

2/2 026

UNCLASSIFIED

PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0116116

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

ABSTRACT. AN EXAMINATION OF WORKERS EXPOSED TO THE EFFECT OF CARBON DISULFIDE IN CONCENTRATIONS OF 30-60 MG-M PRIME3 DISCLOSED THE PRESENCE OF THE INITIAL FORMS OF CHRONIC CARBON DISULFIDE POISONING IN THE SHAPE OF VEGETATIVE VASCULAR DYSFUNCTION (NOT INFREQUENTLY WITH HYPERTENSIVE REACTIONS) AND OF THE ASTHENO VEGETATIVE SYNDROME, OFTEN APPEARING IN CONJUNCTION WITH SIGNS OF MILDLY PRONOUNCED VEGETATIVE SENSITIVE POLYNEURITIS, COMMONLY DEVELOPING IN PERSONS WITH LONG SERVICE RECORDS. IN THE INITIAL FORMS OF POISONING A NUMBER OF NONSPECIFIC CHANGES IN INDIVIDUAL BIOCHEMICAL BLOOD AND URINE INDEXES WERE ELICITED, WHEREBY IN CASES OF VEGETATIVE VASCULAR DYSFUNCTION OF A DECLINE OF THE PSEUDO CHOLINESTERASE ACTIVITY AND A FALL OF THE BLOOD CHLORIDE CONCENTRATION, ALONG WITH AN ELEVATED CATECHOLAMINES EXCRETION (WITH NORPINEPHRINE BEING COMMONLY RESPONSIBLE FOR IT) OCCURRED MUCH MORE OFTEN THAN IN THE ASTHENIC FORM OF POISONING. PERSONS EXPOSED TO CARBON DISULFIDE CONCENTRATION NOT SURPASSING THE MAXIMUM PERMISSIBLE LEVEL (10 MG-M PRIME3) ALSO DEMONSTRATE INITIAL FORMS OF CHRONIC CARBON DISULFIDE POISONING, ALTHOUGH IN FEWER CASES. THIS MAKES IT NECESSARY TO LOWER THE FIXED MAXIMUM PERMISSIBLE CONCENTRATION LEVEL OF CARBON DISULFIDE IN CONSIDERATION OF THE INHALATION AND CUTANEOUS ROUTS OF ITS INGRESS INTO THE ORGANISM. FACILITY: INSTITUT GIGIYENY TRUDA I PROFZABOLEVANIY AMN SSSR.

UNCLASSIFIED

USSR

UDC 616.1-02:613:647:538.3

GLOTOVA, K. V. and SADCHIKOVA, M. N., Institute of Labor Hygiene and Occupational Diseases, Academy of Medical Sciences USSR, Moscow

"Characteristics of the Development and Clinical Course of Cardiovascular Shifts Due to Chronic Exposure to Ultrahigh-Frequency Electromagnetic Fields"

Moscow, Gigiyena Truda i Professional'nyye Zabolevaniya, No 7, Jul 70, pp 24-28

Abstract: Experimental and clinical results have indicated that exposure to microwaves in the centimeter range produces shifts in the nervous system. A study was made of 105 patients who had been chronically exposed to such radiation for many years to determine cardiovascular shifts. Most of the patients with an asthenic syndrome complained of headaches and irregular sleep. Many reported pain in the heart region and exhibited arterial hypertension. Another group of patients exhibited autonomic-vascular dysfunction, frequently accompanied by hypothalamic insufficiency and hypertensive and angiospastic reactions producing disturbances in the cerebral and coronary circulation. The work capacity of these patients was greatly reduced. Sinus bradycardia was observed electrocardiographically in some patients. It was concluded that the reactions of the cardiovascular system to microwave fields are clearly linked to shifts in the nervous system, particularly in the highly autonomic

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GLOTOVA, K. V. and SADCHIKOVA, M. N., Gigiyena Truda i Professional'nyye
Zabolevaniya, No 7, Jul 70, pp 24-28

branches, and that they depend on individual characteristics of the organism.

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1/3 029 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--THE STATE OF THE CARDIOVASCULAR SYSTEM IN CHRONIC CARBON DISULFIDE
POISONING -U-
AUTHOR--(02)-MONAYENKOVA, A.M., GLOTOVA, K.V.
COUNTRY OF INFO--USSR
SOURCE--KLINICHESKAYA MEDITSINA, 1970, VOL 48, NR 3, PP 60-64
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--CARBON DISULFIDE, POISON, CARDIOVASCULAR SYSTEM, BLOOD
PRESSURE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--3001/0584 STEP NO--UR/0497/70/043/003/0060/0064
CIRC ACCESSION NO--AP0126322
UNCLASSIFIED

2/3 028

UNCLASSIFIED

PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0126322

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE ARTICLE DEALS WITH A DETAILED CLINICAL EXAMINATION OF 91 PATIENTS INVOLVING THE USE OF TACHO OSCILLOGRAPHY, ELECTROCARDIOGRAPHY AND POLYCARDIOGRAPHY. THE CLINICAL MANIFESTATIONS IN THE MAJORITY OF PATIENTS WITH CARBON DISULFIDE POISONING WERE CHARACTERIZED BY FUNCTIONAL CHANGES OF THE NERVOUS SYSTEM, IN THE FORM OF VEGETATIVE AND VASCULAR DYSFUNCTION, THE ASTHENOVEGETATIVE SYNDROME, WHEREBY IN A NUMBER OF CASES THERE WERE SEEN ORGANIC CHANGES IN THE FORM OF ENCEPHALOPOLYNEURITIS. AMONG THE PATIENTS, DEPENDING UPON THE STATE OF HIGHER VEGETATIVE REGIONS OF THE NERVOUS SYSTEM, THE AUTHORS SINGLED OUT PERSONS WITH INVOLVEMENT OF THE HYPOTHALAMIC DIENCEPHALIC REGION. TACHO OSCILLOGRAPHIC REGISTRATION OF THE ARTERIAL PRESSURE DISCLOSED AN INCREASE OF THE MAXIMAL BY 33PERCENT, TRUE LATERAL BY 45PERCENT, MEDIAN DYNAMIC BY 42PERCENT AND MINIMAL PRESSURE BY 38PERCENT OF CASES. REPEATED MEASUREMENTS REVEALED AN INSTABILITY OF THE ARTERIAL PRESSURE WITH A TENDENCY TO HYPOTENSIVE (23PERCENT) OR HYPERTENSIVE (48PERCENT) REACTIONS. CHANGES OF THE HEART ARE PREDOMINANTLY OF DIFFUSE DYSTROPHIC AND RARELY CORONARY SPASTIC CHARACTER WITH AN INSIGNIFICANT REDUCTION OF THE MYOCARDIAL CONTRACTILE FUNCTION. IN VIEW OF THE FACT THE HYPERTENSIVE FORM OF NEURCIRCULATORY DYSTONIA AND CHANGES OF THE MYOCARDIUM, AS A RULE, WERE OBSERVED IN PATIENTS WITH SIGNS OF DIENCEPHALIC PATHOLOGY, ONE COULD THINK OF THE RELATION OF THESE SHIFTS WITH FUNCTIONAL DISTURBANCE OF THE HYPOTHALAMUS.

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PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0128322

ABSTRACT/EXTRACT--THE ABOVE MENTIONED INVESTIGATIONS HAVE SHOWN THAT IN CHRONIC CARBON DISULFIDE POISONING, ALONG WITH ALTERATIONS OF THE NERVOUS SYSTEM, A NOT LESS CHARACTERISTIC CLINICAL PECULARITY IS THE GREAT LABILITY OF THE ARTERIAL PRESSURE WITH A PREVALENCE OF HYPERTENSIVE REACTIONS. THE DEVELOPMENT OF NEUROCIRCULATORY DYSTONIA AND HYPERTENSIVE VASCULAR DISEASE AGAINST THE BACKGROUND OF OTHER SYMPTOMS OF POISONING IS, APPARENTLY, ASSOCIATED WITH THE EFFECT OF CARBON DISULFIDE. THE REFERRED TO CHANGES OF THE HEART DO NOT LEAD TO CARDIAC DECOMPENSATION OR PERSISTENT CORONARY INSUFFICIENCY, HOWEVER IN A NUMBER OF CASES THEY ARE ONE OF THE CAUSES OF DECREASE OF THE WORKING CAPACITY IN PATIENTS. FACILITY: INSTITUT GIGIYENY TRUDA I PROFZABOLEVANIY, AMN SSSR, MOSKVA.

UNCLASSIFIED

Superalloys

USSR

UDC 539.67

VLADIMIROVA, N. N., GLOTOVA, L. S., GORFINKEL', V. B., DUNAYEV, F. N.,
LOBANOVA, N. B., and YAKOVLEV, G. P.

"Effect of Magnetic Structure on Internal Friction of Nickel and Ferronickel Alloys"

Sb. "Vnutrenneye treniye v metallicheskih materialakh" (Internal Friction in Metallic Materials), Moscow, Izd-vo "Nauka," 1970, pp 187-191

Abstract: The effect of tensile stresses and heat treatment on the ferromagnetic internal friction of nickel, permalloy-66, and permalloy-50 is studied.

It is shown that the effect of external static tensile stresses on internal friction and vibration period depends on both the magnitude and sign of saturation magnetostriction of a given material. Hysteresis of the logarithmic decrement δ and of vibration period T was experimentally revealed from the magnitude of tensile stresses.

The effect of heat treatment for 66%Fe, 80%Ni alloys was determined. The magnetic structure obtained as a result of heat treatment affects the internal friction. 4 figures, 3 references.

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USSR

G UDC 621.318.2

GERTMAN, YU. M., DUBROV, N. F., and ~~GLOTOVA~~ GLOTOVA, L. S., UralNIICHM [expansion unknown]

"Effect of Texture on the Change of Magnetic Properties of Alloy 79NM"

Sverdlovsk, Fizika Metallov i Metallovedeniye, Vol 29, No 5, May 70, pp 963-967

Abstract: A study was made of the dependence of magnetic characteristics of 0.1- and 0.35-mm-thick strip on the degree of finite cold deformation. It is shown that direct cold strip rolling from a thickness of 6-3 mm to 0.35 or 0.1 mm and subsequent vacuum annealing at 1150° for a period of 4 hrs leads to an increase in magnetic permeability_{max} and magnetic permeability₀ up to ~20% as compared to strips which had undergone intermediate annealing. The improvement of magnetic properties was observed only during the use of protective coatings of the pure magnesium type which do not impede the development of crystalline texture.

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1/2 014 UNCLASSIFIED PROCESSING DATE--11SEP70
TITLE--POLYCONDENSATION OF FORMALDEHYDE IN WATER -U-

AUTHOR--GLOTOVA, YU.K., YENIKOLOPYAN, N.S. G

COUNTRY OF INFO--USSR

SOURCE--KINET. KATAL. 1970, 11(1), 41-5

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--POLYCONDENSATION, FORMALDEHYDE, CHEMICAL REACTION MECHANISM,
CATALYST, COMPLEX COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1989/0200

STEP NO--UR/0195/70/011/001/0041/0045

CIRC ACCESSION NO--AP0106856

UNCLASSIFIED

2/2 014

UNCLASSIFIED

PROCESSING DATE--11SEP70

CIRC ACCESSION NO--A0106856

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE KINETICS OF POLYCONDENSATION OF HCHO (OBTAINED BY THERMAL DECOMP. OF PARAFORMALDEHYDE IN A STREAM OF AR) IN AN AQ. SOLN. WAS STUDIED AT 45DEGREES IN AN AR ATM. THE INITIAL CONDENSATION RATE DECREASED WITH INCREASING INITIAL CONC. OF HCHO. THE CRIT. CONC. OF THE CATALYST (CA GLUCONATE) INCREASED WITH INCREASING INITIAL HCHO CONC. THE INITIAL CONDENSATION RATE IS A LINEAR FUNCTION OF THE CRIT. CA GLUCONATE CONC. AND THE SLOPE OF THIS RELATION DECREASED WITH INCREASING HCHO CONC. IT IS ASSUMED THAT THE BEHAVIOR OF THE CRIT. CA GLUCONATE CONC. IS DUE TO PARTIAL POISONING OF THE CATALYST BY HCO SUB2 H. THE PROPOSED MECHANISM INVOLVES INTERACTION OF CA GLUCONATE WITH HCHO, WHICH IS IN EQUIL. WITH THE MORE COMPLEX COMPOS.

