphospholane. The mechanism is as follows:



The latter reacts with water to give the corresponding amide, $CH_3\overset{O}{\overset{\|}{C}}NHCH_3$.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

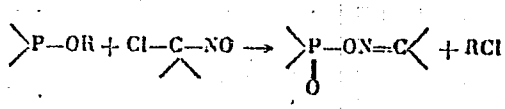
UDC 547.21'118

MALEKIN, S. I., YAKUTIN, V. I., SOKALSKIY, M. A., KRUGLYAK, YU. L., and MARTYNOV, I. V.

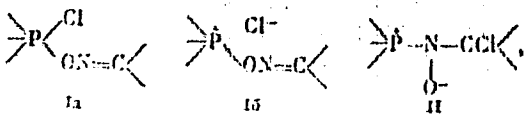
"Information on the Mechanism of the Reaction of α-Chloronitrosoalkanes With Trivalent Phosphorous Compounds"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), Vyp 4, 1972, pp 807-811

Abstract: The general reaction for these systems is:



The intermediate (II) may be obtained via two pathways: either through a species containing a five-coordinate neutral P(Ia) or through one



containing a four-coordinate positive P(Ib). Examination of IR spectra in the

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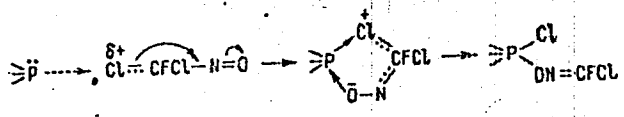
"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

MALEKIN, S. I., et al., Zhurnal Obshchey Khimii, Vol 42(104), Vyp 4, 1972, pp 807-811

region of C=N and N=O vibrations and of the NMR spectra of P^{31} and F^{19}, the pathway through Ia was confirmed. Thus the nucleophilic attack by the trivalent phosphorous on the positively charged chlorine atom of the dichlorofluoronitrosomethane probably occurs with a cooperative transfer of an electron to the oxygen of the nitrosyl group breaking the Cl-C bond as shown below:



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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

UNCLASSIFIED PROCESSING DATE--30OCT70

1/2 016

TITLE--QUANTITATIVE DISTRIBUTION OF RADIOACTIVE AND NONRADIOACTIVE IODINE IN THE THYROID GLAND -U-

AUTHOR--MALENCHENKO, A.F.

M

COUNTRY OF INFO--USSR

SOURCE--VESTSI AKAD. NAVUK BELARUS. SSR, SER. BIYAL. NAVUK 1970, (1), 119-21

DATE PUBLISHED----------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--RADIOACTIVITY, IODINE, THYROID GLAND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

STEP NO--UR/0440/70/000/001/0119/0121

PROXY REEL/FRAME--3001/1187

CIRC ACCESSION NO--AP0126789

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

2/2 016 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0126789

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE DISTRIBUTION FO PRIME131 I AND I IN PARALLEL CUTTINGS OF THE RAT THYROID GLAD WAS DETO. PRIME131 I IS MAINLY FOUND IN THE COLLOID; I IS EQUALLY DISTRIBUTED. FACILITY: INST. YAD. ENERG., MINSK, USSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

1/2 018 UNCLASSIFIED PROCESSING DATE--27NOV70

TITLE--LEVEL OF STABLE IODINE IN NORMAL AND GOITER DEGENERATED THYROID GLANDS AND ITS INFLUENCE ON THE ACCUMULATION OF RADIOACTIVE IODINE 131

AUTHOR--MALENCHENKO, A.F.

M

COUNTRY OF INFO--USSR

SOURCE--VESTSI AKAD. NAVUK BELARUS. SSSR, SER. BIYAL. NAVUK 1970, (2), 119-21

DATE PUBLISHED--------70

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

TOPIC TAGS--THYROID GLAND, RADIOACTIVE ISOTOPE, IODINE ISOTOPE, GOITER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3007/0227 STEP NO--UR/0440/70/000/002/0119/0121

CIRC ACCESSION NO--AP0135723

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

2/2 018 UNCLASSIFIED PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0135723

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE I CONTENT IN NORMAL AND GOITER DEGENERATED THYROID GLANDS WAS STUDIED CLIN. AND HISTOL., AND THE EFFECT OF THE I CONCN. IN THE GLAND ON ITS I ABSORBING CAPACITY WAS DETD. THERE WAS AN INVERSE CORRELATION BETWEEN THE STABLE I CONTENT IN THE THYROID AND THE ACCUMULATION OF PRIME131 I. FACILITY: INST. YAD. ENERG., MINSK, USSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

AP0040888

REF. Code UR0:032

PRIMARY SOURCE: Avtomatika i Telemekhanika, 1970, Nr 1, pp 105-11

CONSTRUCTION OF AUTO-OSCILLATORY ADAPTIVE SYSTEM WITH VARIABLE STRUCTURE

A. D. ALEKSANDROV, L. S. VALKOV, M. G. GAVRILIN, L. YA. MALEN'KIY, N. V. SABUROV, V. S. KHABAROV

One of the methods of constructing an adaptive system of control in the class of systems with variable structure is considered. There is suggested a method of the synthesis of the algorithm of the re-adjustment of the adapting device for an autooscillatory system, the re-adjustment based on the application of the method of harmonic linearization. The results of the theory are illustrated with examples.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

1/2 018 UNCLASSIFIED PROCESSING DATE--30UC170

TITLE--DESTRUCTION AND RECONSTRUCTION OF THE MECHANICAL STABILITY OF CONTACTS BETWEEN PARENCHYMAL LIVER CELLS OF MICE -U-

AUTHOR-(02)-MALENKOV, A.G., MODYANOVA, YE.A.

