"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

1/2 023 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--THE FAUNA AND BIOLOGY OF HORSE FLIES OF THE KHANTY MANSY DISTRICT OF THE TYUMEN REGION -U-

AUTHOR--PAVLOVA, R.P.

COUNTRY OF INFO--USSR

SOURCE--MEDITSINSKAYA, PARAZIOTOLOGIYA I PARAZITARNYYE BOLEZNI, 1970, VOL 39, NR 1, PP 14-18

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--INSECTA, GEOGRAPHIC LOCATION, ECOLOGY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1985/0403 STEP NO--UR/0358/70/039/001/0014/0018

CIRC ACCESSION NO--AP0100888

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

2/2 023 UNCLASSIFIED PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0100888

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SPECIES AND AGE COMPOSITION OF TABANIDAE WERE STUDIED IN KHANTY MANSY DISTRICT OF THE TYUMEN REGION IN 1965. TRAPPING OF HORSE FLIES WAS PERFORMED WITH SKUFIIN'S TRAP AS WELL AS WITH A BUTTERFLY NET ON ANIMALS AND IN PREMISES. THE PHYSIOLOGICAL AGE OF FEMALE HORSE FLIES WAS DETERMINED BY POLOVODOVA'S METHOD. PREVIOUSLY OTHER INVESTIGATORS DETECTED 24 SPECIES OF TABANIDAE IN THIS AREA. OUR STUDIES DETECTED THREE MORE SPECIES: TABANUS MIKII, T. BROMIUS AND T. GLAUCOPIS. THE FAUNA OF HORSE FLIES IS REPRESENTED THERE MOSTLY BY BOREURASIAN TAIGA AND TAIGA FOREST SPECIES. THE DOMINANT SPECIES INCLUDE HYBOMITRA LUNDBECKI, H. SOLSTITIALIS, H. CONFINIS AND HAEMATOPOTA PLUVIALIS. ACTIVITY OF HORSE FLIES LASTED 55 DAYS (FROM JUNE 15 TO AUGUST8), MASS ACTIVITY 29 DAYS (JUNE 22 TO JULY 20) WITH THE PEAK OF DENSITY AROUND 27-30 OF JUNE. THE LONGEST PERIOD OF ACTIVITY WAS OBSERVED WITH H. SOLSTITIALIS.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

1/2 018 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--PARAMETERS OF THE DEPENDENCE OF INTRINSIC VISCOSITY ON MOLECULAR WEIGHT FOR POLYARYLATES WITH ALIPHATIC SIDE GROUPS -U-

AUTHOR-(05)-PAVLOVA, S.A., DUBROVINA, L.V., VINOGRADOVA, S.V., SALAZKIN, S.S., KORSHAK, V.V.

COUNTRY OF INFO--USSR

P

SOURCE--VYSOKOMOL. SOEDIN., SER. B 1970, 12(1), 69-71

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--INTRINSIC VISCOSITY, MOLECULAR WEIGHT, POLYARYL RESIN, POLYCONDENSATION, LIGHT DIFFRACTION, POLYMER STRUCTURE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1986/0254 STEP NO--UR/0460/70/012/001/0069/0071

CIRC ACCESSION NO--AP0102304

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

2/2 018 UNCLASSIFIED PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0102304

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. POLYARYLATE F-12-ST (I) AND POLYARYLATE F-12-ATS (II) (WHERE THE N SUBSTITUENT IS AC INSTEAD OF COC SUB17 H SUB35) WERE PREPD. BY INTERFACIAL POLYCONDENSATION BY A METHOD DESCRIBED EARLIER BY S. V. VINOGRADOVA, ET AL. (1965). THE INTRIMSIC VISCOSITIES OF I AND II WERE MEASURED IN TETRAHYDROFURAN (III) AND CHCL SUB3 AT 20 PLUS OR MINUS 0.1DEGREES, WHEREAS THE MOL. WTS. WERE MEASURED BY LIGHT DIFFRACTION IN A VISUAL NEPHELOMETER AT LAMBDA EQUALS 5461 A. CALCN. OF MARK HOUWINK PARAMETERS (ALPHA AND K FOR I AND II IN III WERE 1.14 AND 3.24 TIMES 10 PRIME NEGATIVE6, AND 0.80 AND 1.55 TIMES 10 PRIME NEGATIVE5, RESP.) SHOWED THAT ALPHA WAS PROPORTIONAL TO THE LENGTH OF THE ALIPHATIC CHAIN, WHICH WAS INCONSISTENT WITH DATA OBTAINED FROM POLYARYLATES HAVING AROMATIC SIDE GROUPS. THE CHANGE IN THE HYDRODYNAMIC BEHAVIOR WAS ATTRIBUTED TO HIGHER CHAIN RIGIDITY.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

Acc. Nr. AP0048857 Abstracting Service: CHEMICAL ABST. 5-78 Ref. Code 21R0459

90918u Viscometric and electron-microscopic studies of the polypyromellitimide of anilinephthalein. Korshak, V. V.; Pavlova, S. A.; Boiko, L. V.; Babchinitser, T. M.; Vinogradova, S. V.; Vygodskii, Ya. S.; Golubeva, N. A. (Inst. Elementoorg. Soedin., Moscow, USSR). *Vysokomol. Soedin., Ser. A* 1970, 12(1), 56-62 (Russ). The hydrodynamic properties of the title polymer (I) (prepd. from pyromellitic dianhydride and anilinephthalein by a high temp. polycyclization in $PhNO_2$ or by a 2-stage procedure) were studied. Viscosity and mol. wt. measurements indicated that the reaction conditions had no effect on the structure of I. The intrinsic viscosity of I was proportional to the mol. wt. (2000-160,000). The rigid I macromols. had a linear structure and were present in soln. as assocd. globules. The dimensions of the globules (as measured by electron microscopy) were similar to those calcd. from viscometric data using the P. Debye-A. M. Bueche equation (1948). CKJR

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REEL/FRAME
19800624

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Pesticides

UDC: 632.95

USSR

KAMENNOV, N. A., PAVLOVA, S. P.

"Problem of Condensing Alpha-Terpinene With Maleic Anhydride by the Diels-Alder Reaction"

Tr. VNII Dezinfektsii i steriliz. (Works of the All-Union Institute of Disinfection and Sterilization), 1971, vyp. 21, Vt. 2, pp 148-151 (from RZh-Khimiya, No 15, Aug 72, Abstract No 15N448)

Translation: Conditions are worked out for synthesizing 6-methyl 3-isopropyl 3,6-endoethylene-Δ^4-tetrahydrophthalic acid anhydride (I), the initial product for synthesizing synergistic systems with pyrethrins, and the raw material for it -- α-terpinene (II). Compound II was synthesized from terpineol by dehydration with a 50% solution of H_2SO_4 while boiling the reaction mass with energetic agitation for 1 hour, with an 87% yield of the product (boiling point 171-3°C, $n^{20}D$ 1.4779). Compound I is synthesized by condensing compound II with maleic anhydride, heating equimolar quantities of the reagents to 90°C, waiting for the reaction to initiate, then bringing the temperature up to 220°C and agitating at this temperature for 4 hours. The product is distilled, the fraction with a boiling point of 180-200°C is saponified while boiling with 200 ml of a saturated solution of soda, the precipitate is filtered out and

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR

KAMENNOV, N. A. and PAVLOVA, S. P., Tr. VNII Dezinfektsii i steriliz., 1971, vyp. 21, Vt. 2, pp 148-151

washed with water to a neutral reaction, then dried over $CaCl_2$, and compound I is produced with a yield of 65%, boiling point 62°C (haptane).

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

1/2 027 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--CONFERENCE ON THE SCIENTIFIC ORGANIZATION OF LABOR IN THE MEDICAL ESTABLISHMENTS OF ROSTOV OBLAST -U-

AUTHOR-(02)-VAKHRAMEYEVA, N.I., PAVLOVA, T.A.

COUNTRY OF INFO--USSR

SOURCE--MOSCOW, ZDRAVOOKHRANENIYE ROSSIYSKOY FEDERATSII, NO 1, 1970, PP 39-41

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES, BEHAVIORAL AND SOCIAL SCIENCES

TOPIC TAGS--MEDICAL CONFERENCE, MORALE, MEDICAL PERSONNEL, HOSPITAL EQUIPMENT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1990/0064 STEP NO--UR/0653/70/000/001/0039/0041

CIRC ACCESSION NO--AP0103432

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

2/2 027 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0108432

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CONFERENCE, THE FIRST OF ITS KIND, WAS HELD IN ROSTOV ON DON ON 19 JUNE 1969. MOST OF THE PAPERS WERE PRESENTED BY THE DIRECTORS OF HOSPITALS AND CLINICS, WHO DESCRIBED IN CONSIDERABLE DETAIL THE VARIOUS INNOVATIONS AND PROCEDURES THAT THEY INSTITUTED IN ORDER TO INCREASE EFFICIENCY AND IMPROVE THE QUALITY OF MEDICAL CARE. ALTHOUGH THE EMPHASIS WAS ON TECHNICAL DEVICES (TAPE RECORDERS, TELEPHONE AND RADIO COMMUNICATIONS, FILING SYSTEMS, ETC.), SOME ATTENTION WAS DEVOTED TO PROPER ASSIGNMENT OF PERSONNEL AND THE PSYCHOLOGICAL FACTORS INVOLVED IN BUILDING MORALE.

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USSR

UDC 61:658.387

VAKHRAMEYEVA, N. I. and PAVLOVA, T. A.

"Conference on the Scientific Organization of Labor in the Medical Establishments of Rostov Oblast"

Moscow, Zdravookhraneniye Rossiyskoy Federatsii, No 1, 1970, pp 39-41

Abstract: The conference, the first of its kind, was held in Rostov-on-Don on 19 June 1969. Most of the papers were presented by the directors of hospitals and clinics, who described in considerable detail the various innovations and procedures that they instituted in order to increase efficiency and improve the quality of medical care. Although the emphasis was on technical devices (tape recorders, telephone and radio communications, filing systems, etc.), some attention was devoted to proper assignment of personnel and the psychological factors involved in building morale.

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UDC 535.376

USSR

BORODIN, YU.P., BORONIN, V.G., KAREV, YU.A., KRUGLOV, I.I., MIKHAYLOV, L.I., PAVLOVA, V.A., PETROV, V.S., RYZHIKOV, I.V.

[redacted]

"Study Of The Region Of Radiative Recombination In Electroluminescent Structures Based On Diffusion And Epitaxial Specimens Of Gallium Arsenide"

V sb. Elektrolyuminestsentsiya tverd. tel. (Electroluminescence Of Solid Bodies--Collection Of Works), Kiev, "Nauk.dumka," 1971, pp 54-58 (from RZh--Elektronika i yeye primeneniye, No 11, Nov 1971, Abstract No 11B363)

Translation: A comprehensive study is presented of the electrical and optical properties of the region of radiation recombination in diffused and epitaxial specimens. The distribution is obtained of the impurity in the p-region of diffused and epitaxial specimens by means of a measurement of the photoluminescent spectra. The experimentally determined transition time is: up to 1000 nanosecond with epitaxial specimens and 50 nanosec with diffused. The external quantum efficiency at T =300° K of the diffused and epitaxial specimens equals one percent and five percent, respectively, and for a construction with the maximum possible external quantum efficiency ~9 percent. 6 ill. 5 ref. Summary.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR UDC 77

PAVLOVA, V. A.

