2/2 024 UNCLASSIFIED

CIRC ACCESSION NO--APC135010 PROCESSING DATE--20NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. TECH. PIPERYLENE WAS TREATED WITH MALEIC ANHYDRIDE TO COMPLEX TRANS,1,3,PENTADIENE (I) AND LEAVE PURE CIS,1,3,PENTADINE (II). I WAS OBTAINED PURE BY TREATING THE ISOMER MIXT. WITH SO SUB2 AND DECOMPG. I SULFONE. THE ACTION OF N SUB2 CHCO SUB2 ET ON I GAVE ET CIS,3,METHYL,TRANS, 2,VINYLCYCLOPROPANECARBOXYLATE (III), TRANS,E,METHYL,CIS, 2,VINYL ANALOG OF III, ET TRANS,2,(TRANS,PROPYLENE)CHCLOPROPANECARBOXYLATE (IV), AND CIS,2,(TRANS PROPYLENE) ANALOG OF IV. SIMILARLY, II REACTED WITH N SUB2 CHCO SUB2 ET TO GIVE TRANS,3,METHYL, TRANS,2,VINYL III ANALOG, CIS,3,METHYL,CIS,2,VINYL ANALOG OF III, TRANS,2,(CIS PROPYLENE) ANALOG OF IV, AND CIS,2,(CIS PROPYLENE) ANALOG OF IV. THESE COMPDS. WERE IDENTIFIED BY IR AND NMR SPECTROSCOPY. / FACILITY: INST. VYSOKOMOL SOEDIN., LENINGRAD, USSR.

UNCLASSIFIED

1/2 014 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--PYROLYSIS GAS CHROMATOGRAPHY OF COPOLYMERS OF STYRENE WITH METHYL METHACRYLATE -U-

AUTHOR--TURKOVA, L.D., BELENKIY, B.G.

COUNTRY OF INFO--USSR

SOURCE--VYSOKOMOL. SOEDIN. SER A 1970, 12(2), 467-73

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--PYROLYSIS, GAS CHROMATOGRAPHY, STYRENE, METHYL METHACRYLATE, COPOLYMER, CHEMICAL LABORATORY APPARATUS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1989/0243 STEP NO--UR/0459/70/012/002/0467/0473

CIRC ACCESSION NO--AP0106899

UNCLASSIFIED

2/2 014 UNCLASSIFIED

CIRC ACCESSION NO--AP0106899 PROCESSING DATE--11SEP70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE COMPN. WAS DETD. OF STYRENE, ME METHACRYLATE COPOLYMERS AND THE CORRESPONDING HOMOPOLYMER MIXTS. BY PYROLYSIS OF THE COPOLYMER AT 500DEGREES AND ANAL. OF THE RESULTING GASES BY GAS CHROMATOG. (1 M LONG COLUMN, 4 MM IN DIAM., FILLED WITH CELITE 545 CONTG. 15PERCENT DINONYL PHTHALATE, TEMP. 70DEGREES, HE GAS CARRIER FLOW 72 ML-MIN). THE PYROLYSIS CELL IS SHOWN IN A DIAGRAM; IT IS ATTACHED DIRECTLY TO THE GAS CHROMATOGRAPH. THE ANAL. TAKES 10-15 MIN AND THE RELATIVE DETN. ERROR IS SMALLER THAN OR EQUAL TO 2PERCENT.

UNCLASSIFIED

USSR

UDC 620.193.41

YAKOVLEV, L. M., and TURKOVSKAYA, A. V., Moscow Chemical Machine Building Institute

"Influence of Temperature, Heat Transfer, and Hydrodynamic Conditions on Behavior of Kh17N13M2T Steel in Solutions of Sulfuric Acid"

Moscow, Zashchita Metallov, Vol 7, No 2, Mar-Apr, 1971, pp 167-168.

Abstract: The influence of temperature (20-90°), heat transfer, and acid movement on the stability of the passive state of type Kh17N13M2T steel was studied in solutions of sulfuric acid at concentrations of up to 20%. A number of factors are altered by creating movement in the acid in which the specimens are submerged. The corrosion tests produced a considerable spread of results: in order to explain this, 18 equal current experiments on corrosion resistance of steel in 15% sulfuric acid at 60° were performed. Analysis of the results produced indicates that the dispersion of data is not random and that the data form two sets, corresponding to slow and rapid corrosion. The steel is apparently in an unstable passive state.

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USSR

UDC 620.193.47

MIKHAYLOVA, N. A., ZHUK, N. P., BARTEN'YEVA, I. A., and TURKOVSKAYA, A. V.,
Moscow Institute of Steel and Alloys

"Corrosion Mechanism of Aluminum in Acetic and Formic Acids and Their Mixtures"

Moscow, Zashchita Metallov, Vol 7, No 5, 1971, pp 575-578

Abstract: The corrosion mechanism of aluminum in acetic and formic acids and their mixtures was investigated. Grade A97 aluminum was studied in 43% HCOOH, 50% CH_3COOH and in a ternary mixture: 33% CH_3COOH + 27% HCOOH + 40% H_2O at several temperatures. Electrochemical and corrosion characterisitcs were examined on aluminum specimens 20 x 20 x 2 mm in size. When the potential of aluminum is shifted from its stationary value toward the positive side, passivation of Al commences quite rapidly, a small passivity region is observed, and, finally, a region of disturbance in the passivated state. Comparison of the flows of aluminum dissolution in the region of potential-independence and for the steady-state potential permits an approximate estimate of the contribution of electrochemical and chemical mechanisms to the total rate of spontaneous corrosion of aluminum. A comparison of the three dissolution situations showed that acetic acid is the mixture component increasing the proportion of metal dissolved by the chemical mechanism. This can be explained in the lower 1/2

USSR

MIKHAYLOVA, N. A., et al., Zashchita Metallov, Vol 7, No 5, 1971, pp 575-578

(by one order of magnitude) dissociation constant of acetic acid compared with that of formic acid. When acetic acid is diluted with water, the role of the electrochemical mechanism becomes greater. This can be related to the increased degree of acid dissociation with increased dilution of the acid. The chemical corrosion of aluminum in acetic and formic acids is suggested to be due to the interaction of metal with ambient oxygen and is not accompanied by the evolution of hydrogen:

$$4Al + 3O_3 + 12H^+ = 4Al^{3+} + 6H_2O.$$

Accordingly, when the amount of solute oxygen is reduced, the corrosion rate of aluminum decreases and in 50% CH_3COOH saturated with oxygen, air, and nitrogen is 0.300, 0.097, and 0.022 g/m^2.hour, respectively at 22°.

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USSR

UDC 620.193.41

YAKOVLEV, L. M., and TURKOVSKAYA, A. V., Moscow Chemical Machine Building Institute

"Influence of Temperature, Heat Transfer, and Hydrodynamic Conditions on Behavior of Kh17N13M2T Steel in Solutions of Sulfuric Acid"

Moscow, Zashchita Metallov, Vol 7, No 2, Mar-Apr, 1971, pp 167-168.

Abstract: The influence of temperature (20-90°), heat transfer, and acid movement on the stability of the passive state of type Kh17N13M2T steel was studied in solutions of sulfuric acid at concentrations of up to 20%. A number of factors are altered by creating movement in the acid in which the specimens are submerged. The corrosion tests produced a considerable spread of results: in order to explain this, 18 equal current experiments on corrosion resistance of steel in 15% sulfuric acid at 60° were performed. Analysis of the results produced indicates that the dispersion of data is not random and that the data form two sets, corresponding to slow and rapid corrosion. The steel is apparently in an unstable passive state.

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USSR

UDC: 620.193.47

MIKHAYLOVA, M. A., ZHUK, N. P., TURKOVSKAYA, A. V., ADLER, Yu. P., and RATNER, A. I., Moscow Institute of Steels and Alloys

"Corrosion Resistance of Aluminum in the Ternary Mixture: Acetic Acid - Formic Acid - Water"

Moscow, Zashchita Metallov, Vol. 6, no. 4, Jul-Aug 70, pp 387-396

Abstract: The high corrosion resistance of aluminum in acetic acid, its low cost and good technological properties were the determining factors in selecting aluminum as the test object. The study involved A97, A6, and A6 aluminum grades, all differing in purity. Use was made of Scheffe's method of mathematical planning involving composition-property diagrams to obtain data for deriving equations of the relationship between the reaction rate of corrosion and the composition of the three-component mixture acetic acid-formic acid-water at temperatures of 22, 50, 70, and 90°C. Lines of equal corrosion rates in concentration triangles of the mixture were constructed for the tested aluminum grades and temperatures. The plotted equal corrosion rate lines in the concentration triangles demonstrate areas of various corrosion resistance and, consequently, areas of potential application of the tested aluminum grades in the ternary mixture.

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USSR

UDC 620.193.27

STORCHAY, YE. I., and TURKOVSKAYA, A. V.

"Pitting of Aluminum Alloys in Solutions of NaCl Without an Oxidizing Agent"

Moscow, Zashchita Metallov, Vol 6, No 6, Nov-Dec 70, pp 690-691

Abstract: It was experimentally confirmed that pitting corrosion of certain aluminum alloys in NaCl solutions without an oxidizer can take place both under conditions of self-solution and during anodic polarization. The confirmation was made by measuring the potential distribution along the surface of a short-circuited model of Al-$FeAl_3$ in 0.005 normal NaCl. The distribution curve for these potentials 60 minutes after beginning the experiment is presented. From comparing the effective values of the potential with the pitting formation potential of aluminum defined potentiostatically in the same solution it follows that the potential of the aluminum near the contact with the intermetallic compound $FeAl_3$ is entirely sufficient to disrupt the passive state.

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USSR

UDC 620.186:669.15'26-194:621.785.532

YAKHNINA, V. D., and TURKOVSKAYA, YE. P., Moscow Chemical Machine Building Institute

"Influence of Carbon on the Structure of the Nitrided Layer of Type-Kh13 Steels"

Moscow, Metallovedeniye i Termicheskaya Obrabotka Metallov, No 2, 1971, pp 26-28

Abstract: The nitrided layers of 0Kh13, 1Kh13, 3Kh13, and 4Kh13 steels were studied by methods of individual layer X-ray structural and metallographic analysis. The structure of the nitrided layer of stainless steels with 13% Cr and the process of its formation and layer hardness were found to depend on the carbon content in the steel as well as the nitriding mode. At 620 and 540°C, α-γ conversion may occur during nitriding, since the nitrogen reduces the austenitic conversion temperature. Various conversions may occur in the same layer due to the differences in nitrogen content with depth. Nitrided layers produced at 540°C on all steels studied had good hardness. The greater the content of carbon, the greater the portion of layer hardened as a result of separation of a Cr_2N solid phase. The hardness of layers produced at 620°C was influenced by the degree of dispersion of CrN nitride. The more carbon in the steel, the greater the coagulation of nitrides and the lower the hardness of the layer.

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1/3 008 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--POLAROGRAPHIC AND POTENTIOMETRIC DETERMINATION OF BENZENEPOLYCARBOXYLIC ACIDS -U-

AUTHOR-(04)-KRYUKOVA, G.G., RUSAKOVA, M.S., PAVELKO, N.V., TURKYAN, YA.I.

COUNTRY OF INFO--USSR

SOURCE--ZH. ANAL. KHIM. 1970, 15(2), 369-73

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--AROMATIC CARBOXYLIC ACID, POLAROGRAPHIC ANALYSIS, POTENTIOMETRIC TITRATION, CHEMICAL ANALYSIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1993/0694 STEP NO--UR/0075/70/025/002/0369/0373