M

COUNTRY OF INFO--USSR

SOURCE--TWITOLOGIYA 1970, 12(3), 392-5

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--MOUSE, LIVER, ARTERY, DIALYSIS, CELL PHYSIOLOGY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3002/0415 STEP NO--UR/9053/70/012/003/0392/0395

CIRC ACCESSION NO--AP0127986

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

2/2 018 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0127986

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. MICE WERE DECAPITATED AND A LIGATURE WAS MADE IN THE HEPATIC ARTERY. THE LIVER WAS PERFUSED THROUGH THE PORTAL VEIN AT 20DEGREES WITH A SOLN. CONTG. 9 G NACL-1., 0.4 G KCL-1., AND 2 TIMES 10 PRIME NEGATIVE3 M MGCL SUB2. THE EFFUENT SOLN. WAS COLLECTED 15-20 MIN AFTER PERFUSION. THE PERFUSATE CONTAINED A MACROMOL. COMPONENT (MOL. WT. IS GREATER THAN30,000) RESPONSIBLE FOR THE RESTORATION OF CELL COUPLING. WHEN 2 TIMES 10 PRIME NEGATIVE2 M CA PRIME POSITIVE POSITIVE WAS ADDED TO THE 10 FOLD CONCD. PERFUSATE, THE COUPLING STABILITY OF PARENCHYMAL CELLS WAS RESTORED TO 50-60PERCENT. CA PRIME POSITIVE POSITIVE ALONE WAS UNABLE TO PRODUCE RESTORATION. IF A DIALYSIS MEMBRANE WAS USED, NO CELL RESTORATION OCCURRED. THE RESTORING FACTOR IN THE PERFUSATE IS PROBABLY AN INTERCELLULAR CEMENTING SUBSTANCE. FACILITY: DEP. STUDIES CARCINOGENIC AGENTS, INST. EXP. CLIN. ONCOL., MOSCOW, USSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

UDC 669.716:621.771

USSR

MALENOK, F. T., and CHERNYAK, S. N.

"Improvement in the Production of Thin Rolled Aluminum"

Metallovedeniye Splavov Legkikh Metallov-Sbornik, Moscow, "Nauka", 1970, pp 160-165, resume

Translation: An account is given of the history of the development of rolled foil production at the Leningrad Plant for the Processing of Non-Ferrous Metals imeni K. Ye. Voroshilov. Principal conditions of the technology of foil production are discussed. Achievements of the plant in the development of aluminum casting and rolling during the last ten years are indicated. Two figures, two bibliographic references.

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MEDICAL SERVICE

MALENYUK, B.V.

J-9605

63

UDK 616.5-002.3:613.155
SO: MILITARY MEDICAL JOURNAL
NOV 1970

CONNECTION BETWEEN SUPPURATIVE DISEASES
AND THE MICROFLORA IN THE AIR

I. R. Mirnik, Lieut.-Col., Medical Service
B. V. Malenyuk, Captain, Medical Service

Despite the constant improvement of sanitary-hygienic conditions, suppurative diseases occupy a leading place among other dermatoses afflicting military personnel serving a fixed term of duty.

The principal causes for such purulence are dirty skin; damage to the integrity of the skin cover as a result of microtraumas; defatting and dryness of the skin; skin cracks; lowered resistance of the organism due to overheating, overexposure to cold, prolonged physical fatigue, excessive nervous tension, etc.; diseases of internal organs; the lowering of the immunobiological properties of the skin; hypovitaminosis, etc. (S. T. Pavlov, Yu. Ya. Ashmarin). However, investigations conducted in recent years have also established the possibility of exogenous infection. This is confirmed by clinical observations involving outbreak of suppurative diseases among new-born 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 than copiously covered with staphylococci both in well persons and in those suffering from pyodermatitis.

A. K. Igumnov came to the conclusion that staphylococci acquire highly toxic properties in the nasopharynx, because of the high concentration of carbon dioxide in the air being exhaled, and that, on the contrary, they lose their aggressive characteristics in an atmosphere where there is a great deal of oxygen. (V. S. Lyubinski). This is, apparently, what explains the predominance of saprophytic forms in the human environment: the air, various objects, clothing, and skin surface. On this basis 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 analyzing the incidence of disease in military units, we noted an almost constant 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, pharyngitis, 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, furuncles, 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 microtraumas to be the direct cause of such infections in 10 percent of the cases. I. G. Shchedrin attributed the increased incidence of suppurative diseases among the population during the influenza pandemic of 1957 to a decline in the natural

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USSR UDC 678.06:678 029.5:669:678.742.2]01:53

KALNIN', M. M., KARLIVAN, V. P., METRA, A. YA., SOBOLEVSKIY, CH. A., MALERS, L. YA., DZENIS, M. YA., KRAGIS, I. ZH., and REYKHMANIS, P. K.

"Metalloplastics Based on Modified Polyethylene"

Moscow, Plasticheskiye Massy, No 10, 1972, pp 31-33

Abstract: The technological process of the production of metalloplastics is based on thermal contact [plating] between a pretreated metal base and a film of modified polyethylene. Optimal ranges of the important parameters influencing the properties of metalloplastics are as follows: temperature of thermal contact -- 200-250°C; duration of the contact -- 30-60 sec; filler content -- 8-10 vol-%. The surface of the metal base is cleaned, preheated and passed through a set of rollers where the initial contact with modified polyethylene is made. Final bonding occurs in an induction heating chamber. The material obtained -- the unilateral of bilateral metalloplastic -- shows high anticorrosive properties. It can be processed by several methods such as bending, folding, or die stamping. Surfaces can be joined together by welding or folding and other methods. This material is ideally suited for production of equipment resistant to chemical agents, such as storage or sedimentation tanks. It could be used for production of special pipe lines, ventilation systems, etc. Due to

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USSR

KALNIN', M. M., et al., Plasticheskiye Massy, No 10, 1972, pp 31-33

the ability of producing colored surface coatings, it could also be used in automobile, airplane or ship building industry as well as for construction of furniture or specialized equipment.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

1/2 005 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--SULFUR DIOXIDE BY COMBUSTION OF SULFUR CONTAINING SUBSTANCES IN FLUIDIZED BEDS -U-

AUTHOR--TERNOVSKAYA, A.N., SHPUNT, S.YA., SHVARTSSHTEIN, YA.V., MALETS, A.M., KORENBERG, YA.G.

