

USSR

ZLATOSTOV, S.V., et al, Izvestiya VUZ - Radioelektronika, Vol 13, No 9, 1970, pp 1124-1128

The authors' analysis of the results of the experiment showed a high correlation between resistor noise and quality, with the noisiest resistors exhibiting the poorest quality, to the extent that the reliability of resistors can be predicted on the basis of their showing in this test. In these experiments, the noise level was measured in microvolts per volt of applied voltage in a band of 10 kHz. The authors conclude that 100% control can be attained in control automation using the modulation noise meter they propose in thin-film resistor assembly line manufacture.

2/2

- 106 -

USSR

UDC 539.3+534.231.1

SEYMOV, V. M., OSTROVERKH, B. N.

"Calculation of Nonstationary Longitudinal Oscillations of a Plate Reinforced at the Edge of the Half-Space"

Tr. koordinats. sovesch. po gidrotekhn. (Works of the Coordination Conference on Hydraulic Engineering), 1972, No. 64, pp 61-69 (from RZh-Mekhanika, No 3, Mar 73, Abstract No 3V85)

Translation: The nature of the propagation of elastic waves in a plate fastened by one edge to the boundary of a half-space is investigated. The case of symmetric loading of the boundary of the half-space is considered when only symmetrical oscillations arise in the half-space and longitudinal waves are propagated in the plate. Stresses along the contact of the plate and the half-space are taken as uniformly distributed. Graphs are given for the change of stresses and displacements with time for a sudden application of loads to the boundary of the half-space and the upper edge of the plate, and for different relationships of the elastic modulus of the plate and the elastic modulus of the half-space. Authors' abstract.

1/1

1/2 019 UNCLASSIFIED PROCESSING DATE--18SEP70  
TITLE--INTRODUCTION OF MEDICINAL SUBSTANCES THROUGH THE UMBILICAL VEIN IN  
THE TREATMENT OF HEPATIC ABSCESSSES -U-  
AUTHOR-(04)-OSTROVERKHOV, G.YE., NIKOLSKIY, A.D., KOTOV, I.A., MURASHEVA,  
Z.M.  
COUNTRY OF INFO--USSR  
SOURCE--KHIRURGIYA, 1970, NR 4, PP 75-79  
DATE PUBLISHED-----70  
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES  
TOPIC TAGS--VEIN, LIVER, ANTIBIOTIC DRUG EFFECT, DIAGNOSTIC METHODS  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAME--1983/1229 STEP NO--UR/0531/70/000/004/0075/0079  
CIRC ACCESSION NO--AP0054124  
UNCLASSIFIED

2/2 019

UNCLASSIFIED

PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0054124

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE AUTHORS ANALYZE THE RESULTS OF TRANSUMBILICAL INJECTION OF ANTIBIOTICS AND OTHER SUBSTANCES IN 8 PATIENTS WITH ABSCESSSES OF THE LIVER, 6 OF WHOM RECOVERED. IN PATIENTS WITH HEPATIC ABSCESSSES THE AUTHORS RECOMMEND THE USE CANNULIZATION OF THE UMBILICAL VEIN FOR DIAGNOSTIC PORTOHEPATOGRAPHY AND SUBSEQUENTLY FOR PROLONGED INTRAPORTAL INFUSION OF MEDICINAL SUBSTANCES AS A SEPARATE METHOD 4F TREATMENT OR IN COMBINATION WITH OPENING AND DRAINAGE OF ABSCESSSES. THE THEORETICAL SUBSTANTIATION OF THE EMPLOYMENT OF TRANSUMBILICAL INJECTION OF ANTIBIOTICS AND DRUGS IN THE TREATMENT OF PATIENTS WITH PYOGENIC ABSCESSSES OF THE LIVER WITH THE AID OF MICROBIOLOGICAL TECHNIQUES THE AUTHORS DEMONSTRATE BY THE FACT OF GREATER CONCENTRATION OF DRUGS IN THE ZONE OF THE PATHOLOGICAL FOCUS, THUS ENSURING A MORE PRONOUNCED CURATIVE EFFECT.

UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--17JUL70  
TITLE--TRANSUBILICAL INFUSION OF MEDICINAL SOLUTIONS AND BLOOD -U-

AUTHOR--CSTROVERKFCV, G.YE., NIKOLSKIY, A.C., KOTOV, I.A., KOMAROV, I.A.,  
MURASHOVA, Z.M.

COUNTRY OF INFO--USSR

SOURCE--KHIRURGIYA, 1970, NR 1, PP 59-62

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--VEIN, LIVER, HEMODYNAMICS, HEART, MEDICINE, BLOOD, ABDOMEN

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1977/1696

STEP NO--LR/C531/70/000/001/0059/0062

CIRC ACCESSION NO--APCC44841

UNCLASSIFIED

22  
5/27

Acc. Nr: AP0044841

Ref. Code: UR 0531

PRIMARY SOURCE: Khirurgiya, 1970, Nr 1, pp 59-62

TRANSUMBILICAL INFUSION OF MEDICINAL SOLUTIONS  
AND BLOOD

Ostroverkhov, G. Ye.; Nikol'skiy, A. D.; Kotov, I. A.  
Komarov, I. A.; Murashova, Z. M.

In 23 cases the authors used transumbilical infusion of medicamentous solutions to normalize venous pressure. Intraportal introduction of such solutions was found to bring down the pressure in peripheral veins, thereby improving the work of the right heart. Transumbilical infusion of medicinal agents practised in operations on the organs of the abdominal cavity contributes to the normalization of metabolism, raises antitoxic function of the liver and acts beneficially on the regulation of hemodynamics.

//

02 DI

REEL/FRAME  
19771696

USSR

UDC 621.9.048.7

OSTROVERKHOV, N.T., POPOV, V.K., STEPUSHINA, V.I.

"Experimental Investigation Of A Narrow Electron Beam With High Power Density At Crossover"

Elektron. tekhnika. Nauchno-tekhn. sb. Elektron SVCh (Electronic Technology. Scientific-Technical Collection. Microwave Electronics), 1970, No 7, pp 46-51 (from RZh--Elektronika i yeye primeneniye, No 11, November 1970, Abstract No 11A274)

Translation: The method of a scanning diaphragm is used for investigation of the structure of a thin (20-50 micrometer) electron beam with a power density at crossover of  $10^6$ -- $10^8$  watt/cm<sup>2</sup>. The experiments were conducted on the electrooptical system of a unit (typical for industrial conditions) for dimension processing of materials, with an accelerating voltage of 80-100 kv and beam currents of 1-4 ma in a pulse. The measuring diaphragm was produced from monocrystalline tungsten and was cooled by water. After the diaphragm, the electrons of the beam enter into a collector (a Faraday cylinder), and the electron current is displayed on an oscilloscope [otsillografiruyetsya]. With the aid of a deflecting system, the beam under investigation is expanded at the surface of the diaphragm. The experiments show that the distribution of the current density agrees with a precision up to 10 percent with Gauss' law, and the character of the change of the radius of the electron beam, the current density, and the power density at its smallest cross section is the result of a change of the size and position of the cross over which is shaped by a triode electron gun. I.V.

1/1

- 104 -





USSR

SAMSONOV, G. V., et al., Poroshkovaya Metallurgiya, No 12, Dec 72, pp 46-48

Vaporization rate, g/cm <sup>2</sup> -sec at 1515°C	6.78x10 <sup>-9</sup>
at 1927°C	4.43x10 <sup>-6</sup>
Compressive strength, kg/mm <sup>2</sup> , at 20°C	1.59
at 2020°C	4.75
Bend strength, kg/mm <sup>2</sup> , at 20°C	1.80
Modulus of normal elasticity, kg/cm <sup>2</sup> , at 20°C	138300
at 1800°C	122500

The physical and engineering properties of boron carbonitride allow it to be recommended for use as refractory and electrical insulation material for crucibles, vats, pipe for transfer of molten metals, alloys slags and salts, jackets for thermocouples, refractory lining plates and high-temperature electrical insulators at temperatures up to 2000-2500°C. One table, 5 bibliographic references.

2/2

- 32 -

USSR

UDC: 8.74

OSTROVERKHOV, V. V.

"Some Algorithms of Analog-Digital Conversion With Dynamic Error Correction"

Tr. VNIi elektroizmerit. priborov (Works of the All-Union Scientific Research Institute of Electric Measuring Instruments), 1971, 1, pp 48-56  
(from RZh-Kibernetika, No 1, Jan 72, Abstract No 1V1C09)

Translation: This paper considers algorithms of analog-digital conversion of digit-by-digit balancing with series, parallel and series-parallel dynamic error correction. Analytic relations are determined for the dynamic error as a function of the rate of change in the input signal by analysis of the diagram of states. Author's abstract.

1/1

- 41 -

USSR

UDC: 8.74

MIRONOV, G. A., OSTROVIDOV, M. A.

"Diagnostic Analysis of Single-Cycle Combination Logic Circuits"

V sb. Tsifr. vychisl. tekhnika i programmir. (Digital Computer Technology and Programming--collection of works), vyp. 7, Moscow, "Sov. radio", 1972, pp 182-186 (from RZh-Kibernetika, No 8, Aug 72, Abstract No 8V648)

Translation: A method is outlined for determining the elements which may be out of order. The method utilizes information obtained in an arbitrary algorithm for detecting the presence of a failure. Authors' abstract.

1/1

- 69 -

1/2 021 UNCLASSIFIED PROCESSING DATE--11DEC70  
TITLE--LITHIUM HYDROXIDE CESIUM HYDROXIDE WATER SYSTEM AT 50, 100, AND  
150 DEGREES -U-  
AUTHOR--(CZ)--OSTROVITYANOVA, S.E., ITKINA, L.S.  
COUNTRY OF INFO--LSSR  
SOURCE--ZH. NEORG. KHIM. 1970, 15(3), 765-9  
DATE PUBLISHED-----70  
SUBJECT AREAS--CHEMISTRY  
TOPIC TAGS--LITHIUM COMPOUND, HYDROXIDE, CESIUM COMPOUND, WATER, X RAY  
DIFFRACTION, IR SPECTROSCOPY  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAE--3001/0712 STEP NO--UR/0078/70/015/003/0765/0769  
CIRC ACCESSION NO--AP0126424

UNCLASSIFIED

2/2 021

UNCLASSIFIED

PROCESSING DATE--11DEC70

CIRC ACCESSION NO--APC126424

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE SOLY. OF LIQH-CSOH-H SUB2 O WAS DETD. AT 50, 100, AND 150DEGREES, AND THE SOLY. DIAGRAM WAS CONSTRUCTED. CRYSTN. FIELDS AND NS OF LIQH, CSOH, CSOH.H SUB2 O, AND (5-6)LIQH.CSOH(I) WERE DETD. STUDY OF I BY X RAY DIFFRACTION, IR SPECTROSCOPY, AND THERMOGRAVIMETRY PROVED THAT IT IS AN INDIVIDUAL COMPD.

UNCLASSIFIED

USSR

UDC 678.652'41'21-9

SHARKOVSKIY, V. A., AKUTIN, M. S., KERBER, M. L. SHCHEGLOV, L. L.,  
MATVELASHVILI, G. A., PUKHOVITSKAYA, A. N., MILL', L. T., GREBENNIKOV,  
A. V., OSTROVSKAYA, A. YE., and DYMARSKAYA, YE. L.

"New Types of Aminoplastics"

Moscow, Plasticheskiye Massy, No 12, Dec 70, pp 53-54

Abstract: The article describes synthesis of fiberglass plastics based on carbamide binders. These binders include a carbamide oligomer modified by polyvinylacetate emulsion during synthesis, and urea-benzoguanamine-formaldehyde oligomer. Fiberglass textolites based on these oligomers and TS-8/3-250 glass treated with lubricant 752 are mechanically strong. In addition to its excellent strength properties, the plastic based on urea-benzoguanamine-formaldehyde oligomer is also water-resistant.