"Antifogging Action of 1-Phenyl-5-Mercaptotetrazole and bis-(1-Phenyltetrazolyl--5)-Disulfide"

Uspekhi nauchn. fotogr. (Advances in Scientific Photography), 1970, Vol. 14, pp 191-195 (from RZh-Fizika, No 12(I), Dec 70, Abstract No 12D1332)

Translation: Certain characteristics of the behavior of the antifogging agent bis-(1-phenyltetrazolyl-5)-disulfide in solutions, its hydrolysis in different solutions, the effects of temperature and pH on hydrolysis, its interaction with $AgNO_3$ under different conditions, and also other properties having a relationship to the mechanism of its antifogging effect. It was shown that the naturally antifogging effect of disulfide is generally uncharacteristic and that its action is caused by 1-phenyl-5-mercaptotetrazole (PMT), which is one of the products of its hydrolysis. The degree of hydrolysis increases with temperature and especially with the addition of $AgNO_3$ (in the latter case almost 100% hydrolysis is

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[illegible], Uspekhi nauchn. fotogr., 1970, vol. 14, pp 191-195

achieved even in an acid medium). It follows from these data that if disulfide is introduced into the bromide solution before emulsification, it most probably will not be generally in the prepared emulsion and only the Ag mercaptide and acetone-sulfonate not exhibiting antifogging action will remain. The introduction of disulfide instead of PMT during emulsification and before washing, as used in preparing photographic paper emulsions, is also not justified, since it is required to take twice as much disulfide as PMT for an equal effect. Authors abstract.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR

UDC 576.8.06:678.026.3

PIMENOVA, M. N., PAVLOVA, V. G., and POZDNEVA, N. I., Moscow State University

"Effect of Microorganisms on Polyethylene Insulating Coatings"

Moscow, Biologicheskiye Nauki, No 6, 1973, pp 97-100

Abstract: Spray coatings made of polyethylene, stabilizers, and fillers were tested for their ability to resist fungal and microbial corrosion when used on pipelines. No fungous growth was observed on a mineral medium in the presence of samples of the material. On wort-agar, the mycelia of certain fungi, especially Spiecaria, Fusarium, and Aspergillus completely covered some of the samples. But the size of the contact angle of wetting did not change, suggesting that the properties of the coating surface were not affected. The samples were also resistant to desulfating, denitrifying and hydrocarbon-oxidizing bacteria, except the coatings containing such fillers as Cr_2O_3 and silica flour. It is suggested that the contact angle of wetting be determined when evaluating changes in the properties of the surface of polyethylene coatings before and after exposure to microorganisms.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

Acc. Nr. AP0049778 Abstracting Service: CHEMICAL ABST. 5-70 Ref. Code: UR0191

P

101896p **Polyethylene compositions for spray-coating preparations.** Sinegub-Lavrenko, A. A.; Pavlova, V. G.; Zinevich, A. M. (USSR). *Plast. Massy* 1970, (1), 60-[illegible]. Protective polymeric coatings were prepd. by electrostatic spraying of high-d. polyethylene P-4020-E (I) [filled with SiO_2, CaO, and other metal oxides and stabilized with 0.2% Neozone A (II) and diphenyl-*p*-phenylenediamine (III)] on Al foil. II and III were mixed with I for 15 sec in a centrifuge to give a homogeneous mixt. The filler was modified with Cationate-7 (a waterproofing agent prepd. from $C_{18}H_{35}NH_2$ and oleic and stearic acids), which increased the tensile strength and wear resistance, and reduced the elongation at break of I coatings. Optimum spraying conditions were detd. Photomicrographs of the modified I coatings are presented.

CKJR

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR

UDC 666.263.2

MINAKOV, A. G., PAVLOVA, V. N., and LITVINOV, A. V. Candidates of Technical Sciences (Scientific Research Institute of Automation of Glass Industry)

"Aventurine Slag Glass"

Moscow, Steklo i Keramika, No 8, Aug 71, pp 14-16

Abstract: A new variety of low alkali, high-calcium slag glass called aventurine slag glass developed jointly by the Scientific Research Institute of Automation of Glass Industry (NIIAvtosteklo) and the Moscow Institute of Chemical Technology im. D. I. Mendeleyev (MKhTI) is reported. Melting and production of aventurine slag glass at experimental installation showed that this glass has satisfactory qualities and high physical properties. It can be produced by continuous method or in the form of plates with flame polished surface by casting into a mold. It has pronounced decorative properties and can be widely used in building industry as covering material. Raw materials, melting temperature, external appearance, structural characteristic of synthesized glass as well as possibilities of its use are listed. This glass differs from existing aventurine glasses by a low alkali (up to 6.5% in weight) content and by the absence of such expensive components as B_2O_3 and PbO.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR

UDC 535.373.2

BORISEVICH, N. A., KOTOV, A. A., PAVLOVA, V. T., and TOLSTOROZHEV, G. B.,
Institute of Physics, Academy of Sciences Belorussian SSR

"Triplet-Triplet Electron Energy Transfer in Gas Phase"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, Vol 37, No 3, 1973, pp 508-512

Abstract: The authors made a kinetic study of triplet-triplet electron energy transfer for donor-acceptor pairs of aromatic hydrocarbons and ketones, the lower triplet levels of which have various electron configurations. This phenomenon of T-T energy transfer was used to study the paths of excitation energy degradation in anthraquinone and benzophenone molecules in the gas phase, as well as to obtain sensitized anti-Stokes annihilation retarded fluorescence.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

Mechanical Properties

USSR

UDC 620.18

KOPETSKIY, CH. V., ORZHEKHOVSKIY, V. L., PASHKOVSKIY, A. I., AMOSOV, V. M., BOBKOVA, N. N., and PAVLOVA, YE. I., Moscow

"Influence of Carbon on the Mechanical Properties and Structure of Molybdenum Crystals"

Moscow, Fizika i Khimiya Obrabotki Materialov, No 2, Mar-Apr 71, pp 67-74

Abstract: The structure and properties of molybdenum crystals with orientation of the <110> <100> growth axes, containing 0.02 and 0.03 wt. % carbon, are studied in the 77-293°K temperature interval. A decrease in the carbon content within these limits causes a sharp increase in plasticity of the crystals, particularly at low temperatures, a decrease in the yield point, and a decrease in the dependence of yield point on test temperature, as well as more even distribution of dislocations and superior crystal structure. The strong dependence of yield point, relative elongation, relative reduction in area, and nature of rupture of crystals on the orientation of the rupture axis is confirmed.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

Mechanical Properties

USSR UDC 620.18

KOPETSKIY, CH. V., ORZHEKHOVSKIY, V. L., PASIKOVSKIY, A. I., AMOSOV, V. M., BOBKOVA, N. N., and PAVLOVA, YE. I., Moscow

"Influence of Carbon on the Mechanical Properties and Structure of Molybdenum Crystals"

Moscow, Fizika i Khimiya Obrabotki Materialov, No 2, Mar-Apr 71, pp 67-74

Abstract: The structure and properties of molybdenum crystals with orientation of the <110> <100> growth axes, containing 0.02 and 0.03 wt. % carbon, are studied in the 77-293°K temperature interval. A decrease in the carbon content within these limits causes a sharp increase in plasticity of the crystals, particularly at low temperatures, a decrease in the yield point, and a decrease in the dependence of yield point on test temperature, as well as more even distribution of dislocations and superior crystal structure. The strong dependence of yield point, relative elongation, relative reduction in area, and nature of rupture of crystals on the orientation of the rupture axis is confirmed.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR

UDC 616.981.40-036.1

RUDAKOVA, R. I., Candidate of Medical Sciences and PAVLOVA, YE. I., Chair of Infectious Diseases, Omsk Medical Institute, Omsk

"Clinical Aspects of Infections Caused by Rare Types of Salmonella"

Moscow, Sovetskaya Meditsina, No 6, Jun 71, pp 63-66

Abstract: In 1960-1968, 52 cases of infection with rare types of Salmonella were observed including S. kisangani, S. abortus bovis, S. abortus ovis, S. essen, S. derby, S. brandenburg, S. mission, S. infantis, S. bovis morbificans, S. eastbournae, S. rubislaw, S. carrau, S. minnesota, and S. inverness. In the majority of cases, the infection developed after consumption of contaminated food. The infection was of the gastrointestinal, typhoid, influenza, subclinical or septic type in 30, 9, 7, 5, and 1 cases, respectively. The form of the disease was acute, moderate, or mild in 3, 29, and 20 patients, respectively. After an incubation period of 6-24 hrs, the disease started in a violent manner and was accompanied by a high fever. Less severe fever continued constantly or intermittently for periods of 1-150 days, most frequently for 3-5 days. Symptoms of a toxic condition developed. The cardiovascular system was involved in the majority of cases. Toxic nephrosis,

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USSR

RUDAKOVA, R. I., and PAVLOVA, YE. I., Sovetskaya Meditsina, No 6, Jun 71, pp 63-66

pyelitis, or pyelocystitis affected 8, 3, and 1 patients, respectively. The course of the salmonellosis was favorable in every instance and ended in recovery in all cases observed.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

1/2 018 UNCLASSIFIED

TITLE--QUANTITATIVE ESTIMATE OF MARINE BACTERIOPLANKTON AS A SOURCE OF FOOD -U- PROCESSING DATE--02OCT70

AUTHOR-(03)-SOROKIN, YU.I., PETIPA, T.S., PAVLOVA, YE.V.

COUNTRY OF INFO--USSR

SOURCE--OKEANOLOGIYA, 1970, VOL 10, NR 2, PP 332-340

DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--BACTERIA, FOOD, PLANKTON, OCEAN, PHYTOPLANKTON

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1990/1277

STEP NO--UR/0213/70/010/002/0332/0340

CIRC ACCESSION NO--AP0109361

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

2/2 018

CIRC ACCESSION NO--AP0109361 UNCLASSIFIED PROCESSING DATE--02OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE RADIOCARBON METHOD WAS USED TO EVALUATE THE ROLE OF BACTERIA AS A SOURCE OF FOOD FOR THE MASS FORMS OF PLANKTONIC ANIMALS FROM THE BLACK SEA AND THE TROPICAL PACIFIC. THE NATURAL BACTERIOPLANKTON WHOSE 30 TO 40PERCENT ARE FORMED BY AGGREGATE BACTERIAL CELLS WAS FOUND TO BE CONSUMED AS INTENSIVELY AS PHYTOPLANKTON BY THIN AND ROUGH FILTRATORS AND TO A LESSER DEGREE BY CAPTURING CARNIVORES. OPTIMUM CONCENTRATIONS OF THE NATURAL BACTERIOPLANKTON AT WHICH IT IS INTENSIVELY CONSUMED BY FILTRATORS ARE 0.3 TO 0.7 G-M PRIME3. SIMILAR CONCENTRATIONS WERE FOUND IN THE GRADIENT LAYERS OF THE OLIGOTROPHIC WATERS OF THE OCEAN WHERE ZOOPLANKTON IS CONCENTRATED.

FACILITY: INSTITUT BIOLOGII VNUTRENNIKH VOD AN SSSR.

FACILITY: INSTITUT BIOLOGII YUZHNYKH MOREY AN USSR.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR

UDC 621.382.002:539.234:539.216.22

PAVLOVA, Z. V., VISHNYAKOVA, Z. P., VINOGRADOV, G. B., and VISHNYAKOV, B. A.

"Production of Dielectric Films of Titanium Dioxide"

Moscow, Neorganicheskiye Materialy, Vol 6, No 12, Dec 70, pp 2207-2208

Abstract: TiO_2 films were produced by the method of pyrolysis of organotitanium compounds. The structure and composition of the films produced were tested by an electronographic method. Films were produced by pyrolysis of tetrabutoxytitanium (TBOT) in an atmosphere of nitrogen at 350-450°C. Substrates used were Ge, Si, and NaCl. The quality of the film is greatly influenced by the cleanliness of the initial surface. Dust and dirt on the substrate produce pores and defects in the film. The best properties were those of TiO_2 films grown at a substrate temperature of 350-400° C, t_{ev} = 120°C with a nitrogen flow rate of 80 l/hr.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR

UDC 621.382.002:539.234:539.216.22

PAVLOVA, Z. V., VISHNYAKOVA, Z. P., VINOGRADOV, G. B., and VISHNYAKOV, B. A.

"Production of Dielectric Films of Titanium Dioxide"

Moscow, Neorganicheskiye Materialy, Vol 6, No 12, Dec 70, pp 2207-2208

Abstract: TiO_2 films were produced by the method of pyrolysis of organotitanium compounds. The structure and composition of the films produced were tested by an electronographic method. Films were produced by pyrolysis of tetrabutoxytitanium (TBOT) in an atmosphere of nitrogen at 350-450°C. Substrates used were Ge, Si, and NaCl. The quality of the film is greatly influenced by the cleanliness of the initial surface. Dust and dirt on the substrate produce pores and defects in the film. The best properties were those of TiO_2 films grown at a substrate temperature of 350-400° C, t_{ev} = 120°C with a nitrogen flow rate of 80 l/hr.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

1/2 026 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--ON THE USE OF PROLONGED PERIDURAL ANESTHESIA FOR ONCOLOGICAL PATIENTS -U-

AUTHOR--PAVLOVA, Z.V.