COUNTRY OF INFO--USSR

SOURCE--GER. 1,467,096

DATE PUBLISHED--26MAR70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--SULFUR OXIDE, FLUIDIZED BED, CHEMICAL PATENT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1989/1863 STEP NO--GY/0000/70/000/000/0000/0000

CIRC ACCESSION NO--AA0108197

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

2/2 005 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AA0108197

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A PROCESS IS DESCRIBED FOR PRODUCING SO SUB2 FROM ELEMENTAL S OR S,CONTG. MATERIALS UTILIZING A DOUBLE FLUIDIZED BED ARRANGEMENT WHEREBY BURNING TAKES PLACE IN THE LOWER BED WITH THE TEMP. REACHING 700-1000DEGREES FOLLOWED BY COOLING OF THE GASES IN THE UPPER BED TO 350-450DEGREES. WHEN S IS USED, THE LOWER BED CONSISTS OF AIR FLUIDIZED INERT MATERIAL (E.G., QUARTZ SAND, CHAMOTTE); WHEN S,CONTG. MATERIAL (E.G., PYRITES) IS USED, THE MATERIAL ITSELF CONSTITUTES THE FLUIDIZED MEDIUM. THE UPPER BED CONSISTS OF HEAT ABSORBING MATERIALS.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

1/2 010 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--STATISTICAL ANALYSIS OF THE SPIN DEPENDENCE OF THE NEUTRON STRENGTH FUNCTION OF THE NUCLEUS -U-

AUTHOR-(04)-MALETSKIY, KH., PIKELNER, L.B., SALAMATIN, I.M., SHAKAPOV, E.I.

COUNTRY OF INFO--USSR

SOURCE--(KFK-TR-308), FROM REPORT JINR-P3-4484, 25P. DEP. CFSTI

DATE PUBLISHED-------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--NUCLEAR SPIN, NEUTRON, NUCLEUS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3001/1913 STEP NO--UR/0000/70/000/000/0001/0025

CIRC ACCESSION NO--AT0127314

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

2/2 010 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AT0127314

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE STATISTICAL PROPERTIES OF THE ESTIMATIONS OF THE STRENGTH FUNCTIONS ARE DERIVED, AND THE DISTRIBUTION OF THE DIFFERENCE OF THE STRENGTH FUNCTION FOR TWO SPIN STATES IS DETERMINED THEORETICALLY. THE THEORETICAL RESULTS ARE COMPARED WITH EXPERIMENTAL DATA FROM THE LITERATURE. THE RESULTS SHOWED THAT THE DIFFERENCE IN THE STRENGTH FUNCTIONS DOES NOT OCCUR IN ALL NUCLEI BUT ONLY IN INDIVIDUAL MASS NUMBER AREAS. WHERE THE STRENGTH FUNCTIONS VARY STRONGLY WITH A, THE CHARACTERISTICS OF THE DIFFERENCES ARE DIFFICULT TO DETERMINE WITHIN THE FRAMEWORK OF THE ANAYSIS MADE, ESPECIALLY AS THERE ARE NO THEORETICAL ASSUMPTION ON THE SIGN AND MAGNITUDE OF THE EFFECT TO EXPECTED. THERE IS NO BASIS FOR THE ASSUMPTION OF AN ESSENTIAL AND COMMON DEPENDENCE OF THE STRENGTH FUNCTION ON THE SPIN. FACILITY: JOINT INST. FOR NUCLEAR REASEARCH, DUBNA, USSR.

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

1/2 016 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--KINETICS OF ELECTRODE PROCESSES IN ELECTROLYTE SOLUTIONS OF VARIABLE COMPOSITION -U-

AUTHOR-(03)-DURDIN, YA.V., KRAVTSOV, V.I., MALEV, V.V.

COUNTRY OF INFO--USSR

SOURCE--VSTN. LENINGRAD. UNIV., FIZ., KHIM. 1970, (4), 80-99

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ELECTRODE REACTION, ELECTROLYTE, MASS TRANSFER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1995/1313 STEP NO--UR/0054/70/000/004/0080/0099

CIRC ACCESSION NO--AP0116773

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

2/2 016 UNCLASSIFIED PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0116773

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THIS EXTENSIVE REVIEW CONCS. ON EFFECTS OF SUPPORTING ELECTROLYTE ON THE RATE OF ELECTRODE REACTION THROUGH AFFECTING MASS TRANSFER IN THE DIFFUSION AND DIFFUSE LAYERS UNDER THE CONDITIONS WHEN A SIMULTANEOUS CHEM. REACTION IN THE FLUID VOL. CAN BE NEGLECTED. IT ALSO DEALS WITH MUTUAL EFFECTS OF THE STATE OF METAL IONS IN THE SOLN. AND THE RATE OF ELECTRODE PROCESS, BY NEGLECTING MIGRATION OF IONS IN THE SOLN., CHANGES IN COMPN. OF THE DOUBLE LAYER, AND CHANGES OF THE ACTIVITY COEFFS.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR UDC: 519.2

IDRISOVA, S., MALEVICH, T. L.