1/1

1/2 031 UNCLASSIFIED PROCESSING DATE--04DEC70  
TITLE--DETERMINATION OF THE ELECTRIC FIELD POTENTIAL IN DEFECT DETECTION,  
IN THIN METAL PLATES, BY THE ELECTRICAL CONTACT METHOD USING DIAGONAL  
AUTHOR--OSTROVSKAYA, E.L.  
COUNTRY OF INFO--USSR  
SOURCE--ZAVOD. LAB., 1970, 36, (2), 199-201  
DATE PUBLISHED-----70  
SUBJECT AREAS--MECH., IND., CIVIL AND MARINE ENGR, METHODS AND EQUIPMENT  
TOPIC TAGS--NONDESTRUCTIVE TEST, FLAT PLATE, DEFECTOSCOPE, METAL  
SOLDERING, ELECTRODE DESIGN, ELECTRIC FIELD  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAE--3003/0298 STEP NO--UR/0032/70/036/002/0199/0201  
CIRC ACCESSION NO--AP0129530  
UNCLASSIFIED

2/2 031

UNCLASSIFIED

PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0129530

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. THE GENERAL PRINCIPLES OF THE ELECTRIC CONTACT METHOD OF STUDYING DEFECTS IN THIN METAL PLATES AND SOLDER POINTS ARE DISCUSSED WITH SPECIAL REF. TO THE PROBLEM OF DETERMINING THE ELECTRIC FIELD POTENTIAL TO BE EMPLOYED IN THIS PROCESS. A RELATIONSHIP BETWEEN THE ELECTRODE SEPARATION EMPLOYED AND THE THICKNESS OF THE METAL PLATE IS DERIVED.

UNCLASSIFIED



USSR

UDC 669-138+621.79

BOROK, B. A., SHCHEGOLEVA, R. P., GOLUBEVA, L. S., OSTROVSKAYA, E. N.,  
CHIKUNOV, M. I., and KUNIS, M. I., Central Scientific Research Institute of  
Ferrous Metallurgy imeni I. P. Bardin

"Production Technology of Nickel-Base Brazing Alloys in Powder Form"

Kiev, Poroshkovaya metallurgiya, No 2, May 72, pp 82-88

Abstract: The objective of the study was to develop an optimum production technology for Ni-base alloys in powder form for brazing structures from thin-sheet high-alloy steels. The test materials were powders of PKh12N75S8R-grade Ni-Cr-Si-Fe-B brazing alloy and MA--a mixture of 85% of PKh12N75S8R with 15% molybdenum. PKh12N75S8R was successfully used to braze OKh18N10, 1Kh18NF, and Kh25N16G7AR high-alloy steels. The brazing temperature was 1180°C and the secondary melting (unsoldering) temperature--1080°C. Addition of molybdenum (15%) to Kh25N16G7AR was found to raise the unsoldering temperature by 130°C and ensure a joint tensile strength of 30 kg/mm<sup>2</sup>. (1 illustration, 7 tables, 6 bibliographic references)

1/1

USSR

UDC: 533.9.082.5

IGNATOV, A. B., KOMISSAROVA, I. I., OSTROVSKAYA, G. V., and SHAPIRO, L. L.

"Double-Wavelength, Single-Exposure Holographic Plasma Interferometry"

Leningrad, Zhurnal Tekhnicheskoy Fiziki, vol. 41, No. 2, 1971, pp 417-423

Abstract: This paper is connected with an article written by the third-named of the authors above and published in the same journal (vol. 40, No. 11, 1970). In this earlier article the author proposed a method of double-wavelength, single-exposure holographic interferometry in which the form and position of the interference bands are determined only by the dispersion characteristics of the investigated object. Essentially, this method involves two wavelengths, one of which is half the other, radiated by a hologram of a phased object on photomaterial with a light transmissivity which is a non-linear function of the illumination on it. In the present paper,

1/2

USSR

IGNATOV, A. B., et al, Zhurnal Tekhnicheskoy Fiziki, Vol. 41, No. 2, 1971, pp 417-423

a closer and more detailed look is taken at this method, and a description is given of the first attempt to use it for interferometric investigation of a plasma. The authors found that dispersion interferometry gives results which are inferior to those of their method. They are with the A. F. Ioffe Physico-Technical Institute of Leningrad.

2/2

- 97 -

172 049

UNCLASSIFIED

PROCESSING DATE--2008070

TITLE--INTERFERENTIAL HOLOGRAPHIC INVESTIGATION OF A PLASMA JET USING THE  
FUNDAMENTAL FREQUENCY AND THE SECOND HARMONIC OF A RUBY LASER --U--  
AUTHOR--(02)--BURMAKOV, A.P., DSTROYSKAYA, G.V.

COUNTRY OF INFO--USSR

SOURCE--ZHURNAL TEKHNIKHEKOI FIZIKI, VOL. 40, MAR, 1970, P. 660, 661.

DATE PUBLISHED--70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--RUBY LASER, LASER EMISSION, HELIUM NEON LASER, HOLOGRAM,  
PLASMA JET

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1994/1254

STEP NO--UR/0057/70/040/000/0660/0661

CIRC ACCESSION NO--APO115271

UNCLASSIFIED

2/2 049

UNCLASSIFIED

PROCESSING DATE—20NOV70

CIRC ACCESSION NO—AP0115271

ABSTRACT/EXTRACT—(U) GP-0- ABSTRACT. DESCRIPTION OF THE USE OF THE  
FUNDAMENTAL AND SECOND HARMONIC EMISSIONS OF A SINGLE RUBY LASER SOURCE  
TO OBTAIN INTERFERENCE HOLOGRAMS OF A LOW TEMPERATURE NITROGEN PLASMA  
FORMED IN A DC PLASMATRON. HOLOGRAMS CORRESPONDING TO TWO DIFFERENT  
WAVELENGTHS WERE SIMULTANEOUSLY RECORDED ON THE SAME PHOTOGRAPHIC PLATE.  
RECONSTRUCTION WITH THE AID OF A He-Ne LASER RESULTED IN SPATIALLY  
RESOLVED INTERFEROGRAMS OF THE PLASMA JET, CORRESPONDING TO THE TWO  
WAVELENGTHS. FACILITY: AKADEMIIA NAUK SSSR.  
FIZIKO-TEKHNICHESKII INSTITUT, LENINGRAD, USSR.

UNCLASSIFIED

USSR

UDC 615.616.24-003.656.6

TIMCHENKO, A. N., PROTSENKO, G. A., OSTROVSKAYA, I. S.

"Hygienic Characteristic of a New Form of Amorphous Silicon -- Aerosil"

V sb. Materialy XXI-XXII plenumov Resp. komis. po bor'be s sili-kozom (Materials of the Twenty-first to Twenty-second Plenums of the Republic Commission for Controlling Silicosis--Collection of Works), Kiev, Naukova dumka, 1972, pp 165-170 (from RZh--Farmakologiya. Khimioterapevticheskiye Sredstva. Toksikologiya, No 3, Mar 73, Abstract No 3.54.881)

Translation: Poisoning rats for three months with Aerosil dust (amorphous  $\text{SiO}_2$ )M-300 (first group) and Aerosil modified with dimethyl-dichlorosilane and butyl alcohol (second group; concentration 100-120  $\text{mg/m}^3$ ) was accompanied by the development of typical pulmonary silicosis more sharply expressed in the animals of the first group. USSR, Khar'kov, Institute of Hygiene of Labor and Professional Disease.

1/1

- 76 -

1/2 015

UNCLASSIFIED

PROCESSING DATE--11SEP70

TITLE--CHANGES IN THE PHOTOCHEMICAL ACTIVITY OF CHLOROPLASTS AND THEIR FRAGMENTS PRODUCED BY ENZYMIC HYDROLYSIS -U-

AUTHOR--DSTROVSKAYA, L., MANUILSKAYA, S., YAKOVENKO, G.



COUNTRY OF INFO--USSR

SOURCE--DOKL. AKAD. NAUK SSSR 1970, 190(2), 468-71

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--PLANT PHYSIOLOGY, ENZYME, PHOTOCHEMISTRY, CHLOROPLAST

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1985/1799

STEP NO--UR/0020770/190/002/0468/0471

CIRC ACCESSION NO--AT0101846

UNCLASSIFIED

2/2 015

CIRC ACCESSION NO--AT0101846

UNCLASSIFIED

PROCESSING DATE--11SEP70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ISOLATED CHLOROPLASTS AND DIGITONIN FRAGMENTS OF 12-14 DAY SEEDLINGS OF PEAS WERE EXAMD. FOR PHOTOCHEM. ACTIVITY IN REDN. OF NADP IN THE PRESENCE OF ELECTRON DONORS AND FERRICYANIDE. RESULTS OF TREATMENT WITH PAPAIN, TRYPSIN, AND GALACTOLIPASE WERE ALSO EXAMD. THE REDN. OF NADP WAS MOST SENSITIVE TO THE ACTION OF GALACTOLIPASE; TRYPSIN AFFECTED IT MUCH LESS, AND PAPAIN INSIGNIFICANTLY. AS TO FERRICYANIDE REDN., GALACTOLIPASE TREATMENT HAD ALMOST NO EFFECT, PAPAIN AND ESP. TRYPSIN REDUCED THIS ACTIVITY CONSIDERABLY. THE EXPOSURE OF THE ACTIVE CENTERS IN THE 2 PARTS OF THE PHOTOSYSTEM IS VERY DIFFERENT FOR THE 2 KINDS OF ACTIVITY CITED. EVIDENTLY THE BONDING OF LEUCINE AND GLYCINE IS UNIMPORTANT FOR THE NAD ACTIVE SYSTEM AND RELATIVELY MORE IMPORTANT FOR THE FERRICYANIDE ACTIVE SYSTEM.

UNCLASSIFIED



172 016  
UNCLASSIFIED  
TITLE--KINETIC STUDY OF THE ANTITUMOR ACTIVITY OF N-NITROSALKYLUREA IN  
EXPERIMENTS -U- PROCESSING DATE--16OCT70  
AUTHOR--(04)-EMANUEL, N.M., VERMEL, YE.M., OSTROVSKAYA, L.A., KUKHARENKO,  
YU.A.  
COUNTRY OF INFO--USSR  
SOURCE--INST. CHEM. PHYS., MOSCOW, USSR  
DATE PUBLISHED-----70  
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES  
TOPIC TAGS--ANTINEOPLASTIC DRUG, UREA DERIVATIVE, NITROSO COMPOUND, DRUG  
DOSAGE RESPONSE  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRA--1995/2043 STEP NO--UR/0506/70/016/003/0046/0054  
CIRC ACCESSION NO--AP0117286  
UNCLASSIFIED

2/2 016

UNCLASSIFIED

PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0117286

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. NITROSOMETHYLUREA,  
NITROSOETHYLUREA, OR NITROSOPROPYLUREA GIVEN S.C. TO MICE WITH ASCITES  
SARCOMA 180 OR EHRLICH TUMORS CHANGED THE PARAMETERS OF THE KINETIC  
EQUATIONS GOVERNING TUMOR GROWTH. NITROSOETHYLUREA WAS THE MOST  
EFFECTIVE, AND NITROSOPROPYLUREA THE LEAST EFFECTIVE, IN REDUCING THE  
GROWTH RATE. ALL 3 COMPOS. GREATLY INCREASED THE DOUBLING TIME OF THE  
TUMOR CELL POPULATION. A LARGE DOSE OF A DRUG GIVEN ONCE WAS MORE  
EFFECTIVE THAN MULTIPLE DOSES GIVEN IN SMALLER AMOUNTS.  
FACILITY: INST. CHEM. PHYS., MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC 581.132.19

OSTROVSKAYA, L. K., Institute of Plant Physiology, Academy of Sciences,  
Ukrainian SSR, Kiev

"Fragmentation of Plant Chloroplasts as a Method for Studying the Organization  
of Photosynthetic Units"

Kiev, Fiziologiya i Biokhimiya Kulturnykh Rasteniy, Vol 3, No 3, 1971, pp 252-263

Abstract: This is a review of research done at the author's Department of Photosynthesis and Biochemistry as well as of the published literature devoted to the fragmentation of chloroplasts by detergents. Also covered are studies of the effects of light and heavy particles. The study of disaggregation of chloroplasts and of the properties of membrane fragments of tilakoids, which are more or less complex molecular systems containing various collections of pigments, enzymes, and coenzymes, emerged as a major field of research in the late sixties. Boardman and his group were first to isolate molecular aggregates of chloroplast membranes corresponding to photochemical systems I and II, that is, they could isolate so-called photosynthetic units and obtain them in a relatively pure form. Since then a number of detergents have been found to be suitable for the fragmentation of plant chloroplasts and chloroplasts of chromatophoric bacteria, in addition to the original digitonin: Triton X-100, which