P

COUNTRY OF INFO--USSR

SOURCE--VESTNIK AKADEMII MEDITSINSKIKH NAUK SSSR, VOL 25, NO 1, 1970, PAGES 70-78

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--ANESTHESIA, ONCOLOGY, PAIN, RESPIRATORY PHYSIOLOGY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3003/0964 STEP NO--UR/0248/70/025/001/0070/0078

CIRC ACCESSION NO--AP0130019

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

2/2 026 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0130019

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IMPAIRED EXTERNAL RESPIRATION IN THE POSTOPERATIVE PERIOD IS OFTEN THE CAUSE OF SERIOUS PULMONARY COMPLICATIONS. PAIN PLAYS A MAJOR PART IN THEIR ONSET. IT REDUCES MOBILITY OF THE COSTAL ARCH, DIAPHRAGM, AND ANTERIOR ABDOMINAL WALL. UNDER THE EFFECT OF PAIN, THE ABDOMINAL WALL CONTRACTS, THE DIAPHRAGM IS ELEVATED, AND AS A RESULT THE CAPACITY OF THE PLEURAL CAVITY IS DIMINISHED (I. I. KA'CHENKO; F. S. KORGANOVA-MYULLER; M. Z. ROTENFEL'D) AND RESPIRATORY EXCURSIONS ARE RESTRICTED. ALL THIS LEADS TO ARTIFICIAL CURBING OF COURGH, IMPAIRED BRONCHIAL DRAINAGE FOLLOWED BY DEVELOPMENT OF MINOR ATELECTASES, PNEUMONIA, ACUTE RESPIRATORY INSUFFICIENCY. BY INHIBITING PULMONARY VENTILATION PAIN CAN ELICIT SIGNIFICANT CHANGES IN BIOCHEMICAL PROCESSES WHICH, IN TURN, AFFECTS THE ACTIVITY NOT ONLY OF THE RESPIRATORY, BUT ALSO CARDIOVASCULAR, DIGESTIVE AND URINARY SYSTEMS. IN THE LIGHT OF THE DATA ACCUMULATED AT OUR INSTITUTE THE MAIN INDICATIONS FOR PROLONGED PERIDURAL BLOCK IN THE POSTOPERATIVE PERIOD ARE: (1) PREVENTION OF SUCH POSTOPERATIVE COMPLICATIONS AS PNEUMONIA, ATELECTASIS, ACUTE RESPIRATORY AND CARDIOVASCULAR INSUFFICIENCY. (2) BROADENING OF INDICATIONS FOR SURGICAL INTERVENTION IN ELDERLY ONCOLOGICAL PATIENTS WITH CONCOMITANT RESPIRATORY AND CARDIOVASCULAR PATHOLOGY. FACILITY: INSTITUTE OF EXPERIMENTAL AND CLINICAL ONCOLOGY, USSR ACADEMY OF MEDICAL SCIENCES, MOSCOW.

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UNCLASSIFIED

TITLE--PROLONGED PERIDURAL ANESTHESIA IN ONCOLOGICAL PATIENTS -U-

PROCESSING DATE--27NOV70

AUTHOR--PAVLOVA, Z.V.

COUNTRY OF INFO--USSR

SOURCE--KHIRURGIYA, 1970, NR 5, PP 20-26

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--ANESTHESIA, ONCOLOGY, SURGERY, RESPIRATORY SYSTEM, CIRCULATORY SYSTEM, METABOLISM, POTASSIUM, SODIUM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3006/1732

STEP NO--UR/0531/70/000/005/0020/0026

CIRC ACCESSION NO--AP0135311

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

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UNCLASSIFIED

CIRC ACCESSION NO--AP0135311 PROCESSING DATE--27NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE PAPER PRESENTS AN ANALYSIS OF 283 PROLONGED PERIDURAL ANESTHESIA IN 281 PATIENTS. OF THIS NUMBER, 271 PATIENTS WERE SUBJECTED TO OPERATIONS ON THORACIC AND ABDOMINAL ORGANS, EXTREMITIES AND IN 10 INCURABLE CASES. THE PATIENTS' AGE RANGED FROM 17 TO 83 YEARS; 55 PER CENT OF PATIENTS WERE OVER 50 YEARS. INTO THE PERIDURAL SPACE THE CATHETER WAS INTRODUCED DIRECTLY BEFORE THE OPERATION, AFTER ROUTINE PREMEDICATION TO ANESTHESIA. ANESTHESIA WAS STARTED 1-2 HOURS AFTER THE OPERATION AND WAS MAINTAINED FOR 3-5 DAYS; IN INCURABLE PATIENTS, FOR 10-12 DAYS. FOR THE ANESTHESIA THE AUTHOR USED A 2 PER CENT TRIMECAIN (218 CASES), A MIXTURE OF A 2 PER CENT PLUS A 0.3 PER CENT DICAIN PLUS A 20.1 PER CENT NOVOCAIN (39 CASES), A 2 PER CENT TRIMECAIN PLUS A 15 PER CENT POLYVYNYLPYRROLIDONE (20 CASES) AND A 1.5 PER CENT LIGNOCAIN (4 CASES). THE REFERRED TO AGENTS WERE FRACTIONALLY INTRODUCED 4-6 TIMES DAILY, WITH AN INTERVAL DURING THE NIGHT WHEN PROMEDOL AND OMNOPON WAS GIVEN. IN THE MAJORITY OF PATIENTS PERIDURAL ANESTHESIA CAUSED NO SHARP FLUCTUATIONS OF THE ARTERIAL PRESSURE. A DECELERATION OF THE PULSE AND RESPIRATION RATE WAS OBSERVED. ADEQUATE ANESTHESIA COMBINED WITH PERIDURAL ANESTHESIA IMPROVED THE EXTERNAL RESPIRATION INDICES AND HAS CONDUCTIVE TO EARLY STABILIZATION OF THE ACID BASE BALANCE AND REDUCED THE SHIFTS IN THE POTASSIUM SODIUM METABOLISM. NO NOTICEABLE CHANGES WERE OBSERVED IN THE NEUROLOGICAL STATE OF PATIENTS BEFORE AND AFTER PERIDURAL BLOCK. THERE WERE NO COMPLICATIONS ASSOCIATED WITH PROLONGED PRESENCE OF THE CATHETER IN THE PERIDURAL CANAL.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

3/3 035

UNCLASSIFIED

CIRC ACCESSION NO--AP0135311 PROCESSING DATE--27NOV70

ABSTRACT/EXTRACT--PERIDURAL ANESTHESIA WAS CARRIED OUT IN PATIENTS WITH PULMONARY COMPLICATIONS, POSTOPERATIVE GASTRIC ATONIA, INTESTINAL PARESIS AND THROMBOEMBOLIZATIONS. PERIDURAL ANESTHESIA SIGNIFICANTLY IMPROVES THE OUTCOMES IN PATIENTS WITH TRAUMATIC OPERATIONS, IN SEVERELY AFFECTED AGED PATIENTS WITH CONCOMITANT DISEASES OF RESPIRATORY AND CIRCULATORY ORGANS. FACILITY: OTDELENIYE REANIMATSII INSTITUTA EKSPIMENTAL'NOY I KLINICHESKOY ONKOLOGII.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

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UNCLASSIFIED

TITLE--TRANSFORMED STEROIDS. 26. SYNTHESIS OF 16 ALPHA, 17 ALPHA DIHYDROXYPROGESTERONE AND SOME OF ITS DERIVATIVES -U-

PROCESSING DATE--13NOV70

AUTHOR-(04)-AKHREM, A.A., DUBROVSKIY, V.A., KAMERNITSKIY, A.V., PAVLOVAGRISHINA, N.S.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, SER. KHIM. 1970, (4), 895-900

DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--PROGESTERONE, CHEMICAL SYNTHESIS, MOLECULAR STRUCTURE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3004/0446

STEP NO--UR/0062/70/000/004/0895/0900

CIRC ACCESSION NO--AP0131084

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

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UNCLASSIFIED

CIRC ACCESSION NO--AP0131084 PROCESSING DATE--13NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. KEEPING PREGN-5-ENE-3 BETA, 16 ALPHA, 17 ALPHA TRIOL-20 ONE 16 ACETATE 3 DAYS WITH CYCLOPENTANONE IN DIOXANE IN THE PRESENCE OF 70PERCENT HCLO SUB4 GAVE SIMILAR TO 60PERCENT (IA), M. 211.5-12.5DEGREES. WITH CYCLOHEXANONE THE PRODUCT WAS THE CYCLOHEXYLIDENEDIOXY ANALOG, M. 189-91DEGREES, WHILE CYCLOHEPTANONE GAVE THE CYCLOHEPTYLIDENEDIOXY ANALOG, M. 185-7DEGREES. 16 ALPHA, 17 ALPHA EPOXYPROGESTERONE (I) AND ETO SUB2 CNHNH SUB2 IN ACOH DIOXANE GAVE THE 3,20 BIS(CARBETHOXYHYDRAZONE), DECOMPD. 300DEGREES, WHICH WITH PYRUVIC ACID IN ACOH AT 100DEGREES 20 MIN GAVE I. I TREATED WITH ETO SUB2 CNHNH SUB2 AS ABOVE 2 HR IN ACOH AT 85DEGREES, THEN TREATED WITH H SUB2 O, FOLLOWED TO ACOH AND AQ. PYRUVIC ACID AT 100DEGREES, GAVE 16 ALPHA ACETOXY 17 ALPHA HYDROXYPROGESTERONE, M. 172-4DEGREES, WHICH WITH AQ. MEOH-K SUB2 CO SUB3 IN 1 HR GAVE 16 ALPHA, 17 ALPHA DIHYDROXYPROGESTERONE, M. 204-10DEGREES, WHICH IN A QUARTZ TUBE HELD AT ITS M. P. 0.5 HR GAVE THE THERMAL ISOMERIZATION PRODUCT 17 ALPHA BETA METHYL D HOMOANDROST 4 ENE 16 ALPHA, 17 A ALPHA DIOL 3,17 DIONE (II), M. 188-92DEGREES. 16 ALPHA, 17 ALPHA ISOPROPYLIDENEDIOXYPREGN 5 EN 3 BETA OL 20 ONE OXIDIZED WITH CRO SUB3 IN ME SUB2 CO-H SUB2 SO SUB4 AT MINUS 10DEGREES GAVE 16 ALPHA, 17 ALPHA ISOPROPYLIDENEDIOXYPROGESTERONE, M. 209-11DEGREES.

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CIRC ACCESSION NO--AP0131084 PROCESSING DATE--13NOV70

ABSTRACT/EXTRACT--IA AND AL (OCHME SUB2)SUB3 IN MEPH REFLUXED 4 HR IN THE PRESENCE OF CYCLOHEXANONE GAVE 16 ALPHA, 17 ALPHA CYCLOPENTYLIDENEDIOXYPROGESTERONE, M. 173-4DEGREES, ALSO FORMED FROM IA AND CRO SUB3 IN ME SUB2 CO-H SUB2 SO SUB4 AT MINUS 10DEGREES UNDER N, THEN HEATING THE PRODUCT WITH MEOH AND KOH. SIMILARLY WAS PREPD. THE 16 ALPHA, 17 ALPHA CYCLOHEXYLIDENEDIOXY ANALOG, M. 135-9DEGREES, AND THE CYCLOHEPTYLIDENE ANALOG, M. 148-9DEGREES. FACILITY: INST. ORG. KHIM. IM. ZELINSKOGO, MOSCOW, USSR.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR

UDC 542.49:546.791.3'131

TARASOVA, L. A., RACHEV, V. V., and PAVLOVA-VEREVKINA, A. I.