UNCLASSIFIED

USSR

UDC 536.421.1:669.15.58-196

FRUMIN, I. I., KAS'YAN, V. V., GOLOVASHCHUK, A. I., GRABIN, V. P., and
RYABTSEV, I. A., Electric Welding Institute imeni Ye. O. Paton of the Academy
of Sciences UkrSSR

"Determination of the Heating Temperature in Rolling High-Carbon Chrome-
Titanium Steels"

Moscow, Stal', No 6, Jun 73, pp 546-548

Abstract: The temperatures of beginning fusion of eight high-carbon chromium steels with and without titanium were investigated with the help of a high-temperature microscope. The heating temperature in rolling or forging of ingots of high-carbon alloyed steels weighing up to 50 kg must be 10-20°C below the temperature of beginning fusion. For ingots of higher weight, considering possible development of liquation phenomena, the heating temperature must be somewhat lower. Titanium, hindering the development of a readily fusible ledeburite eutectic, in high carbon chromium steels raises their fusion temperature and extends the temperature range of deformation. The eutectic consists mainly of chromium carbides. The presence of carbon in the investigated steels lowers the fusion temperature and raises the quantity of ledeburite eutectic. Four figures, two tables three bibliographic references. 1/1

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USSR

MINDELL, M. SH., GLOVATSKIY, A.B., and CHERZER, A. N.

"Desulfurating Cast Iron at the Rustave Metallurgical Plant"

Moscow, Metallurg, No 2, 1971, pp 11-13

Abstract: Blast furnaces of 700 and 750 m³ capacity at the Rustava Metallurgical Plant smelt converted cast iron from a charge containing 30-35% crude ore from the Dashkesenskoye deposit and a 65-70% agglomerate made of this ore. Typical of the ore is the increased sulfur content (0.15-0.35%); the agglomerate contains 0.1-0.15% S. In 1965 a facility for treating cast iron in ladles with pig iron by forced introduction of the latter into the cast iron with a "bell-hopper" type device (later referred to as a "vaporizer"). Installation of a second monorail car with a separate section for charging the vaporizer with magnesium greatly increased the handling capacity of the facility. A difficult and time-consuming operation has been replacing malfunctioning vaporizers. To solve this, a device consisting of a rotating mechanism of the blast furnace electric charging barrel with a small circular platform to accommodate four ready vaporizers at the same time was installed. The unit serves to desulfurate cast iron and was designed after the facilities at the Donetsk and the Kramatorsk plants. From January to May 1970, about 75,000 tons of converted cast iron with an average sulfur content of 0.081% were treated

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USSR

MINDELI, M. SH., et al, Moscow, Metallurg, No 2, 1971, pp 11-13

in the facility. All the treated cast iron was placed in category I-II as to sulfur content. In August-September 1970 the facility was again redesigned. Two vaporizers were installed on one of the cars. The second car was fitted with an independent department for charging. At the present time three vaporizers in two cars are simultaneously in operation. The flat lid which formerly covered the ladle containing cast iron during the desulfuration was replaced by a trapezoidal-shaped lid insert. This made it possible to fill the ladle with more cast iron. The sulfur content in the cast iron was reduced from a high of 0.100% to a low of less than 0.006%. The consumption of Mg, in kg per ton of cast iron, ranged from 1.0 to 0.40.

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Corrosion

USSR

UDC 669.14.018.293:621.792,
.053:620.143

VEYNGARTEN, A. M., GOMAN, G. M., GOLOVCHENKO, V. S., KLIMOVA, V. A., and
SITALOV, V. P.

"Corrosion of Hull Steel Weldments"

Leningrad, Sudostroyeniye, No 6, Jun 73, pp 40-43

Abstract: The influence of the thermal cycle of weldments on the corrosion resistance of shipbuilding steels was investigated on butted specimens of 09G2, 10KhsND, and 4S standard hull steels in rapid-flowing sea water over a period of 1000 hrs. Various methods and welding practices were applied to determine the influence of the character of the thermal effect and of the cooling rate. The investigation results are discussed by reference to diagrams showing the heating and cooling curves in the thermal influence zone of 09G2 steel, the corrosion dependences on the welding energy and the cooling rate, and the corrosion resistance dependence on the condition of the burning off beading weld. The main factors affecting the corrosion resistance are the cooling rate on welding (according to the running welding energy in cal/cm) and the character of structural conversion of steel. At 4500-5000 cal/cm running energy, the resistance of 09G2 steel
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USSR

VEYNGARTEN, A. A., et al., Sudostroyeniye, No 6, Jun 73, pp 40-43

and 4S steel in the thermal influence zone is the same as that of the initial material. To avoid the development of selective corrosion in the thermal influence zone, welding with higher running energies or the use of burning off beads is recommended. Four figures, one table, four bibliographic references.

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Corrosion

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USSR

UDC: 621.791.656.3

MEDOVAR, B. I., MARTYN, V. M., CHEROTILO, L. V., VOSVILOV, N. M., KULEV, G. B., POLTAVETS, A. V., KRAVETS, N. I., and GLOZMAN, L. P.

"Corrosion Resistance of Joints of EP668 Alloy in Nitrogen- and Sulfur-Containing Media"

Kiev, Avtomaticheskaya Svarka, No 11, Nov 70, pp 67-68

Abstract: A study was made of the corrosion resistance of high-chromium alloy Kh50Ni5V (EP668) and its welded joints in highly aggressive media involved in the production of sulfuric and nitric acids. It was found that EP668 alloy and its welded joints have a high corrosion resistance in media containing nitrogen oxides NO and NO₂, natural gas with air, H₂S, SO₂, CO₂, and HCN gases. In these media the maximum corrosion rate of the parent metal and its welds is 0.019 g/m².hour. For comparison, tests were also conducted on the most extensively employed corrosion-resistant materials, including Kh18Ni10Ti, Kh18Ni12Ti2 (EPA45), OKh21Ni6Ti2 (EP54), titanium, aluminum, and St.3 steel. Under similar conditions these materials exhibited intensive corrosion. EP668 alloy is also resistant in ammonium carbonate solutions (43% NH₃, 34% CO₂, 23% H₂O) at 100°C and a maximum pressure of 200 atm.

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GLOZMAN, V.N.

MEDICINE

1-365

2X 016-017-36515.5

120

Dr. Sergei I. Gluzman, Candidate of Medical Sciences S. P. Kuznetsov, P. V. Spensky, Translocation of the common iliac artery.

The patient G., a 37-year-old woman, was admitted to the clinic on August 19, 1965, complaining of a dull pain in the right lower area and a swelling in the right side of the abdomen. She had been sickly since 1960. The diagnosis was established as fibrosarcoma of the retroperitoneal lymphatic system. On September 1, 1965, a right retroperitoneal lymphatic resection was performed. On the third day after the operation, the patient developed pain in the right leg, with numbness of the skin and weakness of the leg muscles, as well as a sharp drop in vital temperature and absence of pulse in the peripheral vessels. The new diagnosis was thrombosis of the common iliac artery.

On September 7, under anesthesia consisting of nitrous oxide and oxygen, combined with relaxants, the retroperitoneal lymphatic resection was repeated. After additional resection of the peripheral part, the right common iliac artery was found as far as the bifurcation of the aorta.

On examination, it developed that, commencing with the bifurcation of the aorta, on the right side of the iliac artery, there could be palpated a soft, elastic thrombus 10 cm long, and filling the entire lumen of the vessel.

Both ilia and before the thrombus, rubber tubes were then attached to the vessel and the lumen of the common iliac artery was opened up. With the aid of a clamp and, partially, by squeezing, the thrombus was extracted from the artery and the rubber tubes at both ends were joined with blood, and then also together. The opening in the wall of the artery was ligated with cotton thread, with the use of atraumatic needles. After the tubes were removed, a healthy pulse developed in the peripheral arteries. Five minutes later, however, palliation in the common iliac artery stopped and respiration ceased. The presence of a hot thrombus in the same spot as the clot.

The rubber tubes were repositioned upon the vessel, the sutures removed from the vascular wall, and a porous separator of the same size as before was removed from the lumen of the artery. The artery was then filled with a solution of heparin and calcium chloride and the blood circulation was restored. To prevent thrombotic events in the wall of the artery, the areas of the vascular wall were resected with cotton tissue. There was no bleeding. The wound was aseptically sutured by layers. During the operation, the heparin (60 units) was administered. A blood transfusion was administered and a 2-percent solution of glucose was injected. Fifteen minutes after the end of the operation, the arterial pulse in the left leg vanished, but it returned with pronounced in the right leg.

In view of the poor general condition of the patient, it was decided to remove the new thrombus with the aid of a Fogarty catheter. The left femoral artery was not pulsating. After rubber tubes were placed on the artery walls, its lumen was opened up with the aid of a catheter connected to an electric pump, a long and porous thrombus was extracted from the femoral and the left common iliac artery. The free circulation of blood through these vessels was thereby restored. Heparin (25,000 units)

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Sgt. Jeffrey Joseph Brown USM 616-06-3

1st Lt

Captain of the Medical Service W. H. Browning, Anaphylactic reaction when taking analgin.

No harm observed an anaphylactic reaction in patient F. J. Reed Jr., who took, intravenously, 0.25 gr. of analgin to relieve a headache. Twenty minutes later, he suffered nausea, dizziness of the neck, skin itching, asthmatic cough, shortness of breath, and aortic murmur developed in his left wrist vein all over the body. The respiration rate increased to 30 per minute and became superficial. Auscultation revealed dry, scattered rales above the lungs. The pulse was 110, systolic but weak. Blood pressure was 100/60 mm. Hg., and the cordine venae rounded, dampened.

Oxygen was administered immediately. Adrenalin and cordamine were injected subcutaneously and piprophon — intravenously. Fifteen minutes after the beginning of the attack, the excitations described began to subside. On examination the next day, the patient reported slight nausea, as well as some headache, both in the middle of the abdomen, in response to palpation. The 1st inch vanished. The tongue was dry, with a whitish coat. Pulse was 80, fortissimo, and of satisfactory strength. Blood pressure was 120/80. The temperature was 37.2°C. The blood test showed 90 units of hemoglobin, leukocytes 16,000, p — 5 percent, s — 62 percent, erythrocyte sedimentation rates 23 mm. per hour.

It developed that one of the patient's close relatives also suffers from oversensitively to analgin.

Received in November 1968.

1/2 011 UNCLASSIFIED PROCESSING DATE--11SEP70 .
 TITLE--INGROWN NAILS AND TREATMENT THEREOF -U-
 AUTHOR--GLOZMAN, V.N. G
 COUNTRY OF INFO--USSR
 SOURCE--VESTNIK DERMATOLOGII I VENEROLOGII, 1970, NR 2, PP 72-76
 DATE PUBLISHED-----70
 SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
 TOPIC TAGS--SURGERY, SKIN, DIAGNOSTIC METHODS
 CONTROL MARKING--NO RESTRICTIONS
 DOCUMENT CLASS--UNCLASSIFIED
 PROXY REEL/FRAME--1985/1675 STEP NO--UR/0206/70/000/002/0072/0076
 CIRC ACCESSION NO--AP0101730
 UNCLASSIFIED

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UNCLASSIFIED

PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0101730

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CAUSES FAVOURING INCARNATION, DIAGNOSIS AND DIFFERENTIAL DIAGNOSIS OF INGROWN NAILS ARE DESCRIBED. THE WORKING CLASSIFICATION OF THE DEGREES OF INCARNATION IS PRESENTED PERMITTING PROPER SELECTION OF THE OPERATIVE OR CONSERVATIVE METHOD OF TREATMENT. THIS CLASSIFICATION IS BASED ON EXAMINATIONS OF 150 SUBJECTS. A BRIEF DESCRIPTION IS GIVEN OF THE 4 MAIN METHODS OF OPERATIONS AND THEIR MODIFICATIONS. THE CONSERVATIVE METHOD OF TREATMENT IS DESCRIBED IN DETAIL, AND COMPARATIVE EVALUATION OF LABOR LOSSES AND EFFECTIVENESS OF TREATMENT AFTER APPLICATION OF ONE OR ANOTHER METHOD IS PRESENTED ON THE BASIS OF DATA OBTAINED IN OPERATIVE TREATMENT OF 86 PATIENTS AND CONSERVATIVE TREATMENT OF 134 PATIENTS. LABOR LOSSES AMONG MILITARY MEN ARE MARKEDLY REDUCED IN THE CONSERVATIVE METHOD IN COMPARISON WITH THE OPERATIVE METHOD. REMOTE RESULTS OF CONSERVATIVE TREATMENT ARE QUITE FAVOURABLE.