1/3

USSR

OSTROVSKAYA, L. K., *Fiziologiya i Biokhimiya Kulturnykh Rasteniy*, Vol 3, No 3, 1971, pp 252-263

(at a concentration of only 0.007%) accelerates the photoreaction with ferricyanide, (2,6-dichlorophenol)indophenol, and other oxidizing agents. At detergent concentrations of 0.01-0.02%, the Hill reaction is largely inhibited. It had been found also that Triton X-100 has a destructive effect on photosystem II, extracting chlorophyll more intensively than does digitonin. The author's group set out to study more intensively the difference between detergents digitonin and Triton X-100. Some details of this study are given. They found that Triton X-100 leads to partial breakdown of both photosystems. Triton affects the lipid components of either system. Data on the lipid distribution in fragment fractions obtained from corn chloroplasts are given. Electron microscope studies showed that Triton X-100 attacks the surface of chloroplast grain discs. The work of a number of other authors is reviewed and discussed, including various methods developed for mechanical breakdown of chloroplasts, the photophosphorylation mechanism (which was studied by various institutes of the Soviet Union), low-temperature fluorescence spectroscopy used in the study of the effect of hydrolytic enzymes on the structure of chloroplasts or on the photochemical activity of the latter. Other research discussed pertains to the use of galactolipase and its effect on digalactosyldiglycerides -- a comprehensive

2/3

USSR

OSTROVSKAYA, L. K., *Fiziologiya i Biokhimiya Kulturnykh Rasteniy*, Vol 3, No 3, 1971, pp 252-263

study performed at the author's laboratory. It was found that galactolipase completely inhibits any photochemical reaction of the light fragments. The fluorescence and absorption spectra were measured at room temperature and at 77°K. A table with data on the galactolipid content in chloroplasts and heavy and light fragments is given. The results are compared with those obtained by Verron et al.

3/3

USSR

UDC 615.214.22:547.869(Ftorphenazinum)

LYUBIMOV, B. I., RAYEVSKIY, K. S., OSTROVSKAYA, R. U., BARKOV, N. K., and KROLEVETS, G. N., Laboratory of the Pharmacology of Nervous System, Pharmacology Institute, Academy of Medical Science USSR, Moscow

"Neurotropic Properties of Fluzophenazine"

Moscow, Farmakologiya i Toksikologiya, Vol 34, No 3, May-Jun 71, pp 287-290

Abstract: Neurotropic properties of fluzophenazine -- 10-( $\sqrt{\text{V}}$ -[4-( $\beta$ -hydroxyethyl)-pipersinyl-1]-propyl)-2-trifluoromethylphenothiazine dihydrochloride were investigated. The drug was found to be a highly potent neuroleptic. It produced catalepsy, inhibited conditioned reflexes of avoidance, spontaneous motor activity, averted phenamine-induced hyperactivity, prolonged and potentiated the anesthetizing effect of sodium thiopental and hexobarbital, synchronized EEG, and blocked EEG-activation provoked by an acoustic stimulant and phenamine. Fluphenazine is an extremely potent antiemetic. Compared with triflazin, fluphenazine is less toxic and exceeds trifluoperazine in neurotropic activity.

1/1

USSR

UDC 616-008.922.1.94-092.9-085.214.22-039.71

ZAKUSOV, V. V. and OSTROVSKAYA, R. U., Laboratory of Nervous System Pharmacology (Dir. Academician, USSR Academy of Medical Sciences V. V. Zakusov), Institute of Pharmacology, USSR Academy of Medical Sciences, Moscow

"Increased Resistance of Mice to Hypoxia Under the Influence of Tranquilizers of the Benzodiazepine Series"

Moscow, Byulleten Eksperimentalnoy Biologii i Meditsiny, Vol. 71, No 2, Feb 71, pp 45-47

Abstract: Hypoxia frequently accompanies surgery as a result of oxygen deficiency of the plasma in peripheral vessels. Also, hypoxia may develop at various stages of an operation, such as in interruption of blood circulation. It is therefore important to study all compounds administered during operations for their effects on hypoxia. The effect of diazepam, chlordiazepoxide, and nitrazepam on the survival time of white mice in a test chamber with reduced oxygen content (8.7 vol %) was studied. The test substances were administered intraperitoneally in doses of 10 mg/kg. Meprobamate (in doses of 50 and 100 mg/kg) and aminazin (in doses of 5 and 20 mg/kg) were included in this study for comparison purposes. Diazepam (at doses substantially below toxic doses) was most effective in prolonging the survival of mice under the

1/2

USSR

ZAKUSOV, V. V., et al, *Bulleten Eksperimentalnoy Biologii i Meditsiny*, Vol 71, No 2, Feb 71, pp 45-47

above conditions, but the other tranquilizers also exhibited beneficial effects. Meprobamate and aminazin did not show a pronounced protective effect. It was postulated that the antispasmodic effect and the hypodynamia effect, which are of great importance for the activity of barbiturates during hypoxia, are not essential for benzodiazepine derivatives. Rather, the protective effect of these compounds is attributed to some specific intervention in the metabolism whereby the sensitivity of the tissues to oxygen insufficiency is reduced. Preliminary experiments indicated that the cortical structures of the brain especially appear to derive enhanced resistance to oxygen deficiency. It was concluded that diazepam will find clinical use.

2/2



USSR

UDC 615.214.2.015.45:612.26

VYSOTSKAYA, N. B., ZAKUSOV, V. V., OSTROVSKAYA, R. U., and CEUMINA, Z. N.,  
Laboratory of the Pharmacology of the Nervous System, Institute of Pharmacology,  
Academy of Medical Sciences USSR, Moscow

"The Effect of Sodium Oxybutyrate on Oxidative Processes in Brain Tissue During Hypoxia"

Moscow, Byulleten' Eksperimentalnoy Biologii i Meditsiny, No 4, 1970, pp 70-72

Abstract: Experiments with mice demonstrated the ability of sodium oxybutyrate to increase the intensity of oxidative processes in the cerebral cortex and the spinal cord under conditions of normal respiration. The ability of sodium oxybutyrate to prevent the development of inhibition of tissue respiration in animals under conditions of hypoxia was also shown. It was demonstrated that, in this respect, sodium oxybutyrate differs from typical narcotics and tranquilizers. Neither nambutal nor aminazin reduced the degree of inhibition of tissue respiration caused by hypoxia.

1/1

1/2 017  
UNCLASSIFIED  
TITLE--THE INFLUENCE OF SOME DEPRIVING SUBSTANCES ON THE INDUCED REFLEX  
PYRAMIDAL RESPONSE -U-  
AUTHOR--(02)--OSTROVSKAYA, R.U., MARKOVICH, V.V.  
PROCESSING DATE--16OCT70  
COUNTRY OF INFO--USSR  
SOURCE--BYULLETEN' EKSPERIMENTAL'NOY BIOLOGII I MEDITSINY, 1970, VOL 69,  
NR 5, PP 55-59  
DATE PUBLISHED-----70  
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES  
TOPIC TAGS--NARCOTIC, REFLEX, CENTRAL NERVOUS SYSTEM STIMULANT, DRUG  
EFFECT  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAME--1998/0214  
STEP NO--UR/0219/70/069/005/0055/0059  
CIRC ACCESSION NO--AP0120912  
UNCLASSIFIED

2/2 017

UNCLASSIFIED

PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0120912

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IN ACUTE EXPERIMENTS ON 30 CATS THE AUTHORS INVESTIGATED THE INFLUENCE OF NARCOTICS (SODIUM THIOPENTHAL AND SODIUM OXYBUTYRATE), STIMULANTS (BEMEGRIDE AND CAFFEINE) AND NEUROLEPTICS (CHLORPROMAZINE AND TRIPHTHAZINE) ON THE RESPONSE OCCURRING IN THE BULBAR PYRAMIDS IN ELECTRODERMAL STIMULATION. THE STUDIED NARCOTICS REVEALED A CAPACITY TO SUPPRESS THE REFLEX PYRAMIDAL RESPONSE. UPON ANALYSIS OF THIS EFFECT IT IS SHOWN THAT OUT OF THE WHOLE REFLEX ARCH, PARTICIPATING IN THE REALIZATION OF THIS RESPONSE, THE GREATEST SENSITIVITY TO NARCOTICS ELICITE INTRACORTICAL CONNECTIONS WHICH CARRY OUT THE SWITCHING BETWEEN SENSORY AND MOTOR REGIONS OF THE CORTEX. THE REFERRED TO EFFECT COULD BE ELIMINATED BY STIMULANTS. IT IS SHOWN THAT NEUROLEPTICS INHIBIT NEITHER THE REFLEX PYRAMIDAL RESPONSE, NOR THE INTRACORTICAL RESPONSE, OCCURRING IN THE MOTOR REGION IN STIMULATION OF THE FIRST SOMATOSENSORY AREA. FACILITY: INSTITUTE OF PHARMACOLOGY OF THE ACADEMY OF MEDICAL SCIENCES OF THE USSR, MOSCOW.

UNCLASSIFIED

1/2 035 UNCLASSIFIED PROCESSING DATE--23OCT70  
TITLE--NEUROTROPIC PROPERTIES OF AMINOHYDROXYACETIC AND GAMMA  
AMINOHYDROXYBUTYRIC ACIDS -U-  
AUTHOR--(03)-OSTROVSKAYA, R.U., ARTEMENKO, G.N., RAEVSKIY, K.S.  
COUNTRY OF INFO--USSR  
SOURCE--FARMAKOL. TOKSIKOL. (MOSCOW) 1970, 33(2), 137-42  
DATE PUBLISHED-----70  
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES  
TOPIC TAGS--AMINE DERIVATIVE, HYDROXYL RADICAL, MOUSE, TOXICITY,  
NEUROPHYSIOLOGY, ACETIC ACID, BUTYRIC ACID, ANESTHETIC, ANTICONVULSANT  
DRUG, LIVER, ENZYME  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAE--1997/0792 STEP NO--UR/0390/70/033/002/0137/0142  
CIRC ACCESSION NO--AP0119699  
UNCLASSIFIED

272 035

UNCLASSIFIED

PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0119699

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. AMINOHYDROXYACETIC ACID (20 MG-KG) AND GAMMA AMINOHYDROXYBUTYRIC ACID (40 MG-KG) GIVEN I.P. TO MICE POTENTIATED THE ANESTHETIC EFFECTS OF NA THIOPENTAL, NA BARBITAL, AND NA HYDROXYBUTYRATE. THE ACIDS ACTED DIRECTLY ON NEUROTROPIC COMPONENTS AS WELL AS INDIRECTLY BY INHIBITING LIVER ENZYMES WHICH METABOLIZE THE ANESTHETICS. GAMMA AMINOHYDROXYBUTRIC ACID AT 20 MG-KG GIVEN I.V. TO RABBITS POTENTIATED THE STIMULATORY EFFECT OF GAMMA AMINO BUTYRIC ACID (20 MG-KG I.V.) ON THE ELECTROENCEPHALOGRAM. AMINOHYDROXYACETIC ACID (62.5 MG-KG I.P.) REDUCED THE TOXICITY AND LETHALITY OF SEMICARBAZIDE (200 MG-KG I.P.) IN MICE BY 70PERCENT, WHEREAS GAMMA AMINOHYDROXYBUTYRIC ACID REDUCED TOXICITY BY 71PERCENT AT 62.5 MG-KG I.P. AND LETHALITY BY 50PERCENT AT 50 MG-KG. HIGHER DOSES OF THIS LATTER COMPD. WERE LESS EFFECTIVE. GAMMA AMINOHYDROXYBUTYRIC ACID PARTIALLY PROTECTED MICE AGAINST CONVULSIONS INDUCED BY CURAZOLE (100 MG-KG S.C.), STRYCHNINE (2.5 MG-KG S.C.), AND NICOTINE (0.5 MG-KG I.V.).