"Purification of Uranium Trichloride by Vacuum Sublimation"

Moscow, Radiokhimiya, Vol 12, No 2, 1970, pp 405-407

Abstract: A study was made of the possibility of more efficient sublimation in purification of UCl_3. UCl_3 sublimation experiments were conducted on special equipment in the 750-950° range. A stable vacuum was maintained at 10^{-6}-10^{-5} torr. Sublimation apparatus material was quartz. Quartz, molybdenum, tantalum, or their combinations were tested for the vaporization part of the apparatus. A table listed effect of various factors on yield of UCl_3 in vacuum sublimation: sublimation temperature, impurity (UO_2 and UOCl) content, material of vaporization assembly, amount of loaded UCl_3. Tabled data revealed that the yield of UCl_3 in sublimation is determined by the material of the vaporization assembly and by observance of measures to prevent interaction of the trichloride with components of the air entering the system due to adsorption on the preparations and apparatus assemblies in preparatory stages. When these precautions are taken and when molybdenum or tantalum is used for the vaporization assembly, the UCl_2 yield reaches 50%, and in some cases 70% of the amount loaded into the apparatus.

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Acc. Nr: AP0047172

Ref. Code: UR 0246

PRIMARY SOURCE: Zhurnal Nevropatologii i Psikhiatrii, 1970, Vol 70, Nr 2, pp 211-216

AN ATYPICAL DEVELOPMENT OF THE HEMORRHAGIC PERIOD IN COMPLICATIONS OF A RUPTURED ANEURYSM BY AN ARTERIAL SPASM AND INTRACRANIAL HEMATOMA

E. I. Zlotnik, F. V. Oleshkevitch, M. V. Pavlovets

The authors describe 5 cases with sac aneurysms where an intracranial hematoma and cerebro-vascular spasm had a relatively light clinical expression. In 3 cases there was an improvement of the condition prior to the surgical period. The possible reasons conditioning such atypical states are being discussed.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

1/2 010 UNCLASSIFIED

TITLE--ECONOMIC ESTIMATION OF IMPROVED RELIABILITY AND SERVICE LIFE OF INSTRUMENTS -U-

PROCESSING DATE--18SEP70

AUTHOR--PAVLOVETS, V.I.

COUNTRY OF INFO--USSR

SOURCE--STANDARTY I KACHESTVO, 1970, NR 2, PP 69-71

DATE PUBLISHED--------70

SUBJECT AREAS--BEHAVIORAL AND SOCIAL SCIENCES

TOPIC TAGS--ELECTRONIC EQUIPMENT, RELIABILITY THEORY, INDUSTRIAL STATISTIC, COST ESTIMATE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1984/2026

STEP NO--UR/0422/70/000/002/0069/0071

CIRC ACCESSION NO--AP0100591

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

2/2 010

UNCLASSIFIED

CIRC ACCESSION NO--AP0100591 PROCESSING DATE--18SEP70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE ARTICLE PRESENTS THE FUNDAMENTAL PRINCIPLES OF THE PROCEDURE FOR ESTIMATING THE ECONOMIC EFFICIENCY OF IMPROVED RELIABILITY AND INCREASED SERVICE LIFE OF INSTRUMENTS. PRACTICAL EXAMPLES ILLUSTRATE THE METHOD OF CALCULATING THE YEARLY ECONOMIC EFFECT OF RELIABILITY IMPROVEMENT AND SERVICE LIFE INCREASE OF ELECTRONIC INSTRUMENTS.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR

UDC 577.3

PAVLOVICH, S. A.

"The Effect of Magnetic Fields on Microorganisms"

Vliyaniye Magnitnykh Poley na Biologicheskiye Ob"yekty, pp 41-55

Abstract: It is demonstrated that magnetic fields can have an effect on the vital processes of microorganisms. The effect depends on the nature of the magnetic field (constant, variable, pulsed, etc), the length of the action, the intensity of the field, and the biological features of the test objects being studied. The last-named factor reveals itself especially sharply where the action of the magnetic field is brief. The varied character of data obtained is sometimes explained by unequal experimental conditions. Extended action by a magnetic field leads to clearly manifested biological effects. The specific effect of different fields is evened out and the changes observed have the same direction. The research conducted demonstrates that the variability of microorganisms is probably a result of the effect of magnetic fields on enzyme systems and RNA. This can explain the effect of magnetic fields on the nature and rate of growth in microorganisms and the rise in the heat tolerance of "magnetic" cultures. But magnetic fields also cause other changes in microorganism metabolism. The phenomenon of phage induction may serve as an example of this.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR

UDC 612.014.426+616-093/-098

PAVLOVICH, S. A., Ivano-Frankovsk

"Effect of Magnetic Fields on Microbial Variability"

Kishinev, Electronnaya Obrabotka Materialov, No 1, 1971, pp 59-62

Abstract: Ten microbial species (E. coli, B. subtilis, B. anthracoides, B. mycoides, Staph. aureus 209, Staph, aureus UF-3, Candida albicans, Mycobacterium B-5, Proteus vulgaris, Shigella sonnei) were exposed during 50 passages on meat-peptone agar to permanent, alternating, and pulsed magnetic fields. Four species (E. coli, Staph. aureus 209, B. anthracoides, and Mycobacterium B-5) showed no visible changes in cultural properties. The other six species showed changes in both cultural and morphological properties, the extent varying both with the type and intensity of the magnetic field and the species characteristics of the "magnetizable" microorganisms. The magnetic fields affected cell growth and division (B. subtilis, B. mycoides, Staph. aureus UF-3), altered the antigenic structure (Proteus vulgaris), and destroyed the species characteristics Staph. aureus UF-3, B. subtilis) by disrupting bacterial metabolism.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR

UDC 669.28.172

BULGAK, L. V., SAVITSKIY, Ye. M., BELOMYTTSEV, Yu. S., SARATOVSKIY, L. N., PAVLOVICH, T. M., and MIKHAYLOV, S. M.

"Study of Structure and Properties of Molybdenum Single Crystals Produced Under Oilless Vacuum Conditions"

Monokristally Tugoplavkikh i Redkikh Metallov [Single Crystals of Refractory and Rare Metals -- Collection of Works], Nauka Press, 1971, pp 67-70

Translation: Data are presented on the mechanical properties and structure of monocrystalline molybdenum, produced under oilless vacuum conditions by cathode ray zone refining. 1 Table; 4 Figures; 2 Bibliographic References.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

1/2 016 UNCLASSIFIED PROCESSING DATE--02OCT70

TITLE--ELECTROCHEMICAL BEHAVIOR OF PLATINUM AND RHODIUM FILMS -U-

AUTHOR-(03)-MANSUROV, G.N., PETRIY, O.A., PAVLOVICH, V.K.

COUNTRY OF INFO--USSR

SOURCE--ELEKTROKHIMIYA 1970, 6(2) 291

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS, CHEMISTRY

TOPIC TAGS--ELECTROCHEMICAL REACTION, PLATINUM, RHODIUM, SITALL GLASS, COPPER, ELECTRODE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1989/0468 STEP NO--UR/0364/70/006/002/0291/0291

CIRC ACCESSION NO--AP0107074

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

2/2 016

CIRC ACCESSION NO--AP0107074 UNCLASSIFIED PROCESSING DATE--02OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. TRIANGULAR VOLTAGE PULSES WERE USED FOR OBTAINING POTENTIODYNAMIC CURVES ON PT AND RH FILMS, SPUTTERED IN VACUUM ON SITALL SUBSTRATES, IN H H SUB2 SO SUB4 AND IN THE PRESENCE OF VARIOUS ADDNS. OF CUSO SUB4. PARALLEL MEASUREMENTS WERE MADE ON COMPACT METALS IN THE FORM OF WIRES. THE H SECTIONS OF THE CURVES IN N H SUB2 SO SUB4 ON FILMS AND COMPACT ELECTRODES COINCIDE. ON FILMS A SOMEWHAT EARLIER DEPOSITION OF O IS OBSD. AND ITS AMT. WAS SOMEWHAT HIGHER THAN ON A COMPACT ELECTRODE. THE NATURE OF FORMATION AND SISSOLN. OF CU LAYERS ON FILMS AND COMPACT ELECTRODES IS IDENTICAL. THE SHAPE OF THE POTENTIODYNAMIC CURVES IN THE PRESENCE OF CU IONS IN SOLN. WAS EQUAL FOR RH FILMS AND COMPACT ELECTRODES. AS IN THE CASE OF PT, MAX. WERE FOUND ON THE CURVES THAT CORRESPOND TO THE DISSOLN. OF THICK AND THIN LAYERS AND CU ADATOMS.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR

UDC 621.039.84

TYUPYAKOV, N. D., SHTAN', A. S., YASKEVICH, V. S., KOZLOV, A. G., and PAVLOVICH, V. YE.

"Spectral Characteristics of Neutron Sources Based on Pu^{238},"

Prikl. Yadern. Spektroskopiya (Applied Nuclear Spectroscopy -- collection of works), No 1, Moscow, Atomizdat Press 1970, pp 24-27 (from Referativnyy Zhurnal-Yadernyye Reaktory, No 3, 1971, Abstract No 3.50.138)

Translation: A single-crystal fast neutron scintillation spectrometer was used in combination with a 512-channel amplitude analyzer to measure the spectra; discrimination of the γ background was based on the time of scintillation of a stilbene crystal. The spectrometer was calibrated for the γ radiation of the isotopes Cs^{137} and Zn^{65}. In subtracting the background, the shadow cone from a mixture of paraffin and borom carbide was used. During measurements, the neutron source and detector were placed at a distance of about 2 m from the walls of the room. The results of investigations confirmed the expediency of using Pu^{238} to study isotope α, n sources. The advantages of these

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TYUFYAKOV, N. D., et al., Prikl. Yadern. Spektroskopiya, No 1, Moscow, Atomizdat Press 1970, pp 24-27 (from Referativnyy Zhurnal-Yadernyye Reaktory, No 3, 1971, Abstract No 3.50.138)

sources are felt primarily with a yield of 10^7-10^8 n/sec-2 and more. It is assumed that the production of intermetallic compounds of Pu^{238} with the target material allows the yield of neutrons per unit mass of α radiator to be increased by several times in comparison with the sources studied. 2 figures, 5 biblio. refs.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

1/2 009

UNCLASSIFIED

TITLE--THE GALACTIC STRUCTURE AND THE APPEARANCE OF THE MILKY WAY -U-

PROCESSING DATE--04DEC70

AUTHOR-(02)-PAVLOVSKAIA, E.D., SHAROV, A.S.

COUNTRY OF INFO--USSR, SWITZERLAND

SOURCE--THE SPIRAL STRUCTURE OF OUR GALAXY; PROCEEDINGS OF THE SYMPOSIUM, UNIVERSITAT BASEL, BASEL, SWITZERLAND, AUGUST 29-SEPTEMBER 4, 1969,

DATE PUBLISHED-------70

SUBJECT AREAS--ASTRONOMY,ASTROPHYSICS

TOPIC TAGS--SPIRAL GALAXY, MODEL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY FICHE NO----FD70/605030/F04 STEP NO--SZ/0000/70/000/038/0222/0224

CIRC ACCESSION NO--AT0141877

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

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UNCLASSIFIED

CIRC ACCESSION NO--AT0141877 PROCESSING DATE--04DEC70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. STUDY OF THE GALACTIC SPIRAL STRUCTURE AND THE APPEARANCE OF THE MILKY WAY, USING DIFFERENT MODELS OF THE GALACTIC STRUCTURE WITH DIFFERENT VALUES OF ABSORPTION INSIDE AND BETWEEN THE ARMS AS WELL AS MODELS WITH VARIABLE ABSORPTION ACROSS THE ARMS. THE ANALYSIS OF ALL THE RESULTS SHOWS THAT EVEN WITHIN THE LIMITS OF THE MODELS CONSIDERED, THE APPEARANCE OF THE MILKY WAY ESSENTIALLY DEPENDS ON THE VALUE OF THE ABSORPTION, AND ALSO ON OTHER PARAMETERS OF THE SYSTEM.

FACILITY: MOSKOVSKII GOSUDARSTVENNYI UNIVERSITET, MOSCOW, USSR.

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

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UNCLASSIFIED

TITLE--SYNTHESIS OF NITROGENOUS DERIVATIVES OF PHENOXYACETIC ACID. I. AZOMETHINES -U-

PROCESSING DATE--13NOV70

AUTHOR-(02)-SHPEYER, L.F., PAVLOVSKAYA, M.YE.