UNCLASSIFIED

USSR

UDC 541.13:542.91:546.28'131:547.241

KARTSEV, G. N., ALEYNPKOV, V. I., SMIRNOVA, N. V., GLUBOKOV, YU. M., and SHCHERBAKOVA, E. S., Institute of Metallurgy imeni A. A. Baykova, Academy of Sciences USSR and Moscow Institute of Fine Chemical Technology imeni M. V. Lomonosova

"Dielectric Study of the Interaction of Silicon, Germanium, and Tin Tetrachlorides With n-Tributylorthophosphate"

Moscow, Seriya Khimicheskaya, 9, 1973, pp 1972-1975

Abstract: The title study was carried out in order to establish the thermodynamic properties and structures formed during the reaction of these tetrachlorides with tributylorthophosphate (TBP) by a dielectrometric titration. No significant reaction was observed in the SiCl_4 -TBP and GeCl_4 -TBP systems. In the SnCl_4 -TBP, stepwise molecular complexes were formed having ratios of reactants of 1:1 and 1:2. Equilibrium concentrations were calculated by computer for the complex-forming reactions between SnCl_4 and TBP. From those equilibrium constants were determined. The dipole moments were measured for the complexes and related to the specific conformation of the complex.

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USSR

UDC 669.783.476(088.8)

NIKITINA, A. A., GLUBOKOVA, T. N., and TOROPATSKAYA, N. P., State Scientific Research and Design Institute of Rare Earth Metals Industry

"A Method of Electrolytic Deposition of a Germanium Alloy"

USSR Author's Certificate No 259588, filed 12 Apr 68, published 20 May 70
(from RZH-Metallurgiya, No 11, Nov 70, Abstract No 11G175 P)

Translation: A method is proposed for the electrolytic deposition of an alloy of Ge solution based on Ge salt and ammonium oxalate. To ensure uniform Ge-Fe alloy plating, salt Fe and H_2SO_4 is introduced into solution with the following ratio of components (in g/l): Ge (in the form of GeO_2) 0.1-1, Fe (in the form of $Fe_2(SO_4)_3$) 0.1-1, ammonium oxalate 5-10, H_2SO_4 up to pH 1.5, with the process being conducted at temperatures of 25-80°C and D_k of 1-5 a/dm².

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USSR

UDC 621.762.2

G
BABICH, D. D., SOROKIN, I. P., SHAPOVALOVA, O. M., and GLU
CHENKO, ZH. N.

"Influence of the Medium on the Degree of Fractionation and Quality of Electrolytic Titanium Powders"

Sb. tr. Vses. n.-i. i proyekt. in-t titana [Collected Works of All-Union Scientific-Research and Planning Institute for Titanium], 6, 1970, pp. 62-71, (Translated from Referativnyy Zhurnal-Metallurgiya, No. 1, 1971, Abstract No.1 G457 by the authors).

Translation: Results are described from studies of the influence of grinding conditions of cathode precipitate in a ball mill in various media on the fractional composition and quality of electrolytic Ti. Grinding of the cathode precipitate was performed under the following conditions: in a medium of electrolyte under Ar in water after leaching in 1% HCl, in the process of leaching in 1% HCl and in a medium of KCl plus NaCl. The optimal grinding effect is observed during leaching of the cathode precipitate directly in the ball mill in 1% HCl. However, this decreases the pressability of the powder somewhat. Pressability is not changed by grinding in the other media. The powder was studied by X-ray diffraction and microscope. 4 figures; 3 tables.

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USSR

UDC 621.375.4+62-83

GLUKHAREV, A. A., DOROSHKEVICH, Ye. M., POTAPOV, A. A., FEDOROV, A. V.,
FILATOV, G. I.

"A Power Amplifier"

USSR Author's Certificate No 321916, filed 19 Sep 70, published 24 Jan 72
(from RZh-Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, No 9,
Sep 72, Abstract No 9A81 P)

Translation: As a distinguishing feature of the proposed power amplifier, operational reliability is improved by adding a DC correcting link connected between a phase-insensitive rectifier and a transistorized controlled resistor. One illustration. V. T.

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USSR

UDO 621.315.593:535.376

VORONIN, V.G., GLUKHAREV, A.A., PAVLICHENKO, V.I., PRONIN, B.V., RYZHIKOV, I.V.,
SULEYMANOV, YU.M.

"Effect Of Adhesion Centers On Electroluminescence In α -SiC(6H)"

Elektron. tekhnika. Nauchno-tekhn. sb. Poluprovodn. pribory (Electronic Technology.
Scientific-Technical Collection. Semiconductor Devices), 1970, No 3(53), pp 24-30
(from RZh--Elektronika i yeye primeneniye, No 12, December 1970, Abstract No 12B282)

Translation: The relaxation was investigated of electroluminescence in silicon
carbide p-n junctions constructed on silicon carbide (6H) crystals of a modified
version of different resistivity. On the basis of the energy levels of the traps
obtained (0.06-0.08; 0.13-0.14; 0.18-0.20; 0.22-0.23 e.v.) it is assumed that three
levels of nitrogen emerge as adhesion centers in silicon carbide α -SiC(6H), and
also one level of unknown donor, which under stable conditions in material of high
resistivity is not filled by electrons. 6 ill. 26 ref. Summary.

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1/2 036 UNCLASSIFIED PROCESSING DATE--16OCT70
TITLE--OBSERVATION OF MOLECULAR ORDERING IN RUBBERLIKE POLYMERS UNDER LOW
STRESS BY A CREEP TECHNIQUE -U-
AUTHOR--(02)-BARTENEV, G.M., GLUKHATKINA, L.G. 6
COUNTRY OF INFO--USSR
SOURCE--VYSOKOMOL. SOEDIN. SER. B 1970, 12(3), 185-7
DATE PUBLISHED-----70
SUBJECT AREAS--MATERIALS
TOPIC TAGS--STRESS RELAXATION, POLYBUTADIENE, NITRILE RUBBER,
POLYISOBUTYLENE, POLYMER STRUCTURE, DEFORMATION RATE, CREEP/(U)SKB35
POLYBUTADIENE RUBBER, (U)SKN26M BUTADIENE NITRILE RUBBER, (U)PIB85
POLYISOBUTYLENE RUBBER
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1995/1204 STEP NO--UR/0460/70/012/003/0185/0187
CIRC ACCESSION NO--AP0116669
UNCLASSIFIED

2/2 036

UNCLASSIFIED

PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0116669

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE STRESS RELAXATION GRAPHS WERE OBTAINED FOR SKB-35 (POLYBUTADIENE), SKN-26M (BUTADIENE NITRILE RUBBER), AND PIB-85 (POLYISOBUTYLENE) IN 0-100DEGREES RANGE. EACH RUBBER AT A GIVEN TEMP. ACHIEVED AN EQUIL STRUCTURE, I. E., A STRUCTURE SUSCEPTIBLE TO AN IRREVERSIBLE ALTERATION BY APPLYING A SMALL LOAD. THE DEFORMATION RATE WHICH WAS JUST SUFFICIENT TO ALTER IRREVERSIBLY THE RUBBER STRUCTURE WAS CALLED MICROVISCOSITY. MICROVISCOSITY DEPENDED ON THE SAMPLE STORAGE TEMP. FACILITY: MOSK. GOS. PEDAGOG. INST IM. LENINA, MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC 614.712.001.2

GLUKHOMANYUK, A. M., and ALEKSANDROV, V. N., Gas Institute, Acad. Sc.
Ukr SSR

"Purification of Industrial Gas Exhausts of the Production of Antibiotics"
Kiev, Khimicheskaya Tekhnologiya, No 4 (70), Jul/Aug 73, pp 13-15

Abstract: A method for the purification of the exhausts from antibiotic industry has been proposed based on catalytic afterburning. The following catalysts were examined: manganese ore, palladium, cerium-palladium, cobalt-palladium, activated manganese, iron-copper oxide, and copper-manganese, the most effective among them being the palladium and cerium-palladium catalysts.

1/1

USSR

UDC: 621.317.7

GLUKHOV, A. A., GADAKAYEV, V. V.

"Analyzer of Pauses in Stochastic Signals"

V sb. Radiotekhn. v nar. kh-ve SSSR, Ch. 2 (Radioelectronics in the National Economy of the USSR, Part 2--collection of works) Kuybyshev, 1970, pp 365-376 (from RZh-Radiotekhnika, No. 3, March 71, Abstract No. 3A344)

Translation: The described analyzer of the pause distribution in stochastic signals consists of a discriminator of pause lengths, in the form of a Schmitt oscillator, involving a semiconductor triode, and a load in the form of an emitter follower, together with a device for counting the duration of the pauses. The measurement error is less than $\pm 10\%$. The frequency range is 50 to 10,000 Hz. The minimum pause duration analyzed is 5 μ s. The instrument is particularly applicable to controlling broadcasting operations. Four illustrations, one table. N. S.

1/1

USSR

UDC: 621.371.095.1

POTEKHIN, V. A., GLUKHOV, A. N., KLIMOV, I. Z.

"Generalized Polarization Parameters of Electromagnetic Waves of Arbitrary Form"

Khar'kov, Radioelektronika letatel'n. apparatov--sbornik (Aerospace Electronics--collection of works), vyp. 1, Khar'kov Aviation Institute, 1972, pp 56-61 (from RZh-Radiotekhnika, No 12, Dec 72, abstract No 12A298 [résumé])

Translation: The paper demonstrates the possibility of representing an electromagnetic wave of arbitrary shape at some point in space as the sum of plane waves propagating in three mutually orthogonal directions. Analytical expressions are presented for the degree of polarization and the geometric characteristics of ellipses of polarization of additive plane waves and integrated space waves. Bibliography of 4 titles.

1/1

USSR

UDC: 621.396.96:621.371

POTEKHIN, V. A., RODIMOV, A. P., GLUKHOV, A. N.

"On the Degree of Polarization of Electromagnetic Waves Randomly Scattered by a Set of Reflectors"

Khar'kov, Radioelektronika letatel'n. apparatov--sbornik (Aerospace Electronics--collection of works), vyp. 1, Khar'kov Aviation Institute, 1972, pp 62-66 (from RZh-Radiotekhnika, No 12, Dec 72, abstract No 12627 [résumé])

Translation: The degree of polarization of a plane quasimonochromatic partially polarized electromagnetic wave randomly scattered by a set of spatially distributed elementary reflectors is represented in terms of the second moments of the statistical scattering matrix of the target, and the polarization parameters of the irradiating monochromatic wave. The resultant expression is investigated for the extremum with respect to the modulus of the polarization coefficient of the incident field; in view of the invariance of the degree of polarization to selection of the polarization, this investigation is made in the target basis proper. Bibliography of 6 titles.