"Some Properties of Random Fields"

Nauch. tr. Tashkent. un-t (Scientific Works. Tashkent University), 1972, vyp. 402, pp 45-57 (from RZh-Kibernetika, No 8, Aug 72, Abstract No 8V122)

Translation: The authors consider m-dimensional fields $x_j(\bar{t}_m) = x_j(t_1, \ldots, t_m)$, $j=\overline{1,m}$ and show that if these fields $x_j(\bar{t}_m)$ have continuous partial derivatives $\frac{\partial x_j}{\partial t_k}$, $j, k=\overline{1,m}$, and at the same time the joint distributions of quantities $x_1(\bar{t}_m), \ldots, x_m(\bar{t}_m)$ at any $\bar{t}_m$ are degenerate, absolutely continuous, and their densities are bounded uniformly with respect to $\bar{t}_m$, then

a) for the number N of points $\bar{t}_m$ of the m-dimensional cube $0 \leqslant t_j \leqslant 1$, $j = \overline{1,m}$, at which the condition

$$x_j(\bar{t}_m) = u_j, \quad u_j = \text{const}, \quad j=\overline{1,m} \qquad (1)$$

is satisfied, the equality $P(N < \infty) = 1$ holds.

b) for the number $\tilde{N}$ of points $\bar{t}_m$ of the cube $0 \leqslant t_j \leqslant 1$,

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

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IDRISOVA, S., MALEVICH, T. L., Nauch. tr. Tashkent. un-t, 1972, vyp. 402, pp 45-57

$j = \overline{1,m}$, at which the condition

$$\Delta(\bar{t}_m) = \det \left\| \left| \frac{\partial x_j}{\partial t_k} \right|_{t_m} \right\|_{j,\, k=\overline{1,m}} = 0$$

is satisfied in addition to condition (1), the equality holds. In addition to the formulated theorem, another theorem of the same type is also proved. O. Orekova.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

1/3 015 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--SYNTHESES BASED ON TETRAMETHYLOLPHOSPHONIUM CHLORIDE. SOME TRANSFORMATIONS OF TRIS(CHLOROMETHYL)PHOSPHINE AND

AUTHOR-(05)-TSVETHKOV, YE.N., BORISOV, G., SIVRIYEV, KH., MALEYANNAYA, R.A., KABACHNIK, M.I.

COUNTRY OF INFO--USSR

SOURCE--ZH. OBSHCH. KHIM. 1970, 40(2) 285-91

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHEMICAL SYNTHESIS, ORGANIC PHOSPHORUS COMPOUND, CHLORINATED ORGANIC COMPOUND, THIOL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1985/1397 STEP NO--UR/0079/70/040/002/0285/0291

CIRC ACCESSION NO--AP0101489

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

UNCLASSIFIED PROCESSING DATE--18SEP70

2/3 015

CIRC ACCESSION NO--AP0101489

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ADDN. OF 350 G (HOCH SUB2) SUB4 PCL TO 1680 G PCL SUB5 IN 2 L. CCL SUB4 AT REFLUX AND HEATING 4 HR GAVE 97PERCENT (CLCH SUB2)SUB4 PCL (I), M. 198 TO 90EGREES. I (200 G) TREATED WITH 60.7 G NAOH IN 300 ML H SUB2 O AT 10 TO 15DEGREES IN 400 ML H SUB2 O TO 400 ML CHCL SUB3 UNTIL ALK. TO PHENOLPHTHALEIN, GAVE 81.5PERCENT (CLCH SUB2) SUB3 P (II), B SUB2 56 TO 7DEGREES, D PRIME20 2.4204, N PRIME20 D 1.5530, WHICH ON STANDING DEPOSITED A FLAKY COLORLESS SOLID OF UNDETD. COMPN.; DURING EVAPN. OF THE SOLVENT FROM II THE TEMP. MUST BE HELD UNDER 90DEGREES AS EXPLOSIONS OCCURED AT 100DEGREES OR HIGHER. II AND 24PERCENT NAOH AT 10 TO 20DEGREES THEN AT REFLUX 3 HR UNTIL HOMOGENEOUS GAVE MEP(O)(CH SUB2 CL) SUB2 (III), B SUB7 149 TO 50DEGREES, M. 49 TO 50 DEGREES. III ALSO FORMED AFTER SIMILAR HEATING OF II WITH H SUB2 O ALONE. HEATED WITH NAOAC ACOH 6 HR AT 200DEGREES III GAVE THE DIACETATE, B SUB5 163 TO 4DEGREES, 1.2326, 1.4670. ALSO PREPD. FROM II AND ACOH ACONA 10 HR AT 150DEGREES. HEATING II WITH ETSH ETSNA 9 HR AT 130DEGREES IN ET SUB2 O IN AN AUTOCLAVE GAVE 84PERCENT (ETSCH SUB2) SUB3 P, B SUB2 137 TO 8DEGREES, 1.0749, 1.5665. MEP(O) (CH SUB2 CL)SUB2 (IV) AND ET SUB2 NH IN 15 HR AT 125DEGREES GAVE 49PERCENT MEP(O)(CH SUB2 NET SUB2) SUB2, B SUB2 TIMES SUB5 118 TO 19DEGREES, 0.9391, 1.4681.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

3/3 015 UNCLASSIFIED PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0101489