FARMAKO. NERV. SIST., INST. FARMAKOL., MOSCOW, USSR. FACILITY: LAB.

UNCLASSIFIED

1/2 032

UNCLASSIFIED

PROCESSING DATE--02OCT70

TITLE--EFFECT OF SODIUM OXYBUTYRATE ON OXYDATION IN BRAIN TISSUE UNDER HYPOXIA -U-

AUTHOR--(04)-VYSOTSKAYA, N.B., ZAKUSOV, V.V., OSTROVSKAYA, R.U., CHUMINA, Z.N.

COUNTRY OF INFO--USSR



SOURCE--BYULLETEN' EKSPERIMENTAL'NOY BIOLOGII I MEDITSINY, 1970, VOL 69, NR 4, PP 70-72

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--OXIDATION, BRAIN, HYPOXIA, RESPIRATION, RAT, NARCOTIC, TRANQUILIZER, SODIUM COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REFL/FRAME--1988/1582

STEP NO--UR/0219/70/069/004/0070/0072

CIRC ACCESSION NO--AP0106328

UNCLASSIFIED

2/2 032

UNCLASSIFIED

PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0106328

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE ABILITY OF SODIUM OXYBUTYRATE TO INCREASE THE INTENSITY OF OXIDATION IN BRAIN CORTEX AND BRAIN STEM UNDER CONDITIONS OF NORMAL RESPIRATION AND TO PREVENT INHIBITION OF TISSUE RESPIRATION DEVELOPING IN ANIMALS UNDER HYPOXIA WAS ESTABLISHED IN EXPERIMENTS ON RATS. IT WAS DEMONSTRATED THAT SODIUM OXYBUTYRATE IN THIS RESPECT DIFFERS FROM TYPICAL NARCOTICS AND TRANQUILISERS. NEITHER NEMBUTAL, NOR AMINAZINE REDUCED THE DEGREE OF INHIBITION OF THE TISSUE RESPIRATION CAUSED BY HYPOXIA.

UNCLASSIFIED

172 -021

UNCLASSIFIED

PROCESSING DATE--13NOV70

TITLE--CHEMICAL TRANSFORMATIONS OF MAGNESIUM, CALCIUM, STRONTIUM, ZINC,  
AND CADMIUM TETRAFLUOROBORATES DURING HEATING --U-

AUTHOR--(02)--OSTROVSKAYA, T.V., AMIROVA, S.A.

COUNTRY OF INFO--USSR

SOURCE--ZH. NEORG. KHIM. 1970, 15(3), 657-60

DATE PUBLISHED--70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--DEHYDRATION, THERMAL DECOMPOSITION, BORATE, CHEMICAL REACTION  
RATE, MAGNESIUM, ZINC COMPOUND, CADMIUM COMPOUND, CALCIUM COMPOUND,  
STRONTIUM COMPOUND, FLUORINE DERIVATIVE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAE--1994/1883

STEP NO--UR/0078/70/015/003/0657/0660

CIRC ACCESSION NO--AP0115702

UNCLASSIFIED



272 021

UNCLASSIFIED

PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0115702  
 ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DEHYDRATION ACCOMPANIED WITH A  
 SIMULTANECUS DECOMP. TOOK PLACE ON HEATING MG(BF SUB4) SUB2.4H SUB2 O  
 AND SR(BF SUB4) SUB2.4H SUB2 O LOST H SUB2 O OF CRYSTN. AT 165DEGREES  
 AND 147DEGREES, RESP., WITH A PARTIAL DECOMP. A COMPLETE DECOMP. OF  
 THE RESULTING FLUGROBORATES OCCURRED AT GREATER THAN 260DEGREES AND  
 GREATER THAN 300DEGREES, RESP. DTA SHOWED THAT TEMP. OF THE START OF  
 DECOMP. OF M(BF SUB4) SUB2.4H SUB2 O INCREASED WITH M IN THE ORDER: MG  
 IS SMALLER THAN ZN IS SMALLER THAN CD IS SMALLER THAN CA IS SMALLER THAN  
 SR.  
 FACILITY: PERM. POLITEKH. INST., PERM, USSR.

UNCLASSIFIED

USSR

UDC 543.70

DZIAMKO, V. M., OSTROVSKAYA, V. M., and KON'KOVA, O. V., All-Union Scientific Research Institute of Chemical Reagents and Ultra-pure Chemical Substances, Moscow, State Committee for Chemistry USSR —

"The Extraction-Photometric Determination of Scandium with Use of 1,5-Di-(2'-hydroxy-3', 5', 6'-trichlorophenyl)-3-acetylformazan"

Moscow, Zhurnal Analiticheskoy Khimii, Vol XXV, No 2, Feb 70, pp 267-271

Abstract: A number of high-sensitivity reagents proposed for use in the spectrophotometric determination of scandium (xylenol orange, etc.) are not very effective in practice if thorium, zirconium or any of a number of other substances are present. In view of the high selectivity of DNTRICHAZ (expansion shown in article title) for scandium ions, the authors developed a new extraction-photometric method based on this compound.

Scandium was determined in both wolframite and tungsten samples, using DNTRICHAZ as a reagent. The scandium-reagent stoichiometric ratio was found to be 1:2; the molar extinction of the complex,  $(2.70 \pm 0.67) \cdot 10^4$  for 675 nm. The authors also suggest a quantitative method for determining scandium in tungsten, wolframite, slag and salts, based upon tests which they ran.  
L/L

1/2 013

UNCLASSIFIED

PROCESSING DATE--09OCT70

TITLE--EXTRACTION AND PHOTOMETRIC DETERMINATION OF SCANDIUM WITH  
1,5,BIS(2, HYDROXY, 3, 5, 6, TRICHLOROPHENYL), 3, ACETYLFORMAZAN -U-

AUTHOR--(03)-DZIOMKO, V.M., OSTROVSKAYA, V.M., KONKUYA, O.V.

COUNTRY OF INFO--USSR

SOURCE--ZH. ANAL. KHIM. 1970, 25(2), 267-71

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHEMICAL ANALYSIS, SOLVENT EXTRACTION, SCANDIUM, PHOTOMETRIC ANALYSIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRA--1994/1918

STEP NO--UR/0075/70/025/002/0267/0271

CIRC ACCESSION NO--AP0115732

UNCLASSIFIED

2/2 013

UNCLASSIFIED

PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0115732

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT.

1,5-BIS(2-HYDROXY-3,5,6-TRICHLOROPHENYL)-3-ACETYLFORMAZAN (I) WAS SYNTHETIZED AND STUDIED AS A REAGENT FOR SC DETN. I IS A CINNAMON COLORED POWDER, M.P. 202.3 DEGREES AFTER RECRYSTN. FROM BOILING C SUB6 H SUB6. I REACTS WITH SC IN A 2:1 MOLAR RATIO; MAX. ABSORBANCE OF THE COMPLEX IS AT 675 NM AND THE MOLAR ABSORPTIVITY IS (2.70 PLUS OR MINUS 0.67) TIMES 10 PRIME4. MAX. ABSORBANCE OCCURS IN THE PH RANGE 4.7-6.5. A QUANT. METHOD IS DESCRIBED FOR THE DETN. OF SC IN WOLFRAMITE IN WHICH THE SC IS EXTD. WITH A SOLN. OF I IN ETOAC, AND A QUAL. METHGD FOR SC DETECTION IN SALTS AND SLAGS. TH(IV), ZR(IV), Y(III), LA(III), ND(III), PR(III), SM(III), ER(III), AND MN(II), 1000 FOLD AMTS., AND AL(III), BI(III), AND IN(III), 25 FOLD AMTS., DO NOT INTERFERE; CU(II), CO(III), FE(III), GA, ZN, PB(II), HG(II), HG(I), V(V), F PRIME NEGATIVE, SO SUB4 PRIME2 NEGATIVE, AND PO SUB4 PRIME3 NEGATIVE DD. FACILITY: ALL UNION SCI. RES. INST. CHEM. REAGENTS SPEC. PURE CHEM., MOSCOW, USSR.

UNCLASSIFIED

Steels

UDC 669.01:539.4.015

USSR

CHERNYAK, N. I., NIZHNIK, S. B., and OSTROVSKAYA, V. P., Institute of Mechanics, Academy of Sciences Ukrainian SSR, Kiev

"Change in the Structure and Mechanical Properties of Stainless Martensite-Aged Steel During Plastic Deformation"

Kiev, Fiziko-Khimicheskaya Mekhanika Materialov, Vol 6, No 6, 1970, pp 28-32

Abstract: The phenomenon and several structural causes of hardening of EP-288 and EP-410 stainless Martensite-aged steels were studied with a determined combination of preliminary deformation and aging. Preliminary deformation intensifies the hardening process and significantly increases the strength of the steel with optimal treatment conditions. The structural hardening factors are related to the influence of preliminary deformation on the stress state of the Martensite in the aged steel, the process of separation and the nature of the distribution of intermetallic and carbide phases.

USSR

UDC 620.17

GORB, M. L., OSTROVSKIY, A. A. (Kiev), Institute of the Problems of Material Science, Academy of Sciences, Ukrainian SSR

"A Chamber and Mechanical Tensometers for Testing Tubular Specimens at Low Temperatures"

Kiev, Problemy Prochnosti, No 10, 1970, pp 101-105

Abstract: A design is proposed for a low-temperature attachment to installations for testing tubular specimens for the combined action of an axial load and internal pressure. A description is given of the design of mechanical tensometers intended for the measurement of longitudinal and transverse deformations of tubular samples deformed in a low-temperature chamber. 3 figures, 3 bibliographic entries.

1/1

" 93 -

AA0044272 -

0

UR 0482

Soviet Inventions Illustrated, Section II Electrical, Derwent,

243216 INTERFERENCE RESOLVOMETER can be applied for measuring the resolving power of optical systems, producing an image, or some parts of the optical objectives, screens, etc. The resolvometer contains a source of coherent light, a telescopic system widening the light pencil and a system deviating it, which consists of one half-lens only. The suggested device works as follows. The light flow from a coherent source of light (laser He - Ne) is directed on to the telescopic system 2 and 3, which widens the light pencil and from there on to the deviating optical system (plate 4), placed in bottom half of the area of vision and cylindrical half-lens 5, mounted on the upper half of the area of vision and on the tested system 6, as f.i. on photoemulsion.

4/70

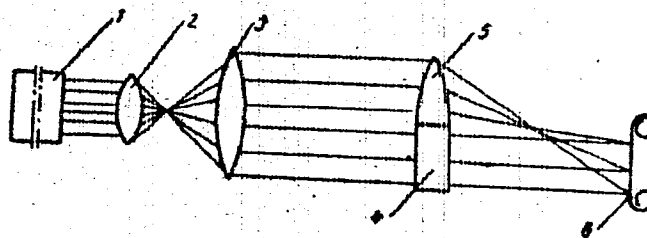
30.1.67 as 1130382/26-25.Y.I. OSTROVSKII, A.P. YOFFE  
 PHYSICO-TECHNOLOGICAL INST. (18.9.69) Bul 16/5.5.69  
 Class 42b, 57c. Int.Cl.G 01m, C 02b, G 03d.

1/2

21

19770795

AA0044272



MT

AUTHOR: Ostrovskiy, Yu. I.

Fiziko-Tekhnicheskiy Institut imeni A. F. Ioffe

2/2

19770796





USSR

BINYUKOV, V. I., et al., Biokhimiya, Vol. 36, No 6, Nov/Dec 71, pp 1149-1155

temperatures suggest that high temperature induces conformational transformations in the protein fraction, and these induce structural transformations in the lipid fraction of bacterial membranes.