CIRC ACCESSION NO--AP0113562

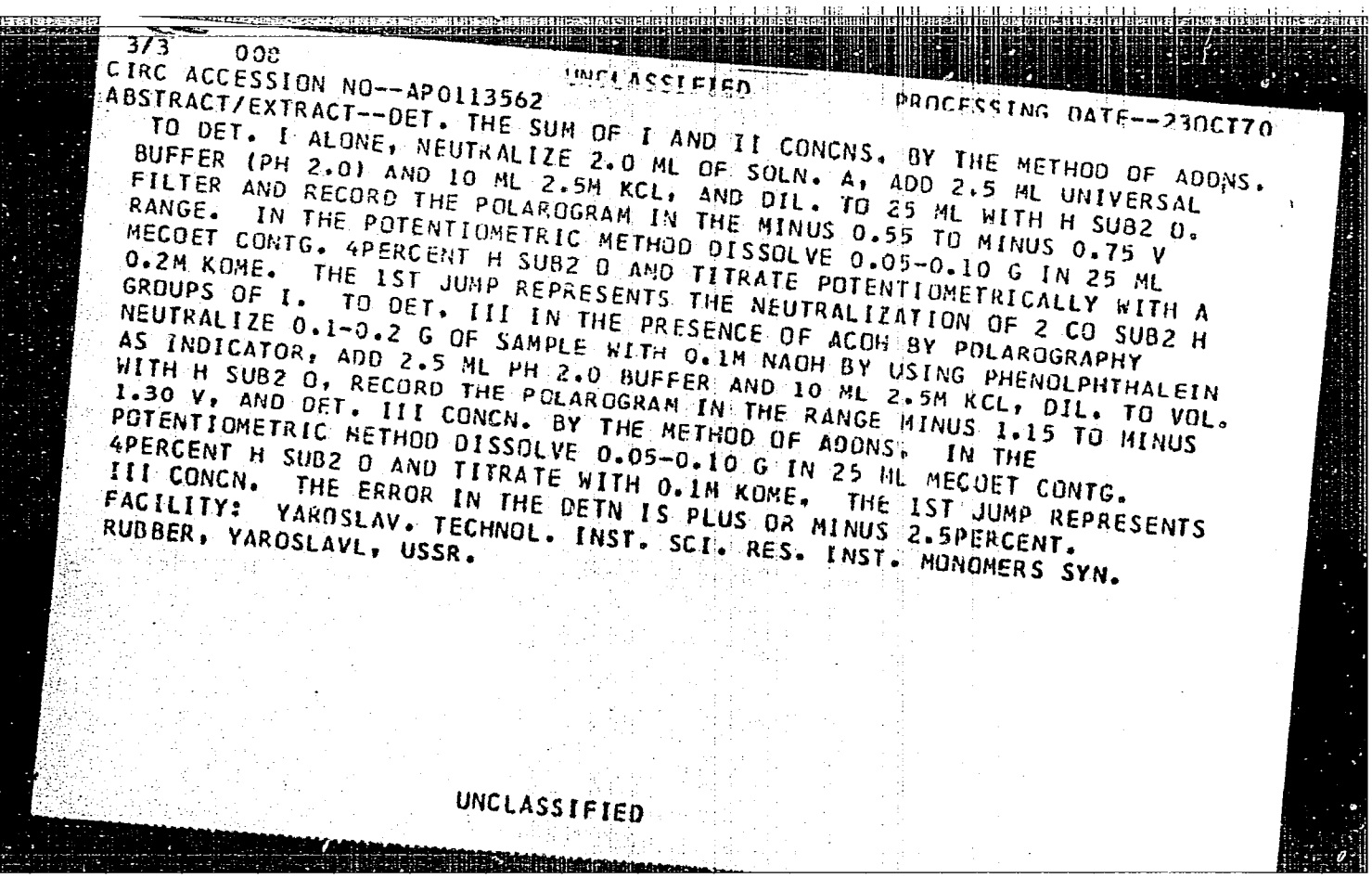
UNCLASSIFIED

2/3 008 UNCLASSIFIED

CIRC ACCESSION NO--AP0113562 PROCESSING DATE--23OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. POLAROGRAPHIC CHARACTERISTICS OF 3,3 PRIME,4,4 PRIME BENZOPHENONETETRACARBOXYLIC ACID (I), 3,3 PRIME,BENZOPHENONEDICARBOXYLIC ACID (II) AND 4,4 PRIME,OXYDIPHTHALIC AICDS (III) WERE OBTAINED. THE 1ST POLAROGRAPHIC WAVE OF I WAS STUDIED MICROCOULOMETRICALLY. THIS WAVE IN BOTH ACID AND ALK. BUFFERS AND THE WAVE OF II IN ALK. BUFFER ARE OF THE 2 ELECTRON TYPE (REDN. OF THE ACRBONYL GROUP). THE 2ND WAVE OF I AND THE WAVE OF III IN AN ACID SOLN. IS OF THE 4 ELECTRON TYPE. IN AN ALK. SOLN. THIS WAVE SHIFTS TO THE AREA OF THE SUPPORTING ELECTROLYTE DISCHARGE POTENTIAL. POLAROGRAPHIC AND POTENTIOMETRIC METHODS WERE DEVELOPED FOR THE DETN. OF I IN THE PRESENCE OF HNO SUB3, OF I IN THE PRESENCE OF II AND ACOH AND OF III IN THE PRESENCE OF ACOH. TO ANALYZE A 1:5 MIXT. OF I-HNO SUB3 POLAROGRAPHICALLY, NEUTRALIZE A 0.1-G SAMPLE BY USING PHENOLPHTHALEIN AS INDICATOR, ADD 2.5 ML PH 2.0 BUFFER AND 10 ML 2.5M KCL, AND DIL. TO 25 ML WITH H SUB2 O. RECORD THE POLAROGRAM IN THE RANGE MINSU 0.55 TO MINUS 0.75 V. DET. I CONCN. BY THE 1ST WAVE AND THE METHOD OF STD. ADDNS. IN THE POTENTIOMETRIC METHOD DISSOLVE 0.05-0.20 G IN 25 ML MEOH (CONTG. 4PERCENT H SUB2 O), AND TITRATE WITH 0.1M KOME. THE 1ST JUMP REPRESENTS THE NEUTRALIZATION OF HNO SUB3, THE 2ND NEUTRALIZATION OF 2 CO SUB2 H GROUPS OF I. THE ERROR IS PLUS OR MINUS 4.0PERCENT. WHEN DETG. I AND II IN THE PRESENCE OF ACOH BY THE POLAROGRAPHIC METHOD, DISSOLVE 1.0-1.5 G IN 25 ML 0.1M (SOLN. A), NEUTRALIZE 2.0 ML OF SOLN. A TO PHENOLPHTHALEIN, ADD 2.5 ML PH 9.0 BUFFER AND 10 ML 2.5M KCL, AND DIL. TO 25 ML WITH H SUB2 O. RECORD THE POLAROGRAM IN THE MINUS 1.15 TO MINUS 1.40 V RANGE.

UNCLASSIFIED



3/3 008 UNCLASSIFIED

CIRC ACCESSION NO--AP0113562 PROCESSING DATE--23OCT70

ABSTRACT/EXTRACT--DET. THE SUM OF I AND II CONCNS. BY THE METHOD OF ADDNS. TO DET. I ALONE, NEUTRALIZE 2.0 ML OF SOLN. A, ADD 2.5 ML UNIVERSAL BUFFER (PH 2.0) AND 10 ML 2.5M KCL, AND DIL. TO 25 ML WITH H SUB2 O. FILTER AND RECORD THE POLAROGRAM IN THE MINUS 0.55 TO MINUS 0.75 V RANGE. IN THE POTENTIOMETRIC METHOD DISSOLVE 0.05-0.10 G IN 25 ML MECOET CONTG. 4PERCENT H SUB2 O AND TITRATE POTENTIOMETRICALLY WITH A 0.2M KOME. THE 1ST JUMP REPRESENTS THE NEUTRALIZATION OF 2 CO SUB2 H GROUPS OF I. TO DET. III IN THE PRESENCE OF ACOH BY POLAROGRAPHY NEUTRALIZE 0.1-0.2 G OF SAMPLE WITH 0.1M NAOH BY USING PHENOLPHTHALEIN AS INDICATOR, ADD 2.5 ML PH 2.0 BUFFER AND 10 ML 2.5M KCL, DIL. TO VOL. WITH H SUB2 O, RECORD THE POLAROGRAM IN THE RANGE MINUS 1.15 TO MINUS 1.30 V, AND DET. III CONCN. BY THE METHOD OF ADDNS. IN THE POTENTIOMETRIC METHOD DISSOLVE 0.05-0.10 G IN 25 ML MECOET CONTG. 4PERCENT H SUB2 O AND TITRATE WITH 0.1M KOME. THE 1ST JUMP REPRESENTS III CONCN. THE ERROR IN THE DETN IS PLUS OR MINUS 2.5PERCENT. FACILITY: YAROSLAV. TECHNOL. INST. SCI. RES. INST. MONOMERS SYN. RUBBER, YAROSLAVL, USSR.

UNCLASSIFIED

USSR

UDC 616.988.73-022.39:598.4

KAMENOV, Ye. K., NIKOLOV, Z. V., NEDELCHEVA, S. B., MATEVA-STOYEVA, Yel. V., NEDELCHEVA, N. P., PASKALEVA, M. G., DENCHEV, St. I., and PURLAKOV, I. G., Chair of Epidemiology, Institute for Specialization and Advanced Training of Physicians, Republic Antiepidemic Station, and Zoological Institute and Museum of the Bulgarian Academy of Sciences, Sofia, Bulgaria

"Aquatic and Swamp Birds -- Carriers of Agents of Infectious Diseases. Communication I: Ornithosis"

Moscow, Voprosy Virusologii, No 4, Jul/Aug 71, pp 437-441

Abstract: Since Bulgaria lies along one important flight route of migrant aquatic and swamp fowl, a serological investigation was performed on 350 wild birds caught along Bulgaria's Black Sea shore and Danube River. Specific antibodies against ornithosis were found in specimens belonging to the orders Ardiiformes, Podicipidiformes, Lariformes, Ralliformes, and Charadriiformes. In some areas densely populated by wild ducks, antibodies against ornithosis virus were found in 21.6% of wild ducks, in 44.7% of domestic ducks on neighboring farms, and in 54.5% of people. These findings support the previously advanced hypothesis that migrating aquatic and swamp birds play an important role in the epidemiology ornithosis in natural foci and in the transmission of this disease to domestic fowl and to humans.

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USSR

TURMACHEV, Ye. S.

"Some Problems of Control of Systems Objects"

Issled. po Mat. Ekon. i Smezh. Vopr. [Studies on Mathematical Economics and Related Problems -- Collection of Works], Moscow University Press, Moscow, 1971, pp 66-96, (Translated from Referativnyy Zhurnal, Kibernetika, No 2, 1972, Abstract No 2 V637).

NO ABSTRACT.

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USSR

UDC 548.55.001.5

ARIFOV, U. A., ALIYEV, A. A., TURMASHEV, E.

"Effect of Radiation Disturbances of a Crystal Lattice Created by Ion Bombardment on the Angular and Energy Distribution of the Scattered Ions"

Moscow, Radiotekhnika i elektronika, Vol XVI, No 2, 1972, pp 359-365

Abstract: A study was made of the variation of the angular and energy distributions of secondary ions during ion bombardment of the [111] face of single crystals of silicon and germanium by Na^+ ions in the energy range of $E_0 < 5$ kiloelectron volts. The effects caused by the ordered arrangement of the atoms of the crystal lattice are observed at temperatures exceeding the annealing temperature of the radiation defects introduced by the ion irradiation.

Positive ion bombardment of the face of Si and Ge single crystals by Na^+ ions in the given range gradually leads to the formation of amorphous layers on the surface, and the structured nature of the energy spectrum and anisotropy of the angular distribution of the scattered ions disappear correspondingly. Multiple manipulations by heat treatment lead to the formation of oxide layers on the target surface. Further heating of it does not always lead to restoration of the surface structure of the crystal. The possibility is indicated of using the orientation relations of the phenomena occurring during interaction

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USSR

ARIFOV, U. A., et al., Radiotekhnika i elektronika, Vol XVI, No 2, 1972, pp 359-365

of ions with crystals to determine the annealing temperature of radiation defects in crystals.

2/2

1/2 014 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--EFFECT OF RECONSTRUCTION OF THE ROOF ON THE FORMATION OF ACETABULUM -U-

AUTHOR-(02)-TIHONENKOV, YE.S., TURNERA, G.I.

COUNTRY OF INFO--USSR

SOURCE--ORTOPEDIYA, TRAVMATOLOGIYA I PROTEZIROVANIYE, 1970, NR 4, PP 36-40

DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--PEDIATRICS, ORTHOPEDIC SURGERY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/1403 STEP NO--UR/9115/70/000/004/0036/0040

CIRC ACCESSION NO--AP0125046

UNCLASSIFIED

2/2 014 UNCLASSIFIED

CIRC ACCESSION NO--AP0125046 PROCESSING DATE--23OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE WORK IS DEVOTED TO PLASTY OF THE UPPER RIM OF THE ACETABULUM IN OPER REDUCTION OF EXTRAARTICULAR DEROTATION VARISATION OSTEOTOMY OF THE PROXIMAL PORITON OF THE FEMUR BASED ON THE MATERIAL OF 133 OPERATED JOINTS IN CHILDREN RANGING IN AGE FROM 3 TO 10 YEARS, OF WHOM PLASTY OF THE ROOF HAS BEEN PERFORMED IN 26 CASES. DATA ARE SUBMITTED ON THE INFLUENCE OF PALSTY ON THE MEASUREMENT OF ANGLE OF VERTICAL ACETABULAR SLOPE. BASING ON THE OBTAINED DATA THE AUTHOR SUGGESTS THAT PLASTY OF THE UPPER ACETABULAR RIM IS FOLLOWED NOT ONLY BY DECREASE OF ANGLE OF VERTICAL ACETABULAR IS FOLLOWED NOT ONLY BY STABILIZATION OF JOINT AND IMPROVES CENTRATION OF THE FEMORAL HEAD IN THE SOCKET, BUT ALSO EXERTS S STIMULATING EFFECT ON THE FORMATION OF TIS UPPER RIM. PLASTY MAY BE APPLIED IN CHILDREN FROM THE THIRD YEAR OF LIFE AND ELDER BOTH IN SUPRAACETABULAR DISLOCATIONS AND IN SUBLUXATIONS, WHERE DUE TO MALDEVELOPMENT OF THE ACETABULAR ROOF THE ANGLE OF TIS VERTICAL SLOPE DOES NOT EXCEED 53-56 DEGREES (DEPENDING ON AGE OF CHILD). FACILITY: LENINGRAD DETSKOGO ORTOPEDICHESKOGO INSTITUTA IM.

UNCLASSIFIED

Public Health, Hygiene and Sanitation

USSR

TUROV, A., Candidate of Biological Sciences

"Man and Machine"

Moscow, Izvestiya, 23 Jan 71, p 5

Abstract: One of the objectives of Soviet society is to adjust man's work in the most efficient and beneficial form. In particular, the immobility of certain muscles during certain jobs has been recognized as an important factor to be considered in the creation of healthy work environments. Scientists of the Leningrad Institute of Labor Hygiene and Occupational Diseases provide research and advice along these lines. As an example, the visual inspection job at one Leningrad factory is considered to be extremely poor for the eyes, resulting in eye strain, general weariness of the workers, and a drop in work capacity. Physiologists at the Institute studied the conditions under which human vision is improved and solved the fatigue problem by increasing the light intensity at the working places from 400 to 600 lux twice daily. The normal work capacity of the workers was restored. Another problem in the work environment is the effect of automated processes on the human psyche. For instance, the advent of machines designed to make man's jobs easier may adversely affect his well-being. The substitution of an automaton for manual

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USSR

TUROV, A., Izvestiya, 23 Jan 71, p 5

operations is not always an easy process. Often physiologists serve as consultants in such transitions to assure stress-free work invironments. The objectives for psychologists, physiologists and other specialists must be to see to it that jobs are structured in such a way that man derives pleasure and satisfaction from them.

2/2

1/2 023 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--CNE HUNDRED USES OF GLUE -U-

AUTHOR--TURCV, A.

CCUNTRY CF INFC--USSR

SOURCE--IZVESTIYA, AUGLST 9, 1970, P 4, CCLS 1-5

DATE PUBLISHED--09AUG70

SUBJECT AREAS--MATERIALS, BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--ACHESIVE, SURGERY, SURGICAL GLUE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3001/0771 STEP NO--UR/9003/70/000/000/0004/0004

CIRC ACCESSICN NO--AN0126463

UNCLASSIFIED

2/2 023 UNCLASSIFIED PROCESSING DATE--20NOV70
CIRC ACCESSION NO--AN0126463
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE AUTHOR INTERVIEWED DOCTOR OF TECHNICAL SCIENCES D. KARDASHOV, A SOVIET AUTHORITY ON INDUSTRIAL ADHESIVES, AND PROFESSOR T. DAUROVA, HEAD OF THE POLYMER LABORATORY AT THE INSTITUTE OF SURGERY IMENI VISHNEVSKIY. DAUROVA REVEALED THAT AN ADHESIVE HAS BEEN DEVELOPED WHICH HAS FOUND USES IN THE SURGERY OF LUNGS, KIDNEYS, HEART, AND BLOOD VESSELS. HOWEVER, THE ADHESIVE BEGINS TO LOSE ITS STRENGTH AFTER 24-48 HOURS AFTER ITS APPLICATION.