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Therapy

USSR

UDC 616.988.25-022.395.42-085.355:577.155.2+616.988.25-022.395.
.42-085.373.6

GLUKHOV, B. M., Chair of Nerve Diseases, Novosibirsk Medical Institute

"Comparative Effectiveness of Ribonuclease and Anti-Encephalitis Gamma-Globulin in Tickborne Encephalitis"

Moscow, Klinicheskaya Meditsina, Vol 49, No 5, May 71, pp 44-50

Abstract: Coworkers at the Laboratory of Molecular Genetics of the Institute of Cytology and Genetics, Siberian Department of the Academy of Sciences USSR, and shown that ribonuclease (RNA) has an inhibiting effect on the propagation of the RNA-containing viruses of poliomyelitis and influenza in tissue cultures and, analogously, that DNA has an inhibiting effect on the DNA-containing viruses of herpes and adenovirus. Experimental data on animals had shown that the nucleases penetrate into the cells, and do not have any adverse effect on healthy cells. In 1965-1968, the author studied the therapeutic effect of RNA on tickborne encephalitis at the clinical level. Some 246 patients were cured by RNA. In 137 of these patients, tickborne encephalitis had been confirmed serologically (seropositive subgroup); in the remaining patients, the clinical course of the disease and epidemiological data left no doubt about the diagnosis of tickborne encephalitis, although the serological

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USSR

GLUKHOV, B. M., *Klinicheskaya Meditsina*, Vol 49, No 5, May 71, pp 44-50

results were negative (seronegative subgroup). For comparison purposes, the results obtained with a group of 133 patients cured by anti-encephalitis gamma-globulin, and the distribution of clinical forms of the disease in these patients were presented also. RNA was administered to the former group of 246 patients in daily doses of 180 mg, introduced intra-abdominally in the form of a physiological solution, and gamma-globulin was administered to the 133-patient group according to the official recommendations (3 ml over a period of 3 days). The effectiveness of the treatments was compared by five clinical tests: 1) duration of the febrile period of the disease, 2) period of normalization of body temperature, measured from the beginning of the treatment, 3) intensity of temperature drops during the first days of treatment, 4) time required for the disappearance of meningeal symptoms and normalization of the cellular composition of the cerebrospinal fluid, and 5) frequency of repeat waves of the disease. The emergence of a humoral immunity in the patients cured by RNA was likewise studied, since it had been established previously that serum preparations had an inhibiting effect on patients in the acute and convalescent stages of the disease. RNA was a better cure of the disease in comparison with gamma-globulin; the febrile period of the disease was shortened, the body temperature dropped more quickly, meningeal symptoms disappeared faster and normalization of the cellular composition

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USSR

GLUKHOV, B. M., *Klinicheskaya Meditsina*, Vol 49, No 5, May 71, pp 44-50

of the cerebrospinal fluid was achieved more readily. Also, no secondary waves of the disease were observed. RNA did not inhibit the processes of humoral immunity formation. During the acute period of the disease, the RNA content in the blood and in the cerebrospinal fluid increases and returns to normal in the convalescent stage. The degree of enzyme concentration in the blood was found to be inversely proportional to the severity of the clinical course of the disease.

3/3

Acc. Nr.:

AP0028454

Ref. Code: UR 0246

PRIMARY SOURCE: Zhurnal Nevropatologii i Psikhatrii, 1970,
Vol 70, Nr 1, pp 45-48

CONCERNING THE PARTICIPATION OF RIBONUCLEASE IN THE MECHANISM
OF ANTIVIRAL ORGANISM DEFENSE IN TICK-BORNE ENCEPHALITIS

B. M. Glukhov

The antiviral action of ribonuclease to the RNA containing virals was a prerequisite to a study of the possible participation of the human ribonuclease proper in the mechanism of antiviral organism defense in tick-borne encephalitis. The blood and CSF ribonuclease activity was studied in patients with different clinical forms of the disease. For control purposes the author studied a group of normals and a group of patients with osteoarticular tuberculosis. It was possible to demonstrate a significant increase of ribonuclease activity in the blood and CSF in the acute period of tick-borne encephalitis. The degree of increased enzymatic activity in the blood is inversely proportional to the severity of the clinical picture. In the convalescent period the ribonuclease activity returns to its normal figures. The author assumes that the ribonuclease participates in the mechanisms of antiviral organism defense.

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Acc. Nr: **AP0044014**

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Ref. Code: UR 0016

PRIMARY SOURCE: Zhurnal Mikrobiologii, Epidemiologii, i
Immunobiologii, 1970, Nr 2, pp 56-58

DYNAMICS OF SPECIFIC ACCUMULATION OF ANTIBODIES
IN THE PATIENTS SUFFERING FROM TICK-BORNE
ENCEPHALITIS TREATED WITH RIBONUCLEASE

B. M. Glukhov

The authors studied the intensity of accumulation of specific antibodies at the acute stage of tick-borne encephalitis and at the stage of early convalescence in the patients treated with ribonuclease. The latter given in a daily dose of 180 mg proved to produce no inhibitory effect on immunogenesis of the patients. This served as its important advantage over the antiencephalitis gamma-globulin, apparently explaining a considerable therapeutic efficacy of the enzyme in comparison with the specific serum preparations.

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19770451

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USSR

6 UDC: 616.988.25-085.355:577.155.2/-097.5

GLUKHOV, B.M., Novosibirsk Medical Institute

"Dynamics of Accumulation of Specific Antibodies in Tickborne Encephalitis Patients Treated With Ribonuclease"

Moscow, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 2, 1970, pp 56-58

Abstract: Studies on tickborne encephalitis patients treated with specific gamma-globulin, ribonuclease (180 mg daily) only for specific symptoms showed that the dynamics of the mean geometric antihemagglutinin titers in patients treated with specific gamma-globulin was comparatively stable, whereas dynamics increased steadily in patients treated for symptoms or with ribonuclease. Ribonuclease did not inhibit the formation of humoral immunity either in the acute stage of tickborne encephalitis, or in early convalescence. The absence of an inhibitory effect on immunogenesis thus accounts for its marked therapeutic value and superiority to gamma-globulin in this respect.

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USSR

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UDC 616.988.25-026.395.42-07:616.183.1+616.
632.9-008.6317; 573.155.2

GLUKHOV, B. M., Chair of Nervous Diseases, Novosibirsk Medical
Institute

"Participation of Ribonuclease in the Mechanism of Antiviral Defense
in Tickborne Encephalitis"

Moscow, Zhurnal Nevropatologii i Psikhiiatrii imeni S. S. Korsakov,
No 1, 1970, pp 45-48

Abstract: Ribonuclease activity increased significantly in the blood and spinal fluid of patients during the acute stage of tickborne encephalitis. The degree of increase was inversely proportional to the severity of the clinical course, i.e., the greater the increase in ribonuclease activity in response to the infection, the milder the course of the disease. Ribonuclease activity returned to normal during convalescence. A slight increase in blood ribonuclease in a control group of patients with active tuberculosis of bones and joints suggests that ribonuclease is not a strictly specific factor in antiviral defense, and that it may perform other functions as well. The nucleases evidently function as a biochemical barrier to viral multiplication in man and animals. The ordinary immunolo-
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USSR

GLUKHOV, B. M., et al., Moscow, Zhurnal Nevropatologii i Psikhologii imeni S. S. Korsakov, No 1, 1970, pp 45-48

gical barrier cannot prevent the liberation of viral nucleic acids, because they are not inactivated by the antibodies formed in response to penetration of virus during later stages of viruses.

2/2

USSR

UDC 546.77.791

YELISEYEV, S. S., ~~GLUKHOV, I. A.~~, and VOZHDAYEVA, YE. YE., Institute of Chemistry, Acad. Sc., Tadzhik SSR

"Oxychlorides of Penta- and Tetravalent Uranium UO_2Cl and $UOCl_2$ "

Moscow, Zhurnal Neorganicheskoy Khimii, Vol 17, No 5, May 72, pp 1203-1208

Abstract: A simple method is reported for the synthesis of lower uranium oxychlorides UO_2Cl and $UOCl_2$ by heating the mixtures of UO_3 and $MoOCl_3$ to $220^\circ C$. In the process the exchange and oxidation-reduction reactions take place leading to the formation of the lower pentavalent uranium oxychloride UO_2Cl , when equimolar quantities of UO_3 and $MoOCl_3$ are used. With excess $MoOCl_3$ the process continues yielding the tetravalent uranium product $UOCl_2$; reaction of UO_2Cl with $MoOCl_3$ taken in 1:1 ratio also yields the tetravalent product.

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- 29 -

Radiation Chemistry

USSR

UDC 546.77.791

YELISEYEV, S. S., ~~GLUKHOV, I. A.~~, VOZHDAYEVA, YE. YE., Institute of Chemistry, Tadzhik Academy of Sciences

"Reaction Between MoOCl_3 and UO_2Cl_2 "

Dushanbe, Doklady Akademii Nauk Tadzhikskaya SSR, Vol 2, 1971, No 2, pp 35-39

Abstract: The authors had previously discovered that heating MoCl_5 with UO_3 would produce MoO_2Cl_2 and UOCl_3 , instead of the expected MoOCl_3 and UO_2Cl_2 . To explain this, tests were run in sealed ampoules. It was concluded that (1) the first stage of the thermal reaction between UO_2Cl_2 and MoOCl_3 is one of oxidation-reduction ($\text{MoOCl}_3 + \text{UO}_2\text{Cl}_2 = \text{MoO}_2\text{Cl}_2 + \text{UOCl}_3$), in which UVI is converted into UV, and Mo into MoVI; (2) action between UO_3 and MoCl_5 , leading to the formation of UOCl_3 and MoO_2Cl_2 as final products ($\text{UO}_3 + \text{MoCl}_5 = \text{UOCl}_3 + \text{MoO}_2\text{Cl}_2$), takes place in two stages--first an exchange reaction ($\text{UO}_3 + \text{MoCl}_5 = \text{UO}_2\text{Cl}_2 + \text{MoOCl}_3$), then the oxidation reaction referred to.

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Acc. Nr.

APO053883

Abstracting Service:
CHEMICAL ABST. 6/70

Ref. Code

4R 0058

GLUKHOV IA

- 117248q Reaction of rhenium trioxide with molybdenum oxytetrachloride and tungsten oxytetrachloride. Glukhov, I. A.; Eliseev, S. S.; El'manova, N. A. (Inst. Khim., Dushanbe, USSR). *Zh. Neorg. Khim.* 1970, 15(2), 305-8 (Russ). At 150-200°, ReO_3 reacts with MO_2Cl_4 (M = Mo or W) to form ReO_2Cl_2 and MO_2Cl_2 . On standing, ReO_2Cl_2 disproportionates to $ReOCl_4$ and ReO_3 .
HMJR -

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19830960

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Acc. Nr: **AP0053884** Abstracting Service:
CHEMICAL ABST. 6-70

Ref. Code:
4R0078

117299g Exchange reactions in a molybdenum trioxide-tungsten oxytetrachloride system. Glukhov, I. A.; Eliseev, S. S. (Inst. Khim., Dushanbe, USSR). *Zh. Neorg. Khim.* 1970, 15(2), 309-12 (Russ). At 100-250°, the metathetic reactions of the MoO₃-WOCl₄ system depend on concns. of starting materials. At MoO₃:WOCl₄ ratios of 1:2 or 2:1 the products are MoOCl₄ + WO₂Cl₂ or WO₃ + MoO₂Cl₂, resp. HMJR

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19830961

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1/2 013

UNCLASSIFIED

PROCESSING DATE--13NOV70

TITLE--REACTIONS IN THE RHENIUM TRIOXIDE RHEIUM PENTACHLORIDE SYSTEM -1

AUTHOR--(03)-GLUKHGV, I.A., YELISEYEV, S.S., YELMANOVA, N.A.

COUNTRY OF INFO--USSR

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SOURCE--ZH. NEGRG. KHIM. 1970, 15(3), 814-16

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--PHASE TRANSITION, RHEIUM COMPOUND, RHEIUM CHLORIDE, OXIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAE--1994/1943

STEP NO--UR/0078/70/015/003/0814/0816

CIRC ACCESSION NO--AP0115751

UNCLASSIFIED

2/2 013

UNCLASSIFIED

PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0115751

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. REOCL SUB4 AND RECL SUB3 FORMED AS FINAL PRODUCTS WHEN A MIXT. OF REO SUB3 AND RECL SUB5 WAS HEATED TO 185DEGREES. A SUBSEQUENT HEATING, IS SMALLER THAN OR EQUAL TO 350DEGREES, DID NOT REVEAL ANY PHASE TRANSITIONS. FACILITY: INST. KHIM., DUSHANBE, USSR.

UNCLASSIFIED

1/2 008 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--HYDROLYSIS OF MOLYBDENUM PENTACHLORIDE -U-
AUTHOR-(03)-GLUKHOV, I.A., YELISEYEV, S.S., PULATOV, M.S.
COUNTRY OF INFO--USSR
SOURCE--ZH. NEORG. KHIM. 1970, 15(5), 1425-6
DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--HYDROLYSIS, MOLYBDENUM CHLORIDE, CARBON TETRACHLORIDE

CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3006/0316 STEP NO--UR/0078/70/015/005/1425/1426
CIRC ACCESSION NO--AP0134120
UNCLASSIFIED

2/2 008

UNCLASSIFIED

PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0134120

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. HYDROLYSIS OF MOCL SUB5 WAS
STUDIED IN CCL SUB4 WITH CAREFULLY CONTROLLED H SUB2 O VAPOR SUPPLY.
MOOCL SUB3, INSOL. IN CCL SUB4 PPTD. DURING THE HYDROLYSIS.