2/2

Acc. Nr: **AP0044187**

Ref. Code: UR 0016

PRIMARY SOURCE: Zhurnal Mikrobiologii, Epidemiologii, i Immunobiologii, 1970, Nr 2, pp 76-78

ELECTRON MICROSCOPIC STUDY OF THE SECTIONS OF BR. ABORTUS AND SUIIS CELLS AT VARIOUS PERIODS OF THEIR INTERACTION WITH THE CORPUSCLES OF Tb PHAGE

N. N. Ostrovskaya, A. A. Manukin, T. A. Tolmacheva

In ultra-thin sections of Br. abortus and suis cells prepared after a different period of contact with corpuscular Tb phage there was revealed a principal difference in the interaction of the phage and cells of the mentioned species of brucella. Various periods of interaction of the phage and cells were revealed in the sections of Br. abortus cells: the time of adsorption, the intracellularly localized reproduced corpuscles of the phage and their exit; changes in submicroscopic structure of Br. abortus cells were also noted. Interaction of Br. suis cells with the corpuscles of Tb phage were limited by the process of adsorption. This pointed to the fact that the lysis of Br. suis cells observed in the presence of multiplicity of infection is conditioned by lysis from without.

//

6  
DI

REEL/FRAME  
19770672

USSR

UDC 621.396.677

KOMISSAROV, YA. S., PAVLYUK, V. A., KRIVOSHEYEV, YE. F., OSTROVSKAYA, L. S.

"Experimental Study of a Diffraction Problem"

Radiotekhnika. Resp. mezhved. nauchno-tekhn. sb. (Radio Engineering, Republic Interdepartmental Scientific and Technical Collection), 1970, vyp. 14, pp 106-109 (from RZh-Radiotekhnika, No 4, Apr 71, Abstract No 4B31)

Translation: The diffraction properties of periodic antenna arrays are investigated. There are 3 illustrations and a 3-entry bibliography.

1/1

- 14 -

USSR

UDC: 576.851.42:576.858.9

OSTROVSKAYA, N.N., MANYKIN, A.A., and TOLMACHEVA, T.A., Institute of Epidemiology and Microbiology imeni Gamaleya, Academy of Medical Sciences USSR

"Electron-Microscope Study of Br. abortus and B. suis Cells at Different Periods of Interaction with Tb Phage Particles"

Moscow, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 2, 1970, pp 76-78

Abstract: A fundamental difference was noted in the interaction of Tb phage particles with cells of the two Brucella species. In preparations of ultra-thin sections of Br. abortus, cells with adsorbed phage particles were seen after 1½-3 hours of contact. After 6-9 hours of contact, reproduced particles were clearly visible within the cells against the background of cytoplasm. There were also ultrastructural changes in the nucleus and cell wall. The effect of the phage on B. suis was quite different. The preparations contained phage-free, unaltered cells or cells with adsorbed particles. Experiments with several B. suis strains failed to reveal the presence of phage particles within the cells. Large quantities of detritus observed in several visual fields were indicative of destruction of the cells, possibly caused by "lysis from without."

1/1

USSR

UDC 576.341

BINYUKOV, V. I., ZHUKOVA, I. G., and OSTROVSKIY, D. N., Institute of Biochemistry imeni A. N. Pakh, Academy of Sciences USSR, Moscow

"Evaluation of the Secondary Structure of Proteins of Bacterial Membranes on the Basis of Infrared Spectroscopy Data"

Moscow, Doklady Akademii Nauk SSSR, Vol 198, No 6, 1971, pp 1,457-1,460

Abstract: The structural organization of protein in *Micrococcus lysodeikticus* and *Escherichia coli* membranes was studied through the infrared spectroscopy of dry films and also on the basis of the H  $\rightleftharpoons$  D exchange rate in moist preparations of intact and defatted membranes. The reason for the study was the small amount of information on the state of basic components of biological lipoprotein membranes. It is noted that the application of many physical methods such as nuclear magnetic resonance and infrared spectroscopy has shown that proteins in membranes of different origins are in an  $\alpha$ -spiral and disordered tangle state and that the  $\beta$ -form is apparent only under special conditions. Bacterial membranes were previously studied only in a paper by Lenard and Singer in 1966, who observed that the parameters of optical rotatory dispersion and circular dichroism of membranes of *Bac. subtilis* are very similar to the parameters for erythrocytes. This was  
1/2

1/2 023 UNCLASSIFIED PROCESSING DATE--16SEP70  
TITLE--THERMAL CONDUCTIVITY AND THERMAL DIFFUSIVITY OF IRON MONOSILICIDE  
-U-  
AUTHOR-(03)-KRENTSIS, R.P., OSTROVSKIY, F.I., GELD, P.V.  
COUNTRY OF INFO--USSR  
SOURCE--FIZ. TEKH. POLUPROV. 1970, 4(2), 403-5  
DATE PUBLISHED-----70  
  
SUBJECT AREAS--PHYSICS, CHEMISTRY  
TOPIC TAGS--IRON COMPOUND, THERMAL CONDUCTIVITY, SILICON COMPOUND,  
ELECTRICAL CONDUCTIVITY, SILICON SEMICONDUCTOR  
  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAME--1988/0573 STEP NO--UR/0449/70/004/002/0403/0405  
CIRC ACCESSION NO--AP0105558  
UNCLASSIFIED

2/2 023

UNCLASSIFIED

PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0105558

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SINGLE CRYSTALS OF FESI WERE GROWN FROM THE MELT BY THE CZOCHRALSKI METHOD, THE FESI BEING PREPD. FROM CARBONYL FE AND SEMICONDUCTOR GRADE SI. THE THERMAL COND. WAS MEASURED BY USING EQUIPMENT DESCRIBED PREVIOUSLY (L. P. FILIPPOV, 1967) OVER THE TEMP. RANGE 400-900DEGREES, WHILE THE ELEC. RESISTANCE WAS MEASURED POTENTIOMETRICALLY. AN EQUATION IS GIVEN RELATING THE ELEC. RESISTANCE AND THE THERMAL COND. THIS IS THEN USED TO CALCULATE THE LORENZ NO. FOR FESI OVER THE TEMP. RANGE 1200-1600DEGREES WHERE THE ELEC. RESISTANCE IS ALMOST CONST. THE VALUES OBTAINED WERE  $L_{SUBMIN}$ . EQUALS 3.1 TIMES  $10^{10}$  PRIME NEGATIVE 8 V PRIME 2-DEGREE PRIME 2 AND  $L_{SUBMAX}$ . EQUALS 3.4 TIMES  $10^{10}$  PRIME NEGATIVE 8 V SUB 2, DEGREE PRIME 2, WHICH ARE SIGNIFICANTLY HIGHER THAN THE VALUE FOR METALS, I. E. 2.45 TIMES  $10^{10}$  PRIME NEGATIVE 8 V PRIME 2-DEGREE PRIME 2.

UNCLASSIFIED



USSR

UDC 539.5.015

GUREVICH, YA. B., DMITRIYEV, V. N., KONYAYEV, YU. S., OSTROVSKIY, G. A.,  
and ERTIN, R. I., Moscow

"Composite Strengthening of Steel by Hydroextrusion"

Moscow, Fizika i Khimiya Obrabotki Materialov, No 4, Jul-Aug 71, pp 71-76

Abstract: An attempt is made to achieve high indicators of strength and ductility of structural steels by combination methods of strengthening: 1) thermomechanical treatment-strain aging of martensite and 2) treatment for an ultra-fine austenite grain-strain aging of martensite. Experiments were conducted using Cr-Ni-Si steels with a carbon content of 0.35% (steel A), 0.45% (steel B), and 0.50% (Steel C). Treatment consisted of austenization at 950°C, cooling to 850°C, rolling, water quenching, and tempering for one hour at 200°C (steel A) and 300°C (steel B). Steel C was treated to produce ultra-fine austenite by quenching from 900°C in oil, tempering for one hour at 200°C, repeated austenization in heating to 900°C at the rate of 100°/sec, water quenching and tempering for one hour at 150 and 300°C. Deformation of the martensite at room temperature was accomplished by hydroextrusion at pressures up to 25 kbar. From the heat treatments mentioned above the following mechanical properties were achieved.

1/2

USSR

GUREVICH, YA. B., et al., Fizika i Khimiya Obrabotki Materialov, No 4, Jul-Aug 71, pp 71-76

	Tensile (kG/mm <sup>2</sup> )	Yield (kG/mm <sup>2</sup> )	Elonga- tion, %	Reduction in Area, %
Steel A	160	145	9	45
*Steel B	170-290	140-275	6-11	20-37
*Steel C	180-265	150-250	5-12	20-45

\*Mechanical property ranges for steels B and C are the result of introducing variations in the heat treating modes.

Three figures, 2 tables, 7 bibliographical references.

2/2

USSR

UDC 669-156.3:620.178

SHEPELYAKOVSKIY, K. Z., and ~~OSTROVSKIY, G. A.~~, Moscow Evening Institute of Metallurgy, Plant imeni V. I. Lenin

"The Grain "Superhardness" of Chilled Steel"

Moscow, Metallovedeniye i Termicheskaya Obrabotka Metallov, No 4, 1971, pp50-53

Abstract: The effect of austenite grain size on the hardness of chilled steel was experimentally investigated on specimens of steels 40 and U8, (3 x 10 x 110 mm), prepared from preliminarily improved skeeps, and of samples (28 mm in diameter) of steel 45. It is demonstrated that the hardness depends linearly on the grain size and that the phase cold hardening, determined by the rapid formation of austenite, does not result in a noticeable increase of hardness. A reliable exposure of the effect of grain size on the increase of hardness of chilled steel was found to be possible only on the basis of a grain size reduction from 7-8 to 14-15 balls with rates of 100-1000 deg/sec. A maximum Rockwell Superhardness of the ball 2 can be obtained. Three illustrations, three tables, eight bibliographic references.

1/1

USSR

UDC 621.382.5

ZVYAGINA, E. N., OSTROVSKIY, G. I., TIKHONOV, V. I., KILIPENKO, V. V.,  
CHERNYAVSKIY, V. V.

"Study of Contact Resistances in Thermoelectric Materials"

V sb. Nizkotemperaturn. termoelektrich. materialy (Low-Temperature Thermo-  
electric Materials -- Collection of Works), Kisinev, 1970, pp 44-47 (from  
RZh--Elektronika i yeye primenneiye, No 5, 1971, Abstract No 5B187)

Translation: A method is proposed for measurement of the contact resistances of  
thermopiles, based on an increase of the number of switching layers in the  
specimen. In contrast to the sonde-type, the proposed method has great  
sensitivity, gives good reproducibility of results (0.4%, whereas the sonde  
type is as much as 20% [sic]) and makes it possible to measure contact re-  
sistance in a wide range of temperature. 2 ill. 4 ref. Author's Abstract.

1/1

- 41 -

Hydraulic and Pneumatic

USSR

UDC 627.81:551.48

KURDOV, A. G., OSTROVSKIY, G. M.

"Formula for Calculating the Minimum Runoff Norm of Mountain [Semimountainous] Rivers [In the Example of the Bashkir ASSR]"

Izuch. i. ispol'z vodn. resursov SSSR. 1966-1967 -- V sb. (Study and Use of USSR River Resources. 1966-1967 -- Collection of Works), Moscow, Nauka Press, 1970, 49-50 (from RZh-Elektrotehnika i Energetika, No 2, Feb 71, Abstract No 2 D16)

Translation: A formula is derived for calculating the minimum runoff norm of mountain (semimountainous) rivers

$$\bar{Q}_{\min} = \lambda(aH_{\text{ave}} + b)(F - F_0)^n,$$

where  $H_{\text{ave}}$  is the average altitude of the water shed;  $F$  is the area of the watershed;  $F_0$  is the annual drying (freezing) area of the river channels.