ABSTRACT/EXTRACT--HEATING 3 G IV AND 10 G PH SUB3 P IN ME SUB2 NCHO 12 HR AT 150 TO 60DEGREES GAVE ON ADDN. OF ME SUB2 CO 67.5PERCENT (PH SUB3 PCH SUB2)SUB2 P(O)ME PRIME POSITIVE PRIME POSITIVE2 CL PRIME NEGATIVE, M. 300 TO 1.5DEGREES. IV (4G) IN MEPH AND A REACTION PRODUCT OF 1.37 G NA AND 10 ML MEOCH SUB2 CH SUB2 OH IN MEPH GAVE IN 6 HR REFLUXING 53.5PERCENT MEP(O)(CH SUB2 OCH SUB2 CH SUB2 OME) SUB2 B SUB5 185 TO 6DEGREES, 1.1117, 1.4625. SIMILARLY WAS PREPD. 52PERCENT MEP (O) (CH SUB2 OCH SUB2 CH SUB2 OBU) SUB2, B SUB5 210 TO 11.5DEGREES, 1.0082, 1.4547. PHONA SIMILARLY GAVE 83PERCENT MEP(O)(CH SUB2 OPH) SUB2, M. 96 TO 7 DEGREES. SIMILARLY WAS PREPD. 80PERCENT P TOLYL ANALOG, M. 122 TO 4DEGREES; 79PERCENT P NITROPHENYL ANALOG, M. 169 TO 70DEGREES; M NITROPHENYL ANALOG, M. 90 TO 1DEGREES; P CARBO METHOXPHENYL ANALOG, M. 133 TO 5DEGREES; P CARBONYPHENYL ANALOG, M. 295 TO 6DEGREES; M ISOMER, M. 142 TO 3 DEGREES.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

UDC 547.29.118.07

USSR

TSVETKOV, YE. N., MALEVANNAYA, R. A., OSIPENKO, N. G., and KABACHNIK, M. I., Institute of Organo Elemental Compounds, Moscow, Academy of Sciences USSR

"A Method of Producing Phosphinylcarboxylic Acids"

Moscow, Otkrytiya, Izobrenteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 17, 1970, Author's Certificate No 270730, filed 29 May 68, p 23

Abstract: This Author's Certificate introduces a method of producing phosphinylcarboxylic acids except for α-phosphonylacetic acid. As a distinguishing feature of the patent, salts of trivalent phosphorus acids are intreacted with salts of halocarboxylic acids, except acetic, in the presence of heat with subsequent isolation of the goal product by conventional methods.

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M

UDC 546.18.181.1

USSR

TSVETKOV, YE. N., BORISOV, G., SIVKIEV, KH., [illegible], A. A., and KABACHNIK, M. I., Institute of Organoelemental Compounds, Academy of Sciences USSR, and Institute of Organic Chemistry, Bulgarian Academy of Sciences, Sofia

"Syntheses Based on Tetramethylolphosphonium Chloride. Some Transformations of Tri(chloromethyl)phosphine and Methyldi(chloromethyl)phosphine Oxide"

Leningrad, Zhurnal Obshchey Khimii, Vol 40, No 2, Feb 70, pp 285-291

Abstract: The article describes some reactions of tri(chloromethyl)-phosphine and a number of transformations of methyldi(chloromethyl)-phosphine oxide. Reactions of tri(chloromethyl)phosphine with water and with sodium acetate in glacial acetic acid are accompanied by a pseudoallyl rearrangement and yield methyldi(chloromethyl)phosphine oxide and methyldi(acetoxymethyl)phosphine oxide respectively. Tri-(chloromethyl)phosphine reacts with sodium ethylmercaptide in the presence of an excess of ethyl mercaptan without a rearrangement to

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

TSVETKOV, YE. N., et al., Zhurnal Obshchey Khimii, Vol 40, No 2, Feb 70, pp 285-291

give tri(ethylmercaptomethyl)phosphine. Substitution reactions were staged involving the displacement of chlorine atoms in methyldi(chloromethyl)phosphine oxide by dialkylamino, alkoxy, arylhydroxy and other groups.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR UDC: 547.26'118

MATROSOV, Ye. I., TSVETKOV, Ye. N., LOBANOV, D. I., MALEVANNAYA, R. A., KABACHNIK, M. I., Institute of Organoelemental Compounds, Academy of Sciences of the USSR

"Association of Substituted Phosphinylbenzoic and Phosphinyl-p-toluic Acids According to the Data of Infrared Spectra"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), No 6, Jun 72, pp 1218-1223

Abstract: IR-spectroscopy was used to study the nature of association in carboxylic acids containing the phosphoryl group. The study specimens were chiefly certain phosphinylbenzoic $R_2P(O)C_6H_4COOH$ and α-phosphinyltoluic $R_2P(O)CH_2C_6H_4COOH$ acids with various substituents at the phosphorus atom. It was shown that in the crystalline state association takes place principally through the formation of strong intermolecular H bonds with participation of the phosphoryl groups. A reduction in the basicity of the phosphorus substituent in the case of diphenylthiophosphinyl-substituted acids leads to dimerization on the carboxylic acid pattern. In chloroform, the polymer associates formed through the participation of phosphoryl groups in the H bonds are destroyed, and dimer association becomes a predominant type. In proton-acceptor solvents (tetrahydrofuran, acetonitrile), molecules of free acids bound to the solvent by H bonds are observed in addition to the polymer associates.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

UDC 547.241

MALEVANNAYA, R. A., TSVETKOV, YE. N., and KABACHNIK, M. I., Institute of Elementoorganic Compounds, Academy of Sciences USSR

"Potassium Salts of Tetralkyldiamidophosphinylacetic Acids"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), Vyp 4, 1972, pp 765-769

Abstract: Experimental procedures are given for the synthesis of the ethyl esters of tetramethyl- and tetraethyldimidophosphinyl acids via reaction (I)

$$Cl_2P(O)CH_2COOC_2H_5 \xrightarrow[R = CH_3,\ C_2H_5]{R_2NH} (R_2N)_2P(O)CH_2COOC_2H_5 \qquad (I)$$