UNCLASSIFIED

1/2 008 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--REACTIONS IN THE TUNGSTEN TRIOXIDE, MOLYBDENUM TRIOXIDE, SULFUR
MONOCHLORIDE, SULFUR DICHLORIDE, SYSTEMS -U-
AUTHOR-(03)-GLUKHOV, I.A., YELISEYEV, S.S., PULATOV, M.S.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK TADZH. SSR, OTD. FIZ.-MAT. GEOL.-KHIM. NAUK 1970,
(1), 29-32
DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--SULFUR CHLORIDE, MOLYBDENUM OXIDE, TUNGSTEN OXIDE, CHEMICAL
REACTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3007/1228

STEP NO--UR/0465/70/000/001/0029/0032

CIRC ACCESSION NO--AP0136639

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2/2 008

UNCLASSIFIED

PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0136639

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IN THE SYSTEM MOO SUB3-SCL SUB2, MOO SUB2 CL SUB2 AND MOOCL SUB4 ARE FORMED GRADUALLY, THE FINAL PRODUCT BEING MOCL SUB5. IN THE SYSTEM MOO SUB3-S SUB2 CL SUB2, THE INTERMEDIATE COMPS. ARE MOO SUB2 CL SUB2 AND MOOCL SUB4 AND THE FINAL PRODUCT IS MOOCL SUB3. THE FINAL PRODUCT IN THE SYSTEM WO SUB3-SCL SUB2 IS WCL SUB6; THE INTERMEDIATE COMPS. ARE WO SUB2 CL SUB2 AND WOCL SUB4. WO SUB3 AND WOCL SUB4 DO NOT REACT WITH S SUB2 CL SUB2. THE EXPTS. WERE CARRIED OUT IN SEALED AMPULS AT 160-80DEGREES. FACILITY: INST. KHIM., DUSHANBE, USSR.

UNCLASSIFIED

1/2 028 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--PROPERTIES OF COMPOUNDS FORMED BY MOOCL SUB4 WITH BENZENE AND
TOLUENE -U-
AUTHOR-(03)-GLUKHOV, I.A., YELISEYEV, S.S., NARZIKULOVA, R.M.
COUNTRY OF INFO--USSR **G**
SOURCE--DOKL. AKAD. NAUK TADZH. SSR 1970, 13(1), 32-5
DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--THERMAL STABILITY, MOLYBDENUM COMPOUND, BENZENE, TOLUENE,
THERMAL ANALYSIS, IR SPECTRUM

CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1997/1124 STEP NO--UR/0425/70/013/001/0032/0035
CIRC ACCESSION NO--AT0119978

UNCLASSIFIED

2/2 028

UNCLASSIFIED

PROCESSING DATE--23OCT79

CIRC ACCESSION NO--AT0119978

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THERMAL STABILITY AND HYDROLYSIS OF C SUB6 H SUB4 (MOOCL SUB3) SUB2 (I) AND MEC SUB6 H SUB4 MOOCL SUB3 (II) WERE INVESTIGATED BY DTA AND IR SPECTRA. TO PREP. I AND II MOOCL SUB4 WAS DISSOLVED IN BENZENE OR TOLUENE, AND EXCESS SOLVENT REMOVED BY MODERATE HEATING TO CONST. WT. AFTER HEATING AT 550DEGREES IN VACUUM, NO CHANGE WAS OBSD. IN THE APPEARANCE AND ANAL. COMPN. OF I, BUT NEW IR BANDS CORRESPONDING TO BENZENE WERE OBSD. TWO STEP DECOMPN., AT 170 AND 264DEGREES, WAS FOUND BY DTA. II IS STABLE IN VACUUM UP TO 175DEGREES, DETA SHOWS AN ENDOOTHERMAL EFFECT AT 162DEGREES. BOTH I AND II HYDROLYZE TO MOO SUB4 PRIME2NEGATIVE, CL PRIME NEGATIVE AND AN ORG. RESIDUE WITH IR BENZENE RING VIBRATIONS. BOTH I AND II AS WELL AS THEIR ORG. HYDROLYTIC PRODUCTS ARE AMORPHOUS TO X RAYS. IR BANDS ARE TABULATED AND COMPARED WITH THOSE OF RELATED COMPDs. FACILITY: INST. KHIM--> DUSHANBE, USSR.

1/2 014 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--REACTION OF MOLYBDENUM OXYCHLORIDE WITH NATURAL TITANIUM COMPOUNDS
-U-
AUTHOR--(04)-YELISEYEV, S.S., GLUKOV, I.A., VOZHDAYEVA, YE.YE.,
NARZIKULOVA, R.M.
COUNTRY OF INFO--USSR
SOURCE--DOKL. AKAD. NAUK. TADZH. SSR, 1970, 13,2, 33-6
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--MOLYBDENUM COMPOUND, CHLORIDE, TITANIUM COMPOUND, CHEMICAL
REACTION
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1996/0990 STEP NO--UR/0425/70/013/002/0033/0036
CIRC ACCESSION NO--AT0110155
UNCLASSIFIED

2/2 014

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AT0118155

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE REACTION OF POWD. ILMENITE WITH MOOCL SUB4 IN A SEALED AMPULE ON HEATING IS FETIO SUB3 PLUS 3MOOCL SUB4 EQUALS TICL SUB4 PLUS 3MO SUB2 CL SUB2 PLUS FECL SUB2. IN THE UPPER PART OF THE AMPULE (COOLED WITH H SUB2 O) TICL SUB4, AND MOO SUB2 CL SUB2 CONDENSED. AT 140-220DEGREES THE AMT. OF FECL SUB4 AND TICL SUB4 INCREASED RAPIDLY WITH THE TEMP. THE UNREACTED, DRY RESIDUE DECREASED LINEARLY AS THE TEMP. INCREASED. IN THE REACTION TIO SUB2 PLUS 2WOCL SUB4 THE PRODUCT WO SUB2 CL SUB2 REMAINED IN THE RESIDUE. THIS RETARDED THE REACTION, SO THAT BELOW 220DEGREES ONLY 27-30PERCENT OF TIO SUB2 REACTED. FACILITY: INST. KHIM., DUSHANBE, USSR.

UNCLASSIFIED

USSR

UDC 620.179.16

NIKIFORENKO, Zh. G., GLUKHOV, N. A., AVERBUKH, I. I.

"Measurement of Elastic Wave Velocity and Acoustical Anisotropy in Plates"

Defektoskopiya, No 4, 1971, pp 74-82.

Abstract: It is demonstrated theoretically that electromagnetic excitation causes longitudinal and transverse ultrasonic oscillations. A resonant method of measurement is described and a block diagram is presented of a device for measurement of elastic wave velocities and acoustical anisotropy in plates. Electromagnetic excitation of ultrasonic waves is achieved in the 1-20 MHz band. Oscillograms of resonant pulses produced in a thin, orthotropic steel plate are presented.

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Pharmacology and Toxicology

USSR

GLUKHOV

UDC 615.31:547.751].012.1

GLUXHKOV, R. G., TRUBITSYNA, T. K., MAGIDSON, O. Yu., and MASHKOVSKIY, N. D.,
All Union Scientific Research Institute of Pharmaceutical Chemistry imeni S.
Ordzhonikidze

"Investigation of Lactams. XX. Synthesis and Pharmaceutical Activity of
Azepino-[3,4-b]indole Derivatives"

Moscow, Khimiko-farmatsevticheskiy zhurnal, Vol 4, No 10, Oct 70, pp 9-13

Abstract: Indole analogs of α,β -pentamethylenetetrazole and o-methylcaprolactim, and a number of 1,2- and 10- substituted azepino[3,4-b]indoles were synthesized from unsubstituted and 7-methoxy substituted 1-oxo-1H,2,3,4,5-tetrahydroazepino[3,4-b]-indoles. It was found that the principal pharmaceutical property of the synthesized azepino[3,4-b]indole derivatives is their tranquilizing effect on the central nervous system accompanied by muscular relaxation and hypothermia. The most active compounds in this respect were 1-alkoxy-3H- and 4,5-dihydroazepino[3,4-b]indoles, and 1-ethoxy-10-methyl-3H,4,5-dihydroazepino[3,4-b]indole. These compounds produce a cataleptic state in rats and mice, and a further increase in dosage has a sleep-inducing effect.

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GLUKHOV, S. A.

JPRS - 54173
01 05 71

UDC 615.833.35

HYPERBARIC CHAMBER 'OKSISAR-1'

Article by S. A. Glukhov, E. R. Chornukhovskiy, and Y. N. Rydarman of the All-Union Scientific Research Institute of Medical Instrument Manufacturing, Moscow; Moscow, Muditsain-Kaya Tekhnika, Russian, No 3, 1971, pp 36-40

A large number of experimental and clinical investigations during the last decade have demonstrated the future possibilities for applying the therapeutic method of hyperbaric oxygenation in various fields of medicine. The method provides the required conditions for a rapid and effective increase in the partial pressure of physically diluted oxygen and an increased stress gradient and diffusion rate of oxygen between the blood and hypoxic tissues.

There is now an opinion in the special literature regarding the advisability of applying hyperbaric oxygenation in cases of acute and regional oxygen deficiencies of different origin, certain infectious processes, and other pathologies. Depending on the purpose and conditions of their application, hyperbaric chambers are used for therapeutic and surgical procedures as well as for radiation therapy.

One-person therapeutic chambers rule out the simultaneous presence of medical personnel and patient, and this factor significantly limits the scope of therapeutic and reanimation measures during hyperbaric oxygenation. Large pressure chambers designed to include medical personnel and to permit reanimation procedures broaden the possibilities of treatment when the seriousness of the condition requires the presence of physician or nurse (for example, during the postoperative period). The desirability of a physician's presence in the chamber during the treatment period may also be caused by a need to define and further process clinical methodology for certain illnesses, as well as to check

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AP9013364

UR 0050

AUTHOR: Glukhov, V.G.

TITLE: Wind Speed Profiles During Glaze and Rime Occurrences

PRIMARY SOURCE: Meteorologiya i gidrologiya, 1969, Nr 3, p 96-99

ABSTRACT: Systematic glaze and wind observations made in the 1963 - 1966 period from the the 300-m tower at Obninsk are the basic data used in a study carried out to determine the accuracy with which vertical wind profiles are approximated by the linear, power and logarithmic functions of height. A total of 276 observations of glaze and wind were made at heights of

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1964 0833

AP9013364

8, 25, 73, 121, 169, 217, 265 and 301m (141 - grainy rime, 58 - crystalline rime and 17 - glaze); the types and weight of the deposits were measured simultaneously with the wind speeds at each level; temperatures were determined at h = 2 and 301m. Mean lapse rates were determined for the 2 - 300 m layer in each type of deposit as well as the corresponding variation factors $k = \frac{\alpha}{\beta}$. The results of the study indicated that crystalline rimes occurred mainly in weak inversions grainy rimes during periods when the gradients were close to adiabatic, and glaze formed generally in unstable air. Approximation accuracies, for both mean and individual profiles were best given by linear functions of height for stable air and for adiabatic and superadiabatic conditions, and during weak inversions by power functions of height.

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1964 0834

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USSR

UDC: 536.46:533.6

GLUKHOV, V. I., GNATOVSKIY, V. I.

"Agglomeration of Metal Particles During Burning in Ballistite Powder"

V sb. Fiz. aerodispersn. sistem. Vyp. 3 (Physics of Aerodisperse Systems --collection of works, No 3), Kiev, Kiev University, 1970, pp 119-125 (from RZh-Mekhanika, No 7, Jul 71, Abstract No 7B806)

Translation: Incomplete combustion of particles of dispersed metals and the correspondingly lower than theoretical effect of metal combustion on burning of a metal-powder system is attributed to the appreciable coarsening (agglomeration) of metal particles before ignition. This paper analyzes the nature of particle agglomeration as a function of the percent concentration of metal in the powder, the properties of the metal and the methods of particle treatment. As a result of comparing the effective times of combustion, it is found that adding ten percent of an Al+Mg alloy (PAM) to the powder increases the HB of a particle with respect to mass by a factor of more than 10 as compared with a one-percent addition of metal. This is also shown by large-scale high-speed motion picture photography, agglomeration being more appreciable if a metal with low ignition

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GLUKHOV, V. I., GNATOVSKIY, V. I., Fiz. aerodispersn. sistem, vzb. 3, Kiev, Kiev University, 1970, pp 119-125

point is added; agglomeration includes the nitrocellulose of the powder. The agglomeration may be so appreciable that it grows into pulsations in combustion (luminescence). Depending on the properties of the dispersed metals introduced, the transition takes place at various concentrations of metal in the powder. For more readily flammable particles of metal, the pulsations appear at a lower concentration of metal in the powder. A mechanism is proposed for coarsening of the particles due to coalescence on the surface of a burning specimen of powder. Authors' abstract.