1/1

1/2 018 UNCLASSIFIED PROCESSING DATE—09OCT70  
TITLE—KINETIC MODEL OF THE CATALYTIC OXIDATIVE DEHYDROGENATION OF N  
BUTENES OF 1,3,BUTADIENE -U-  
AUTHOR—(05)—BAKSHI, YU.M., SNAGOVSKIY, YU.S., GURYANOVA, R.N., GELBSHTEYN,  
A.I., OSTROVSKIY, G.M.  
COUNTRY OF INFO—USSR  
SOURCE—NEFTEKHIMIYA 1970, 10(1), 7-15  
DATE PUBLISHED—70  
SUBJECT AREAS—CHEMISTRY  
TOPIC TAGS—COMPUTER, CALCULATION, CHEMICAL REACTION RATE, BUTENE,  
BUTADIENE, CATALYTIC DEHYDROGENATION; ALGORITHM  
CONTROL MARKING—NO RESTRICTIONS  
DOCUMENT CLASS—UNCLASSIFIED  
PROXY REEL/FRAME—1992/1887 STEP NO—UR/0204/70/010/001/0007/0015  
CIRC ACCESSION NO—AP0112867  
UNCLASSIFIED

2/2 018


UNCLASSIFIED

PROCESSING DATE--09DCT70

CIRC ACCESSION NO--AP0112867

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A KINETIC MODEL FOR A COMPUTER PROGRAM WAS USED TO CALC. RATE CONSTS. WITH AN AV. RELATIVE ERROR IS SMALLER THAN OR EQUAL TO 20PERCENT (20-30PERCENT FOR O-CONTG. BY PRODUCTS) FOR N BUTENE CONVERSION TO H SUB2 C:CHCH:CH SUB2 (I) DURING OXIDATIVE DEHYDROGENATION AT 425-70DEGREES OF A BUTENE FRACTION (29.6PERCENT 1, 22.6PERCENT CIS, 2, AND 31.6PERCENT TRANS, 2, BUTENE, 3.12PERCENT H SUB2 C:OME SUB2, 2.3PERCENT I, AND 10.7PERCENT OTHER C SUB2-4 HYDROCARBONS) ON AN UNSUPPORTED, PROMOTED 1:1 BI-MO CATALYST. AT 470DEGREES WITH A FEED MIXT. CONTG. C SUB4 H SUB8, O, N, AND H SUB2 O IN A RATIO OF 1:1.8:18.5:3.9, WITH CONTACT TIME 6.2 SEC, CONVERSION AND SELECTIVITY WITH RESPECT TO I WERE CALCD. TO BE 75 AND 72PERCENT AND WERE FOUND EXPTL. TO BE 75 AND 68PERCENT, RESP. CONSTS ENTERING INTO THE RATE EQUATIONS WERE DETD. WITH THE USE OF A STEEPEST DESCENT ALGORITHM METHOD FOR FINDING THE MIN. OF A FUNCTION OF IN A AND E VALUES OF THE ARRHENIUS EQUATIONS. FACILITY: NAUCH. ISSLED, FIZ. KHIM. INST. IM. KARPOVA, MOSCOW, USSL.

UNCLASSIFIED

1/2 008 UNCLASSIFIED PROCESSING DATE--16OCT70  
TITLE--ON OPTIMAL CONTROL OF PROCESSES WITH PARAMETERS UNDER RESTRICTED  
PHASE COORDINATES -U-  
AUTHOR-(02)-BEREZHIINSKIY, T.A., OSTROVSKIY, G.M.   
COUNTRY OF INFO--USSR  
SOURCE--AVTOMATIKA I TELEMEXHANIKA, 1970, NR 2, PP 7-13  
DATE PUBLISHED-----70  
SUBJECT AREAS--MATHEMATICAL SCIENCES, MECH., IND., CIVIL AND MARINE ENGR  
TOPIC TAGS--OPTIMAL AUTOMATIC CONTROL, AUTOMATIC CONTROL DESIGN  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAE--1983/1974 STEP NO--UR/0103/70/000/002/0007/0013  
CIRC ACCESSION NO--AP0054772  
UNCLASSIFIED



2/2 008  
CIRC ACCESSION NO--AP0054772

UNCLASSIFIED

PROCESSING DATE--16OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THERE IS CONSIDERED THE APPLICATION OF THE GRADIENT PROTECTION METHOD FOR THE SOLUTION OF AN OPTIMAL PROBLEM WITH THE PARAMETERS AND WITH STATE VARIABLE INEQUALITY CONSTRAINTS. THERE ARE ALSO STATED THE NECESSARY CONDITIONS OF THE OPTIMALITY OF CONTROL FOR THIS PROBLEM IN THE FORM ANALOGOUS TO THE DISCRETE VARIANT OF THE PRINCIPLE OF MAXIMUM.

UNCLASSIFIED

USSR

LINNIK, Yu. V., OSTROVSKIY, I. V.

"Expansion of Random Quantities and Vectors"

Razlozheniya sluchaynykh velichin i vektorov [English version above],  
Moscow, Nauka Press, 1972, 479 pages (Translated from Referativnyy  
Zhurnal - Kibernetika, No 8, 1973, Abstract No 8 V20 by G. Chistyakov)

Translation: This monograph sums up ten years of studies in the theory  
of expansion of random quantities and vectors, performed after publication  
of the well known book of Yu. V. Linnik, Razlozheniya veroyatnostnykh  
zakonov [Expansion of probabilistic laws], (RZhMat, 1973, 7V110).

Chapters I-V, VII-VIII study the same problems as in the earlier book of  
Yu. V. Linnik, much new material is included and the method used in a  
number of proofs is changed. Chapter VI contains general theorems on  
the expansions of multidimensional laws, as well as sufficient conditions  
for membership of n-dimensional limitlessly divisible laws in class  $I_{0n}$   
(i. e., the class of n-dimensional laws not having unexpandable components).

1/2

- 1 -

USSR

LINNIK, Yu. V., OSTROVSKIY, I. V., Razlozheniya sluchaynykh velichin i vektorov, Moscow, Nauka Press, 1972, 479 pages

The systematic study of the expansions of random vectors was begun basically in the 1960's and is fully reflected in this monograph for the first time. Chapter IX reflects the recently developed theory of V. M. Zolotarev of summation of independent random quantities without conditions of limiting negligibility. Chapter X is dedicated to unsolved problems. The book includes four appendices, presenting special problems. The monograph is ended with a commentary on historical problems and references to the literature.

2/2

USSR

UDC: 519.2

LIVSHITS, L. Z., OSTROVSKIY, I. V.

"On Multidimensional Infinitely Divisible Laws Having Only Infinitely Divisible Components"

V sb. Mat. fiz. i funkts. analiz (Mathematical Physics and Functional Analysis—collection of works), vyp. 2, 1971, pp 61-75 (from RZh-Kibernetika, No 4, Apr 72, Abstract No 4V10)

Translation: It is proved that the class of n-dimensional infinitely divisible laws having only infinitely divisible components is dense in the sense of weak convergence in the class of all n-dimensional infinitely divisible laws. Authors' abstract.

1/1

USSR

UDC: 519.21

~~OSTROVSKIY, I. V.~~

"Concerning a Class of Eigenfunctions"

Tr. Mat. in-ta AN SSSR (Works of the Mathematics Institute, Academy of Sciences of the USSR), 1970, 111, pp 195-207 (from RZh-Kibernetika, No 7, Jul 71, Abstract No 7V22)

Translation: Let  $D$  be a class of eigenfunctions  $\phi(t)$  of probabilistic distributions on a straight line such that each function  $\phi(t)$  is an analytical function in some neighborhood of the point  $t=0$ , and the function  $1/\phi(it)$  is also an eigenfunction.

Theorem 1. Any function  $\varphi(t) \in D$  is meromorphic in some cross  $K(a, b) = \{|\operatorname{Re} t| < a\} \cup \{|\operatorname{Im} t| < b\}$ ,  $a > 0$ ,  $b > 0$ .

There exist functions  $\varphi(t) \in D$ , meromorphic in cross  $K(\pi, \pi)$ , for which each point of the boundary of  $K(\pi, \pi)$  is singular.

Theorem 2. Any integral function  $\varphi(t) \in D$  admits the estimate

$$\max_{|t|=r} |\varphi(t)| < \exp(c r^r), \quad r > 1.$$

at some  $c > 0$ . There exist integral functions  $\varphi(t) \in D$ , for which for some

1/2

OSTROVSKIY, I. V., Tr. Mat. in-ta AN SSSR, 1970, 111, pp 195-207

$c > 0$ ,  $\max_{t \in D} |\varphi(t)| > \exp(e^c)$ ,  $r > 1$ . For any  $\rho$ ,  $1 < \rho < \infty$ , there exist integral functions  $\varphi(t) \in D$  of order  $\rho$ . V. Petrov.

USSR

KUCHEROV, I. YA., OSTROVSKIY, I. V., Kiev State University imeni  
T. G. Shevchenko

"The Interaction of Transverse Ultrasonic Waves With Charge Carriers  
in Piezo Semiconductor Plates"

Leningrad, Fizika Tverdogo Tela, Vol 12, No 6, June 1970, pp 1686-  
1692

Abstract: A solution is provided to the problem of the interaction  
of charge carriers with transverse ultrasonic waves which propagate  
along direction  $[100]$  in a piezo semiconductor of  $C_{6v}$  symmetry.  
Research in this field has up to now not been published; therefore,  
in the article theoretical and experimental research on the influence  
of conductivity and drift fields on the propagation of transverse  
waves in plates of crystals with a symmetry of  $C_{6v}$  has been carried  
out (the problem is solved without account being taken of the diffu-  
sion of the charge carriers; the experiment was carried out on the  
basis of CdS). Dispersion equations are obtained, and from them  
1/2

USSR

KUCHEROV, I. YA., et al, Fizika Tverdogo Tela, Vol. 12, No 6, June 1970, pp 1686-1692

the attenuation of the ultrasonic waves in the first approximation is found on the basis of the square of the coefficient of electro-mechanical coupling. For transverse waves in plates the attenuation may be represented in the form of a product from an analogous expression for a limitless crystal and a value  $A$ , which depends on the parameters of the plates, the frequency, and the drift fields. Far from the points of origination of nonzero modes (when the phase velocity of the waves  $v$  approaches the velocity of the transverse waves in a boundless crystal  $v_t$ )  $A$  approaches 1. Close to the point of origination  $A \approx v/v_t$ . For a null symmetrical mode  $A$  may change from zero to unity. A comparison of the theoretical results with the experimental ones is made. The experiment was performed on CdS plates. The experimental and theoretical details on electron attenuation are in satisfactory agreement, while the data on the dependence of attenuation upon the drift fields agree only qualitatively.

2/2



USSR

UDC 621.371:551.510.535

OSTROVSKIY, L. A. and PAPILOVA, I. A.

"Tilt in Propagation of FM Pulses in an Ionosphere Layer"

Moscow, V sb. X Vses. konf. po rasprostr. radiovoln. Tezisy dokl. Sekts. 1 (Tenth All-Union Conference on the Propagation of Radio waves; Report Theses; Section 1--collection of works) "Nauka," 1972, pp 334-340 (from RZh--Radiotekhnika, No 10, 1972, Abstract No 10A331)

Translation: The characteristics of tilted propagation of FM signals are investigated in a nonuniform ionosphere layer through the methods of geometrical optics. "Quasi-optical" corrections are estimated to permit finding the intensity and duration of the focal point. In a similar approximation, the influence of nonlinear effects in dispersion compression is taken into account. Three illustrations, bibliography of five. A. I.

1/1

USSR

UDC 621.371:621.391.814.2

OSTROVSKIY, L. A., SOUSTOV, L. V., Scientific Research Radio Physics Institute

"Self-Modulation of Electromagnetic Waves in Nonlinear Communication Lines"

Gor'kiy, Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, Vol XV, No 2, 1972, pp 242-248

**Abstract:** Results are presented from a study of nonlinear phenomena caused by the self-modulation effect in lines with nonlinear capacitances of the semiconductor diodes. The effects connected with instability of the traveling and standing electromagnetic waves in these lines were investigated. In such systems it turned out to be possible to obtain highly significant (up to 13 times) buildup of the depth of modulation of the traveling wave and also to trace the evolution of the waves with deep modulation as a result of which the wave splits into shortwave packets. It is also essential that the use of a limited system — resonator — permits observation of the self-modulation of the standing monochromatic wave. The modulation occurs only as a result of natural field fluctuations. The specific nature of the system used in the experiment connected with the relaxation nature of the nonlinearity is also presented. The investigated effects can find practical application in connection with the possibility of amplifying and generating electromagnetic signals [L. A. Ostrovskiy, et al., USSR Author's Certificate No 302801, Byull. izobr., No 15, 1971].

1/1

USSR

UDC 681.325.65

OSTROVSKIY, L. M.