The starting material was obtained via two methods (reactions II and III):

$$(HO)_2P(O)CH_2COOH \xrightarrow{PCl_5} Cl_2P(O)CH_2COCl \xrightarrow[-50^\circ]{C_2H_5OH + C_5H_5N} Cl_2P(O)CH_2COOC_2H_5 \qquad (II)$$

$$(HO)_2P(O)CH_2COOH \xrightarrow[HCl]{C_2H_5OH} (HO)_2P(O)CH_2COOC_2H_5 \xrightarrow{KOH}$$

$$\rightarrow \begin{matrix} KO \\ HO \end{matrix}\!\!>P(O)CH_2COOC_2H_5 \xrightarrow{PCl_5} Cl_2P(O)CH_2COOC_2H_5 \qquad (III)$$

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USSR

MALEVANNAYA, R. A., et al., Zhurnal Obshchey Khimii, Vol 42(104), Vyp 4, 1972, pp 765-769

The $Cl_2P(O)CH_2COOC_2H_5$ was reacted with ethylmercaptan in the presence of triethylamine replacing both Cl^- groups with (C_2H_5S). This compound underwent base hydrolysis according to formula IV to the potassium salt.

$$(C_2H_5S)_2P(O)CH_2COOC_2H_5 \xrightarrow{KOH} \begin{matrix} KO \\ C_2H_5S \end{matrix}\!\!>P(O)CH_2COOC_2H_5 \qquad (IV)$$

Physical data, percent composition, NMR and IR constants are given.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

UDC 547.241

USSR

MATROSOV, YE. I., TSVETKOV, YE. N., MALEVANNAYA, R. A., and KABACHNIK, M. I.,
Institute of Element Organic Compounds, Academy of Sciences USSR

"Infrared Spectra and the Association of Phosphinylacetic Acids"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), No 8, 1972, pp 1695-1700

Abstract: Acids of the type $\begin{matrix} A \\ B \end{matrix}\!\!>\!\overset{O}{\overset{\|}{P}}\text{-}CH_2COOH$ -- for the compounds A = B = Bu, Ph, p-$CH_3C_6H_4$, p-ClC_6H_4, EtO, and PhO; A=Ph, B=Et; A=iSO Bu, A=Ph; A=EtO, B=Ph and A=OCH_3, B=Ph -- were studied. Ir spectra were taken, using solid KBR pellets to examine the following types of associations which normally occur in solution:

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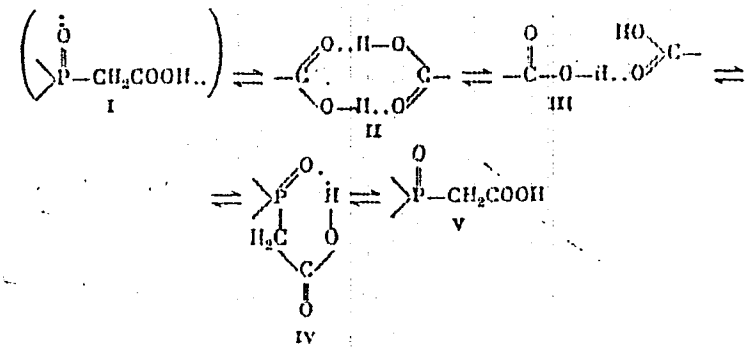
USSR

MATROSOV, YE. I., et al., Zhurnal Obshchey Khimii, Vol 42(104), No 8, 1972, pp.1695-1700



In solution the dominant form depends on the groups attached to the P atom and on the solvent. In proton-acceptor solvents, the acid forms H bonds with the solvent. Forms (II) and (V) predominate in inert solvents. In the solids the acids associate due to the formation of intermolecular hydrogen bonds involving parts of the phosphoryl group.

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USSR

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YEMEL'YANOV, S. V., DUDIN, Ye. B., DARICHEV, O. I., MALEVICH, A. A., NAPPEL'BAUM, E. L., OZERNOY, V. M.

"Preparation and Making of Decisions in Organizing Control Systems"

Tekhn. Kibernetika. 1969. (Itogi Nauchki i Tekhn) [Engineering Cybernetics, 1969 (Results of Science and Technology), Moscow, 1971, pp 89-184 (Translated from Referativnyy Zhurnal, Kibernetika, No 2, 1972, Abstract No 2 V496 by M. Kazakova).

Translation: This work is a review dedicated to certain problems of the science of control, related to the preparation and making of decisions in organizing control systems. The problem of utilization of expert information, the structural problems of the structure of organization systems and certain procedures for decision making are also studied. The article consists of 5 sections, divided into points, each of which has its own bibliography.

1. Decision making. 1.1. General characteristics of problems of decision making. 1.2. Applications of the theory of usefulness for decision making under conditions of uncertainty and risk. 1.3. Decision making with a vector criterion. 1.4. Collective decisions. 1.5. Decision making in organizational systems (103 Biblio. Refs.). 2. Man-machine decision-making procedures (25 Biblio. Refs.). 3. Application of cost-effectiveness analysis

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

YEMEL'YANOV, S. V., DUDIN, Ye. B., DARICHEV, O. I., MALEVICH, A. A., NAPPEL'BAUM, E. L., OZERNOY, V. M., Tekhn. Kibernetika. 1969. (Itogi Nauchki i Tekhn), Moscow, 1971, pp 89-184.

for decision making in one class of systems (7 Biblio. Refs). 4. Methods of production of expert information during preparation and making of decisions. 4.1. Collection and generalization of expert conclusions using the DELFI method. 4.2. The method of V. M. Glushkov. 4.3. The method of rank correlation (10 Biblio. Refs). 5. Some mathematical models of organizational systems (34 Biblio. Refs.).

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

1/2 026 UNCLASSIFIED PROCESSING DATE--09OCT70

TITLE--DOSIMETRIC REQUIREMENTS TO THE ACCURACY OF RDENTGENOMETRIC INVESTIGATIONS IN RADIUM THERAPY -U-

AUTHOR-(04)-KUZETSOV, E.A., SINITSYN, R.V., MALEVICH, M.A., KONNOV, B.A.