UNCLASSIFIED

USSR

TUROV, A., Candidate of Biological Sciences

"Living Barometers"

Moscow, Izvestiya, 25 Mar 70, p 4

Abstract: It is known that drugs act differently at different periods of the day. Japanese scientists describe a liver test, "the sunrise test", the analysis of which takes place only a few minutes before sunrise. Cardiovascular changes, myocardial infarcts, angina pectoris, cerebral accidents, colics, asthenias, metabolic disturbances, and a host of rheumatoid conditions are connected with changes occurring in nature, including megnetic lines of force and cosmic rays. Through skin, lungs heart, glands and through the inner workings of the mechanisms of our nervous systems, we continually adjust to nature. Our various organs, and particularly the joints of people with arthritis are indeed living barometers.

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Molecular Biology

USSR

Turov, A., Candidate of Biological Sciences

"Constructors of Molecules"

Moscow, Izvestiya, 3 Jul 70, p 4

Abstract: A popularized discussion if presented of various topics covered at the 7th International Symposium on the Chemistry of Natural Compounds, recently held in Riga. Membranes and their functions in the organism are of particular interest. Certain chemicals can selectively affect the permeability of membranes. The antibiotic valinomycin, for example, moves potassium-ions through membranes. Control of membrane permeability can be very useful in medicine, since it can be employed to increase the effectiveness of medication and possibly to block the spread of toxins. The Institute of Molecular Biology of the Academy of Sciences USSR is studying the structure of transfer ribonucleic acid (T-RNA), a substance which transmits information contained in the genes to cells which synthesize new substances.

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Entomology

USSR UDC 614.449.577.51-084.484:615.285.7

ALEKSEYEV, A. N., AVDEYEVA, YE. V., TUROV, I. S., and TOKAREVA, T. G., All-Union Scientific Research Institute of Disinfection and Sterilization, Ministry of Health USSR, and Moscow State University imeni M. V. Lomonosov, Moscow

"The Chemosterilizing Effect of Organofluorine Compounds on Larvae and Imagoes of Fleas That Are Ectoparasites of Rodents"

Moscow, Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, Vol 40, No 1, Jan/Feb 71, pp 28-32

Abstract: Sodium fluoroacetate and fluoroacetamide in sublethal doses were administered to imagoes of the fleas Ceratophyllus consimilis and Xenopsylla cheopsis by feeding them on an apparatus previously described by A. N. Alekseyev (Med. parazitol., No 4, 467, 1965). Larvae of the fleas were given these compounds by feeding them on excrement from imagoes that received the poison by being fed either through a membrane or on the blood of poisoned mice used as hosts. The F-containing poisons in doses of approximately 0.5×10^{-3} gamma inhibited reproduction and reduced the fertility offleas, when administered to either male or female adult fleas. They also reduced to a marked extent the fertility of imagoes grown from larvae that had received poison, besides having a toxic effect on the larvae. Inhibition of fertility was more pronounced

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002203410014-4"

USSR

ALEKSEYEV, A. N., et al., Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, Vol 40, No 1, Jan/Feb 71, pp 28-32

when larvae received the poison at an early stage (the 1st or 2nd vs. 3rd instar). Imagoes and larvae of X. cheopsis were less sensitive to the effect of the organofluorine compounds than those of C. consimilis.

2/2

USSR

UDC: 622.24.051.553

Turov, I. N., Bobrov, S. N., Lyukshin, P. M., Smirnov, V. P.

"Industrial Testing of Type V-97T Drill Bits with Noncase-hardened Steel Cutters"

Moscow, Bureniye, No 6, 1972, pp 3-4.

Abstract: The Moscow Institute of the Petrochemical and Gas Industry imeni I. M. Gubkin has developed drill bit cutters of noncase-hardened steel, referred to as type D7KhFNSh. V-97T drill bits have been made using these cutters. The cutters were hardened in oil (from 840-860°C) then low tempered (at 180-200°C). The bits have been subjected to test stand and field testing, and have shown test results some 30-40% higher then the series produced bits with cutters of type 17N3MASSh steel.

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1/2 021 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--THEORY OF SPIN WAVES IN A FERROMAGNETIC MATERIAL WITH A PERIODIC DOMAIN STRUCTURE -U-

AUTHOR-(02)-FARZTDINOV, M.M., TUROV, YE.A.

COUNTRY OF INFO--USSR

SOURCE--FIZIKA METALLOV I METALLOVEDENIE, MAR. 1970, 29, (3), 458-470

DATE PUBLISHED----MAR70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--MAGNETIC DOMAIN STRUCTURE, FERROELECTRIC MATERIAL, SPIN WAVE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3003/0599 STEP NO--UR/0126/70/029/003/0458/0470

CIRC ACCESSION NO--AP0129782

UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--04DEC70

2/2 021

CIRC ACCESSION NO--AP0129782

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A GENERAL THEORY OF SPIN WAVES IN FERROMAGNETIC MATERIALS WITH PERIODIC DOMAIN STRUCTURES IS PRESENTED WITH A VIEW TO THEIR EFFECT ON THE MAGNETIC PROPERTIES OF FERROMAGNETIC METALS. THE THEORY IS BASED ON THE PRINCIPLE OF SECONDARY QUANTIZATION. IN SUCH FERROMAGNETICS, ELEMENTARY EXCITATIONS OF THREE DIFFERENT TYPES MAY OCCUR. TWO OF THESE CORRESPOND TO THE TRANSLATIONAL VIBRATIONS OF THE DOMAIN BOUNDARIES IN CO PHASE AND ANTIPHASE, RESP., WHILE THE THIRD CORRESPONDS TO ORDINARY SPIN WAVES IN DOMAINS WHICH HAVE BEEN SEVERELY DISTORTED BY INTERACTION WITH THE REST OF THE STRUCTURE.

UNCLASSIFIED

1/2 023 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--THEORY OF THE NUCLEAR MAGNETIC RESONANCE SUSCEPTIBILITY OF MULTIDOMAIN FERROMAGNETICS. II. LOCAL INTENSIFICATION FACTOR AND

AUTHOR-(03)-TUROV, YE.A., TANKEYEV, A.P., KURKIN, M.I.

COUNTRY OF INFO--USSR

SOURCE--FIZIKA METALLOV I METALLOVEDINIE, APR. 1970, 29, (4), 747-756

DATE PUBLISHED----APR70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--NUCLEAR MAGNETIC RESONANCE, FERROMAGNETIC MATERIAL, ABSORPTION COEFFICIENT, MAGNETIC SUSCEPTIBILITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3002/1802 STEP NO--UR/0126/70/029/004/0747/0756

CIRC ACCESSION NO--AP0129170

UNCLASSIFIED

2/2 023 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0129170

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE THEORY OF NUCLEAR MAGNETIC RESONANCE (NMR) IN MULTIDOMAIN FERROMAGNETICS IS PRESENTED WITH SPECIAL REF. TO THE QUESTION OF SUSCEPTIBILITY AND METHODS OF CALCULATING THE LOCAL AND INTEGRAL PARAMETERS ASSOCIATED WITH THIS PROPERTY. THE THEORY IS LARGELY BASED ON EXPRESSIONS DERIVED IN THE AUTHORS' EARLIER PAPER (LOC. CIT.). THE SHAPE OF THE DISPERSION CURVES IS ANALYZED AND THE BEHAVIOUR OF THE ABSORPTION COEFF. CLOSE TO THE NMR FREQUENCY IS INDICATED. THE POSSIBILITY OF OBSERVING THE CORRESPONDING EFFECTS EXPERIMENTALLY IS CONSIDERED.

UNCLASSIFIED

1/2 016 UNCLASSIFIED PROCESSING DATE--02OCT70

TITLE--INVERSE POLAROGRAPHIC METHOD FOR DETERMINING THE SOLUBILITY PRODUCT OF SLIGHTLY SOLUBLE SALTS -U-

AUTHOR-(03)-SKOBETS, YE.M., TUROVA, D.S., KARNAUKHOV, A.I.

COUNTRY OF INFO--USSR

SOURCE--UKR. KHIM. ZH. 1970, 36(1) 33-5

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--SOLUBILITY, POLAROGRAPHIC ANALYSIS, ELECTRODEPOSITION, SODIUM NITRATE, POTASSIUM NITRATE, LEAD CHROMATE, MOLYBDENUM COMPOUND, PHOSPHATE, OXALATE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1989/1326 STEP NO--UR/0073/70/036/001/0033/0035

CIRC ACCESSION NO--AP0107799

UNCLASSIFIED

2/2 016 UNCLASSIFIED PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0107799

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE SOLY. OF PBC SUB2 O SUB4, PBMOO SUB4, PBCRO SUB4, AND PB SUB3 (PO SUB4) SUB2 WAS DETD. BY MEASURING THE CURRENT PRODUCED ON SOLN. OF A SMALL AMT. OF PB PREVIOUSLY DEPOSITED FROM SOLN. BY ELECTRODEPOSITION. THE SOLY. PRODUCTS CALCD. WERE 3 TIMES 10 PRIME NEGATIVE11, 3.3 TIMES 10 PRIME NEGATIVE12, 6.4 TIMES 10 PRIME NEGATIVE13, AND 1.8 TIMES 10 PRIME NEGATIVE29, RESP. GRAPHS ARE ALSO GIVEN FOR THE SOLY. OF PBC SUB2 O SUB4 IN SOLNS. OF NANO SUB3 AND OF KNO SUB3 OF VARYING IONIC STRENGTHS.

UNCLASSIFIED

1/2 014 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--LITHIUM METHOXIDE AND ETHOXIDE -U-

AUTHOR-(02)-TUROVA, N.YA., NOVOSELOVA, A.V.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR. SER. KHIM. 1970, (4), 752-6

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ORGANOLITHIUM COMPOUND, ALKOXIDE, COMPLEX COMPOUND, PYROLYSIS, PHASE DIAGRAM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3008/0991 STEP NO--UR/0062/70/000/004/0752/0756

CIRC ACCESSION NO--AP0138019

UNCLASSIFIED

2/2 014 UNCLASSIFIED PROCESSING DATE--04DEC70
CIRC ACCESSION NO--AP0138019
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE SOLYS. OF LIOME AND LIOET IN THE CORRESPONDING ALCS. WAS STUDIED AND THE VAPOR PRESSURE ISOTHERMS IN THE APPROPRIATE SYSTEMS ARE SHOWN FOR 25DEGREES AND 50DEGREES. CRYSTALLOGRAPHIC DESCRIPTIONS ARE GIVEN FOR ROLI AND ROLI2ROH. TENSIMETRIC DATA CONFIRMED THE EXISTENCE OF THE LATTER COMPLEXES, AND THESE WERE ISOLATED AS SOLIDS WITH DISTINCT CRYSTAL FORMS. THESE ARE DESOLVATED IN EQUIL. WITH THE SOLN. AT 28DEGREES FOR R EQUALS ME AND 55DEGREES FOR R EQUALS ET. THE PERITECTIC CONVERSION IS ACCOMPANIED BY THE REVERSAL OF ENTHALPY SIGN FOR THE HEAT OF SOLN. AS THE DISSOLN. ON UNSOLVATED ROLI IS AN EXOTHERMIC PROCESS. SOLY. OF THESE SALTS WAS TABULATED FROM MINUS 80 TO 100DEGREES FOR MEOLI AND FROM 0 TO 120DEGREES FOR ETOLI. THE PHASE DIAGRAMS OF LIOR-ROH ARE SIMILAR TO THOSE OF NA SUB2 SO SUB4-H SUB2 O. THE UNSOLVATED ROLI BEGAN TO PYROLYZE AT 310DEGREES FOR MEOLI AND 325DEGREES FOR ETOLI. FACILITY: MOSK. GOS. UNIV. IM. LOMONOSOVA, MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC 621.385.01

TUROVER, YA. M.

"Survey Of Work In The Field Of A Nonlinear Theory Of Bunching"

Elektron. tekhnika. Nauchno-tekhn. sb. Elektron. SVCh (Electronic Technology. Scientific-Technical Collection. Microwave Electronics), 1970, No 9, pp 130-142 (from RZh--Elektronika i yeye primeneniye, No 12, December 1970, Abstract No 12A172)

Translation: A survey is presented of a number of works on nonlinear theory of bunching in electron streams. The gradual rejection of the idealizations and the predominance of numerical methods accepted earlier is stressed. Attention is paid to the necessity for consideration of the effect of the variance of the electron velocities on the process of bunching and the advisibility of correction of the functions for velocity distribution used in theories. The necessity to increase the amount of experimental and combined investigations is stressed. 84 ref. Summary.

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USSR

UDC 621.385.623.4

TIROYER, YA. M.

"To The Problem Of Optimization Of The Parameters Of Transit Klystrons"

Elektron. tekhnika. Nauchno-tekhn. sb. Elektron. SVCh (Electronic Technology. Scientific-Technical Collection. Microwave Electronics), 1970, No 8, pp 71-78 (from RZh--Elektronika i yeye primeneniye, No 12, December 1970, Abstract No 12A166)

Translation: The analytical methods proposed for optimization of the parameters of devices with velocity modulation are based on the Sturm theorem and the Lagrange--Gauss algorithm, the spectrum of the eigenvalues of the differential equation of the movement of the electron stream, and solutions of simplified differential equations of the Chebyshev type. The optimum lengths of the tubes of a multiresonator klystron are found analytically. 15 ref. Summary.

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USSR

UDC 621.385.01

~~TUROVER, YA. M.~~

"Splitting The Frequency Of An Electron Stream In A Drift Tube"

Elektron. tekhnika. Nauchno-tekhn. sb. Elektron. SVCh (Electronic Technology. Scientific-Technical Collection. Microwave Electronics), 1970, Issue 11, pp 41-50 (from RZh--Elektronika i yeye primeneniye, No 2, Februery 1971, Abstract No 2A141)

Translation: An approximate model is presented of an electron stream in the form of a bound oscillatory system with several degrees of freedom. It is shown that splitting the frequency of such a system leads to a reduction of the effective plasma frequency and negatively affects the efficiency of transformation. Attenuation of this effect is possible means of a choice of lengths of the drift tubes with respect to the averaged frequencies (effective) of the electron bound oscillatory system. 5 ref. Summary.