"A Device for Realizing n-Place Logic Functions of the Form  $F_k = (x_1 x_2 x_3 \dots x_k) + (x_1 x_2 x_k \dots x_n)$  of  $C_n^k$  Combinations of Variables"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obrazttsy, Tovarnyye Znaki, No 12, 1970, Author's Certificate No 257186, p 118

Abstract: This Author's Certificate introduces a device for realizing n-place logic functions of the form  $F_k = (x_1 x_2 x_3 \dots x_k) + \dots + (x_1 x_2 x_k \dots x_n)$  of  $C_n^k$  combinations of variables. The device contains a converter which changes the input combinations of variables to an algebraic sum, a block of constants, and comparison elements. As a distinguishing feature of the patent, the system is simplified while simultaneously realizing all n-dimensional functions of the given type. The output of the unit which converts the input combinations of variables to an algebraic sum is connected to the comparison elements, to which the outputs of the block of constants are also connected. The outputs of the comparison elements act as the outputs of the entire device.

1/1

Acc. Nr: AP0044411

Ref. Code: UR  
0660  
PP 79-86

PRIMARY SOURCE: Neyrofiziologiya, 1970, Vol 2, Nr 1, PP 79-86

SOME PECULIARITIES OF THE SYNAPTIC TRANSMISSION  
BETWEEN PHOTORECEPTORS AND HORIZONTAL CELLS

Yu. A. Trifonov. M. A. Ostrovskiy

Institute of Problems of Information Transmission  
and Institute of Higher Nervous Activity and Neurophysiology,  
Academy of Sciences, USSR, Moscow

Summary

A hypothesis, according to which the transmitter depolarising the horizontal cell membrane is continually liberated from the receptors in darkness and ceases to be liberated in the light, is tested experimentally. The results described in the first part show that current passing radially through the retina (anod on the receptor surface) and evoking the positive (depolarizing) response of the horizontal cells acts on the presynaptic endings of receptors. As a result they become depolarized and the transmitter is liberated from the receptors endings. The experiments with electric stimulation of

1/2

REEL/FRAME  
19771030

2

AP0044411

the retina showed that potassium cyanide breaks the synaptic transmission from the receptors to the horizontal cells (part II). The membrane potential in this case is equal to membrane potential in the bright light and it seems to be the true resting potential of horizontal cells. The stability of the light membrane potential of the horizontal cells in the case of temperature changes supports this suggestion (III part). At the same time the membrane potential in the darkness can be greatly increased by heating. This effect was explained by an increase in the speed of destruction of the transmitter, because the increase of temperature shortens the response of horizontal cells to electric stimulation.

2/2

19771031

DI

USSR

UDC 613(075.8)

2

ZIL'BER, D. A., (DECEASED), LOGINOVA, R. A., NOVIKOVA, I. M., OLEKHNOVICH, A. I., OSTROVSKIY, M. M., and RAZUKOVSKIY, N. D.,

Gigiyena (Hygiene), Moscow, "Meditsina," 1970, 384 pp

Translation: Annotation: This textbook has been compiled for students of pharmaceutical institutes and pharmaceutical faculties of medical institutes in accordance with the hygiene teaching program. It contains materials corresponding to the nature of their future work. Such materials concern problems of hygiene in pharmacies, labor hygiene in galenical and chemicopharmaceutical enterprises, foundations of epidemiology and organization of antiepidemic measures, and sanitary education.

The indicated subjects are completely lacking in hygiene textbooks issued for students of therapeutic, sanitary, and other faculties of medical institutes.

Some facets of general hygiene are elucidated also in this textbook without which it is impossible for students to learn certain hygienic problems which are specific for them as future specialist pharmacists.

Table of Contents:

Foreword

page  
3

USSR

ZIL'BER, D. A., et al., Gigiyean, Moscow, "Meditsina," 1970, 384 pp	5
Introduction	6
Section I. Foundations of General Hygiene	8
Chapter 1. ZIL'BER, D. A., Hygiene as a Science	8
Subject of Hygiene and its Tasks	9
Methods of Hygienic Investigations	11
Differentiation of Hygiene	12
Sanitary Control	14
Chapter 2. ZIL'BER, D. A., Hygiene in the Past and at Present	14
Hygiene in Ancient Peoples and Under the Feudal System	14
Development of Hygiene in Europe	18
Hygiene in Prerevolutionary Russia	21
Hygiene in USSR	26
Chapter 3. OLEKHNOVICH, A. I., OSTROVSKIY, M. D., and RAZUMOVSKIY, M. D.,	29
Hygiene of the Air	30
Chemical Composition of the Air and its Hygienic Significance	36
Air Pollution of Chemical and Mechanical Toxic Admixtures	46
Air Microflora and its Control	50
Physical Properties of Air	51
Solar Radiation and its Hygienic Significance	

2/3 2/2

1/2 008 UNCLASSIFIED PROCESSING DATE--13NOV70  
TITLE--COMPOSITION OF ALKALOIDS PRODUCED BY CLAVICEPS PURPUREA TUL -U-  
AUTHOR--(03)--SHALAGINA, A.I., BANKOVSKAYA, A.N., OSTROVSKIY, N.I.  
COUNTRY OF INFO--USSR  
SOURCE--MIKROBIOLOGIYA, 1970, VOL 39, NR 1, PP 67-70  
DATE PUBLISHED--70  
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES  
TOPIC TAGS--ALKALOID, CHEMICAL COMPOSITION  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PRUXY REEL/FRAME--1990/1412 STEP NO--UR/0220/70/039/001/0067/0070  
CIRC ACCESSION NO--AP0109474  
UNCLASSIFIED



2/2 008

UNCLASSIFIED

PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0109474

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. THE DATA ON ALKALOID COMPOSITION IN SCLEROTIUM AND MYCELIUM OF THE SAPROPHYTIC CULTURE ARE PRESENTED FOR 22 STRAINS OF CLAVICEPS PURPUREA TUL. UNDER EXPERIMENTAL CONDITIONS THE STRAINS WITH CERTAIN ALKALOIDS IN SCLEROTIA SOMETIMES DO NOT CONTAIN THEM IN MYCELIUM AFTER GROWTH ON A DEFINED MEDIUM. HENCE, SEVERAL STRAINS OF CLAVICEPS PURPUREA DO NOT EXHIBIT CORRELATION IN ALKALOID PRODUCTION IN PARASITIC AND SAPROPHYTIC CULTURES.

UNCLASSIFIED

USSR

UDC 632.951:633.88

LI, N., and OSTROVSKIY, N. I., All-Union Scientific Research  
Institute of Medicinal Plants, Bittsa, Ministry of Health USSR

"Effectiveness of the Use of Certain Insecticides Against Turnip  
Moth Caterpillars on Solanum Laciniatum Ait. Plantings"

Moscow, Khimiya v Sel'skom Khozyzstve, Vol 8, No 7, Jul 70, pp 31--32

Abstract: Studies were conducted of the effectiveness of certain insecticides against turnip moth caterpillars on young Solanum laciniatum Ait. crops, a source of steroid hormones in the USSR. Under hot and dry climate conditions, the succulent Solanaceae family plants attract turnip moth caterpillars and contribute to their development. One of the reasons for the inadequate effectiveness of organochlorine preparations in pest control is loss of their toxicity under high temperature and active solar radiation conditions. Granular preparations are more resistant to meteorological factors and less dangerous for entomophages and pollinating insects than dusts. Therefore, to protect the plants against the turnip moth caterpillars during the course of vegetation, granular insecticides were used. To prevent early damage to shoots, the intoxication

- 60 -

USSR

LI, N., et al., Moscow, Khimiya, v Sel'skom Khozyaystve, Vol 8, No 7, Jul 70, pp 31-32

tion method was applied.

It was found that preplanting powdering of seeds with aldrin contributed to an 85.8% decrease in shoot damage, and with heptachlor and the gamma-isomer of hexachlorocyclohexane it was 23.5% and 19.1% respectively. Such a level of damage decrease under brief intoxication is clearly inadequate; therefore, the preplanting powdering of the plants in the system of control measures for the turnip moth caterpillar can only be considered as a supplementary one. The low effectiveness of powdering, probably, can be explained by the poor adherence of the insecticides on the smooth and fine Solanum seeds. In belt-type row application of the granular insecticides, the amount of damaged and lost plants dropped by 94-95% in comparison with control plants. Application of diazinon in half dose only partly protected the young crops from pest damage. Unsatisfactory results were also obtained in spraying of the young crops with a diazinon suspension.

2/2

OSTROVSKIY P.I.

JPRS 59308  
C-72

IX-3. PHYSICOCHEMICAL STUDIES OF THE PROCESSES OF GROWING AND ALLOYING GAP CRYSTALS IN A CLOSED GAS TRANSPORT SYSTEM

Article by A. V. Samoilova, P. I. Ostrovskiy, L'vov, November, III State University, Lvov, Ukraine. Journal of Crystal Growth, Vol. 1, No. 1, p. 117, 1972.

An analysis was made of the growth conditions of single GAP crystals in the Ga-1, Er transport system by the vapor-liquid-crystal mechanism with Cu, Ag, Pt, Cd, and G admixtures.

A study was made of the effect of the admixtures on the morphology of the grown GAP crystals. In particular, Cu and Ag admixtures promote the growth of high-resistance ( $> 10^9$  ohm-cm) whisker crystals in the c(111) direction; Pt, Cd, and they have cross hatching representing the growth lateral faces are parallel to the c(110) direction. The crystals from Pt are six-sided (211). In the Ga-1-zn and Cd systems under the conditions of large pressures (at 300-400° C) strongly alloyed crystals are known ( $\rho = 3 \cdot 10^{-3}$  ohm-cm).

A thermodynamic calculation was made of the Ga-Ga-1-zn system which offered the possibility of establishing the relation between the partial concentration of zinc and its concentration in the vapor and condensed phases for various temperatures and quantities of the transporting agent.

Pharmacology and Toxicology

USSR

OSTROVSKIY, ROMAN, NOVOST: News Agency

"New Drugs"

Riga, Sovetskaya Latviya, 13 Jan 70, p 4

Abstract: Of the five thousand species of plants entered into the inventory lists compiled by Tadzhik botanists, many contain physiologically active substances. Among these substances alkaloids are of importance. While highly effective from the standpoint of pharmacological application, alkaloids have a considerable toxicity. This toxicity can be reduced by preparing derivatives of the alkaloids, thereby expanding the range of application of the alkaloids in medicine. The Laboratory of the Chemistry of Naturally Occuring Compounds of the Institute of Chemistry, Academy of Sciences Tadzhik SSR, is conducting work along these lines. One of the promising chemically modified alkaloids is beralin, a chloro derivative of berberine. The toxicity of beralin is many times lower than that of berberine, while its activity as a cholagogue is the same. New drugs derived from ephedrine, cytisine, and other alkaloids have also been synthesized

1/2

USSR

OSTROVSKIY, ROMAN, Sovetskaya Latviya, 13 Jan 70, p 4

at the laboratory mentioned. An example is glycyloctisine, which has a toxicity 20 times lower than that of the initial alkaloid also applied as a spasmolytic. Research has been initiated on combining alkaloids with amino acids. One may assume that alkaloids, being substances foreign to cells of the living body, damage the membranes of the cells in the process of penetration into the latter. This presumably is the reason for the toxicity of alkaloids. On being combined with an amino acid, an alkaloid (e.g., papaverine) will acquire, to a certain extent, properties similar to those of substances which are normally assimilated by cells of the organism. Consequently, the damage to cells and the toxicity of the alkaloid will be reduced.

2/2

- 01 -

1/3 029

TITLE--NEW DRUGS -U-

UNCLASSIFIED

PROCESSING DATE--11SEP70

AUTHOR--OSTROVSKIY, R.N.