COUNTRY OF INFO--USSR

SOURCE--UKR. KHIM. ZH. 1970, 36(1), 75-7

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ORGANIC SYNTHESIS, ORGANIC NITROGEN COMPOUND, AZO COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/1974

STEP NO--UR/0073/70/036/001/0075/0077

CIRC ACCESSION NO--AP0125563

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

UNCLASSIFIED PROCESSING DATE--13NOV70

2/2 008

CIRC ACCESSION NO--AP0125563

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. P-HOC SUB6 H SUB4 CHO AND M AND O H SUB2 NC SUB6 H SUB4 OH FORM, AFTER 15-20 MIN AT 500DEGREES, M AND P,(4,HOC SUB6 H SUB4 CH:N)C SUB6 H SUB4 OH, M. 230DEGREES AND 520EGREES, RESP. AFTER 40-50 MIN, THE LATTER MIXT. GAVE A COMPD. OF THE SAME ANAL. M. 146DEGREES. (LONGER HEATING CAUSED DECOMPN. OF THE AZOMETHINE). THE FOLLOWING Y,(X,HOC SUB6 H SUB4 CH:N)C SUB6 H SUB4 OCH SUB2 CO SUB2 H WERE SIMILARLY PREPD. (X,Y, AND M.P. GIVEN): O,M, 171-3DEGREES; O,P, 190DEGREES; P,M, 113DEGREES; P,P 219DEGREES. X,HO SUB2 CCH SUB2 OC SUB6 H SUB4 CHO AND Y,H SUB2 NC SUB6 H SUB4 OHC SUB2 CO SUB2 H LIKEWISE GAVE AZOMETHINES (X,Y, AND M.P. GIVEN); O,M, 156DEGREES; 9,P, 224DEGREES; P,M, 143DEGREES; P,P, 248DEGREES. THE SAME COMPDS. M. 154DEGREES, 228DEGREES, 146DEGREES, AND, WERE PREPD. BY REACTION OF X,HOC SUB6 H SUB4 CH:NC SUB6 H SUB4 OH,Y WITH CLCH SUB2 CO SUB2 H, BUT THE YIELDS WERE POORER. FACILITY: KHAR'KOV. SEL'SKOKHOZ. INST. IM. DOKUCHAEVA, KHARKOV, USSR.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

Acc. Nr: AP0044022 P Ref. Code: UR 0240

PRIMARY SOURCE: Gigiyena i Sanitariya, 1970, Nr 2, pp 49-52

COMBINATION OF THORIUM WITH BLOOD CONSTITUENTS DEPENDING UPON THE CHEMICAL NATURE OF THE COMPOUND INTRODUCED

Pavlovskaya, N. A.; Makeyeva, L. G.; Orlyanskaya, R. L.

The results of experimental investigations on albino rats produced evidence that thorium is primarily present in the blood plasma, regardless of the method of its administration, chemical nature of the compounds introduced and the time lapsed since their entrance into the organism. With entrance of a noncomplex thorium compound its main bulk in the blood is bound with globulins, while in the instance of a stable complex compound its distribution in the plasma depends upon the mode of its introduction. With intravenous administration thorium is found predominantly in the non-protein part of the blood.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR UDC 614.866:546.841

CHERKASHINA, T. N., PAVLOVSKAYA, N. A., and MOISEYTSEV, P. I.

"Deactivation of Surfaces Contaminated With Isotopes of Thorium and Its Disintegration Products"

Moscow, Gigiyena i Sanitariya, No 10, Oct 1970, pp 33-37

Abstract: Samples of material contaminated with a $Th^{228}Cl_4$ solution in equilibrium with disintegration products ($3 \cdot 10^{-3}$ microcurie/mg) with a Th^{232} carrier (18 mg/ml) were dried for 18-25 hours at room temperature and the activity measured. The samples were then deactivated by various strong detergents (alkyl sulfonate, GIPKh-200, proxanol-224, and SP 333-60), and the remaining activity was determined at various intervals after deactivation. The degree of contamination was established by the prevailing levels of alpha- and gamma-activity. The short-lived lead-212 isotope was most stably absorbed. The long-lived Th^{228} and Ra^{224} isotopes were much more readily removed from the test surfaces. Porous surfaces such as linoleum and ceramic tile retained both the short- and long-lived isotopes.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

UNCLASSIFIED

1/2 023 PROCESSING DATE--27NOV70

TITLE--PROPERTIES OF PRIME6 LIL,EU CRYSTALS AT LOW TEMPERATURES -U-

AUTHOR-(03)-VOROBYEV, YU.A., PAVLOVSKAYA, T.F., LYALIN, YE.O.

P

COUNTRY OF INFO--USSR

SOURCE--PRIB. TEKH. EKSP. 1970, 1, 90-1

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--LOW TEMPERATURE EFFECT, PHYSICAL CHEMISTRY PROPERTY, LITHIUM COMPOUND, EUROPIUM COMPOUND, CESIUM ISOTOPE, CRYSTAL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1994/1710 STEP NO--UR/0120/70/001/000/0090/0091

CIRC ACCESSION NO--AP0115539

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

2/2 023 UNCLASSIFIED PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0115539

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IN COOLING OF PRIME6 LII(EU) CRYSTALS FROM 25DEGREES TO MINUS 150DEGREES THE SCINTILLATION PULSE AMPLITUDE INCREASES 2.8 TIMES WITH EXCITATION OF THE CRYSTALS BY THERMAL N AND 2.2 TIMES WITH THE EXCITATION BY GAMMA QUANTA OF PRIME137 CS. THE AMPLITUDE RESOLN. IMPROVES FROM 8 TO 5.5PERCENT AND FROM 16 TO 10PERCENT, RESP. AT MINUS 150DEGREES THE PULSE AMPLITUDE IS A LINEAR FUNCTION OF ENERGY OF THE REGISTERED RADIATION FOR GAMMA QUANTA TO 1.85 MEV AND FOR N IN THE ENERGY RANGE FROM THERMAL TO 14 MEV. THE DEEXCITATION TIME CONST. OF THE CRYSTALS AT ROOM TEMP. EQUALS SIMILAR TO 1.0 MU SEC AND AT MINUS 150DEGREES IT INCREASES TO 1.8 MU SEC.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

1/2 029 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--CRYOSTAT FOR A NEUTRON SCINTILLATION SPECTROMETER -U-

AUTHOR-(03)-ADAMOVICH, N.I., ZUYEV, V.I., PAVLOVSKAYA, T.F.

COUNTRY OF INFO--USSR

SOURCE--PRIB. TEKH. EKSP. 1970, 1, 230-2

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--CRYOSTAT, SCINTILLATION SPECTROMETER, NEUTRON, CRYSTAL, PHOTOMULTIPLIER TUBE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1989/1884 STEP NO--UR/0120/70/001/000/0230/0232

CIRC ACCESSION NO--AP0108214

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

2/2 029 .UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0109214

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CONSTRUCTION AND THE COOLING SYSTEM ARE DESCRIBED OF A CRYOSTAT WHICH CAN COOL THE CRYSTAL AND THE PHOTOMULTIPLIER SIMULTANEOUSLY TO A GIVEN TEMP. FROM PLUS 25 TO MINUS 196DEGREES. THIS TEMP. CAN BE MAINTAINED WITH AN ACCURACY OF PLUS OR MINUS 0.2DEGREES.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

PAVLOVSKAYA, T. Ye.

JPRS 55304

29 February 1972

FORMATION OF AMINO ACIDS ON IRRADIATION OF FOG CONTAINING FORMALDEHYDE AND AMMONIUM NITRATE WITH UV LIGHT

[Article by T. Ye. Pavlovskaya, T. A. Telegina, A. V. Sokolinskaya, and I. Ye. El'piner (Dec); Moscow, Izvestiya Akademii Nauk SSSR, Seriya Biologicheskaya, Russian, No 6, 1971, submitted 15 June 1971, pp 922-925]

One of the possible ways of the abiogenetic formation of biologically important materials under the conditions of the primordial earth as well as under extraterrestrial conditions could have been the photochemical processes occurring in fogs, raindrops, and in clouds. Experimental data obtained by simulating these conditions are reported. The fog consisting of formaldehyde, ammonium nitrate and water was obtained by means of an ultrasonic generator and irradiated with 254 nm UV light. Glycine, alanine, and possibly threonine were identified among the photosynthetic products.

According to the present concepts, the generation of life was preceded by a long period of chemical evolution during which the formation of substance necessary for life processes occurred (Oparin, 1957). One of the experimental techniques used in the investigation of this problem in recent years is the study of the abiogenetic formation of compounds of biological importance in systems simulating the conditions of primordial earth (Pasynskiy and Pavlovskaya, 1964; Pavlovskaya, 1971).

On the other hand, the possibility of the abiogenetic formation of biologically important compounds is proved by the discovery of organic compounds in extraterrestrial sources. Pertinent data may be obtained, first of all, from the investigation of meteorites belonging to the class of carbonaceous chondrites containing organic compounds. In one investigation of this type, describing the analysis of a meteorite that fell in the region of Murchison, Australia in September 1969 (Kvenvolden et al., 1970), convincing proofs of the extraterrestrial origin of the amino acids and hydrocarbons found in the meteorite are cited.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

1/2 024 UNCLASSIFIED PROCESSING DATE--11DEC70

TITLE--EFFECT OF ULTRAVIOLET RAYS ON SINGLE LAYER SEPARATION SURFACES OF LIPOVITELLIN -U-

AUTHOR-(03)-TENGUR, A.M., VOLKOVA, M.S., PAVLOVSKAYA, T.YE.

COUNTRY OF INFO--USSR

SOURCE--RADIOBIOLOGIYA 1970, 10(2), 283-8

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--LIPID, ELECTRON MICROSCOPY, UV RADIATION BIOLOGIC EFFECT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY FICHE NO----FD70/605C04/C02 STEP NO--UR/0205/70/010/002/0283/0288

PROCESSING AGENCY NO--APO137612

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

2/2 024 UNCLASSIFIED PROCESSING DATE--11DEC70

CIRC ACCESSION NO--AP0139612

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DENATURATION OF LIPOVITELLIN BY UV (MAX. 254 NM) CAUSED AN INCREASE IN THE SURFACE AREA OF THE LIPOVITELLIN MONOLAYER ON SOL WITH A HIGH IONIC STRENGTH. THE PERMEABILITY OF THE MONOLAYER ALSO INCREASED AND MAX. PERMEABILITY WAS REACHED AFTER A DOSE OF 1.2 TIMES 10 PRIME7 ERG-CM PRIME2. THE UV RADIATION DECREASED THE HYDROPHOBIC BONDS BETWEEN THE PROTEIN AND THE LIPID COMPONENTS. THIS WAS CONFIRMED BY ELECTRON MICROSCOPY WITH OSO SUB4. FACILITY: INST. BIOKHIM. IM. BAKHA, MOSCOW, USSR.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

1/2 020 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--CHANGE IN THE PERMEABILITY OF NUCLEOPROTEIN MONOLAYERS UNDER THE INFLUENCE OF X RAYS -U-

AUTHOR-(03)-TONGUR, A.M., PAVLOVSKAYA, T.YE., NIKULIN, YU.P.

COUNTRY OF INFO--USSR

SOURCE--RADIOBIOLOGIYA 1970, 10(1), 9-13

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--NUCLEOPROTEIN, PERMEABILITY MEASUREMENT, X RAY RADIATION BIOLOGIC EFFECT, RADIATION DOSAGE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1998/0485 STEP NO--UR/0205/70/010/001/0009/0013

CIRC ACCESSION NO--AP0121159

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

2/2 020 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0121159

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE PERMEABILITY OF X IRRADIATED DEOXYRIBONUCLEOPROTEIN MONOLAYER AND OF THE MONOLAYER PREPD. FROM X IRRADIATED DEOXYRIBONUCLEOPROTEIN HAS BEEN EVALUTED IN A MODEL SYSTEM. SUBSTRATE (1.4 TIMES 10 PRIME NEGATIVE3 M METHYLENE BLUE IN 2M NACL AND 5.3 TIMES 10 PRIME NEGATIVE2 M ASCORBIC ACID) WAS SEPD. FROM AN AQ. SOLN. CONTG. H SUB2 O SUB2 BY THE DEOXYRIBONUCLEOPROTEIN MONOLAYER. THE PERMEABILITY WAS EVALUATED ACCORDING TO THE COLORING OF THE SUBSTRATE. THE IRRADN. OF THE MONOLAYER BY A DOSE OF 2 OR 3.5 KR INCREASED THE PERMEABILITY BY 40PERCENT OR 70PERCENT, RESP.; THE BARRIER EFFECT OF THE MONOLAYER DISAPPEARED COMPLETELY AFTER IRRADN. WITH 5 KR. CHANGES OF THE PERMEABILITY OF MONOLAYERS PREPD. FROM THE IRRADIATED DEOXYRIBONUCLEOPROTEINS WERE NOTED ONLY AT HIGH DOSES; DOSES OF 5 TIMES 10 PRIME5 AND 10 PRIME6 R INCREASED THE PERMEABILITY BY 28PERCENT AND 33PERCENT, RESP. FACILITY: INST. BIOKHIM. IM. BAKHA, MOSCOW, USSR.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR UDC 621.039.84

TYUFYAKOV, N. D., SHTAN', A. S., YASKEVICH, V. S., KOZLOV, A. G., and PAVLOVICH, V. YE.