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Acc. Nr: AP0041916 Ref. Code: UR 0245

PRIMARY SOURCE: Voprosy Psikhologii, 1970, Nr 1, pp53-62

DYNAMICS OF EEG — ACTIVITY UNDER STRESS AND FOLLOWING STRESS

Z. G. TUROVSKAYA

Summary

Changes in bioelectrical brain activity (slow rhythms) were registered in 20 subjects under stress conditions and following stress conditions (temporal and structural dynamics of after — effect). The registered EEG — slow components changed differently under and following stress. Under stress conditions the greatest shifts were characteristic of delta-rhythm which nearly recoverd to initial values after stress. Following stress the greatest shifts were characteristic of theta — activity. It is of interest to note that the theta-rhythm activity changes of different direction and duration under stress and following stress correlate with the background alpha activity which gives good grounds for interpreting the findings in terms of the typological characteristics of nervous activity.

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1/2 023 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--CORRELATION OF FREE ENERGIES OF DISSOCIATION OF ACTIVATED BONDS WITH FREE ENERGIES OF DISSOCIATION OF THE BONDS OF INITIAL REAGENTS FOR

AUTHOR-(02)-TUROVSKIY, A.A., KUCHER, R.V.

COUNTRY OF INFO--USSR

SOURCE--ZH. FIZ. KHIM. 1970, 44(1), 221-3

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHEMICAL BONDING, CHEMICAL REACTION KINETICS, CHEMICAL DECOMPOSITION, GAS, FREE ENERGY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1984/1261 STEP NO--UR/0076/70/044/001/0221/0223

CIRC ACCESSION NO--AP0055932

UNCLASSIFIED

2/2 023 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0055932

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A LINEAR CORRELATION WAS FOUND BETWEEN THE FREE ENERGIES OF ACTIVATED BOND DISSOCN. IN THE TRANSIENT STATE AND THE FREE ENERGIES OF BOND DISSOCN. IN THE INITIAL STATE AS A RESULT OF AN ANAL. OF THE KINETICS FOR MONOMOL. DECOMPN. REACTIONS IN THE GAS PHASE. AN ANALOGOUS CORRELATION WAS ESTD. FOR MONOMOL. DECOMPN. REACTIONS GIVING RISE TO SATD. MOLS. (REACTION PRODUCTS).

UNCLASSIFIED

1/2 008 UNCLASSIFIED

TITLE--38 HOURS UNDER WATER, THE SADKO DIVERS SUIT -U-

PROCESSING DATE--04DEC70

AUTHOR--TUROVSKIY, M.

COUNTRY OF INFO--USSR

SOURCE--SOVETSKAYA BELORUSSIYA, SEPTEMBER 3, 1970, P 4, COLS 2-3

DATE PUBLISHED--03SEP70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--DIVING SUIT, DIVER/(U)SADKO DIVING SUIT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3008/1668

STEP NO--UR/9016/70/000/000/0004/0004

CIRC ACCESSION NO--AN0138644

UNCLASSIFIED

2/2 008 UNCLASSIFIED

CIRC ACCESSION NO--AN0138644 PROCESSING DATE--04DEC70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IGOR MOTSEBEKER, SWIMMING COACH, SPENT 26 HOURS 16 MINUTES IN THE LIFE SUPPORTING DIVING SUIT "SAOKO". SERGEY KHATSET, AN AQUANAUT, REMAINED UNDER WATER FOR 38 HOURS IN THE SAME SUIT. THE SUIT WAS DESIGNED UNDER THE DIRECTION OF VALENTIN SEMIN, SENIOR SCIENCE ASSOCIATE OF THE DENETSK INSTITUTE OF MINING MECHANICS AND ENGINEERING CYBERNETICS.

UNCLASSIFIED

USSR

UDC: 669.141.31:539.4.013.3

TUROVSKIY, M. L., Candidate Technical Sciences, and SHIFRIN, I. M., Engineer

"Stress Concentration in the Surface Layer of Cemented Steel"

Moscow, Vestnik mashinostroyeniye, No. 11, 1970, pp 37-40

Abstract: This article describes tests made on specimens of cemented or casehardened steel to verify the presence of concentrated residual stresses in metallic details of complex form. The steel under test was of the 18Kh2N4VA type and the specimens were flat gears. The tests of the gears' durability were made on a hydraulic pulsator at a constant asymmetrical cycle coefficient of $r = 0.25$ on the basis of 10^7 cycles. The measurements of the residual stresses in plane specimens measuring 100x20x9.3 mm were made by cleaning the surface to be tested in a 20% water solution of nitric acid with continuous automatic recording of the bending and thickness of the surface layer. Also investigated was the effect

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USSR

TUROVSKIY, M. L., et al, Vestnik mashinostroyeniye, No 11, 1970, pp 37-40

of roughness on the stress concentration. It was found that the roughness in the longitudinal direction, unlike the roughness in the transverse direction, strongly affects the strength of the casehardened steel.

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Acc. Nr.: AP0047042

Ref. Code: UR0122

USSR

UDC 621.787.4:669.14:621.785.532

TUROVSKIY, M. L., Candidate of Technical Sciences, NOVIK, R. A., Engineer

"Strengthening Rolling of Nitriding Steel Parts"

Moscow, Vestnik Mashinostroyeniya, No 1, 1970, pp 39-42

Abstract: This article deals with the strengthening of nitriding steel parts, by surface rolling. It describes a series of investigations of the effect of rolling pressure, of the number of rolling passes, and of the length travel, on surface layer properties. Investigations were conducted on standard samples for fatigue bending tests, made of 18 x 2H4VA steel, with nitriding layer of 0.35-0.40 mm thickness, and of HV700-750 and HRC32-33 surface and core hardness, respectively. The maximum specific pressures, calculateed by the Hertz formulas were considered, as a basic parameter defining the rolling strain. Samples strengthened with rolling pressures σ_k = 355 to 710 kg/mm^2, rotating

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Reel/Frame
19790482

19

at 98 rpm were tested. Distribution of axial residual stresses across the sample thickness, and of hardness in the cross section of nitriding sample, with respect to maximum rolling pressure are presented in graphs. The variation of the residual stresses during rolling can be explained by the elastic-plastic deformation of the nitriding layer. This is substantiated by the results of hardness measurements on the oblique cuts on samples. The increase in nitriding layer hardness begins at 560 kg/mm^2 and continues up to 710 kg/mm^2 pressure, at which cracks appear on the surface. The mechanism of surface strengthening of nitriding steels is tentatively explained. The strengthening of nitriding layer, which occurs at quite narrow pressure range (from 560 to 700 kg/mm^2) is a characteristic feature of this treatment. The lesser pressures, practically, do not affect the layer properties, while the greater pressures lead to its destruction. The dependence of the magnitude of residual stresses across the depth of a sample on the number of rolling passes (1 to 10) at different pressures and on the length travel (0.02 to 0.5 mm/tour) is presented in graphs and analyzed. The optimal length travel is determined through axial residual stress on amples strengthened at 640 kg/mm^2 pressure.

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19790483

AP0047042

The effect of heating on fatigue strength of nitriding steels was investigated. The results show, that heating leads to a substantial reduction of residual stresses in the layer. Thus a high efficiency of the complex method of strengthening, including nitriding with consecutive rolling is established, and the effect of various parameters of rolling conditions on the residual stresses and fatigue strength of nitrid steel is revealed. Original article has 6 figures.

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19790484

USSR

UDC 591.461.2:591.147.4

BABAYEVA, A. KH., PUCHKOVA, L. V., and TUROVSKIY, V. S., Institute of Physiology and Experimental Pathology of the Arid Zone, Academy of Sciences, Turkmen SSR

"Participation of Mitochondria in the Mechanism of Action of Antidiuretic Hormone"

Ashkabad, Izvestiya Akademii Nauk Turkmenskoy SSR, Seriya Biologicheskikh Nauk, No 2, 1971, pp 47-51

Abstract: Intramuscular injection of antidiuretic hormone (ADH) to white rats after a water load altered the potassium and sodium content of the mitochondria in both layers of the kidneys. The sodium concentration increased while the potassium concentration remained unaffected. More sodium and less potassium were present in the medullar mitochondria than in the cortical mitochondria. The hormone also stimulated oxygen uptake by the mitochondria and decreased phosphorylation while intensifying the formation of lactic acid in the hyaloplasm. Thus, the mitochondria in both functional layers of the rat kidneys take an active part into the processes involved in maintaining homeostasis. They supply the required energy by intensifying glycolysis and altering the rate of oxidative metabolism. At the same

USSR

BARAYEVA, A. KH., et al., Izvestiya Akademii Nauk Turkmenskoy SSR, Seriya Biologicheskikh Nauk, No 2, 1971, pp 47-51

time they regulate the ion composition of the cells, thereby stabilizing the water-salt equilibrium.

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USSR

UDC 591.31:593.9:615.78.019-092

BUZNIKOV, G. A., RAKICH, L., and TURPAYEV, T. M., Laboratory of Physiology imeni Kh. S. Koshtoyants, Institute of Developmental Biology, Academy of Sciences USSR, Moscow and Laboratory for Brain Study, Institute for Biological Research, Belgrade

"Supersensitivity of Early Embryos of the Sea Urchin Arbacia Lixula to Neuropharmacological Agents"

Leningrad, Zhurnal Evolyutsionnoy Biokhimii i Fiziologii, No 5, 1972, pp 478-485

Abstract: The early embryos of A. lixula were found to be 10 to 800 times more sensitive to 53 neuropharmacological agents (serotonin antagonists, adrenolytics, and cholinolytics) than the early embryos of 5 other sea urchin species (Strongylocentrotus drobachiensis, S. nudus, S. intermedius, Parancentrotus lividus, and Sphaerechinus granularis). On the other hand, A. lixula embryos did not exhibit supersensitivity to 19 other kinds of agents that block development, i.e., detergents, chelating compounds, mitotic and metabolic poisons, and inhibitors of macromolecular synthesis, except to the antibiotic antimycin A. Both supersensitivity and ordinary sensitivity to the neuropharmacological

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USSR

BUZNIKOV, G. A., et al., Zhurnal Evolyutsionnoy Biokhimii i Fiziologii, No 5, 1972, pp 478-485

drugs decreased in A lixula when the eggs were treated with endogenous antidotes (e.g., 1-benzyl-2,5-dimethylserotonin) or exogenous mediators (acetylcholine and monoamines). The hyperactive drugs apparently block early embryonic development by antagonizing the mediators.

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1/2 009 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--THIAMINE AND ITS DERIVATIVES. VII. PRODUCTS OF THE CHLORINATION OF 3,ACETYPROPYL ACETATE AND FACTORS AFFECTING THEIR COMPOSITION -U-

AUTHOR-(02)-TURSIN, V.M., KANINA, T.I.

COUNTRY OF INFO--USSR

SOURCE--ZH. PRIKL. KHIM. (LENINGRAD) 1970, 43(2), 377-80

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES, CHEMISTRY

TOPIC TAGS--CHLORINATED ORGANIC COMPOUND, KETONE, CHEMICAL SYNTHESIS, VITAMIN

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1988/0122 STEP NO--UR/0080/70/043/002/0377/0380

CIRC ACCESSION NO--AP0105208

UNCLASSIFIED

2/2 009 UNCLASSIFIED

CIRC ACCESSION NO--AP0105208 PROCESSING DATE--23OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CHLORINATION OF 3,ACETYLPROPYL ACETATE (I) IN AHNYD. MEDIUM GAVE 3,CHLORO,5,ACETOXY,2,PENTANONE (II), WHICH WAS CHLORINATED TO 1,3,DICHLORO,5,ACETOSY,2,PENTANONE (III). AT NEGATIVE15 TO NEGATIVE20DEGREES, THE YIELD OF I REACHED 76PERCENT. THROUGH 150 G I AT NEGATIVE15 TO NEGATIVE20DEGREES WAS PASSED CL AT A RATE TO MAINTAIN THE TEMP. BELOW NEGATIVE15DEGREES (IF A YELLOW GREEN COLOR APPEARED THE RATE OF CL WAS REDUCE OR TEMPORARILY STOPPED) TO GIVE 52 G II, B SUBI 82-4DEGREES, N PRIME20 SUBD 1.4490, D PRIME20 1.165, AND 26.2 G OF A MIXT. OF II AND III, B. 84-100DEGREES. FACILITY: VSES. NAUCH. ISSLED. VITAMIN. INST., MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC 621.311.153:681.3

SOVALOV, S. A., TURSKIY, E. V.

"Application of Digital Computers for Analysis of the Operating Conditions of the United Electric Power System of the European Part of the USSR"

V sb. Probl. tekhn. elektrodinamiki (Problems of Technical Electrodynamics -- collection of works), vyp. 25, Kiev, Naukova Dumka Press, 1970, pp 3-11 (from RZh-Elektrotekhnika i Energetika, No 4, Apr 71, Abstract No 4 Ye235)

Translation: The modern level of development of the Unified Power System of the European part of the USSR requires further improved means of computer engineering for analysis of the operating conditions of the power systems. The basic requirements imposed on the programs are developed. The characteristics of the programs used in the integrated dispatch controls of the Unified Power System are presented. Basic problems of introducing digital computers for analyzing the operating conditions of the Unified Power Systems are formulated. There are 2 entries in the bibliography.

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USSR

UDC 632.4.582.281.112:633.11(574)

TURSUMBAYEV, A., Scientific Research Institute of Plant Protection, Alma-Ata

"Biological Properties of Wheat Powdery Mildew Pathogen in Southeast Kazakhstan"

Leningrad, Mikologiya i Fitopatologiyy, Vol 7, No 1, 1973, pp 46-48

Abstract: In Alma-Atinskaya Oblast, wheat powdery mildew pathogen usually does not develop into the conidial stage on winter wheat shoots in the fall. Instead, it lies dormant through the winter in straw stacks. In the spring, when the average daily temperature reaches 12-17°C, ascospores mature in large numbers, spill from the cases, and infect both winter and summer wheat. The first conidial films develop on the lower leaves of both varieties in mid-May. In the summer, Cleistocarps begin to develop 2-3 weeks after the first manifestations of the disease and proliferate most intensively on middle-tier leaves. Cleistocarps which remain on stems, leaves, or soil through the winter are washed down by rain in March and soon decay. Viable ascospores are present only in Cleistocarps, which remained hidden in straw stacks during the winter. However, when the summer and fall are exceptionally rainy, so that the average monthly precipitation exceeds 60 mm, maturation of the ascospores in the cases may take place in the autumn.