2/2

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USSR

UDC 678.762.2-134.532:66.095.262

GLUKHOV, V. I., SHIRYAYEVA, G. V., and KARPOV, V. L.

"Radiational Modification of Wood Cellulose With a Styrene-Acrylonitrile Copolymer"

Moscow, Plasticheskiye Massy, No 11, 1972, pp 28-30

Abstract: Experimental results are reported of the study of copolymerization kinetics of styrene monomers with acrylonitrile in wood cellulose under the influence of γ -irradiation. Physical-mechanical properties of modified wood cellulose-polymer materials in relationship to the composition of impregnating material are described. It was shown that the use of styrene and acrylonitrile mixtures for radiational chemical modification of wood cellulose leads to the production of a stronger material with greater dimensional stability in aqueous media. Addition of acrylonitrile to styrene lowers the irradiation dose required for a complete polymerization of styrene. Best properties of modified wood cellulose are obtained with a 30-50 vol-% content of acrylonitrile in the impregnating material.

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USSR

UDC 678.744:542.952.68

GLUKHOV, V. I., and SHIRYAYEVA, G. V.

"Some Parameters of Radiation Polymerization of Vinyl Monomers in Wood Pulp"

Moscow, Plasticheskiye Massy, No 6, 1973, pp 35-36

Abstract: The results are reported of the investigation of heat evolution during radiation polymerization of vinyl monomers in wood pulp under the influence of Co^{60} gamma-radiation. It was established that maximal temperature of the reaction mixture rises with increasing value of the gamma-radiation dose. A proportional relationship is observed between t_{max} and the quantity of the monomer added to the wood pulp; the temperature in the wood pulp is always lower than during the polymerization process of methyl methacrylate in the "mass". The degree of the filling of radiation-chemical apparatus has a definite effect on the warming up of the reaction mixture.

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Polymers and Polymerization

USSR

UDC: 691.11:678.744:541.15

~~GLUKHOV, V. I., SHIRYAYEVA, G. V. and KARPOV, V. L., Scientific Research Physico-Chemical Institute imeni L. Ya. Karpov, Moscow, State Committee for Chemistry~~

"A Study of the Kinetics of Radiation Polymerization of Methylmetacrylate in Wood"
Moscow, Khimiya Vysokikh Energiy, Vol 4, No 2, 1970, pp 139-142

Abstract: The radiation-chemical modification of wood is a promising and widely-used method of obtaining wood-plastic materials offering substantial advantages in physico-mechanical properties and improved water- and moisture-resistance. The authors studied the kinetics of the radiation polymerization used in this method by treating aspen wood impregnated with methylmetacrylate with gamma-radiation from Co^{60} . Results showed that reduction of dose rate promotes monomer-to-polymer conversion: output of polymer per dose unit diminishes by 90% with a 100-fold increase in intensity. Temperature dependence of polymerization rate was studied and molecular weights of the extracted polymer were measured. Findings of the study are illustrated graphically.

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USSR

UDC 621.762.27

RUBTSOV, A. N., OLESOV, Yu. G., USTINOV, V. S., KISELEV, O. G., CHERKASHIN, V. I., and GLUKHOV, V. P., Dnepr Titanium-Magnesium Plant

"Production of Powders of Titanium Alloys and Refractory Titanium-Based Compounds From Titanium Alloy Waste"

Kiev, Poroshkovaya Metallurgiya, No 12, Dec 70, pp 18-23

Abstract: The method of electrolytic refining of titanium wastes can be used to produce high-quality titanium powder for further production use. Studies have established the following optimal electrolysis mode: anode and cathode current density 0.2-0.3 and 2.6-2.8 a/cm² respectively; temperature 870-890°C; cathode precipitate growth time 0.5-1 hr; titanium concentration in electrolyte 0.5-0.7%. The authors studied the production of electrolytic titanium powders from titanium sponge waste under near-optimal conditions. The quality of the electrolytic titanium powder was higher than that produced by hydride calcium thermal methods. Dehydrogenated powders of VT5 and VT6 alloys were produced, corresponding to the initial alloys in chemical composition.

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- 55 -

USSR

"DC 621.762.04

MEYERSON, G. A., OLESOV, YU. G., and GLUKHOV, V. P., Moscow
Institute of Steel and Alloys, Zaporozhnye Titanium-Magnesium
Combine

"Producing Titanium Powders by Hydrogenation of Electrolytic
Titanium"

Ordzhonikidze, Tsvetnaya Metallurgiya, No 6, 1970, pp 74-77

Abstract: A procedure is developed for producing titanium pow-
ders with low Fe and Cl content, using the hydrogenation
of electrolytic titanium with subsequent processing of the
hydride by an HCl solution and degassing of the obtained pre-
cipitation. Electrolytic titanium (-5 + 0.5 fraction, and
120 HB hardness) containing 0.2-0.22%Cl, 0.01-0.03%Fe, 0.02%N,
and 0.04%O was tested on a laboratory installation consisting
of two retorts placed in an electric shaft furnace. The ex-
perimental set-up and the test procedure are described. The
effect of hydrogen content in the titanium hydride on the de-
gree of leaching of basic impurities (Fe, Cl, N) was investi-
gated. The results obtained make it possible to recommend a
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USSR

"DC 621.762.04

MEYERSON, G. A., OLESOV, YU. G., and GLUKHOV, V. P., Moscow
Institute of Steel and Alloys, Zaporozhye Titanium-Magnesium
Combine

"Producing Titanium Powders by Hydrogenation of Electrolytic
Titanium"

Ordzhonikidze, Tsvetnaya Metallurgiya, No 6, 1970, pp 74-77

Abstract: A procedure is developed for producing titanium powders with low Fe and Cl content, using the hydrogenation of electrolytic titanium with subsequent processing of the hydride by an HCl solution and degassing of the obtained precipitation. Electrolytic titanium (-5 + 0.5 fraction, and 120 HB hardness) containing 0.2-0.22%Cl, 0.01-0.03%Fe, 0.02%N, and 0.04%O was tested on a laboratory installation consisting of two retorts placed in an electric shaft furnace. The experimental set-up and the test procedure are described. The effect of hydrogen content in the titanium hydride on the degree of leaching of basic impurities (Fe, Cl, N) was investigated. The results obtained make it possible to recommend a
1/2

USSR

UDC 669.295.6

MEYERSON, G. A., OLESOV, YU. G., GLUKHOV, V. P., and PETRUN'-
KO, A. N., Zaporozh'ye

"Study of the Process of Hydrogenization of Electrolytic Titanium"

Moscow, Izvestiya Akademii Nauk SSSR, Metally, No 1, Jan 71, pp 48-51

Abstract: This work presents the results of laboratory and pilot-scale studies on the development of a technology for the production of hydride-saturated electrolytic titanium. The dependence of the degree of hydrogen saturation of electrolytic titanium on temperature in the 300-800°C temperature interval and on duration of the hydrogenation process is studied. In order to produce titanium hydride corresponding to the formula TiH_2 , it is expedient to conduct the process of hydrogenation with a gradual decrease in temperature at steps of 70-100° from 650 to 250-300°C, with holding for 20-30 minutes after pressure stabilization in the retort.

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USSR

UDC 621.785.535:661.65

GLUKHOV, V. P.

"Boride Coatings on Iron and Steels"

Kiev, Boridnyye Pokrytiya Na Zheleze I Stalyakh /English version above/, "Naukova Dumka," 1970, 208 pp

Translation: This book summarizes materials on diffusion boriding. Various methods, technological plans, and physical-chemical principles of boriding of iron and steel are analyzed. The properties of boride coatings and examples of their use in various branches of technology are described.

The book is designed for engineering and technical workers specializing in the area of the chemical and heat treatment of metals.

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"Naukova Dumka," 1970, 208 pp.

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GLUKHOV, V. P., Boridnyye Pokrytiya Na Zheleze I Stalyakh,
"Naukova Dumka," 1970, 208 pp.

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USSR

UDC 620.186.1:621.735.53

6
GLUKHOV, V. P., and GRISHIN, YA. V., Volga Branch of the All-Union Scientific Research Institute of Abrasives and Grinding

"Structure and Phase Content of a Diffusion Titaniferous Layer"

Moscow, Metallovedeniye i termicheskaya obrabotka metallov, No 6, 1970, pp 64-65

Abstract: The investigation was made of the structure and phase content of a diffusion layer formed by alloying Armco iron (0.04% C) and St 3 (0.16% C) St 45 (0.44% C), St U8 (0.79% C) and St U10 (1.05% C) carbon steels with titanium. The diffusion saturation was conducted in titanium powder (80 micron) (98.4% Ti; 0.72% Mg) obtained from titanium sponge. The phase layer content was determined by metallographic and X-ray analysis and microhardness measurements. A possible mechanism of the formation of the diffusion layer is tentatively explained on the basis of the results obtained and previous data. The microstructure of the diffusion layer consists of an FeTi₂ outer layer with FeTi formations, usually concentrated around carbide inclusions. The absence of FeTi superstructure lines may be the result of either an insufficiently small difference in the intensity of titanium and the iron atomic scattering, or the absence of ordering in general. The FeTi phase drops out in the zone of the solid solution at cooling, as the result of a reduction in the solubility of titanium with decreasing temperature.

10 references.
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1/2 029 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--BORIDE COATINGS ON IRON AND STEEL -U-
AUTHOR--GLUKHOV, V.P. G
COUNTRY OF INFO--USSR
SOURCE--BORIDE COATINGS ON IRON AND STEEL (BORIDNYYE POKRYTIYA NA ZHELEZE I STALYAKH) KIEV. NAUKOVA DUMKA. 1970. 197 PP.
DATE PUBLISHED-----70
SUBJECT AREAS--MATERIALS
TOPIC TAGS--BORON, PHYSICAL CHEMISTRY PROPERTY, PHYSICAL DIFFUSION, BORON INTENSIFIED STEEL
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3003/1297 STEP NO--UR/0000/70/000/000/0001/0197
CIRC ACCESSION NO--AM0130272
UNCLASSIFIED

2/2 029 UNCLASSIFIED PROCESSING DATE--04DEC70
CIRC ACCESSION NO--AM0130272
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. TABLE OF CONTENTS: PREFACE 5.
CHAPTER I INTERACTION OF BORON WITH IRON AND OTHER METALS 7. II
TECHNOLOGICAL METHODS OF BORONIZING 29. III PHYSICO CHEMICAL
CHARACTERISTICS OF THE FORMATION OF A BORATED LAYER 89. IV BASIC
PROPERTIES OF BORATED STEEL AND THE APPLICATION OF BORONIZING IN
INDUSTRY 128. LITERATURE 185. APPENDIX 199. THE BOOK GIVES
GENERALIZED MATERIAL ON DIFFUSION BORONIZING. IT IS DESIGNED FOR
TECHNICAL ENGINEERS SPECIALIZING IN THE FIELD OF CHEMICO THERMAL WORKING
OF METALS.

UNCLASSIFIED

USSR

UDC 621.785.535 : 661.65

GLUKHOV, V. P.

"Boride Coatings on Iron and Steels"

Boridnyye Pokrytiya Na Zheleze i Stalyakh [English version above], Naukova Dumka Press, Kiev, 1970, 208 pages

Translation: This book summarizes materials on diffusion boriding. Various methods, technological plans, and the physical and chemical principles of boriding of iron and steel are analyzed. The properties of boride coatings and examples of their use in various branches of technology are described. The book is designed for engineering-technical workers specializing in the area of the chemical and heat treatment of metals.