COUNTRY OF INFO--USSR

SOURCE--MEDITSINSKAYA RADIOLOGIYA, 1970, VOL 15, NR 4, PP 67-70

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--RADIUM, RADIOTHERAPY, DOSIMETRY, CHARGED PARTICLE, ELECTROMAGNETIC RADIATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1990/0959 STEP NO--UR/0241/70/015/004/0067/0070

CIRC ACCESSION NO--AP0109116

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

Acc. Nr: AP0047191

Ref. Code: UR 0511

PRIMARY SOURCE: Stomatologiya, 1970, Vol 49, Nr 1, pp 85-86

YE. S. Malevich, O.N. Malevich, L. V. Borodulina – THE EMPLOYMENT OF THE METHOD OF REGIONAL INTRA-ARTERIAL ANTINEOPLASTIC CHEMOTHERAPY IN STOMATOLOGICAL ONCOLOGY

Summary. The method of regional chemotherapy was used in 43 patients with tumors of the maxillofacial region. For the treatment of inoperable tumors of the face and jaws in a far-advanced stage, tumors refractory to radium therapy, metastases and relapses after surgical or radium treatment the authors used ThioTEP, endoxan and cyclophosphane. The most marked clinical effect was obtained in patients who were treated with ThioTEP and also in the treatment of tumors localized on the tongue, floor of the mouth and maxilla.

2/2 026 UNCLASSIFIED PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0109116

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. AS A CRITERION OF ACCURACY OF RUENTGENOMETRIC MEASUREMENTS THE AUTHORS PUT AN ERROR IN DETERMINING THE DOSE IN THE FOCUS IN DISPLACEMENT OF THE TARGET TO A DEFINITE VALUE. THE CALCULATION WAS MADE FOR ELECTROMAGNETIC RADIATION AND HEAVY CHARGED PARTICLES IN THE INSTANCE OF SHIFT OF THE TARGET IN THE DIRECTION OF THE BEAM AXIS AND IN PERPENDICULAR DIRECTION. FACILITY: TSENTRAL'NYY N-I RENTGENO-RADIOLOGICHESKIY INSTITUT MINISTERSTVA ZDRAVOOKHRANENIYA SSSR.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

MALEVICH, T. L. and IDRISOVA, S.

"Simultaneous Intersection of Fixed Levels by Two Gaussian Fields"

Izv. AN UzSSR. Ser. Fiz.-Mat. N. [News of Academy of Sciences, UzSSR, Physics-Mathematical Sciences Series], 1973, No 2, pp 17-20 (Translated from Referativnyy Zhurnal Kibernetika, Abstract No 9V47)

Translation: Let $x_1(s, t)$ and $x_2(s, t)$ be homogeneous Gaussian fields with spectral functions $F_1(\lambda, \mu)$, $F_2(\lambda, \mu)$ respectively. Suppose further that G is an area limited by a piecewise-smooth curve, $N_{x,y}^{(u_1,u_2)}(G)$ is the number of internal points in the area for which $x_i(s, t) = u_i$, $i = \overline{1, 2}$. A formula is produced for $MN_{x,y}^{(u_1,u_2)}(G)$ on the assumption that

$$\int_{-\pi}^{\pi}\int_{-\pi}^{\pi} \lambda_i^2 [\ln(1+|\lambda_i|)]^{1+\delta_j} dF_j(\lambda_1, \lambda_2) < \infty, \; i, j = \overline{1,2}.$$

Author's view

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

MALEVICH, T. L.

"Contours Arising upon Intersection of the Zero Level by Gaussian Fields"

Izv. An UzSSR. Ser. Fiz.-Mat. N. [News of Academy of Sciences, Uzbek SSR, Physics-Mathematical Sciences Series], 1972, No 5, pp 20-35 (Translated from Referativnyy Zhurnal Kibernetika, No 4, 1973, Abstract No 4V149, by Yu. Belyayev).

Translation: A homogeneous, real, Gaussian, twice continually differentiable field with zero mean is studied. Lower estimates are found for the probability of an event consisting in that there is at least one closed contour in a square with sides T, on which the values of the field are equal to zero. It is shown that with unlimited increase of T, the mean number of closed contours lying within the square with side T increases in proportion to the area of the square.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910017-8

USSR

ABDALIMOV, B., MALEVICH, T. L.

"The Central Limit Theorem for U Statistics"

Sluchayn. Protsessy i Stat. Vyvody. [Random Processes and Statistical Conclusions -- Collection of Works], No 2, Tashkent, Fan Press, 1972, pp 3-9 (Translated from Referativnyy Zhurnal, Kibernetika, No 1, 1973, Abstract No 1 V176 by the authors).

Translation: Statistics of the form

$$U = \frac{1}{n(n-1)\dots(n-m)} \sum_{\substack{j_1 \neq \dots \neq j_m \\ j_1, \dots, j_m = \\ = 1, \dots, n}} \Phi(X_{j_1}, \dots, X_{j_m}),$$

are studied, where $\{X_j\}$ is a stable sequence, satisfying the condition of even strong mixing. The central limit theorem is proven for these statistics with certain limitations on the mixing factor.

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UDC: 519.2

MALEVICH, T. L., DAM KUANG ZANG

"Class of Limiting Laws of Joint Distribution of Quadratic and Linear Forms of Normal Random Quantities"

Nauch. tr. Tashkent. un-t (Scientific Works. Tashkent University), 1972, vyp. 402, pp 58-70 (from RZh-Kibernetika, No 10, Oct 72, abstract No 10V54)

[No abstract]

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MALEVICH, T. L., FAYNGOL'D, V. I.