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1/2 030 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--EXTERNAL CIRCUIT CURRENT OSCILLATIONS IN A SEMICONDUCTOR WITH KAOGMTSEV NEOOSPASOV INSTABILITY -U-

AUTHOR-(03)-GUREVICH, L.E., IOFFE, I.V., TURSUNOV, A.

COUNTRY OF INFO--USSR

SOURCE--FIZ. TVERD. TELA 1970, 12(5), 1566-8

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--SOLID STATE CIRCUIT, SEMICONDUCTOR CRYSTAL, CURRENT DENSITY, OSCILLATION, ELECTRIC FIELD, INDIUM ANTIMONIDE, ELECTRIC IMPEDANCE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3004/0978 STEP NO--UR/0181/70/012/005/1566/1568

CIRC ACCESSION NO--AP0131465

UNCLASSIFIED

2/2 030 UNCLASSIFIED

CIRC ACCESSION NO--AP0131465 PROCESSING DATE--20NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. INTERACTION OF FLUCTUATIONS LEADS IN NONOHMIC CONTACTS TO VARIATIONS OF THE REAL PART OF THE CRYSTAL IMPEDANCE. NUMERICAL EVALUATIONS OF THE FIELDS AND FREQUENCIES WERE CARRIED OUT FOR INSB AT 770EGREESK.

FACILITY: FIZ.-TEKH. INST. IM. IOFFE, LENINGRAD, USSR.

UNCLASSIFIED

1/2 040 UNCLASSIFIED PROCESSING DATE--27NOV70

TITLE--KINEMATIC MODULATION OF THE RADIATION INTENSITY FROM A TRAVELINGMEDIUM LASER -U-

AUTHOR--TURSUNOV, A.T.

COUNTRY OF INFO--USSR

SOURCE--ZHURNAL EKSPERIMENTAL'NOY I TEORETICHESKOY FIZIKI, 1970, VOL 58, NR 6, PP 1919-1922

DATE PUBLISHED-------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--LASER RADIATION, RUBY LASER, NEODYMIUM LASER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/2237 STEP NO--UR/0056/70/058/006/1919/1922

CIRC ACCESSION NO--AP0125815

UNCLASSIFIED

2/2 040 UNCLASSIFIED

CIRC ACCESSION NO--AP0125815 PROCESSING DATE--27NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. MODULATION OF RADIATION DUE TO MOTION OF THE ACTIVE BODIES IN TRAVELINGMEDIUM RUBY, NEODYMIUM GLASS OR CAWO SUB4:ND PRIME3 POSITIVE CRYSTAL LASERS IS INVESTIGATED EXPERIMENTSLLY. IT IS SHOWN THAT AS A RULE THE OUTPUT RADIATION FROM X TRAVELINGMEDIUM LASERS IS MODULATED WITH A FREQUENCY WHICH IS CONSTANT FOR A GIVEN VELOCITY. THE MODULATION FREQUENCY LINEARLY DEPENDS ON THE VELOCITY OF THE ACTIVE MEDIUM IN THE CAVITY. SOME FEATURES AND CAUSES OF MODULATION OF THE OUTPUT RADIATION FROM TRAVELINGMEDIUM LASERS ARE DISCUSSED. FACILITY: OPTICHESKAYA LABORATORIYA INST. ORGANICHESKOY I NEORGANICHESKAYA KHIMII AN SSSR.

UNCLASSIFIED

USSR

UDC 669.140.089.14

TURSUNOV, A. V., GUTOROVA, V. L., KONDRASHEV, A. I., and PILYUSHENKO, V. L.

"Cold-Resistant Nickel-Free Structural Steel"

Dnepropetrovsk, Metallurgicheskaya i Gornorudnaya Promyshlennost', No 6, Nov-Dec 70, p 34

Abstract: A new procedure for producing cold-resistant nickel- and molybdenum-free steel developed jointly by members of the Don Scientific Research Institute of Ferrous Metallurgy and the Novokramatorsk Machine Building Plant is described. The chemical composition of this steel is (%): 0.35 C, 0.33 Si, 1.16 Mn, 0.29 W, 0.017 Ti, 0.021 Al, 0.034 S, and 0.023% P. Mechanical properties were determined after tempering at 880° and annealing at 600 and 650° on 28 x 28-mm longitudinal samples cut into bars. The sensitivity to overheating was determined by the drop in impact strength. The test results show that the steel is insensitive to overheating, possesses a significant reserve of viscosity (22-29 kg/cm^2 at -70°C), and its cold brittleness threshold, defined as the temperature at which 50% of the viscosity is lost, compared with viscosity at room temperature, lies below -70° C. 1/1

Acc. Nr. AP0049425 Abstracting Service: CHEMICAL ABST. 5-70 Ref. Code 4R 0129

102849n Economical, alloyed tool steel for hot extrusion. Tursunov, A. V.; Tyurin, N. F.; Zubkov, A. P.; Litvinenko, Yu. P.; Sabaev, V. I. (Donets. Nauch.-Issled. Inst. Chern. Met., Donetsk, USSR). *Metalloved. Term. Obrab. Metal.* 1970, (1), 32–4 (Russ). As a result of earlier lab. studies a new alloyed steel Cr–Mn–Si, further alloyed by a complex W + Mo + V, was proposed as a construction steel and steel for extrusion instruments. In this work the properties were studied of tool steel 4Kh2GSVMF in comparison with 3Kh2V8F steel. Reason for replacing of high-W steel 3Kh2V8F by low-W steel 4Kh2GSVMF is W deficiency. Steel 4Kh2GSVMF contained C 0.35–0.45, Mn 1.2–1.5, Si 1.3–1.6, Cr 2.0–2.5, W 0.2–0.5, Mo 1.1–1.4, and V 0.2–0.5%. Steel 3Kh2V8F contained C 0.30–0.40, Mn 0.20–0.40, Si 0.35, Cr 2.2–2.7, W 7.5–9.0, and V 0.2–0.5%. Steel 4Kh2GSVMF had following crit. points: Ac_1 and Ac_3 = 764 and 805°, Ar_3 and Ar_1 = 704 and 662°. Max. hardness and absence of overheating in microstructure was obsd.

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REEL/FRAME
19801260

18

AP0049425

at 950–1000°. Heat-resistance of 4Kh2GSVMF steel is higher at 600 and 700° than that of std. steel 3Kh2V8F, and somewhat lower at 625 and 650°. Hardenability of 4Kh2GSVMF steel is higher than that of std. steel, esp. after slow cooling in air, or in an oven. Steel 4Kh2GSVMF in comparison with std. steel 3Kh2V8F has higher heat-resistance, plasticity, viscosity, and lower temp. of hardening. Recommended thermal treatment of 4Kh2GSVMF steel is hardening from 970–1000° in oil, tempering at 580–600° to hardness HRC 46-50. Jiri Becvar

pc

2/2

19801261

1/2 051 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--ULTRASONIC OSCILLATIONS OF THE RADIATION INTENSITY OF TRAVELING MEDIUM LASERS -U-

AUTHOR-(02)-LIVSHITS, B.L., TURSUNOV, A.T.

COUNTRY OF INFO--USSR

SOURCE--AKADEMIIA NAUK SSSR, DOKLADY, VOL 190, FEB. 1, 1970, P 813, 814

DATE PUBLISHED-------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--SOLID STATE CASER, LASER MODULATION, ELASTIC DEFORMATION, ULTRASONIC VIBRATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1984/0268 STEP NO--UR/0020/70/190/000/0813/0814

CIRC ACCESSION NO--AT0055064

UNCLASSIFIED

2/2 051 UNCLASSIFIED

CIRC ACCESSION NO--AT0055064 PROCESSING DATE--16OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. STUDY OF A LOW FREQUENCY MODULATION EFFECT NOTED IN SOLID STATE TRAVELING MEDIUM LASERS AND ATTRIBUTED TO THE ELASTIC PROPERTIES OF THE ACTIVE MEDIUM. IT IS CONFIEMED THAT THE ULTRASONIC MODULATION OF THE RADIATION INTENSITY OF TRAVELING MEDIUM LASERS IS REALLY CAUSDE BY LONGITUDINAL VIBRATIONS OF THE SOLID STATE ACTIVE LASER MEDIUM. IT IS ESTABLISHED THAT THIS MODULATION IS CAUSED BY ELASTIC VIBRATIONS OF THE LASER RODS RESULTING FROM A CHANGE IN THE LENGTH OF THE RODS. FACILITY: AKADEMIIA NAUK SSSR, INSTITUT OBSHCHEI I NEORGANICHESKOI KHIMII, MOSCOW, USSR.

UNCLASSIFIED

TURSUNOZ, A. Yu.

"The Divergence Factor of Dispersions"

[tr.] Tashkent. Politekhn. in-ta, [(Works of) Tashkent Polytechnical Institute], No 56, 1970, pp 73-77, (Translated from Referativnyy Zhurnal Kibernetika, No. 5, 1971, Abstract No. 5V141 by Ya. Shor).

Translation: In a Bernoulli plan with n experiments in a series and k series, two estimates of dispersion are studied:

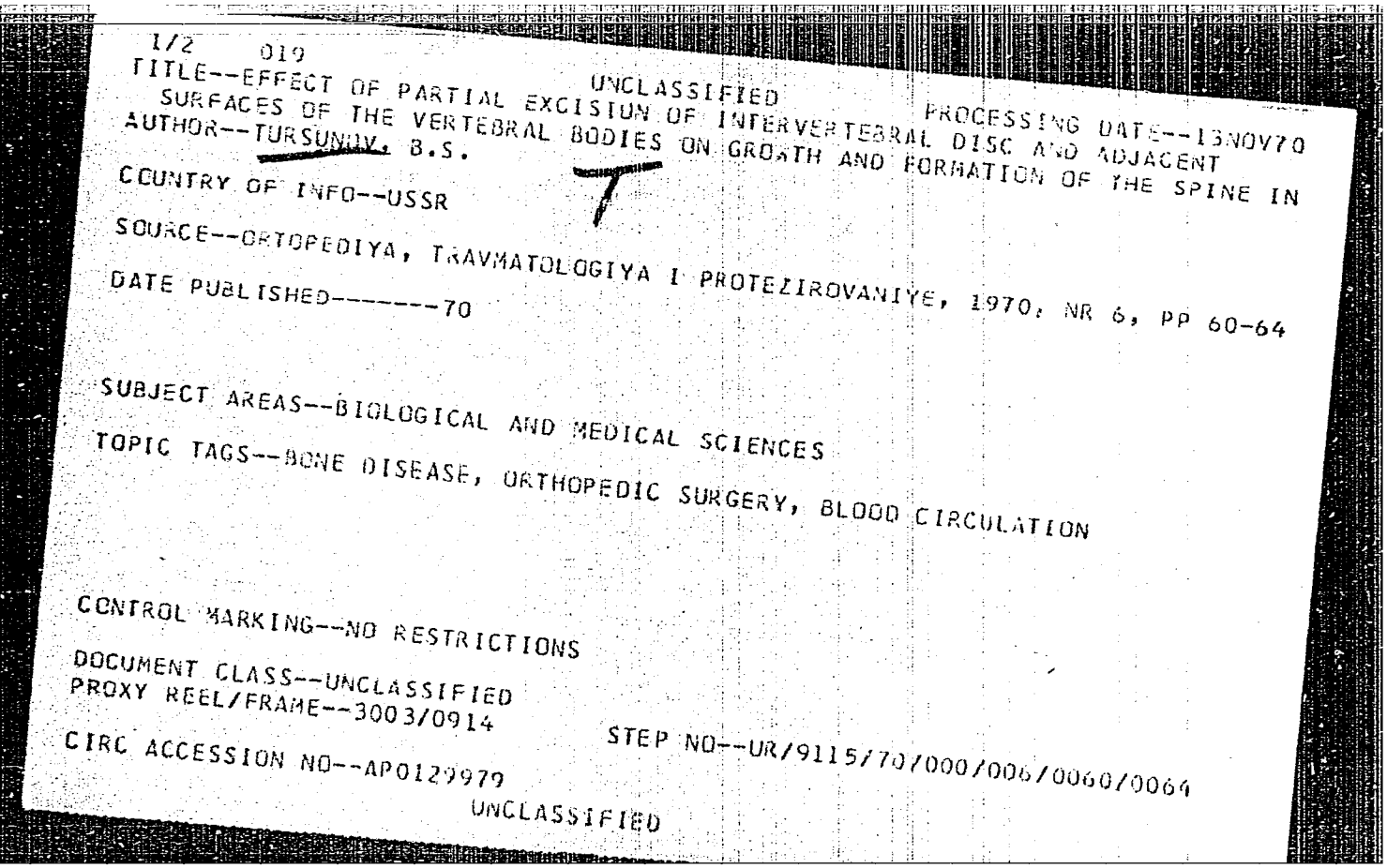
$$\sigma'=\sqrt{\frac{p(1-p)}{n}},\quad \sigma''=\sqrt{\frac{1}{nk}\Sigma(p_{ij}-p)^2},$$

where

$$p=\frac{1}{nk}\Sigma p_{ij},\quad i=1,2,\ldots,n;\quad j=1,2,\ldots,k.$$

The divergence factor of the dispersions refers to the ratio $Q=\frac{\sigma''}{\sigma'}$. It is proven that $Q \leq 1$, where the equality occurs only when all p_{ij} are identical.

1/1



1/2 019 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--EFFECT OF PARTIAL EXCISION OF INTERVERTEBRAL DISC AND ADJACENT SURFACES OF THE VERTEBRAL BODIES ON GROWTH AND FORMATION OF THE SPINE IN

AUTHOR--TURSUNOV, B.S.