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USSR

GLUKHOV, V. P., Boridnyye Pokrytiya Na Zheleze i Staiyakh [English version above], Naukova Dumka Press, Kiev, 1970, 208 pages

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USSR

GLUKHOV, V. P., Boridnyye Pokrytiya Na Zheleze i Stalyakh [English version above], Naukova Dumka Press, Kiev, 1970, 208 pages

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1/2 011 UNCLASSIFIED PROCESSING DATE--16OCT70
TITLE--MEASUREMENT OF THE CONCENTRATION OF A REGENERATION SOLUTION OF
AMMONIUM SULFATE IN A CHEMICAL WATER TREATMENT PLANT OF A THERMAL POWER
AUTHOR--(04)-YERMAKOV, YU.V., GLUKHOV, V.S., AFANASYEV, M.I., PERTSEVA,
L.V.
COUNTRY OF INFO--USSR
SOURCE--ENERGETIK 1969, 17(8), 14-5
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY, ENERGY CONVERSION (NON-PROPULSIVE)
TOPIC TAGS--WATER REGENERATION, AMMONIUM SULFATE, SOLUTION CONCENTRATION,
ELECTRIC CONDUCTIVITY MEASUREMENT, ELECTRIC POWER PLANT/(U)KKB
CONDUCTIVITY METER
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PRUXY REEL/FRAME--1988/0051 STEP NO--UR/0091/69/017/008/0014/0015
CIRC ACCESSION NO--AP0105150
UNCLASSIFIED

2/2 011

UNCLASSIFIED

PROCESSING DATE--14OCT70

CIRC ACCESSION NO--AP0105150

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CONCNS. OF (NH SUB4) SUB2 SO
SUB4 WERE DETD. IN THE RANGE OF 1-4PERCENT, CONTINUOUSLY BY THE TITLE
APP. WITH A LOW FREQUENCY CONTACTLESS ELECTRODE, WITH AN ACCURACY OF
PLUS OR MINUS 0.2PERCENT. THE SCHEME OF THE APP. IS GIVEN.

UNCLASSIFIED

1/2 014 UNCLASSIFIED PROCESSING DATE--09OCT70
TITLE--PRIME12 C(PRIME3 HE, PRIME3 HE PRIME) PRIME12 C AND PRIME12 C(PRIME
3 HE,T) PRIME12 N MIRROR REACTIONS -U-
AUTHOR--(05)-ARTENOV, K.P.; GLUKHOV, YU.A.; GOLDBERG, V.Z.; DAYYUJV, V.V.,
PETROV, I.P.
COUNTRY OF INFO--USSR

G

SOURCE--YAD. FIZ. 1970, 11(1), 43-7

DATE PUBLISHED-----70

SUBJECT AREAS--PHYSICS, NUCLEAR SCIENCE AND TECHNOLOGY

TOPIC TAGS--ION BOM ARDMENT, CARBON ISOTOPE, NUCLEAR REACTION, EXCITED
NUCLEUS, DIFFERENTIAL CROSS SECTION, HELIUM ISOTOPE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1980/0171

STEP NO--UR/0367/70/011/001/0043/0047

CIRC ACCESSION NO--AP0048463

UNCLASSIFIED

2/2 014

UNCLASSIFIED

PROCESSING DATE--09OCT70

CIRC ACCESSION NO--A00048463

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DIFFERENTIAL CROSS SECTIONS ARE MEASURED FOR THE TITLE MIRROR REACTIONS AT AN ${}^3\text{He}$ ION ENERGY OF 36 MEV. DIRECT EVIDENCE IS PRESENTED THAT THE STATES OF THE ${}^{12}\text{C}$ NUCLEUS WITH ENERGIES 15.1 MEV (1 PLUS, T EQUALS 1) AND 16.1 MEV (2 PLUS, T EQUALS 1) ARE ANALOGOUS TO THE GROUND STATE (1 PLUS) AND THE 1ST EXCITED STATE (0.95 MEV) OF ${}^{12}\text{N}$. THUS, THE 0.95-MEV LEVEL OF ${}^{12}\text{N}$ HAS THE QUANTUM NOS. 2 PLUS. THE ADMIXT. OF THE T EQUALS 0 STATE TO THE 15.1-MEV STATE OF ${}^{12}\text{C}$ IS NO MORE THAN 3PERCENT IN THE AMPLITUDE. THE SAME ADMIXT. TO THE 16.1-MEV STATE OF ${}^{12}\text{C}$ IS ALSO, VERY LIKELY NO MORE THAN A FEW PER CENT FACILITY: INST. AT. ENERGY, IM. KURCHATOVA, MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC 620.193.01"669.29

ANDREYEVA, V. V., ~~GLUKHOVA, A. I.~~, DONTSOV, S. N., MOISEYEVA, I. S., and MEL'NIKOVA, L. V., Institute of Physical Chemistry, Academy of Sciences USSR

"Corrosion Resistance and Electrochemical and Mechanical Properties of Ternary Nb-Ti-Ta and Nb-Ti-Cr Alloys"

Moscow, Zashchita Metallov, No 4, 1972, pp 415-419

Abstract: Binary alloys of Nb-Ta are highly resistant to solutions of strong acids. These alloys are quite promising for the manufacture of important parts of chemical apparatus. It was assumed that the presence of tantalum in binary Nb-Ti alloys should increase their corrosion resistance without reducing mechanical and technological characteristics. An experimental study was therefore made of the influence of the individual elements on the corrosion resistance and electrochemical and mechanical properties of certain ternary niobium-based alloys with titanium, tantalum, and chromium. The corrosion resistance of Nb-Ti-Ta alloys in solutions of sulfuric and hydrochloric acid at 100°C decreases with increasing titanium content, with tantalum content remaining constant. The addition of 1 to 5% chromium to niobium has no influence on its resistance to these acids, but reduces workability in the hot and cold states. Addition of chromium to Nb-Ti alloys can produce alloys with good technological properties. The chromium significantly increases the

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USSR

ANDREYEVA, V. V., et al., Zashchita Metallov, No 4, 1972, pp 415-419

strength characteristics at high temperatures. Addition of chromium also increases the hardness of case alloys. Dendritic liquation occurs in alloys containing 30 and 40% Ti and 4-5% Cr. Addition of up to 5% chromium to Nb-Ti alloys does not worsen acid resistance, but increases mechanical characteristics.

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USSR

UDC 669.293.5.294.018.8.669.018.2

DONTSOV, S. N., MOISEYEVA, I. S., MEL'NIKOVA, L. V., GLUKHOVA, A. I., ANDREYEVA, V. V., ALESHINA, L. V., STRIZHEVSKAYA, L. G.

"Influence of Technological Factors on Corrosion Resistance and Mechanical Properties of Niobium-Tantalum Alloys"

Nauchn. Tr. N-i. i Proyechn. In-t Redkomet. Prom-sti [Scientific Works of Scientific Research and Planning Institute for the Rare Metals Industry], 1971, Vol. 32, pp. 152-160. (Translated from Referativnyy Zhurnal Metallurgiya, No. 5, 1971, Abstract No. 5 I736 by the authors).

Translation: Influence of technological factors on the corrosion resistance of Nb-Ta alloys is studied. 4 figs; 5 biblio refs.

1/1

USSR

UDC 669.293.5'294:620.193:669.231

GLUKHOVA, A. I., ANDREYEVA, N. N., DONTSOV, S. N., and MOISEYEVA, I. S.

"Niobium-Tantalum Alloys Doped With Platinum"

V sb. Korroziya i zashchita met. (Metal Corrosion and Protection -- Collection of Works), Moscow, "Nauka," 1970, pp 54-60 (from RZh-Metallurgiya, No 12, Dec 70, Abstract No 12 I824 by the authors)

Translation: Supplemental doping of Nb-Ta alloys with small quantities of Pt raises their corrosion resistance under highly corrosive conditions. In 75% H₂SO₄ at 150° the corrosion rate of an alloy of Nb with 30% Ta doped with 0.2% Pt is 4-6 times less than the corrosion rate of this alloy without supplemental doping, with the corrosion rate of the alloy doped with 0.2% Pt not depending on the magnitude of the applied potential and equaling only 0.1 g/sq m·hr, whereas the corrosion rate of the alloy without supplemental doping increases with potentials more positive than + 1.7 v. Five illustrations. Bibliography of four titles.

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1/2 026 UNCLASSIFIED PROCESSING DATE--09OCT70
TITLE--REGIONAL HYPOTHERMIA OF THE TRUE PELVIS IN THE OPERATIVE TREATMENT
OF PROSTATIC ADENOMA -U-
AUTHOR--(03)-OVNATANYAN, K.T., SUSLOV, V.V., GLUKHOVA, K.Z.

COUNTRY OF INFO--USSR

SOURCE--UROLOGIYA, I NEFROLOGIYA, 1970, NR 2, PP 60-63

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--HYPOTHERMIA, SURGERY, ARTERY, GANGLIONIC BLOCKING AGENT,
TUMOR, UROLOGY, REPRODUCTIVE SYSTEM

CONTROL MAKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1985/1723

STEP NO--UR/0606/70/000/002/0060/0063

CIRC ACCESSION NO--AP0101776

UNCLASSIFIED

UDC 681.3.06:51

USSR

GLUKHOVA, V. M., SUKHORUKOV, L. N., TKACH, V. F.

"The "VNIEM-3" Autocoder and Its Use in Preparation of Computer Control Programs"

Primeneniye Vychisl. Tekhn. v Elektrotekhn. Prom-sti [Use of Computer Equipment in the Electronics Industry -- Collection of Works], Moscow, 1971, pp 262-272, (Translated from Referativnyy Zhurnal, Kibernetika, No 10, 1971, Abstract No 10 V792 by V. Mikheyev).

Translation: The specifics of the VNIEM-3 autocoder are described, allowing the peculiarities and optimality of programming in the language of the system of instructions to be retained while facilitating interfacing of independently composed program sections. An illustrative example is presented in the appendix.

2/2 026

UNCLASSIFIED

PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0101776

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE AUTHORS EMPLOYED LIGATION OF INTERNAL ILIAC ARTERIES (56 OPERATIONS), CONTROLLED HYPOTENSION WITH THE AID OF GANGLIIONIC BLOCK (120 OPERATIONS) AND REGIONAL HYPOTERMIA OF THE TRUE PELVIS CAVITY (75 OPERATIONS) TO REDUCE BLOOD LOSSES IN ADENOMECTOMY. THE LASTLY NAMED METHOD CONSISTS IN CONCURRENT COOLING OF THE SUPRAPUBIC REGION, URINARY BLADDER AND PROSTATE, VIA THE RECTUM. THE COOLING MEDIUM TEMPERATURE WAS 0-3DEGREES. THE COOLING TIME VARIED FROM 20 TO 35 MINUTES. THE AVERAGE TEMPERATURE OF THE PROSTATE REGION WAS 22DEGREES. IN A SINGLE STAGE ADENOMECTOMY PERFORMED AGAINST THE BACKGROUND OF LOCAL COOLING THE AVERAGE BLOOD LOSS AMOUNTED TO 90 ML. THE MERITS OF THE METHOD INCLUDE ITS TECHNICAL SIMPLICITY, ACCESSIBILITY AND SAFETY.

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200920012-3"

UNCLASSIFIED

USSR

UDC 595.771

GUTSEVICH, A. V., and GLUKHOVA, V. M.

Metody Sborn i Izucheniya Krovososushchikh Mokretsov (Methods of Collecting and Studying Blood-Sucking Biting Midges), Leningrad, "Kauka," 1970, 104 pp

Translation: General characteristics of biting midges and differences between them and other blood-sucking Diptera as adults are given. Data are cited on the distribution and biology of biting midges, on the damage caused by them, on methods of collecting and counting adults, and on ways to keep and work with them. Developmental phases, morphology, and taxonomic characteristics are given, and tables of subfamilies, genera, and species for larval and pupal. Main features of the biology of immature phases and methods for collecting, working with, and preserving biting midges are described. Methods of cultivating sand flies under laboratory conditions are considered. This manual is intended for zoologists, parasitologists, entomologists, workers in medical and veterinary institutions, and students of pedagogical, medical, and veterinary higher educational institutions.