"Prediction of One Class of Nonstationary Process"

Sluchayn. protsessy i smezhn. vopr. Ch. 2 (Random Processes and Related Problems. Part 2), Tashkent, "Fan", 1971, pp 52-62 (from RZh-Kibernetika, No 7, Jul 71, Abstract No 7V143)

Translation: The authors consider the problem of linear prediction for the process

$$y(t)=\sum_{\tau=-T_1}^{T_2} a(t,\tau)\,x(\tau)$$

with discrete time $t, |t|<\infty$, where $x(\tau)$ is a random process which is stationary in a broad sense, $a(t,\tau)$ is a non-random function. g. Molchan.

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Acc. Nr: AP0047191 Ref. Code: UR 0511

PRIMARY SOURCE: Stomatologiya, 1970, Vol 49, Nr 1, pp 85-86

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Ye. S. Malevich, O.N. Malevich, L. V. Borodulina — THE EMPLOYMENT OF THE METHOD OF REGIONAL INTRA-ARTERIAL ANTINEOPLASTIC CHEMOTHERAPY IN STOMATOLOGICAL ONCOLOGY

Summary. The method of regional chemotherapy was used in 43 patients with tumors of the maxillofacial region. For the treatment of inoperable tumors of the face and jaws in a far-advanced stage, tumors refractory to radium therapy, metastases and relapses after surgical or radium treatment the authors used ThioTEP, endoxan and cyclophosphane. The most marked clinical effect was obtained in patients who were treated with ThioTEP and also in the treatment of tumors localized on the tongue, floor of the mouth and maxilla.

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USSR UDC 621.791.89.546.56:546.78

NESMIKH, V. S., MALEVSKIY, YU. B., GUBENKO, B. G., and KHORUNOV, V. F., Institute of Electric Welding imeni Ye. O. Paton, Academy of Sciences UkrSSR

"Contact-Reaction Soldering of Copper With Refractory Metals"

Kiev, Avtomatisheskaya Svarka, No 8, Aug 70, pp 59-61

Abstract: A method for the contact-reaction soldering of copper with tungsten, molybdenum, chromium, and other metals using a titanium interlayer was developed by the authors. Experiments were conducted in a vacuum chamber with electron-beam heating. The 10-mm-diameter cylindrical samples were made of tungsten, molybdenum, chromium, niobium, and copper. The titanium foil interlayer was 12 microns. The samples were subjected to compression at different times during soldering (before the appearance of the liquid phase, immediately after contact soldering, or after a certain isothermic holding time). The soldered joints were tested for tensile strength and heat resistance. Phase content and joint structure were studied by metallographic and x-ray spectral analysis. The results show that pressure application immediatelt after the end of contact soldering is the most expedient procedure. A technology for the production of x-ray tube anodes was developed on the basis of these results.

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USSR UDC 547.240

MALEYEVSKAYA, R. A., TSVETKOV, YE. N. and KABACHNIK, M. I.; Institute of Hetero-Organic Compounds, USSR Academy of Sciences

"Dialkylphosphinylacetic Acids"

Leningrad, Zhurnal Obshchey Khimii, Vol XLI, No 11, Nov 1971, pp 2359-2364

Abstract: This study is devoted to the problem of synthesizing dialkylphosphinylacetic acids, of which only two representatives have been reported in the published literature--diethyl- and dihexylphosphinylacetic acids. Synthesized were the following: 1) dimethyl-, diethyl- and dipropylphosphinylacetic acids, using alkali hydrolysis of the corresponding butyl esters; 2) dibutylphosphinylacetic acid, by methylation of methyldibutylphosphine oxide with butyllithium and subsequent carboxylation of dibutylphosphinylmethyllithium; 3) butyl ester of dipropylphosphinylacetic acid, from the reaction of butyl chloroacetate with the potassium salt of dipropylphosphinic acid and the ester of dipropylphosphinylacetic acid; and 4) the ethyl esters of dialkylphosphinylacetic acids, through esterification of the corresponding acids.

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Atmospheric Research / Source: JPRS # 58025 19 Jan 73

UDC 551.50(212.7)(575)

SOME RESULTS OF RESEARCH BY THE COMPLEX ATMOSPHERIC ENERGETICS EXPERIMENT PROGRAM (1970-1972)

[Article by corresponding member of the USSR Academy of Sciences [illegible], Candidate of Physical and Mathematical Sciences [illegible], Candidate of Geographic Sciences [illegible], Candidates of Physical and Mathematical Sciences [illegible] Dr. F. Orlenko and M. Ya. Ter-Markaryants, Main Geophysical Observatory, [illegible], Meteorologiya i Gidrologiya, Russian, No 11, 1972, submitted 5 June 1972, pp 3-13]

In this article a study was made of the basic results of the research by the CAENEX program performed during the period from October 1970 to March 1972. The complete radiation experiment was realized during the expeditions by the CAENEX program. It permitted the vertical radiation heat flux profiles in the atmosphere to be obtained, the real accuracy of certain theoretical procedures to be evaluated, the spectral distribution of the short-wave radiant heat flux to be obtained and on the basis of it, the effect of aerosols in the absorption of short-wave radiation to be estimated.

On the basis of the direct measurement data, the heat balance equation of the boundary layer was closed. Data are presented on the turbulent and radiation heat transfer in the ground and boundary layers.

The first results of the radiation experiment with continuous clouds in the atmosphere are described which permitted data to be obtained on the dependence of the spectral albedo of the clouds on their microstructure.

The prospects for research by the CAENEX program in the near future are discussed.

One of the sub-programs carried out during the course of preparation for implementing the Global Atmospheric Research Program (GARP) is the Complex Atmospheric Energetics Experiment (CAENEX) [8] pursuing the goal of the comprehensive study of the local energetics of the atmosphere and the energetic

MALEVSKIY-MALEVICH, S.P.

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