COUNTRY OF INFO--USSR

SOURCE--ORTOPEDIYA, TRAVMATOLOGIYA I PROTEZIROVANIYE, 1970, NR 6, PP 60-64

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--BONE DISEASE, ORTHOPEDIC SURGERY, BLOOD CIRCULATION

CONTROL MARKING--NO RESTRICTIONS

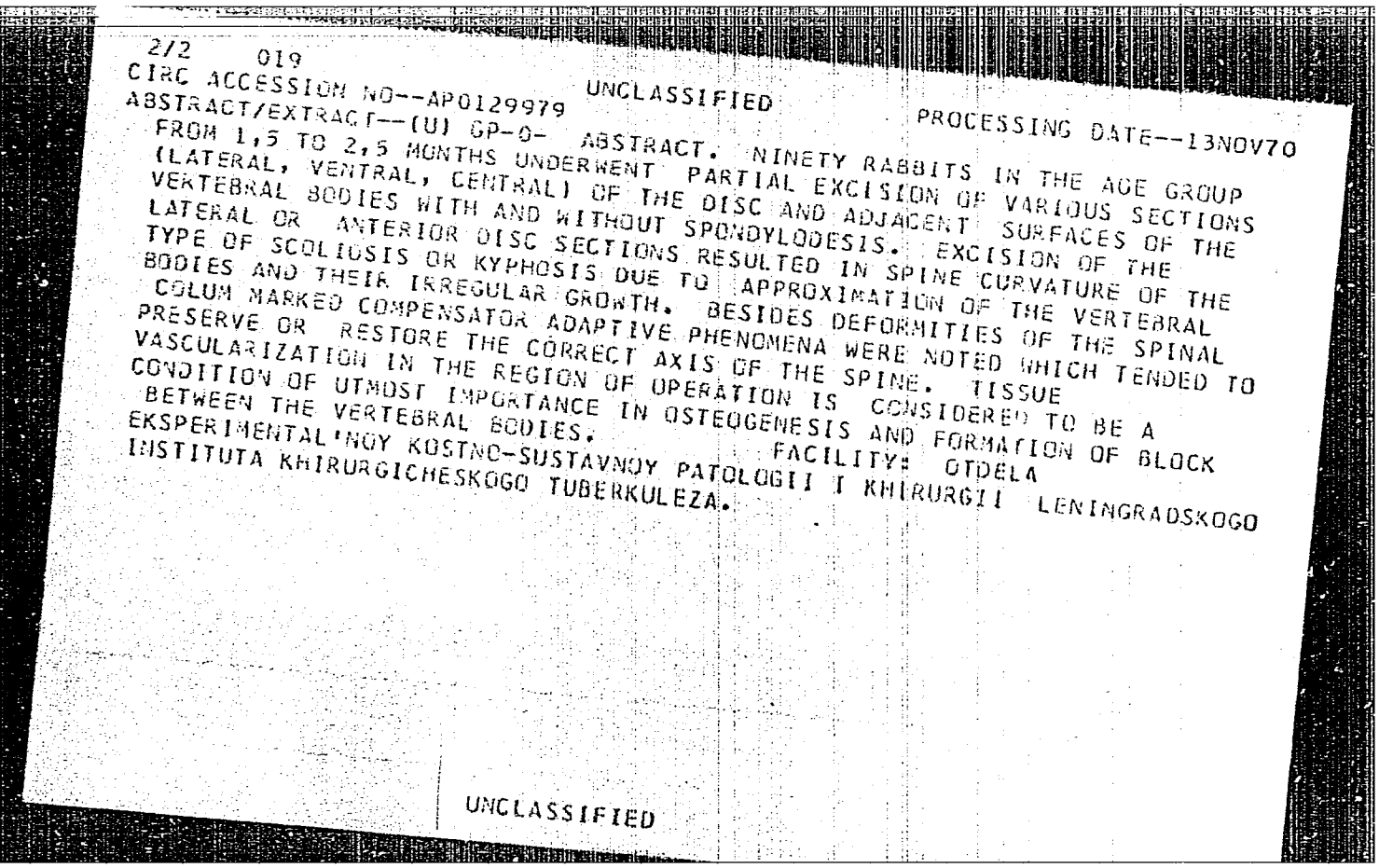
DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3003/0914

STEP NO--UR/9115/70/000/006/0060/0064

CIRC ACCESSION NO--AP0129979

UNCLASSIFIED



2/2 019 UNCLASSIFIED PROCESSING DATE--13NOV70
CIRC ACCESSION NO--AP0129979
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. NINETY RABBITS IN THE AGE GROUP FROM 1,5 TO 2,5 MONTHS UNDERWENT PARTIAL EXCISION OF VARIOUS SECTIONS (LATERAL, VENTRAL, CENTRAL) OF THE DISC AND ADJACENT SURFACES OF THE VERTEBRAL BODIES WITH AND WITHOUT SPONDYLODESIS. EXCISION OF THE LATERAL OR ANTERIOR DISC SECTIONS RESULTED IN SPINE CURVATURE OF THE TYPE OF SCOLIOSIS OR KYPHOSIS DUE TO APPROXIMATION OF THE VERTEBRAL BODIES AND THEIR IRREGULAR GROWTH. BESIDES DEFORMITIES OF THE SPINAL COLUM MARKED COMPENSATOR ADAPTIVE PHENOMENA WERE NOTED WHICH TENDED TO PRESERVE OR RESTORE THE CORRECT AXIS OF THE SPINE. TISSUE VASCULARIZATION IN THE REGION OF OPERATION IS CONSIDERED TO BE A CONDITION OF UTMOST IMPORTANCE IN OSTEOGENESIS AND FORMATION OF BLOCK BETWEEN THE VERTEBRAL BODIES. FACILITY: OTDELA EKSPERIMENTAL'NOY KOSTNO-SUSTAVNOY PATOLOGII I KHIRURGII LENINGRADSKOGO INSTITUTA KHIRURGICHESKOGO TUBERKULEZA.

UNCLASSIFIED

USSR

UDC 66.074.7

TURSUNOV, M., RIZAYEV, N. U., MIRZAKARIMOV, R. M., IBRAGIMOV, A. P., and SUKHININA, L. A., Tashkent Polytechnical Institute

"Change in the Sorption Capacity of Ion Exchange Resin Towards Gossypol and Free Fatty Acids Under the Influence of γ -Irradiation"

Leningrad, Zhurnal Prikladnoy Khimii, Vol 45, No 8, Aug 72, pp 1828-1832

Abstract: Increase in the γ -irradiation dose leads to an increased swelling of the anion exchange resin AV-17-6(m) and EDE-10p in the OH^- form in distilled water and in methanol; the anion exchange resin EDE-10p in the CO_3^{2+} form and FAN-2 in the OH^- form increase their swelling also, but only to a certain specific dose. The weight of the anion exchange resin has been noted to increase also. Under the influence of γ -irradiation AV-17-6(m) anion exchange resin in the OH^- form exhibits selective sorption towards gossypol. Both the AV-17-6(m) and the EDE-10p anion exchange resins in the CO_3^{2+} form become lighter in color under the influence of increasing radiation dose.

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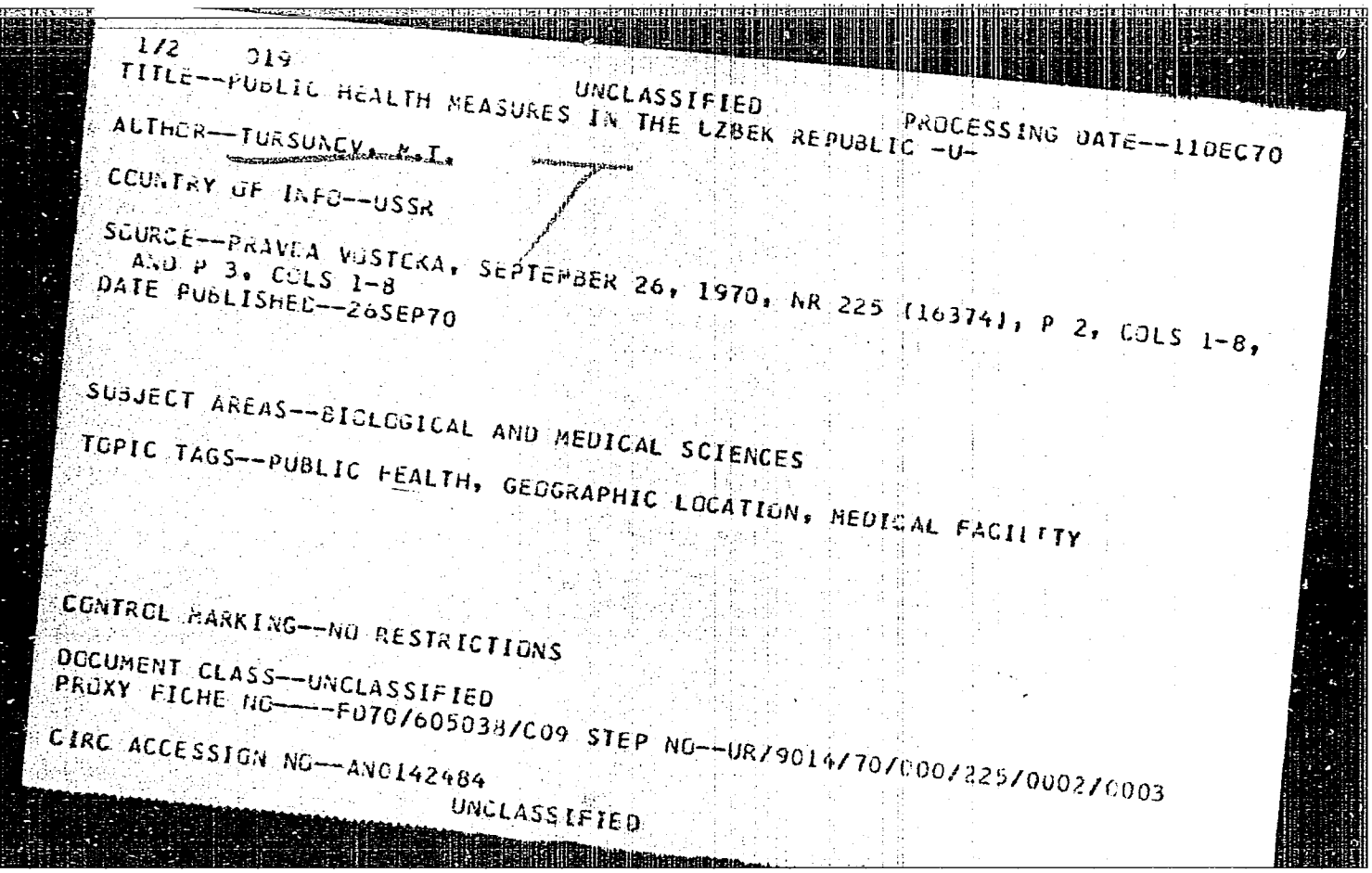


1/2 019 UNCLASSIFIED PROCESSING DATE--11DEC70

TITLE--PUBLIC HEALTH MEASURES IN THE UZBEK REPUBLIC -U-

AUTHOR--TURSUNOV, M.I.

COUNTRY OF INFO--USSR

SOURCE--PRAVDA VOSTOKA, SEPTEMBER 26, 1970, NR 225 (16374), P 2, COLS 1-8, AND P 3, COLS 1-8

DATE PUBLISHED--26SEP70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--PUBLIC HEALTH, GEOGRAPHIC LOCATION, MEDICAL FACILITY

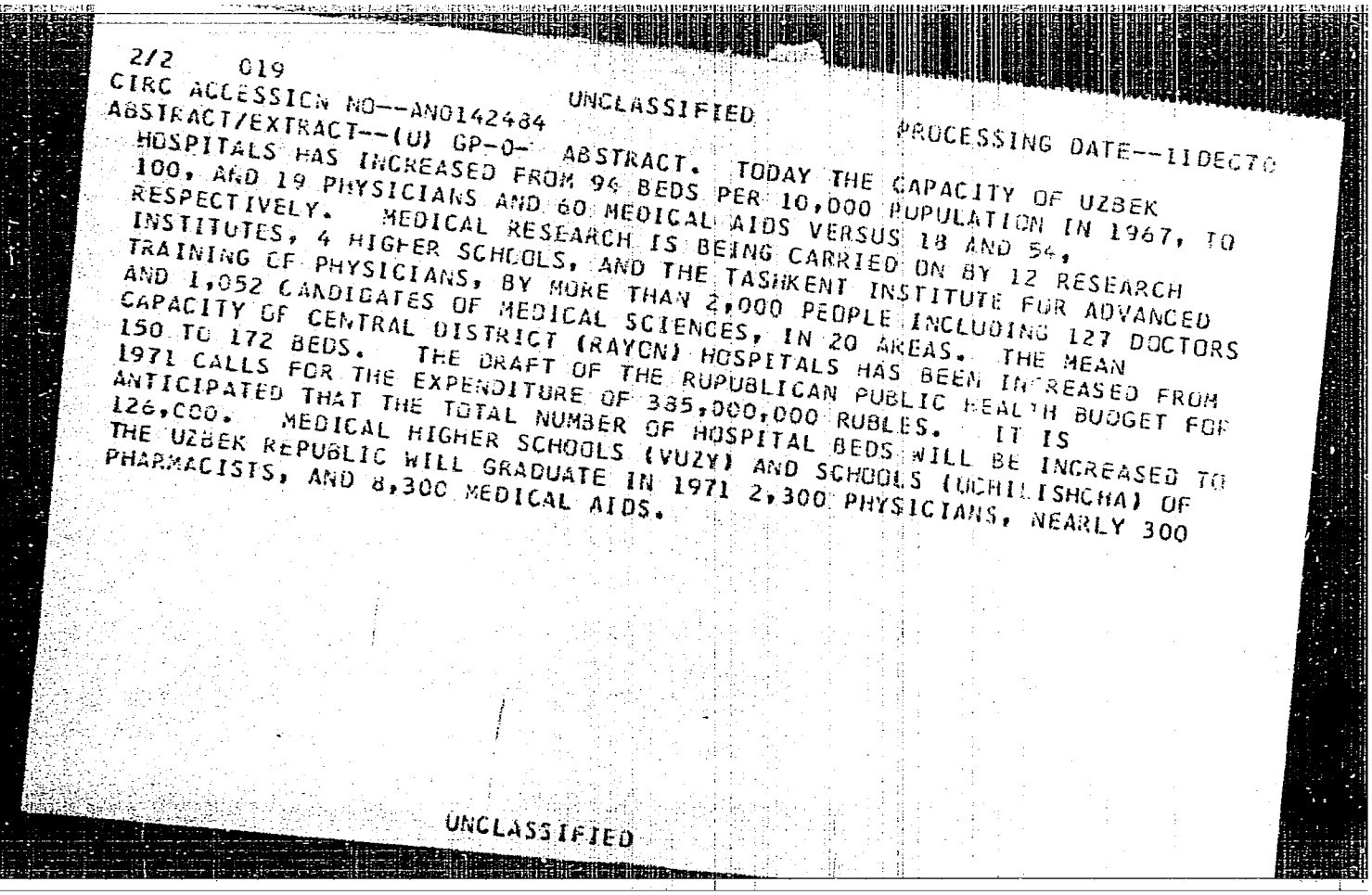
CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY FICHE NO----FD70/605038/C09 STEP NO--UR/9014/70/000/225/0002/0003

CIRC ACCESSION NO--AN0142484

UNCLASSIFIED



2/2 019 UNCLASSIFIED PROCESSING DATE--11DEC70
CIRC ACCESSION NO--AN0142484
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. TODAY THE CAPACITY OF UZBEK HOSPITALS HAS INCREASED FROM 94 BEDS PER 10,000 POPULATION IN 1967, TO 100, AND 19 PHYSICIANS AND 60 MEDICAL AIDS VERSUS 18 AND 54, RESPECTIVELY. MEDICAL RESEARCH IS BEING CARRIED ON BY 12 RESEARCH INSTITUTES, 4 HIGHER SCHOOLS, AND THE TASHKENT INSTITUTE FOR ADVANCED TRAINING OF PHYSICIANS, BY MORE THAN 2,000 PEOPLE INCLUDING 127 DOCTORS AND 1,052 CANDIDATES OF MEDICAL SCIENCES, IN 20 AREAS. THE MEAN CAPACITY OF CENTRAL DISTRICT (RAYON) HOSPITALS HAS BEEN INCREASED FROM 150 TO 172 BEDS. THE DRAFT OF THE RUPUBLICAN PUBLIC HEALTH BUDGET FOR 1971 CALLS FOR THE EXPENDITURE OF 385,000,000 RUBLES. IT IS ANTICIPATED THAT THE TOTAL NUMBER OF HOSPITAL BEDS WILL BE INCREASED TO 126,000. MEDICAL HIGHER SCHOOLS (VUZY) AND SCHOOLS (UCHILISHCHA) OF THE UZBEK REPUBLIC WILL GRADUATE IN 1971 2,300 PHYSICIANS, NEARLY 300 PHARMACISTS, AND 8,300 MEDICAL AIDS.