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USSR

UDC 615.285.7.025.1.099.036.11.036.88

BARKOV, A. M., and GLUKHOVETS, B. I., Central Regional Hospital, Konakovo

"A Case of Acute Chlorophos Poisoning With A Fatal Outcome"

Moscow, Terapevticheskiy Arkhiv, No 4, 1971, pp 118-119

Abstract: A 42-year-old man was brought unconscious to the hospital where he died within six hours despite heroic treatment for suspected poisoning by an unknown agent. The clinical course of the intoxication was similar to that described in the literature, except for the absence of convulsions. The diagnosis was established at autopsy, when chemical analysis of tissues revealed the presence of phosphorus and a chlorine-containing substance thought to be the organophosphorus compound chlorophos. It was subsequently learned that chlorophos had recently been used in the dead man's home as an insecticide.

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1/2 024 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--SYMPTOMS OF SOLAR GANGLION INVOLVEMENT IN DIFFERENT FORMS OF ACUTE
PANCREATITIS -U-
AUTHOR--(02)--SEREBRYANTSEV, V.K., GLUKHOVETS, B.I.
COUNTRY OF INFO--USSR
SOURCE--VRACHEBNOYE DELO, 1970, NR 5, PP 47-49
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--PANCREATITIS, SURGERY, EDEMA, GANGLION
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3001/1955 STEP NO--UR/0475/70/000/005/0047/0049
CIRC ACCESSION NO--AP0127356
UNCLASSIFIED

2/2 024

UNCLASSIFIED

PROCESSING DATE—30OCT7C

CIRC ACCESSION NO—AP0127356

ABSTRACT/EXTRACT—(U) GP-0- ABSTRACT. THE "SOLAR GANGLION" SYMPTOM WAS STUDIED IN 64 PATIENTS SURGICALLY AND CONSERVATIVELY TREATED FOR DIFFERENT FORM OF ACUTE PANCREATITIS. IN EDEMA OF THE PANCREAS THE "SOLAR GANGLION" SYMPTOM PROVED POSITIVE IN 77.5PERCENT, IN CHOLECYSTOPANCREATITIS IN 35PERCENT OF CASES; IN OTHER FORMS IT PROVED NEGATIVE. TAKING INTO CONSIDERATION THE MECHANISM OF DEVELOPMENT OF THE "SOLAR GANGLION" SYMPTOM THE AUTHORS RECOMMEND THAT PATIENTS WITH ACUTE PANCREATITIS REMAIN IN POSITION "ON THEIR SIDE" IN THE PRE AND POSTOPERATIVE PERIOD. FACILITY: MIKHAYLOV, RYAZAN REGION.

UNCLASSIFIED

Acc. Nr: AP0052456

Ref. Code: UR0475

PRIMARY SOURCE: Vrachebnoye Delo, 1970, Nr 2, pp 65-67

CHANGES OF HISTAMINE METABOLISM IN PATIENTS
WITH BRONCHIAL ASTHMA UNDER THE EFFECT OF TREATMENT
WITH MICROBIAL ANTIGENS AND CORTICOSTEROIDS

G. F. Glukhovskaya and I. V. Rubay (Kiev)

Histaminic metabolism was studied in 103 patients with bronchial asthma and its changes under the effect of treatment.

It is suggested that treatment with microbial antigens resulted both in an improvement of the histaminopexic properties of the blood serum and normalization of the free heparin content. Treatment with corticosteroids resulted in normalization of free heparin content, the histaminopexic property of the blood serum increased to a lesser degree. The latter fact is connected with a negative (catabolic) effect of corticosteroids on the protein metabolism.

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REEL/FRAME
13821090

1/2 023 UNCLASSIFIED PROCESSING DATE--11SEP70
TITLE--ELECTRON PARAMAGNETIC RESONANCE OF PRODUCTS FROM THE SULFURIZING OF
POLYMERS CONTAINING BENZENE RINGS IN THE CHAIN -U-
AUTHOR--GLUKHOVSKOY, V.S., KOSTIN, E.S., YUKELSON, I.I.
COUNTRY OF INFO--USSR G
SOURCE--VYZOKOMOL. SOEDIN. SER. B 1970, 12(2), 136-9
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--ELECTRON PARAMAGNETIC RESONANCE, POLYMER, BENZENE DERIVATIVE,
SULFIDE, EPR SPECTRUM
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1989/0226 STEP NO--UR/0460/70/012/002/0136/0139
CIRC ACCESSION NO--AP0106982
UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--11SEP70

2/2 023

CIRC ACCESSION NO--AP0106882

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EPR SPECTRA AND THE CONCN. OF PARAMAGNETIC PARTICLES IN THE PRODUCTS FORMED BY REACTION OF POLY(1,3-DIMETHYLPHENYLENE SULFIDE) (I) WITH S WERE STUDIED. THE SULFURIZING OF I UNDER AR LED TO THE EVOLUTION H SUB2 S AND THE FORMATION OF A SOLID, DARK RED PRODUCT. THE REACTION OF I WITH S REQUIRED MORE DRASTIC CONDITION THAN DID POLY(ARYLENEALKYLS), PRESUMABLY DUE TO THE LOWER MOBILITY OF H ATOMS IN THE RESONANCE STABILIZED ME GROUPS. THE REACTION PRODUCTS OF I WITH S GAVE ASYM. EPR SPECTRA, ASSIGNED TO II RADICALS FORMED DURING (SHOWN ON MICROFICHE) EARLY STAGES OF SULFURIZING, WHILE III RADICALS WERE PRIMABLY FORMED WHEN THE S CONTENT WAS NEARLY EXHAUSTED.

UNCLASSIFIED

1/2 028 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--CHARGE TRANSFER COMPLEXES AND CHEMICAL REACTIONS BETWEEN PRIMARY
AROMATIC AMINES AND AROMATIC CARBOXYLIC ACID DERIVATIVES IN THE SOLID
AUTHOR--(04)--KARDASH, I.E., GLUKHOYEDOV, N.P., PRAVEDNIKOV, A.N., MEDVEDEV,
S.S.
COUNTRY OF INFO--USSR
SOURCE--DOKL. AKAD. NAUK SSSR 1970, 191(2), 391-4 (PHYS CHEM)
DATE PUBLISHED--70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--IR SPECTRUM, UV SPECTRUM, PRIMARY AROMATIC AMINE, AROMATIC
CARBOXYLIC ACID, LOW TEMPERATURE EFFECT, CHLORINATED ORGANIC COMPOUND,
PHTHALIC ANHYDRIDE, MALEIC ANHYDRIDE, COMPLEX COMPOUND
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--2000/0699 STEP NO--UR/0020/70/191/002/0391/0394
CIRC ACCESSION NO--AT0124371
UNCLASSIFIED

PROCESSING DATE--30OCT70

UNCLASSIFIED

2/2 028

CIRC ACCESSION NO--AT0124371
ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. UV AND IR SPECTRA WERE REPORTED FOR SOXUBLIMED SYSTEMS OF: CHLORANIL, TEREPHTHALOYL CHLORIDE, ISOPHTHALGYL CHLORIDE, PHTHALIC ANHYDRIDE AND MALEIC ANHYDRIDE AWITH PRIMARY AND TERTIARY AMINES: P,C SUB6 H SUB4,(NH SUB2) SUB2, BENZIDINE, P,DIAMINODURENE, M,C SUB6 H SUB4 (NH SUB2) SUB2 AND (P,ME SUB2 NC SUB6 H SUB4) SUB2 TAKEN IN PAIRS. SUCH COSUBLIMATION OF AROMATIC AMINES AND ACID ANHYDRIDES OR CHLORIDES ONTO A SURFACE COOLED WITH LIQ. N RESULTED IN COMPLEX FORMATION AND TRUE CHEM. REACTIONS AT SIMILAP TO 120DEGREESK, I.E. SOMEWHATE ABOVE THAT OF LIQ. N AT WHICH NO TRUE REACTIONS WERE OBSERVED. EVIDENTLY AT THE SLIGHTLY HIGHER TEMP. IT BECOMES POSSIBLE TO HAVE ROTATION OF INDIVIDUAL MOL. GROUPS OR SOME MOBILITY OF MOLECULES PER SE. THE CHARGE TRANSFER COMPLEX FORMATION WAS CHARACTERIZED BY BAND SHIFTS, WHICH WERE TABULATED. THE ELECTRONIC SPECTRA OF THE COSUBLIMATES AT 77DEGREESK REMAINED SUBSTANTIALLY UNCHANGED WITH TIME, BUT LSIGHT WARMING RESULTED IN THE DISAPPEARANCE OF ABSORPTION IN THE VISIBLE SPECTRUM AND DEVELOPMENT OF CHEM. REACTIONS WHICH COULD BE FOLLOWED BY IR SPECTRA, WHICH REVEALED AMIDE GROUP DEVELOPMENT.

FACILITY: FIZ. KHIM. INST. IM. KARPOVA, MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC: 621.375.421

GLUMOV, B. V., MATUSEVICH, B. S., and SYCHEV, V. A.

"Some Broad-Band Filter Circuits With Linear Phase Characteristics"

Sb. tr. Nauchno-tekhn. konferentsii prof.-prepodavat. sostava
Vses. zacchn. elektrotekhn. in-ta svyazi (Transactions of the
Scientific-Technical Conference of Professorial-Instructor Staff
of the All-Union Correspondence Electrical Engineering Communica-
tion Institute--collection of works) No. 5, Moscow, 1970, pp 87-93
(from RZh-Radiotekhnika, No. 3, March 71, Abstract No. 3D30)

Translation: A single-branched piezoelectric filter, a differential-
bridge filter, and a filter using piezoceramic resonators and LC
elements are examined. A circuit and the characteristics of the fil-
ter with seven inductive windings and two transformers are given.
V. Ch.

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USSR

UDC 612.821.2

MEYERSON, F. Z., ISABAYEVA, V. A., IVANSHINA, A. Z., KRUGLEMOV, R. I., and
GILKOV, G. M., Institute of Normal and Pathological Physiology of the USSR
Academy of Medical Sciences, Moscow, and Medical Institute of the Ministry of
Health Kirgiz SSR

"Conditioned Reflexes in Massive and Expanded Training of Animals of Two Dif-
ferent Genetic Lines in the Process of Adaptation to Altitude Hypoxia"

Moscow, Zhurnal Vysshey Nervnoy Deyatel'nosti imeni I. P. Pavlov, Vol 21, No 2,
1971, pp 470-477

Abstract: Mice of two genetic lines, BALB/c (I) and C57BL/6 (II), were used in
experiments to determine the comparative rate of development and degree of
preservation of non-learned avoidance and escape reflexes in the process of the
animals' adaptation to altitude hypoxia. The methods of massive and expanded
development of conditional reflexes -- the first at 20 second and the latter at
90 second intervals between pairings were used. The control experiments were
carried out in Moscow; the experiments themselves, -- 5, 10, 20, and 40 days
after the transfer of the animals to the Tuya Ashu mountain pass at an altitude
of 3,200 meters. The reflexes were developed by placing the mice into the

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MEYERSON, F. Z., et al, Zhurnal Vysshey Nervaoy Deyatel'nosti imeni I. P. Pavlov, Vol 21, No 2, 1971, pp 470-477

main stem of a T-shaped labyrinth with passages permitting the animals to run to the illuminated sides of the T, and conducting an electric current to the floor of the area where the mice were initially placed. The degree of reflex preservation was determined by repeating the conditioning process to the initial criterion, and computing the preservation index on the basis of the difference in the number of pairings required to attain this criterion. The investigations established that under hypoxia the rate of the conditioning of both lines of animals by the massive method was substantially retarded in the beginning. In the course of adaptation to hypoxia, however, the rate of reflex development with the mice of the massive method accelerated with the mice of line (1) attaining the initial level, and of line (2) considerably exceeding the level prior to that at the time of the arrival in the mountains. The expanded method when used for line (1) retarded and when used for line (2) had little effect on the conditioning rate. The degree of reflex preservation in both lines improved with the adaptation of the animals to hypoxia. It was further established that the mice of line (2) adapted to hypoxia conditions

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more successfully than did the mice of line (1). The latter, within 20 days after their transfer to the high altitude began to lose weight, their motor activity diminished and their fur began to lose its gloss. They developed a mortality rate of 33 percent as compared with that of five percent of the mice of line (2). The various aspects of the results obtained in the investigations are discussed. The assumption is that the indicated differences between the two genetic lines of mice reflect the difference in their neurodynamic and consolidation processes. Two tables and 26 reference entries accompany the article.

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