"Spectral Characteristics of Neutron Sources Based on Pu^{238}"

Prikl. Yadern. Spektroskopiya (Applied Nuclear Spectroscopy -- collection of works), No 1, Moscow, Atomizdat Press 1970, pp 24-27 (from Referativnyy Zhurnal-Yadernyye Reaktory, No 3, 1971, Abstract No 3.50.138)

Translation: A single-crystal fast neutron scintillation spectrometer was used in combination with a 512-channel amplitude analyzer to measure the spectra; discrimination of the γ background was based on the time of scintillation of a stilbene crystal. The spectrometer was calibrated for the γ radiation of of the isotopes Cs^{137} and Zn^{65}. In subtracting the background, the shadow cone from a mixture of paraffin and borom carbide was used. During measurements, the neutron source and detector were placed at a distance of about 2 m from the walls of the room. The results of investigations confirmed the expediency of using Pu^{238} to study isotope α_n sources. The advantages of these

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USSR

TYUFYAKOV, N. D., et al., Prikl. Yadern. Spektroskopiya, No 1, Moscow, Atomizdat Press 1970, pp 24-27 (from Referativnyy Zhurnal-Yadernyye Reaktory, No 3, 1971, Abstract No 3.50.138)

sources are felt primarily with a yield of 10^7-10^8 n/sec^{-2} and more. It is assumed that the production of intermetallic compounds of Pu^{238} with the target material allows the yield of neutrons per unit mass of α radiator to be increased by several times in comparison with the sources studied. 2 figures, 5 biblio. refs.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

Instrumentation and Equipment

USSR UDC: 621.762.002.5(088.8)

PAVLOVSKAYA, Ye. I., TIKHONOV, G. F., NIKOLAYEV, A. N., SHTUTMAN, B. A., KHRENOV, B. A., GORYACHEVA, Z. V.

"Device for Feeding of Powder into Rolls of a Rolling Mill"

USSR Author's Certificate Number 352685, Filed 8/06/70, Published 26.10/72 (Translated from Referativnyy Zhurnal Metallurgiya, No 8, 1973, Abstract No 8G450).

Translation: The device suggested contains a hopper and a feeder. In order to increase the quality of the product produced, the feeder is made in the form of a strip transporter connected through a drive to the rolls of a rolling mill.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

UNCLASSIFIED PROCESSING DATE--11SEP70

1/2 021

TITLE--FILTRATION OF A CELLULOSE ACETATE SOLUTION THROUGH A POROUS METAL

-U-

AUTHOR--MAKAROVA, L.B., KOSTROV, YU.A., LAKHTIN, V.P., PAVLOVSKAYA, YE.I., GORYACHEVA, Z.V.

COUNTRY OF INFO--USSR

SOURCE--KHIM. VOLOKNA 1970, (1), 35-7

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS, CHEMISTRY

TOPIC TAGS--FILTRATION, CELLULOSE RESIN, ACETATE, TITANIUM, HYDRAULIC PRESS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1984/1807 STEP NO--UR/0183/70/000/001/0035/0037

CIRC ACCESSION NO--AP0100381

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

2/2 021 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0100381

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. POWD. TI (GRANULES 0.4 MM DIAM.) WAS MIXED WITH A 40PERCENT GLYCEROL SOLN. IN ETOH AND PRESSED UNDER A HYDRAULIC PRESS AT 1000DEGREES UNDER AR (THE GLYCEROL SOLN. HAD BEEN REMOVED AT 400-50DEGREES) TO GIVE A FILTER MATERIAL (AV. POROSITY 115-25 MU) FOR THE FILTRATION OF CELLULOSE ACETATE. A CROSS SECTIONAL DIAGRAM OF THE FILTRATION APP. AND ITS MODE OF OPERATION ARE PRESENTED. THE FILTRATION THROUGH A TI POROUS FILTER WAS RAPID AND EFFECTIVE AND FILTRATION CAPACITY OF THE CLOGGED FILTER WAS RESTORED BY ULTRASONIC WASHINGS WITH ME SUB2 CO.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR UDC: [621.392:538.4]:662.215.2(088.8)

PAVLOVSKIY, A. I., LYUDAYEV, R. Z., YURYZHEV, A. S., BOYKO, B. A., SEREGIN, A. S.

"A Magnetoexplosive Generator"

USSR Author's Certificate No 243103, filed 28 Nov 67, published 10 Mar 70 (from RZh-Elektrotekhnika i Energetika, No 10, Oct 70, Abstract No 10A148 P)

Translation: This Author's Certificate introduces a magnetoexplosive generator for converting the energy of an explosive material to electromagnetic energy. The device contains a tube filled with an explosive material and a coaxially arranged helix. The tube and helix are connected at one end to a heat source, and at the other to a toroidal inductive cavity. To increase the coefficient of energy conversion, the generator tube is made in the form of a truncated cone with the wider base toward the inductive cavity. The diameter of the wide base, the diameter of the narrow base, and the height of the cone are in the ratio of 2:1:4. One illustration.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

Turbine and Engine Design

USSR

UDC 621.165:533.6.011.5.001.5

PAVLOVSKIY, A. Z.

"Research in Supersonic Turbine Stages"

Kaluga, Materialy nauch.-tekhn. konf. Kaluzh. Fil. MVTU -- sb. (Materials of the Scientific and Technological Conference at the Kaluga Branch of the Moscow Higher Technical School imeni N. E. Bauman -- Collection of Works), 1972, p 71 (from Referativnyy Zhurnal -- Teploenergetika, No 3, 1973, Abstract No 3S12)

Translation: The author shows that the intensity of the Mach number's effect on the efficiency of a supersonic stage is quite significant and does not, for all practical purposes, depend on the partiality of the stage. The procedure that he proposes for calculating the losses due to partiality in the turbine stage takes a great many geometrical and operating mode parameters into consideration and coincides well with experimental results. The effect of vapor humidity on the efficiency and degree of reactivity of a supersonic stage is considerably less than it is for a subsonic stage, and is 0.3-0.5 percent per percentage point of secondary humidity. The wave losses of energy when a supersonic stage is operating in damp vapor are less than when it is operating in superheated vapor. This difference decreases as the velocity ratio U/C_o increases.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR UDC 621/165-253.5-226.3:533.6.001.4

PAVLOVSKIY, A. Z.

"Investigation of Supersonic Turbine Stages"

Materialy Nauch.-Tekhn. Konf. Kaluzh. Fil. MVTU--Sbornik (Materials of the Scientific and Technical Conference of the Kaluga Branch of the Moscow Higher Technical School imeni N. E. Bauman--Collection of Works), 1972, p 71 (from Referativnyy Zhurnal--Turbostroyeniye, No 2, 1973, Abstract No 2.49.25)

Translation: The nozzle cascade of a supersonic turbine stage has in its outlet section a complex wave structure. Intersection of the channels increases its complexity. The energy loss level in nozzle cascades at Mach numbers greater than 3.5 is equal to 16-18%. Losses from the axial gap and the radial gap in the shroudless supersonic stage depend upon the value of the gaps, the degree of inflow, the Mach number, the velocity ratio U/C_o, and the stream moisture Uzt. In the investigated Mach-number range, choking of the working cascade can originate if the condition $\frac{F_{min\ blade}}{F_{jet\ orfice}} > 1.5$ is not satisfied. The intensity of the influence of the Mach number upon stage efficiency is considerable, and virtually does not depend upon the partiality of the stage. The procedure for calculation of the losses due to partiality

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR

PAVLOVSKIY, A. Z., Materialy Nauch.-Tekhn. Konf. Kaluzh. Fil. MVTU--Sbornik, 1971, p 71

in a turbine stage takes into account a large number of geometric and regime parameters, and yields good coincidence with the experimental data. The influence of steam moisture U_{zt} upon the efficiency and degree of reactivity of the supersonic stage is considerably smaller than for the subsonic stage, and comprises 0.3-0.5% per 1% of secondary moisture. When the supersonic stage is operating on moist steam, wave losses of energy decrease in comparison to wave losses of energy on superheated steam. The distinction decreases as the velocity ratio U/C_0 increases.

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

172 035 UNCLASSIFIED

TITLE--EXPERIMENTAL STUDY OF THE AREA RATIO OF STATOR AND ROTOR LATTICES OF SUPERSONIC STAGES -U- PROCESSING DATE--16OCT70

AUTHOR-(02)-PRYAKHIN, V.V., PAVLOVSKIY, A.Z.

COUNTRY OF INFO--USSR

SOURCE--MOSCOW, TEPLOENERGETIKA (THERMAL POWER), 1970, NO 1, PP 81-83

DATE PUBLISHED--------70

SUBJECT AREAS--ENERGY CONVERSION (NON-PROPULSIVE), PHYSICS

TOPIC TAGS--SUPERSONIC FLOW, TURBINE ROTOR, TURBINE STATOR

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1981/1730 STEP NO--UR/0096/70/000/001/0081/0083

CIRC ACCESSION NO--AP0051518

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

UNCLASSIFIED

CIRC ACCESSION NO--AP0051518 PROCESSING DATE--16OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. RESULTS ARE PRESENTED OF AN EXPERIMENTAL STUDY OF THE RATIO OF THE FLOW AREAS OF ROTOR AND STATOR LATTICES OF SUPERSONIC STAGES. THE CRITICAL FLOW PHENOMENA IN STAGES OF THIS TYPE ARE ANALYZED. ONE TABLE, FIVE FIGURES, THREE REFERENCES.

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USSR

UDC: 621.165.536.24.001.5

PAVLOVSKIY, G. I., PAVLOVSKIY, V. G., SOLOVEY, V. V.,

"Study of Heat Exchange in the Intershell Space of a Turbine"

Issledovaniye Teploobmena v Mezhkorpusnom Prostranstve Turbiny /English version above/, Institute of Problems of Machine Building, Khar'kov, 1973, 7 pp (Translated from Referativnyy Zhurnal Turbostroyeniye, No 11, 1973, Abstract No 11.49.24 Dep)

Translation: This work presents a method for experimentation and experimental data on the investigation of heat exchange under unstable conditions on a model of the K-300-240 steam turbine. The criterial equation

$$Nu_{f,d}=0.077Re_{f,d}^{0.8}\left(\frac{T_w}{T_f}\right)^{0.45}$$

is produced, where the defining dimension used is the clearance between the walls of the inner and outer cylinders, the defining temperature is the mean temperature of superheated steam over the time interval of heating of the turbine body. The equation is recommended for determination of the heat exchange factor in the intershell space in the turbine. 2 Figures; 3 Biblio. Refs.

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EQUIPMENT
Gyroscopic

USSR

UDC 531.383

PAVLOVSKIY, M. A. and RYZHKOV, L. M., Kiev Polytechnical Institute

"The Influence of Clearances Upon the Behavior of a Gyroscope During Vibration of the Base"

Kiev, Prikladnaya Mekhanika, Vol 9, No 7, Jul 73, pp 66-73

Abstract: An evaluation is made of the influence of clearances in the mounts of the inner frame upon gyroscope drift in the case of arbitrary harmonic vibration of the base in a horizontal plane, with account taken of finite rigidities of the structural elements. It is assumed that the rigidity values are high, and that the frequencies of the natural oscillations considerably exceed the vibration frequency. It is shown that the influence of the clearances and that of pliancy of the structure tend to compensate one another. At a specific combination of parameters, the presence of clearances and pliancy of the structure will not bring about gyroscope drift. A comparative evaluation is made of the disturbing moments around the axis of rotation of the outer gimbal for elliptical and linear vibration of the base.