COUNTRY OF INFO--USSR

SOURCE--RIGA, SOVETSKAYA LATVIYA, 13 JAN 70, P 4

DATE PUBLISHED--13JAN70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--ALKALOID, PROCESSED PLANT PRODUCT, PSYCHOPHARMACOLOGY,  
TOXICITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1990/1091

STEP NO--UR/9019/70/000/000/0004/0004

GIRC ACCESSION NO--AN0109213

ZZZZZZZZZZZZ

UNCLASSIFIED

2/3 029

CIRC ACCESSION NO--AN0109213

UNCLASSIFIED

PROCESSING DATE--11SEP70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. OF THE FIVE THOUSAND SPECIES OF PLANTS ENTERED INTO THE INVENTORY LISTS COMPILED BY TADZHIK BOTANISTS, MANY CONTAIN PHYSIOLOGICALLY ACTIVE SUBSTANCES. AMONG THESE SUBSTANCES, ALKALOIDS ARE OF IMPORTANCE. WHILE HIGHLY EFFECTIVE FROM THE STANDPOINT OF PHARMACOLOGICAL APPLICATION, ALKALOIDS HAVE A CONSIDERABLE TOXICITY. THIS TOXICITY CAN BE REDUCED BY PREPARING DERIVATIVES OF THE ALKALOIDS, THEREBY EXPANDING THE RANGE OF APPLICATION OF THE ALKALOIDS IN MEDICINE. THE LABORATORY OF THE CHEMISTRY OF NATURALLY OCCURRING COMPOUNDS OF THE INSTITUTE OF CHEMISTRY, ACADEMY OF SCIENCES TADZHIK SSR, IS CONDUCTING WORK ALONG THESE LINES. ONE OF THE PROMISING CHEMICALLY MODIFIED ALKALOIDS IS BERALIN, A CHLORO DERIVATIVE OF BERBERINE. THE TOXICITY OF BERALIN IS MANY TIMES LOWER THAN THAT OF BERBERINE, WHILE ITS ACTIVITY AS A CHOLAGOGUE IS THE SAME. NEW DRUGS DERIVED FROM EPHEDRINE, CYTISINE, AND OTHER ALKALOIDS HAVE ALSO BEEN SYNTHESIZED AT THE LABORATORY MENTIONED. AN EXAMPLE IS GLYCYLCYTISINE, WHICH HAS A TOXICITY 20 TIMES LOWER THAN THAT OF THE INITIAL ALKALOID ALSO APPLIED AS A SPASMOLYTIC. RESEARCH HAS BEEN INITIATED ON COMBINING ALKALOIDS WITH AMINO ACIDS. ONE MAY ASSUME THAT ALKALOIDS, BEING SUBSTANCES FOREIGN TO CELLS OF THE LIVING BODY, DAMAGE THE MEMBRANES OF THE CELLS IN THE PROCESS OF PENETRATION INTO THE LATTER. THIS PRESUMABLY IS THE REASON FOR THE TOXICITY OF ALKALOIDS.

ZZZZZZZZZZZZ

UNCLASSIFIED



3/3 029

UNCLASSIFIED

PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AN0109213  
ABSTRACT/EXTRACT--ON BEING COMBINED WITH AN AMINO ACID, AN ALKALOID (F.G., PAPAVERINE) WILL ACQUIRE, TO A CERTAIN EXTENT, PROPERTIES SIMILAR TO THOSE OF SUBSTANCES WHICH ARE NORMALLY ASSIMILATED BY CELLS OF THE ORGANISM. CONSEQUENTLY, THE DAMAGE TO CELLS AND THE TOXICITY OF THE ALKALOID WILL BE REDUCED.

ZZZZZZZZZZZZ

UNCLASSIFIED

173 029

TITLE--NEW DRUGS -U-

UNCLASSIFIED

PROCESSING DATE--11SEP70

AUTHOR--OSTROVSKIY, R.N.

COUNTRY OF INFO--USSR

SOURCE--RIGA, SOVETSKAYA LATVIYA, 13 JAN 70, P 4

DATE PUBLISHED--13JAN70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--ALKALOID, PROCESSED PLANT PRODUCT, PSYCHOPHARMACOLOGY,  
TOXICITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1990/1091

STEP NO--UR/9019/70/000/000/0004/0004

CIRC ACCESSION NO--AV0109213

ZZZZZZZZZZZZ

UNCLASSIFIED

2/3 029

CTRC ACCESSION NO--AN0109213  
ABSTRACT/EXTRACT--(U) GP-0-

UNCLASSIFIED

PROCESSING DATE--11SEP70

ABSTRACT. OF THE FIVE THOUSAND SPECIES OF PLANTS ENTERED INTO THE INVENTORY LISTS COMPILED BY TADZHIK BOTANISTS, MANY CONTAIN PHYSIOLOGICALLY ACTIVE SUBSTANCES. AMONG THESE SUBSTANCES, ALKALOIDS ARE OF IMPORTANCE. WHILE HIGHLY EFFECTIVE FROM THE STANDPOINT OF PHARMACOLOGICAL APPLICATION, ALKALOIDS HAVE A CONSIDERABLE TOXICITY. THIS TOXICITY CAN BE REDUCED BY PREPARING DERIVATIVES OF THE ALKALOIDS, THEREBY EXPANDING THE RANGE OF APPLICATION OF THE ALKALOIDS IN MEDICINE. -THE LABORATORY OF THE CHEMISTRY OF NATURALLY OCCURRING COMPOUNDS OF THE INSTITUTE OF CHEMISTRY, ACADEMY OF SCIENCES TADZHIK SSR, IS CONDUCTING WORK ALONG THESE LINES. ONE OF THE PROMISING CHEMICALLY MODIFIED ALKALOIDS IS BERALIN, A CHLORO DERIVATIVE OF BERBERINE. THE TOXICITY OF BERALIN IS MANY TIMES LOWER THAN THAT OF BERBERINE, WHILE ITS ACTIVITY AS A CHOLAGOGUE IS THE SAME. NEW DRUGS DERIVED FROM EPHEDRINE, CYTISINE, AND OTHER ALKALOIDS HAVE ALSO BEEN SYNTHESIZED AT THE LABORATORY MENTIONED. AN EXAMPLE IS GLYCYLCYTISINE, WHICH HAS A TOXICITY 20 TIMES LOWER THAN THAT OF THE INITIAL ALKALOID ALSO APPLIED AS A SPASMOLYTIC. RESEARCH HAS BEEN INITIATED ON COMBINING ALKALOIDS WITH AMINO ACIDS. ONE MAY ASSUME THAT ALKALOIDS, BEING SUBSTANCES FOREIGN TO CELLS OF THE LIVING BODY, DAMAGE THE MEMBRANES OF THE CELLS IN THE PROCESS OF PENETRATION INTO THE LATTER. THIS PRESUMABLY IS THE REASON FOR THE TOXICITY OF ALKALOIDS.

7777777777

UNCLASSIFIED

3/3 029

CIRC ACCESSION NO--AN0109213  
ABSTRACT/EXTRACT--ON

UNCLASSIFIED

PROCESSING DATE--11SEP70

BEING COMBINED WITH AN AMINO ACID, AN ALKALOID (E.G., PAPAVERINE) WILL ACQUIRE, TO A CERTAIN EXTENT, PROPERTIES SIMILAR TO THOSE OF SUBSTANCES WHICH ARE NORMALLY ASSIMILATED BY CELLS OF THE ORGANISM. CONSEQUENTLY, THE DAMAGE TO CELLS AND THE TOXICITY OF THE ALKALOID WILL BE REDUCED.

111111111111

UNCLASSIFIED

AA0040659-0

Ostrovskiy, S. I.  
UR 0482

Soviet Inventions Illustrated, Section I Chemical, Derwent, 1-70

241486 THERMAL STRAIGHTENING OF THINWALLED FINNED CYLINDERS reduces residual strain by heating the peripheral parts of the fins and outer case of the cylinder to 300-350°C to cope with alloy steel blanks. The thinwalled, split turbine low pressure cylinder has its peripheral fin parts heated as stated and once the peripheral zone has heated through and the outer case, forces begin to operate from inside in the bolt boxes joining the cylinder and these produce a moment which bends each half of the cylinder relative to an axial plane perpendicular to the horizontal joint plane and in a direction opposite to the bend which occurs during the primary deformation of the cylinder. Thus this moment restores the concentricity, 22.1.68 as 1213096/22-1. KNABE, A.G. et al (28.8.69) Bul 14/18.4.69. Class 18c. Int.Cl. C 21 d.

1/2

18  
20

19750248

AA0040659

AUTHORS: Knabe, A. G.; Shilin, Yu. P.; Klurfel'd, I. M.; and  
Ostrovskiy, S. I.

19750249

USSR

①

VASIL'KOVSKIY, V. A., KOVTUN, N. M., KUPROYANOV, A. K., NIKITIN, S. A., and OSTROVSKIY, V. F.

"Study of Nuclear Magnetic Resonance in  $Gd_x Y_{1-x} Fe_2$  Compounds"  
Moscow, Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, Vol 65, No 2 (8), 1973, pp 693-697

Abstract : The nuclear magnetic resonance spectra were measured on gadolinium and yttrium nuclei in  $Gd_x Y_{1-x} Fe_2$  compounds at a temperature of  $77^{\circ} K$ . The contributions to the hyperfine fields in the gadolinium and yttrium nuclei on the part of the nearest neighbors of the gadolinium atom sublattice were evaluated. The primary contribution to the hyperfine fields in yttrium and gadolinium is made by the iron atom sublattice. The variation of the position of the center of gravity of the nuclear magnetic resonance spectra of gadolinium and yttrium as a function of the atomic concentration of gadolinium and the variation with temperature, of the nuclear magnetic resonance of  $Gd^{155}$  in  $GdFe_2$  and  $Y^{69}$  in  $YFe_2$  are plotted. A table is presented for the probability of replacement of the nearest Gd atoms by a Y atom and the experimental procedure for obtaining and recording the

USSR

VASIL'KOVSKIY, V. A., et al., Zhurnal Eksperimental'noy i Teoreticheskoy fiziki, Vol 65, No 2 (8), 1973, pp 693-697

nuclear resonance spectra is described in detail. The dependence on composition and temperature of the nuclear magnetic resonance of  $Gd^{155}$ ,  $Gd^{157}$ , and  $Y^{89}$  is determined both by the iron and gadolinium sublattices.

2/2



1/2 016

UNCLASSIFIED

PROCESSING DATE--13NOV70  
VULCANIZATION BATH ON THE

TITLE--EFFECT OF THE HEAT TRANSFER MEDIUM IN THE  
PROPERTIES OF POROUS FILMS -U-  
AUTHOR--(03)-OSTROYSKIY, V.I., KHROMOVA, N.S., PAYLOV, S.A.

COUNTRY OF INFO--USSR

SOURCE--IZV. VYSSH. UCHEB. ZAVED., TEKHNDL. LEGK. PROM. 1970, (2), 48-53

DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS, MILITARY SCIENCES

TOPIC TAGS--VULCANIZATION, GLYCEROL, ORGANOSILICON COMPOUND, CARBOXYLATE  
RUBBER, ORGANIC ISOCYANATE, FOOTGEAR, WATERPROOFING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAE--3006/1119

STEP NO--UR/0323/70/000/002/0048/0053

CIRC ACCESSION NO--ATO134805

UNCLASSIFIED

2/2 016  
CIRC ACCESSION NO--AT0134805  
ABSTRACT/EXTRACT--(U) GP-0-

UNCLASSIFIED

PROCESSING DATE--13NOV70

ABSTRACT. GLYCEROL, SILICONES, AND EUTETIC MIXTS. OF MOLTEN SALTS WERE INVESTIGATED AS HEAT TRANSFER MEDIA IN THE VULCANIZATION BATH FOR PROCESSING RUBBER CONTG. CARBOXYL GROUPS WITH DIISOCYANATES. THE FILMS OBTAINED CAN BE APPLIED AS PRIMERS OR COATINGS FOR THE OUTER PARTS OF FOOTWEAR. FILMS VULCANIZED IN EUTECTIC MIXTS. HAD THE BEST PROPERTIES (HIGH STABILITY, SMALL SWELLING IN ETOAC). SILICONE PRODUCTS CAN BE USED, BUT WITH LIMITATIONS; GLYCEROL REACTS WITH A CONSIDERABLE AMT. OF DIISOCYANATE. THE HYDROPHILIC PROPERTIES OF FILMS WERE GREATER WHEN THE SAMPLES WERE VULCANIZED IN A WATER SOL. HEAT TRANSFER MEDIUM. FACILITY: MOSK. TEKHNDL. INST. LEGK. PROM., MOSCOW, USSR.

UNCLASSIFIED