UNCLASSIFIED

USSR

UDC: 621.315.592

AZIMOV, S. A., YUNUSOV, M. S., TURSUNOV, N. A., and SULTANOV, N. A.
S. V. Starodubtsev Physicotechnical Institute, Tashkent

"Some Characteristics of Silicon With Palladium Doping"

Leningrad, Fizika i Tekhnika Poluprovodnikov, No 8, 1972, pp 1438-1441

Abstract: The purpose of the experiments described in this paper is to acquire more detailed information concerning the electrophysical characteristics of silicon doped with palladium. Subject specimens were n-type silicon monocrystals with resistivity of 1-2000 ohm.cm and p-type silicon monocrystals with resistivity ohm.cm, having a dislocation density of $10^4/cm^2$ and an oxygen content of $1-5 \cdot 10^{16}$ atoms/cc. The palladium with which the crystals were doped was 99.998% pure, and the doping was done by diffusion saturation in the interval of 1100-1250° C and in the time intervals of 30 minutes to 20 hours in quartz ampoules in an atmosphere of pure argon. The effect of the palladium on the electrical characteristics of the silicon, the solubility of the palladium in the silicon, and the effect of thermal processing were investigated.

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USSR

AZIMOV, S. A., et al, Fizika i tekhnika poluprovodnikov, No 8, 1972, pp 1438-1441

UDC: 621.315.592

Various characteristics of the doped crystals are plotted. The authors express their thanks to G. Yuldashev for his assistance with the experiments.

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USSR

UDC 539.171.017

BOOS, E. G., VINITSKIY, A. Kh., TAKIBAYEV, Zh. S., TURSUNOV, R. A., CHASNIKOV, I. Ya., Institute of High-Energy Physics of the Academy of Sciences Kazakh SSR

"Comparison of the Characteristics of Pion-Nucleon and Proton-Nucleon Interactions"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, Vol. 36, No. 8, Aug 72, pp 1701-1704

Abstract: The various characteristics of inelastic proton-nucleon (pN) and pion-nucleon (πN) collisions were compared, since they are of great interest in explaining the characteristics of the mechanism of hadron interactions and in determining the possibility of distinguishing different types of events formed by cosmic ray particles. The work is based on experimental material obtained in studying collisions between 17-Gev pions and 20-Gev protons with nucleons of a nuclear emulsion. The CERN synchrotron was used in the study. A comparison of experimental material for these energies was convenient, since the center-of-inertia systems of hadron collisions in this case have approximately the same velocity. Data obtained

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USSR

BOOS, E. G., et al, Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, Vol. 36, No. 8, Aug 72, pp 1701-1704

from analyzing 288 πN-interactions found in nuclear emulsions irradiated by 60-Gev pions in the accelerator of the Institute of High-Energy Physics (Serpukhov) were also used in the study. A table is given showing the coefficient of asymmetry of the angular distribution of the charged pions as a function of the number of secondary charged particles. Despite the presence of asymmetry in individual groups of proton-nucleon collisions, the angular distribution of π-mesons from pN-interactions was practically the same averaged over all multiplicities. In pion-nucleon collisions there was found a strong asymmetry of the charged pions in the leading hemisphere of the center-of-inertia system that decreased with the growth of the number of secondary charged particles. This asymmetry is sometimes explained by the primary pions conserving their direction, but at an energy of 17 Gev the hypothesis of a "conserving pion" encounters certain difficulties, since the number of pions contributing to the asymmetry of the angular distribution of pions summed over all multiplicities is approximately equal to the number of interactions necessary

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USSR

BOOS, E. G., et al, Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, Vol. 36, No. 8, Aug 72, pp 1701-1704

to assume the absence of charge exchange of the primary pion. It is concluded that there is a difference in the characteristics of πN- and pN-interactions which does not disappear completely upon taking into account "conserving pions", since the divergence is more characteristic for a small number of secondary charged particles. At the same time, coincidence of the characteristics of these interactions is noted for collisions with large values of four-dimensional transfers.

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USSR

UDC 539.171.017

TAKIBAYEV, Zh. S., BOOS, E. G., TURSUNOV, R. A., Institute of High-Energy Physics of the Academy of Sciences Kazakh SSR

"Calculating the Cross Section for Coherent Particle Generation by Protons As a Function of Primary Energy"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, Vol. 36, No. 8, Aug 72, pp 1799-1800

Abstract: The cross section for coherent processes was calculated as a function of primary energy using the measurements of Grigorov, et al, on the effective cross sections for the inelastic interaction of protons with carbon nuclei in the energy range 20-60 Gev (Preprint 69-182(167), Scientific Research Institute of Nuclear Physics, Moscow State University, 1969). The empirical relationship given in this study

$$\sigma_c(E) = \sigma_c(20)\ (1 + \alpha \ln E/20) \qquad (1)$$

is used, where σ_c is the cross section for the interaction of a proton with a carbon nucleus at energy E, $\sigma_c(20) = (216\pm7)$ mbarn, and $\alpha = (6.8\pm1.2)\cdot10^{-2}$. In this expression it is assumed that the quantity

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USSR

TAKIBAYEV, Zh. S., et al, Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, Vol. 36, No. 8, Aug 72, PP 1799-1800

$\sigma_c(E)$ measured in the experiment consists of two parts: the inelastic interaction cross section $\sigma_c^H(E)$ and the coherent interaction cross section $\sigma_c^K(E)$: i.e.,

$$\sigma_c(E) = \sigma_c^H(E) + \sigma_c^K(E) \qquad (2)$$

$\sigma_c^H(20) = \sigma_c^H(E)$, the following relationship holds in the energy interval 20-600 Gev: $\sigma_c^K(E) = \sigma_c^K(20) + \sigma_c(20) a \ln \frac{E}{20} =$

$$= \sigma_c(E) + \sigma_c^K(20) - \sigma_c(20). \qquad (3)$$

Using a previously determined value for the mean-free path length for coherent interactions with nuclei of the photoemulsions (λ = 133±56 m) and assuming that $\sigma^K(A) \sim A^{2/3}$, the authors determined that $\sigma_c^K(20) = 0.7 \pm 0.3$ mbarn. Values of $\sigma_c^K(E)$ are plotted on a figure and compared

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USSR

TAKIBAYEV, Zh. S., et al, Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, Vol. 36, No. 8, Aug 72, pp 1799-1800

with other data. The figure shows that the growth in cross section with a rise in energy in the interval 20-600 Gev obtained in the work of Grigorov can be explained by the contribution of coherent processes if a rapid growth in the cross section for coherent interaction of protons with nuclei can be observed in the energy range >20 Gev. This analysis was based only on consideration of coherent reactions with three charged particles in the final state, but consideration of the contribution of events with five charged particles would have practically no effect on these results.

3/3

1/2 021 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--MECHANISM OF COHERENT PRODUCTION OF PARTICLES BY 19.8 GEV-C PROTONS -U-

AUTHOR-(03)-BOOS, E.G., TAKIBAYEV, ZH.S., TURSUNOV, R.A.

COUNTRY OF INFO--USSR

SOURCE--VESTN. AKAD. NAUK KAZ. SSR 1970, 26(2), 42-8

DATE PUBLISHED-------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--PROTON BOMBARDMENT, COHERENT SCATTERING, ANGULAR DISTRIBUTION, PION, ANISOTROPY, NUCLEAR ISOBAR, PARTICLE PRODUCTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1981/0129 STEP NO--UR/0031/70/026/002/0042/0048

CIRC ACCESSION NO--AP0050220

UNCLASSIFIED

2/2 021 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0050220

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EXPT. CARRIED OUT BY E. G. BOOS, ET AL. (1966) WAS VERIFIED. THE CURVE OF THE STATISTICAL BACKGROUND FOR THE REACTION P PLUS A YIELDS P PLUS 2 PI PLUS A WAS STUDIED. THE EXCHANGE OF THE POMERANCHUK POLE IMPROVES THE AGREEMENT WITH THE EXPT. DISTRIBUTION BUT IT IS NOT SUFFICIENT FOR A COMPLETE DESCRIPTION. THE DISTRIBUTION HAS A SHARP SCATTER IN THE REGION OF (1.4-1.5) GEV,C PRIME2. THE PROCESS THROUGH THE FORMATION OF A NUCLEONIC ISOBAR N PRIME (1470) WHICH IN 45PERCENT OF ALL CASES DECAYS INTO A N AND 2 PIONS. THE ANGULAR DISTRIBUTION OF SECONDARY CHARGED PARTICLES IN THE REST SYSTEM (P PI PI) WITH REGARD TO THE DIRECTION OF THE RESULTING MOMENTUM OF 3 PARTICLES SHOWS THAT IT IS SYM. WITH REGARD TO THE DIRECTION FORWARD BACKWARD AND ANISOTROPIC. COMPARISON WITH ISOTROPY SHOWS A PROBABILITY OF P(X PRIME2) EQUALS 0.01 WITH 4 DEGREES OF FREEDOM. THE PIONS AND PROTONS ARE EJECTED AT LARGE ANGLES WHICH POINTS TO A POSSIBLE DECAY MECHANISM OF M YIELDS DELTA (1236) PLUS PI.

UNCLASSIFIED

USSR

BOOS, E. G., TAKIBAYEV, ZH. S. and TURSUNOV, R. A.

"Mechanism for the Coherent Generation of Particles by 19.8 Gev/c Protons"

Alma-Ata, Vestnik Akademii Nauk Kazakhskoy SSR, No. 2, Feb 70, pp 42-48

Abstract: The coherent generation of particles by high-energy protons was studied in an emulsion presented by the CERN Emulsion Committee. A criterion for separating coherent events based on the magnitude of the longitudinal momentum transmitted to the nucleus is analyzed. A comparison of emulsion data with data obtained using bubble chambers shows that there is good agreement between the values for mean path obtained by the authors and the bubble chamber data. Analysis of effective mass distributions also supports the hypothesis that $N'(470)$ nucleon isobars, which in 45% of the cases decay into a nucleon and two pions, are formed in these events. This does not contradict the assumption of vacuum pole switching, since the quantum numbers of the resonance coincide with the quantum numbers of the nucleon.

1/1

USSR

UDC 612.82/83

TURSUNOV, Z. T., ABDUSAMATOVA, M. V., and TAKHIROVA, N., Physiology Division, Academy of Sciences, Uzbek SSR

"Changes in the Bioelectrical Activity of the Cerebral Cortex After Repeated Exposure to Heat Temperatures"

Tashkent, Uzbekskiy Biologicheskiy Zhurnal, No 6, 1972, pp 42-46

Abstract: The bioelectrical activity of various cortical regions (frontal, temporal, parietal, occipital) was studied in adult cats exposed 2 hours a day for 15 days on a sunny platform to temperatures ranging from 33 to 40° C. EEG's were taken on the 1st, 5th, 10th, and 15th days of the experiment. Insolation plus high temperature altered the number of high- and low-frequency waves and their amplitude. On day 1 the slow waves were depressed and the beta-like rhythm increased. On day 5 there was a general slowing and inhibition of spontaneous electrical activity in all the cortical regions studied. The slow- and high-frequency oscillations decreased and their voltage was reduced. On day 10 the EEG changes generally stabilized, but by day 15 they had become less distinct and approached the original levels, an indication of adaptation by the central nervous system to heat stress.

1/1

USSR

TURSUNOVA, S. Kh.

UDC: 621.396.61:621.396.2

"Effectiveness and Application Conditions for Peak Limiting in Multichannel Single-Band Signals"

Sb. tr. Nauchno-tekhn. konferentsii prof.-prepodavat. sostava Vses. zaochn. elektrontekhn. in-ta svyazi (Collected Transactions of the Scientific-Technical Conference of Professorial and Instructor Staff, All-Union Correspondence Electrical Engineering Communication Institute) No. 5, Moscow, 1970, pp 177-187 (from RZh-Radiotekhnika, No. 3, March 71, Abstract No. 3D400)

Translation: Methods of improving the efficiency of single sideband communication and the problem of choosing the optimum limiting level are discussed. Experiments are described for investigating the effect of peak limiting depth of the group signal on the characteristics of the communication line. Five illustrations, bibliography of 10. N. S.