From the analysis, the conclusion is drawn that the influence of clearances in the mounts upon gyroscope drift during vibrations of the base can be decreased in the following ways: a) decreasing the axial and radial clearances

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USSR

PAVLOVSKIY, M. A. and RYZHKOV, L. M., Prikladnaya Mekhanika, Vol 9, No 7, Jul 73, pp 66-73

in the mounts; b) application of the principle of equal structural rigidity, and provision of the relationship between the axial clearance and the radial clearance in accordance with the formulas provided for reducing the disturbing moment to zero for the cases of elliptical or linear vibration of the base; c) decreasing the amplitude of vibratory acceleration acting upon the gyroscope; autocompensation of the disturbing moments. 4 figures, 1 table. 2 references.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR UDC 531.01

PAVLOVSKIY, M. A., ODINTSOV, A. A.

"On the Nature of the Motion of an Integrating Gyroscope Under Regular Tossing of the Base"

Dokl. Yubileyn. nauch.-tekhn. konferentsii Fak. avtomat. sistem. Tomsk. politekhn. in-t (Reports of the Jubilee Scientific-Technical Conference of the Faculty of Automatic Systems. Tomsk Polytekhnical Institute), Tomsk, 1970, pp 47-53 (from RZh-Mekhanika, No 9, Sep 71, Abstract No 9A92)

Translation: The behavior of an integrating gyroscope under signal-frequency two-axial tossing of the base is discussed. The nonlinear differential equation with periodic coefficients that is discussed is solved by the harmonic balance method. Only a particular solution is investigated (higher h rmonics are not taken into account). These results are compared with the data of other authors obtained using different methods of approximate integration of the equations of an integrating gyroscope. It is shown that under tossing of the base the difference in the output signals of two identical integrating gyroscopes with opposing rotors does not contain a constant component and is a periodic function of time. G. A. Slomyanskiy.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR UDC 531.768

PAVLOVS'KYY, M. A., Kiev Polytechnic Institute

"On the Character of the Motion of a Horizontal Pendulum on a Vibrating Base"

Kiev, Dopovidi Akademiyi Nauk Ukrayins'koyi RSR, Seriya A -- Fizyko-Tekhnichni ta Matematychni Nauky, No 11, Nov 70, pp 1019-1023

Abstract: The article compares the respective solutions obtained by the method of harmonic balance and the method of successive approximations for the problem of determining the angular rotational velocity of a horizontal pendulum on a vibrating point of support. The differential equation of motion for the horizontal pendulum takes the form

$$\ddot{\varphi} + 2h\varphi = \lambda \sin(\omega t + \sigma) \cos\varphi + \mu \sin \omega t \sin \varphi,$$

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USSR

PAVLOVS'KYY, M. A., Dopovidi Akademiyi Nauk Ukrayins'koyi RSR, Seriya A -- Fizyko-Tekhnichni ta Matematychni Nauky, No 11, Nov 70, pp 1019-1023

where φ is the angle of deflection of the pendulum, 2h the damping factor, μ, λ the corresponding vibration parameters, ω the vibration frequency, σ the phase displacement.

The solution of the above equation can be represented in the form of the following series:

$$\varphi \approx A + Be^{-2ht} + a_0 t + m_1 \sin a_0 t + n_1 \cos a_0 t + a_1 \sin \omega t + b_1 \cos \omega t +$$
$$+ r_1 \sin (\omega + a_0) t + p_1 \cos (\omega + a_0) t + l_1 \sin (\omega - a_0) t + s_1 \cos (\omega - a_0) t +$$
$$+ \ldots = A + Be^{-2ht} + a_0 t + f_0 (a_0 t) + f_1 (\omega t) +$$
$$+ f_2 [(\omega + a_0) t] + f_3 [(\omega - a_0) t] + \ldots,$$

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USSR

PAVLOVS'KYY, M. A., Dopovidi Akademiyi Nauk Ukrayins'koyi RSR, Seriya A -- Fizyko-Tekhnichni ta Matematychni Nauky, No 11, Nov 70, pp 1019-1023

where A, B are integrations quantities and a_0, m_1, n_1, a_1, b_1, r_1, p_1, l_1, s_1 are unknown coefficients.

Of greatest interest is the expression for the systematic rotation of the horizontal pendulum (a_0), which, provided that $4ha_{01} \ll 1$, takes the form

$$a_0 = \frac{\mu\lambda \sin\sigma}{2\omega(4h^2+\omega^2)} + \frac{\mu\lambda(\omega^2\cos\sigma - 2h\omega\sin\sigma)}{16h\omega^2(4h^2+\omega^2)} \cdots$$

$$- \frac{\mu\lambda}{4h\omega^2(4h^2+\omega^2)} \sqrt{\left(\omega^2\cos\sigma - \frac{h\omega}{2}\sin\sigma\right)^2 + \frac{\omega^4}{16}\left[5 - 2\left(\frac{\mu}{\lambda} + \frac{\lambda}{\mu}\right)\right]}.$$

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USSR

PAVLOVS'KYY, M. A., Dopovidi Akademiyi Nauk Ukrayins'koyi RSR, Seriya A -- Fizyko-Tekhnichni ta Matematychni Nauky, No 11, Nov 70, pp 1019-1023

The value of a_0 obtained by the method of successive approximations in this case will be

$$a_0^* = \frac{\mu\lambda \sin\sigma}{2\omega(4h^2+\omega^2)} - \frac{\mu\lambda\cos\sigma}{4h(4h^2+\omega^2)}.$$

In individual cases, given $\sigma = 0$ and $\sigma = \frac{\pi}{2}$, if $\lambda = \mu$, formula (9) with the use of expression (10) will take the form

a)

$$a_0 = \frac{\sqrt{17}-1}{4} a_0^* \quad \text{given} \quad \sigma = 0;$$

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR

PAVLOVS'KYY, M. A., Dopovidi Akademiyi Nauk Ukrayins'koyi RSR, Seriya A -- Fizyko-Tekhnichni ta Matematychni Nauky, No 11, Nov 70, pp 1019-1023

(11)

b) $$a_0 = \left(\frac{3}{4} - \frac{\sqrt{4h^2 + \omega^2)}}{8h}\right) a_0^* \text{ given } \sigma = \frac{\pi}{2} .$$

Thus, in these cases $|a_0| < |a_0^*|$.

Expression (9) for the constant component of the angular velocity $\dot{\varphi}$ characterizes its mean value $\langle \dot{\varphi} \rangle$ for a time interval of the order of $\frac{2\pi}{a_0}$. But if the mean value $\langle \dot{\varphi} \rangle$ is considered for a time interval considerably less than the above-indicated interval, it is possible in this case to use the formula

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USSR

PAVLOVS'KYY, M. A., Dopovidi Akademiyi Nauk Ukrayins'koyi RSR, Seriya A -- Fizyko-Tekhnichni ta Matematychni Nauky, No 11, Nov 70, pp 1019-1023

$$\langle\dot{\varphi}\rangle = a_0(1 + m_1),$$

which is easily obtained from (2) if $\cos a_0 t \approx 1$; $\sin a_0 t \approx a_0 t$.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR

UDC 621.372.82

VALDNER, O. A., ZVEREV, B. V., PAVLOVSKIY, V. A., SOBENIN, N. P.

"Calculating the Wave Guide Accelerating Section with Constant Gradient"

Tr. Vses. soveshchaniya po uskoritelyam zaryazhen. chastits, 1968, T 2 (Works of the All-Union Conference on Charged Particle Accelerators, 1968, Vol 2), Moscow, VINITI Press, 1970, pp 173-178 (from RZh-Radiotekhnika, No 8, Aug 70, Abstract No 8B133)

Translation: This article contains a discussion of two methods of approximate calculation of an accelerating section with the help of experimental graphs. The first of them is based on the assumption that the group velocity decreases linearly along the length of the wave guide; in this case the experimental relation $E_0\lambda/\sqrt{P} = A/(\beta_{gr})^{\chi}$ where E_0 is the intensity of the accelerating field, P is the superhigh-frequency power in the wave guide; β_{gr} is the group velocity; A and χ are defined by the geometry of the wave guide and selection of the type of oscillations. The second method begins with the relation $E_0\lambda/\sqrt{P} = k_1/(a/\lambda)^2$ where a is the radius of the hole in the diaphragm and k_1 depends on the type of oscillations. This method is used for increased values of the length of the sections and accelerated current when the linearity of variation of the group velocity is violated. There are five illustrations and a three-entry bibliography.

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USSR

UDC: 621.165.536.24.001.5

PAVLOVSKIY, G. I., PAVLOVSKIY, V. G., SOLOVEY, V. V.,

"Study of Heat Exchange in the Intershell Space of a Turbine"

Issledovaniye Teploobmena v Mezhkorpusnom Prostranstve Turbiny /English version above/, Institute of Problems of Machine Building, Khar'kov, 1973, 7 pp (Translated from Referativnyy Zhurnal Turbostroyeniye, No 11, 1973, Abstract No 11.49.24 Dep)

Translation: This work presents a method for experimentation and experimental data on the investigation of heat exchange under unstable conditions on a model of the K-300-240 steam turbine. The criterial equation

$$Nu_{f.d}=0.077Re_{f.d}^{0.8}\left(\frac{T_w}{T_f}\right)^{0.45}$$

is produced, where the defining dimension used is the clearance between the walls of the inner and outer cylinders, the defining temperature is the mean temperature of superheated steam over the time interval of heating of the turbine body. The equation is recommended for determination of the heat exchange factor in the intershell space in the turbine. 2 Figures; 3 Biblio. Refs.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR

UDC 532.516

PAVLOVSKIY, V. V.

"Weak Plane-Parallel Jets of a Viscous Liquid"

Izv. Leningr. elektrotekhn. in-ta (News of Leningrad Electrical Engineering Institute), 1972, No. 109, pp 46-49 (from RZh-Mekhanika, No 3, Mar 73, Abstract No 3B795)

Translation: An approximate solution is constructed for the problem of a weak laminar plane jet flowing from an infinite plane slit. Inertia terms are discarded in the Navier-Stokes equations and an analytical solution is found for the shortened equation. The extent of the region of applicability of the resulting solution is evaluated as a function of the Reynolds number. V. D. Vilenskiy.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

Mechanical Properties

USSR UDC 621.785:621.9-462

POZDNYAKOV, L. G., GANZULYA, A. P., DEMENT'YEVA, ZH. A., ATAMANENKO, V. A., PAVLOVTSEVA, N. M., and BUTENKO, V. F.

"Investigation of the Effect of Single- and Double-Sided Cooling in Temper Hardening of Pipes on Their Mechanical Properties"

Dnepropetrovsk, Metallurgicheskaya i Gornorudnaya Promyshlennost', No 5, Sep-Oct 70, pp 38-40

Abstract: A study was made to determine the effect on mechanical properties of single- and double-sided cooling in temper hardening of low-carbon steel pipes intended for use in pipe lines in the Extreme North. Tempering of low-carbon 14KhGS steel sheets 11 mm thick was done at 900°C in a water tank (double-sided cooling) and under spraying (single-sided cooling), simulating cooling conditions in service, followed by annealing at 600°C for 1 hour. Tests were also conducted on pipes 1020 mm in diameter with an 11 mm wall thickness. The experiment procedure and equipment are described and the variation of mechanical and physical properties across the sheet thickness is shown. The structure obtained after tempering with single- and double-sided cooling

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USSR

POZDNYAKOV, L. G., et al, Metallurgicheskaya i Gornorudnaya Promyshlennost', No 5, Sep-Oct 70, pp 38-40

was found to be the same. The authors recommend single-sided cooling, which appears to be more suitable for tempering large-diameter pipes, with wall thickness up to 12 mm made of low-carbon 14KhGS and 17GS steels.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR

UDC 621.382.002

YEMEL'YANOV, A.V., PAVLOVA, YE.YE., PASHINTSEV, YU.I.

"Alloy Contact Of Tin--Gallium Arsenide"

Elektron. tekhnika. Nauchno-tekhn. sb. Poluprovodn. pribory (Electronic Technology. Scientific-Technical Collection. Semiconductor Devices), 1970, No 1(51), pp 182-188 (from RZh--Elektronika i yeye primeneniye, No 12, December 1970, Abstract No 12B443)

Translation: The possibility is investigated of obtaining, at temperatures of 250 ÷ 450° C, a low-resistance ohmic contact of tin with gallium arsenide which is used for production of Gunn diodes. It is shown that the minimum resistance of the contact and 100 percent wetting of gallium arsenide is obtained by fusing in of tin with of tin chloride as a flux at temperatures of 350° C and above. 7 ref. Summary.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

1/2 013 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--HOLMIUM AND RUBIDIUM DOUBLE SULFATE --U--

AUTHOR--PAVLOVVEREVKIN, B.S.

P

COUNTRY OF INFO--USSR

SOURCE--ZH. NEORG. KHIM. 1970, 15(3), 892-3

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--SULFATE, HOLMIUM COMPOUND, RUBIDIUM COMPOUND, CHEMICAL SYNTHESIS, CRYSTALLIZATION, CRYSTAL HYDRATE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1994/1876 STEP NO--UR/0078/70/015/003/0892/0893

CIRC ACCESSION NO--AP0115695

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

2/2 013 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0115695

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. MIXING OF EQUIMOLAR CONCD. SOLNS OF HO AND RB SULFATES AND SUBSEQUENT EVAPN. OF THE SOLVENT AT 10DEGREES GAVE CRYST. HO SUB2(SO SUB4)SUB3.RBSO SUB4.8H SUB2 O (I). I FORMS MONOCLINIC PRISM CRYSTALS OF L SUB2 P C SYMMETRY.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

1/2 014 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--DECONTAMINATION OF RADIOACTIVE WASTES FROM PRIME55 FE PRODUCTION -U-

AUTHOR--PAVLOVVEREVKIN, B.S.

COUNTRY OF INFO--USSR

SOURCE--AT. ENERG. (USSR); 28: 69-70 (JAN 1970)

DATE PUBLISHED--------70

SUBJECT AREAS--NUCLEAR SCIENCE AND TECHNOLOGY

TOPIC TAGS--NUCLEAR DECONTAMINATION METHOD, IRON ISOTOPE, RADIOACTIVE WASTE DISPOSAL, DILUTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1979/1830 STEP NO--UR/0089/70/028/000/0069/0070

CIRC ACCESSION NO--AP0048133

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

2/2 014 UNCLASSIFIED PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0048133

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DEACTIVATION OF PRIME55 FE WITH A HALF LIFE OF 2.9 YEAR WHICH WITH K CAPTURE CONVERTS INTO THE STABLE ISOTOPE PRIME55 MN WITH IRRADIATION ENERGY OF 5.9 KEV WAS STUDIED. EXPERIMENTS ON COAGULATION DEACTIVATION OF PRIME55 FE SHOWED THAT THE RESIDUAL SPECIFIC ACTIVITY OF SOLUTIONS DID NOT DEPEND ON THE INITIAL ACTIVITY AND ORDINARILY CONTAINED NEARLY 1 TIMES 10 PRIME NEGATIVE9 CI-L (WHICH WAS APPROXIMATELY 30 FOLD LOWER THAN THE PERMISSIBLE DOES OF PRIME55 FE). IT WAS SHOWN THAT PRELIMINARY DILUTION OF WASTE CONTAINING PRIME55 FE WAS NOT NECESSARY AND GOOD RESULTS WERE OBTAINED BY DIRECT COAGULATION. THE RESULTING SPECIFIC ACTIVITY OF THE MATERIAL WAS BELOW THE PDC AND THE GENERAL AMOUNT OF THE RADIOISOTOPE BURIED IN A WATER BASIN WAS BELOW THE AMOUNT OBTAINED WITH PRELIMINARY DILUTE MATERIAL.

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PAVLUCHKOVA, A. V.

JPRS 55570
29 Mar 72

UDC: 613.816:061.22(47)

THE HISTORY OF FOUNDATION AND ACTIVITIES OF THE ALL-UNION SOCIETY FOR CONTROL OF ALCOHOLISM

[Article by Ye.I. Lotov, doctor of medical sciences, and A.V. Pavluchkova, Department of History of Medicine, All-Union Scientific Research Institute of Social Hygiene and Public Health Organization imeni N.A. Semashko, Moscow; Moscow, Sovetskoye Zdravookhraneniye, Russian, No 2, 1972, submitted 28 September 1971, pp 65-69]

"It is unlikely that we could find another sociohygienic problem that has been studied for so long and so much, that would have such an extensive international literature, around which such active propaganda developed, about which so many pamphlets, articles and appeals have been written, so many conferences have convened, and so many mass experiments have been performed," is what the well known social hygienist, A.V. Molkov [1] wrote about alcoholism. These lines, which were written over 45 years ago, reflect the complexity of the problem of fighting against alcoholism.

According to the data of WHO [World Health Organization], there has been a sharp rise in mortality due to alcoholism in the last five years; in many countries it is surpassed only by mortality due to cardiovascular disease and cancer. In spite of this, the consumption of alcoholic beverages in the entire world not only fails to decline but even increases from year to year.

Medical historians are called upon to investigate the experience in fighting against alcoholism in Russia and the USSR, to analyze its causes, to demonstrate advances, achievements, and mistakes made in organizing the fight against alcoholism in our country and thus to direct the knowhow of history to serve the present and the future. History shows that there were beneficial efforts in this field in the late 1920s and early 1930s that could be applied today.

The work done by the All-Union Society for the Control of Alcoholism, which was in the center of the fight against alcoholism in the USSR, was extremely interesting and educational. It would be interesting to recall the names of the people who contributed much effort, labor, and energy to this matter and were able to enlist millions of workers in the fight against the age-old evil and instill in them faith in their success. Heavy drinking was

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USSR UDC: 681.327.66

BEKH, A. D., KORSUNSKIY, V. M., PAVLUS', B. I., CHERNETSKIY, V. V., Institute of Cybernetics of the Academy of Sciences of the Ukrainian SSR

"An Accumulator"

Moscow, Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, No 5, Feb 71, Author's Certificate No 293267, Division G, filed 4 Dec 69, published 15 Jan 71, pp 170-171

Translation: This Author's Certificate introduces an accumulator which contains memory elements in the form of flat magnetic films on dielectric substrates, as well as number and digit lines and a current-conducting base. As a distinguishing feature of the patent, the effect of the number current on neighboring memory elements is reduced and the density of the memory elements is increased by adding conductors between the number lines, the ends of the additional conductors being connected to the current-conducting base.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR UDC 535.8:666.211.189-7

IGUMNOV, N. I., and PAVLUKHIN, O. I.

"New Light Guide for the Infrared Range"

V Sb. "Vopr. Teorii i Tekhn. Avtomat. Sistem" [In the Collection "Problems of the Theory and Technology of Automatic Systems"], Dnepropetrovsk, 1971, pp 116-126 (from Referativnyy Zhurnal, No 11, Nov 72, 32. Metrologiya i Izmeritel'naya Tekhnika. Single Issue. Abstract No 11.32.1102)

Translation: In the practice of modern production and in different investigations it is often necessary to perform a contactless temperature control of different bodies and objects of small sizes or of almost inaccessible surfaces heated up to relatively not high temperatures corresponding to the infrared range of radiated wave lengths, 3-8 μm. Modern optical methods using lens and optical reflection systems (in the form of curved mirrors) can prove to be unsuitable in the actual case, owing to the impossibility to eliminate effects of the background radiation on the result of measurement, effects of outside radiations, or effects of heated neighboring surface sections. A description is presented of the light conducting optical system, making possible not only to exclude effectively the mentioned factors, but also to eliminate at the same time considerably or completely the effect of the intermediate medium between the

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USSR

IGUMNOV, N. I. and PAVLUKHIN, O. I., V Sb. "Vopr. Teorii i Tekhn. Avtomat. Sistem", 1971, pp 116-126

temperature sensor and the control volume on the result of the measurement. Five illustr., seven biblio. refs.

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

Heat Treatment

USSR

UDC 669.295.018.29.621.785

ZHIKHAREV, V. V., YEVSEYEVA, I. A., CHUPRIKOV, A. V., ROMANOVA, N. A., PAVLUSHINA, G. M., OSADCHIY, V. B.

"Influence of Heat Treatment on Special Properties of Titanium Foil"

Nauchn. Tr. N-i. i Proyektn. In-t Redkometal. Prom-sti [Scientific Works of Scientific Research and Planning Institute for the Rare Metals Industry], 1971, Vol. 32, pp. 83-87. (Translated from Referativnyy Zhurnal Metallurgiya, No. 5, 1971, Abstract No. 5 I695 by the authors).

Translation: The influence of heat treatment on the special properties of Ti foil designed for the production of solid electrolytic condensers is studied. 3 figs; 1 table, 4 biblio refs.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

USSR UDC: 621.319.4

KOVALEV, K. S., ZHIKHAREV, Yu. V., VINOGRADOV, V. V., YEVSEYEVA, I. A., ROMANOVA, P. A., PAVLUSHINA, G. M.

"Some Singularities of Heat Treatment in the Production of Capacitor Foil From Tantalum"

Nauchn. tr. N.-i. i proyektn. in-t redkomet. prom-sti (Scientific Works of the Scientific Research and Design Institute of the Rare Metals Industry), 1971, 32, pp 71-76 (from RZh-Radiotekhnika, No 5, May 71, Abstract No 5V329)

Translation: An investigation is made into the heat treatment of thin foils in connection with solution of the problem of making high-quality capacitor foil from tantalum. Three illustrations, one table, bibliography of three titles. Resumé.

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USSR

UDC 666.1/.2:620.178.1

PAVLUSHKIN, N. M., KHODAKOVSKAYA, R. YA., and SHCHEGLOVA, O. V., Moscow Chemical Engineering Institute imeni Mendeleyev

"Method of Determining the Microbrittleness of Sitals"

Moscow, Zavodskaya Laboratoriya, Vol 39, No 6, Jun 73, pp 738-740

Abstract: The work of crack formation A_k and establishment of a relationship between A_k and bend strength was attempted in this work in order to determine if they could serve as a criterion of microbrittleness in sitals. Sitals of cordierite composition were heat treated at 900, 950, 1000, 1100 and 1200°C. The work of crack formation was determined by the formula:

$$A_k = C \cdot P_k \sqrt{P_k/H_k} \text{ grams-force-cm}$$

where C--constant depending on geometry of diamond pyramid, i.e., ratio of indentation depth h to diagonal d (calculated such that for h/d = 0.2, C = 0.91); P_k--critical load required to apply to cause formation of crack of specified length; H_k--Vickers hardness of material for load P_k. A crack length of 20 microns was selected as the specified length for test comparison. The method of determining microbrittleness involved measuring total crack length under three loads (100, 150, and 200 grams-force or higher in relation to sital strength, plotting the line of total crack length and determination of critical load P_{k20},

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USSR

PAVLUSHKIN, N. M., et al., Zavodskaya Laboratoriya, Vol 39, No 6, Jun 73, pp 738-740

and calculation of microhardness (average of 10 values) for load P_{k20} and the work of crack formation. It was found that A_{k20} for the investigated sitals varied from 1.4 to 2.8 grams-force-cm and bend strength from 7 to 22 kgf/mm^2. Statistical treatment of the obtained data showed that there was a linear relationship between bend strength and total crack length, P_{k20}, and A_{k20}. 3 figures, 7 bibliographic references.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002202410002-8

UDC: 666.117.9

USSR

ARTAMONOVA, M. V., LITVINOV, A. V., MINAKOV, A. G., MINAKOV, V. A., PAVLUSHKIN, N. M., STREKALOV, A. V., Konstantinovskiy "Order of the Red Banner of Labor" Plant "Avtosteklo"

"A Photochromic Glass"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 10, Apr 72, Author's Certificate No 332059, Division C, filed 26 Jan 70, published 14 Mar 72, pp 85-86

Translation: This Author's Certificate introduces: 1. A photochromic glass containing SiO_2, Al_2O_3, B_2O_3, Li_2O, P_2O_5, CaO and Ag. As a distinguishing feature of the patent, the chemical resistance and mechanical strength of the glass are increased by taking the above-mentioned components in the following proportions (in wt.%):

SiO_2	64-81
Al_2O_3	3-21
B_2O_3	0.1-3.8
Li_2O	8-15
P_2O_5	1-4

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