1/1

Acc. Nr: AP0049764 Abstracting Service: CHEMICAL ABST. 5-70 Ref. Code: UR0455

101690s Treatment of polyamide synthetic leather with glycerol. Bublik, I. M.; Kul'chitskii, S. I.; Turte, I. S.; Shnirel'man, R. A.; Tumarkina, I. D. (USSR). Kozh.-Obuv. Prom. 1970, 12(1), 51-4 (Russ). Artificial leather is made by satg. nonwoven, stitched cloth with a polyamide soln. After hardening, the rigid semi-product is immersed in a glycerol (I) bath to soften it. An increase of I concn. of ≤40% increased the amt. of I absorbed by leather. A further increase in I concn. is undesirable, since it remains on the surface. The bath temp. has no effect on the I absorption. The optimum conditions are 20° and 40% I concn.; the excess I is squeezed out by rollers. CPJR

REEL/FRAME 19801682

UDC 541:182.2/.3:537.228

PODOL'SKIY, A. A., TURUBAROV, V. I., and POMINOV, YE. I., Kuybyshev Aviation Institute

"Calculation of the Velocity and the Orientation Time of Aerosol Particles in an Electric Field"

Moscow, Kolloidnyy Zhurnal, Vol 35, Vyp 1, 1973, pp 63-68

Abstract: Solutions were obtained for a series of physical problems relating to the charge, floculation, and electric precipitation of aerosol particles. This was accomplished by analyzing the motion of nonspherical particles during their orientation in a high-voltage electrostatic field and determining the velocity and orientation time as a function of the field strength and particle parameters. At high field voltages the orientation time is significantly shorter than the time required to charge the particle; therefore, the former may be neglected in investigations dealing with the charging of nonspherical particles. Equations and graphs show the influence of particle parameters on its behavior.

USSR

UDC: 621.317.39: 543.275.3.08

TURUBAROV, V.I., PODOL'SKIY, A.A., KALAKUTSKIY, L.I., LOGVINOV, L.M., POPOV, B.I., RUMYANTSEV, V.V. and VORONOV, A.F.

"High-Sensitivity Device for Continuous Measurement of Dust Concentration in Biosphere"

Sb. Fiz. metody i vopr. metrol. biomed. izmereniy (Symposium on Physics Methods and Biomedical Metrology Problems) Moscow, 1972, pp 288-289 (from Referativnyy Zhurnal-Metrologiya i Izmeritel'naya Tekhnika, No 8, 1972, Abstract No. 8.32.1007 by V.S.K.)

Translation: The design and operating principle are described of a continuous-action, electronic, induction dustmeter, developed by the Leningrad Aviation Instrument Building Institute jointly with the Kuybyshev Aviation Institute. The dust concentration measurement method is based on the relation between the size of aerosol particles and their charges received in the corona discharge field. This type

1/2

USSR

TURUBAROV, V. I., et al., Sb. Fiz. metody i vopr. metrol. biomed. izmereniy, 1972, pp 288-289

dustmeter measures the surface concentration, therefore the change in dispersion concentration does not cause errors in dust concentration count. The dustmeter can be also calibrated by the weighing method with constant dispersion concentration and variation of weight concentration. Several modifications of electronic dustmeters characterized by sensitivity and range have been developed. The technical characteristics of EIP-3 dustmeter are: sensitivity, 10^{-2} mg/m^3; weight, 5 kg; power consumption, 10 w; dynamic concentration range, $\sim 10^3$; overall dimensions, 280 x 190 x 80 mm. Test results of electronic induction dustmeters are presented.

2/2

1/2 017 UNCLASSIFIED PROCESSING DATE--09OCT70

TITLE--INFORMATION STORAGE ON A HOLOGRAM ALONG THE DEPTH OF THE RECONSTRUCTED IMAGE AND THE TRACK DENSITY OF A BUBBLE CHAMBER -U-

AUTHOR--TURUKHANO, B.G.

COUNTRY OF INFO--USSR

SOURCE--ZHURNAL TEKHNICHESKOI FIZIKI, VOL. 40, JAN. 1970, P. 181-186

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SUBJECT AREAS--PHYSICS

TOPIC TAGS--BUBBLE CHAMBER, HOLOGRAM, PARTICLE TRACK, INFORMATION STORAGE AND RETRIEVAL

CONTROL MARKING--NO RESTRICTIONS

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UNCLASSIFIED

2/2 017 UNCLASSIFIED PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0048111

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. EXAMINATION OF THE ANALYTICAL DEPENDENCE OF THE DEPTH OF SHARPNESS OF A HOLOGRAM ON THE GEOMETRICAL CHARACTERISTICS OF THE HOLOGRAM AND THE VOLUME BEING HOLOGRAPHED. THE DEPTH OF SHARPNESS OF A HOLOGRAM IS SHOWN TO BE RELATED TO THE RESOLUTION OF THE HOLOGRAM, THUS MAKING IT POSSIBLE TO DETERMINE THE RESOLUTION OF A HOLOGRAM EXPERIMENTALLY WITHOUT USING REFERECEN MARKS. THE MAXIMUM INFORMATION DENSITY OF A HOLOGRAM, WHICH CAN BE SELECTED ALONG THE DEPTH OF THE RECONSTRUCTED IMAGE, IS DETERMINED. ON THE BASIS OF THE RELATIONS OBTAINED, THE MAXIMUM TRACK DENSITY OF A BUBBLE CHAMBER, GIVEN OPTIMAL DIMENSIONS AND LOCATION OF THE HOLOGRAM, IS CALCULATED.

UNCLASSIFIED

UDC: 621.3.049.75

USSR

TURUKIN, G. M., GBITSKOVA, V. V., SHUMILOV, A. S., OSTROZHINSKIY, A. V., VESELOVSKAYA, V. A.

"A Method of Metallizing Multilayered Printed-Circuit Boards"

Moscow, Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, No 5, Feb 71, Author's Certificate No 293311, Division H, filed 4 Aug 69, published 15 Jan 71, p 182

Translation: This Author's Certificate introduces a method of metallizing printed-circuit boards consisting of several layers. The procedure is based on sequential chemical and galvanic copper-coating of holes. As a distinguishing feature of the patent, reliable interlayer connections are provided by galvanic build-up of copper on the end faces of the contact platforms in the holes of the inner layers before electrochemical metallizing of the holes. Priority dates from 13 July 1967.

UDC: 621.317.783

USSR

PRONENKO, V. I., TURUNTSOV, V. V., SEDOV, V. I., SHISHKINA, M. F.

"Design and Manufacturing Technique for First-Class Master Thermistor Milliwattmeter Converters"

Tr. metrol. in-tov SSSR (Works of Metrology Institutes of the USSR), 1972, vyp. 116(176), pp 135-139 (from RZh-Metrologiya i Izmeritel'naya Tekhnika, No 6, Jun 72, Abstract No 6.32.1013)

Translation: The paper describes a new design for power converters (thermistor waveguide heads). The advantage of the proposed design is that the thermistor head is a direct load on the calorimetric unit, and therefore power is measured right at the thermistor head. Channels (for flow of the heat-transfer agent) are located on the surface of the thermistor head. Use of the device increases the speed of the system because of the reduced mass of the thermistor head. Development of a new power meter increases the precision of determining the coefficient of conversion of power pickups with waveguide input over a broad frequency band of 37-214 MHz. They can be used with their maximum attainable precision for certification on the initial calorimetric unit. The use of such converters will make first-class precision power meters available. One table, three illustrations.

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USSR

UDC 911.3:616:322-002.1(470.11)

TURUSINOV, S. V.

"Angina Incidence in the Tundra Population of the Nenetsk National District"

V sb. Akklimatiz i kraev. patol. cheloveka na Severe (Acclimatization and Regional Pathology of Man in the North -- collection of works), Arkhangel'sk, 1970, pp 182-184 (from RZh-Meditsinskaya Geografiya, No 2, Feb 71, Abstract No 2.36.229) by Ts Minsbarg

Translation: Some 1,233 native inhabitants of the subpolar region, living in the Nenetsk National District, were examined in 1967. Among those examined (620 women and 613 men) were 228 fishermen, 371 reindeer-breeders, 198 hunters of fur and sea animals, 207 factory workers, and 229 persons of other occupations. Of 371 reindeer-breeders and 228 fishermen, only 7 had tonsillitis. A total of 2% of the tundra natives had chronic tonsillitis and acute angina. The low percentage of angina and chronic tonsillitis of the population of the Nenetsk National District is apparently due to the peculiar conditions of life, the more perfect adaptation of the body to the wet, cold climate, to partial changes in the weather, and to the low population density.

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TURUSBEKOV, B.T.

medicine

27 Jan 71

55. USSR

TURUSBEKOV, B. T., Professor; MOROZOVA, N. N., Candidate of Medical Sciences; and YAKOVLEV, V. K., Candidate of Medical Sciences

"Scientific-Practical Session of Physiotherapists"

Frunze, Sovetskoye Zdravookhraneniye Kirgizii, No 3, 1970, pp 62-63

Translation: A scientific-practical session on the use of physical and resort factors for therapeutic and prophylactic purposes convened on 2-3 April 1970 in Osh.

The session, dedicated to the 100th anniversary of the birthday of V. I. Lenin, was organized by the Kirgiz Ministry of Health, the Kirgiz Scientific Research Institute of Balneology and Physiology, and by the Osh Oblast Department of Public Health.

Over 700 people participated in the work of this session, including prominent public health organizers of the republic and Oshskaya Oblast, scientific associates from the Kirgiz Institute of Balneology and Physiotherapy and the Kirgiz Medical Institute, scientists, physicians and secondary medical workers from therapeutic institutions, resorts and sanatoriums in the southern part of the republic.

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USSR

TURUSBEKOV, B. T., et al., Sovetskoye Zdravookhraneniye Kirgizii, No 3, 1970, pp 62-63

The session was opened by Kirgiz Minister of Health V. A. Petrosyants. In his speech he discussed the extremely important party and government decisions for improving medical aid organization in the nation; he stressed the major importance of physical methods in the treatment and prophylaxis of disease and the primary role of physiotherapy in rehabilitation; he outlined the objectives of the physiotherapeutic service in the republic in general and Oshskaya Oblast in particular. On behalf of the workers of Oshskaya Oblast, the participants at the session were welcomed by B. R. Kyapayev, vice-president of the Oblast Executive Board, and he wished the physicians and scientists success in their work.

The participants heard about 40 papers, 15 of which were delivered by practicing physicians, members of the staff at therapeutic institutions, sanatoriums and resorts in Oshskaya Oblast; they discussed the comprehensive analysis of qualitative indices of physiotherapy in the republic and in Oshskaya Oblast as submitted in the papers by K. A. Atakhanov, Candidate of Medical Sciences and head of the Osh Oblast Public Health Department; Prof B. T. Turusbekov, Doctor of Medical Sciences; M. O. Bikmukhametova, Candidate of Medical Sciences; L. I. Solovyeva, junior scientific associate at the Kirgiz Scientific Research Institute of Balneology and Physiotherapy, and chief physicians and prominent specialists of this oblast.

2/6

UDC: 517.4

USSR

ARTYUSHENKO, V. V., TURUTA, Ye. N.

"Analysis of the Reliability of Microprogram Automata"

V sb. Avtomaty i upr. setyami svyazi (Automata and Control of Communications Networks--collection of works), Moscow, "Nauka", 1971, pp 154-159 (from RZh-Kibernetika, No 4, Apr 72, Abstract No 4V386)

Translation: The paper proposes a reliability criterion for a microprogram automaton and a method of calculating reliability by this criterion. Authors' abstract.

UNCLASSIFIED PROCESSING DATE--20NOV70

172 007

TITLE--TYPIFICATION OF HYDROGRAPHS OF LIQUID AND SEDIMENT RUNOFF FOR ESTIMATION OF DEBIT STABILITY OF INFILTRATIONS WATER INTAKES -U-

AUTHOR-(04)-SERGUTIN, V.YE., PORYADIN, A.F., TURUTIN, B.F., CHERKASOV, A.YE.

COUNTRY OF INFO--USSR

SOURCE--METEOROLOGIYA I GIDROLOGIYA, 1970, NR 5, PP 76-81

DATE PUBLISHED--------70

SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY

TOPIC TAGS--RUNOFF, RIVER WATER, SEDIMENT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
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CIRC ACCESSION NO--AP0132380
UNCLASSIFIED

2/2 007 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0132380

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. TYPIFICATION OF WATER REGIME OF RIVERS IS PERFORMED ACCORDING TO THE PRINCIPLE OF MOTION SYNCHROHISM OF LIQUID (Q) AND SEDIMENT (G) RUNOFF (DISCHARGES), I.E. ACCORDING TO COINCIDENCE OF PEAKS OF WATER AND TURBIDITY DUE TO SUSPENDED LOAD DURING THE SPRING AND SUMMER FLOODS. TYPIFICATION OF COMBINED HYDROGRAPHS Q AND G DISCHARGES IS PERFORMED ON THE BASIS OF WELL KNOWN REGULARITIES OF INTRA ANNUAL DISTRIBUTION OF THE RIVER RUNOFF. CERTAIN EXAMPLES ON THE CONTROL OF INFILTRAITON WATER INTAKES OPERATION ARE GIVEN.

FACILITY: KRASNOYARSKIY INSTITUT TSVETNYKH METALLOV.

UNCLASSIFIED

UDC 619:614.449.57

USSR

TURVANDISHVILI, S. A., Georgian Zootechnical Veterinary Scientific Research Institute

"The Effect of Phosphamide, Carbophos, and Cholorophos on Rhipicephalus bursa Nymphs"

Moscow, Veterinariya, No 9, 1971, pp 24-25

Abstract: A comparative study of the acaricidal effectiveness of phosphamide, carbophos, and chlorophos (Dipterex) for control of Rhipicephalus bursa mites was carried out. Aqueous emulsions of phosphamide and carbophos, and an aqueous solution Dipterex in concentrations of 0.1, 0.15, 0.2, 0.25, and 0.3% were used. Nymphs gathered from untreated animals were exposed for 1 minute to the pesticide solutions at 18-20°C. Phosphamide killed an average of 11.6%, carbothos -- 6.6%, and Depterex -- 1.6%. Thus of the three acaricides phosphamide was the most effective. Higher concentrations of the acaricides, however, are recommended for eradication of the parasites in the field.

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1/2 013 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--POLAROGRAPHIC STUDY OF THE KINETICS AND MECHANISM OF N, N DIMETHYLFORMAMIDE HYDROLYSIS IN THE PRESENCE OF FORMIC ACID -U-

AUTHOR-(04)-SEROVA, N.V., TURYAN, YA.I., MAYOROVA, G.G., VENGRYAZHINA, T.V.

COUNTRY OF INFO--USSR

SOURCE--ZH. OBSHCH. KHIM. 1970, 40(4), 899-902

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHEMICAL KINETICS, CHEMICAL REACTION MECHANISM, FORMIC ACID, AMIDE, HYDROLYSIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3006/1510 STEP NO--UR/0079/70/040/004/0899/0902

CIRC ACCESSION NO--AP0135171

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