USSR

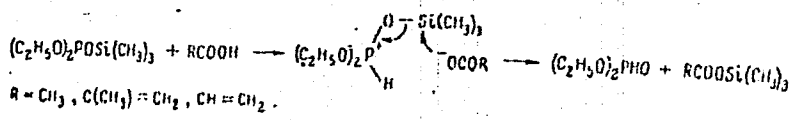
UDC 547.26'118

GAZIZOV, T. KH., KHARLAMOV, V. A., and PUDOVIK, A. N., The Institute of Organic and Physical Chemistry imeni A. Ye. Arbuzova, Academy of Sciences USSR

"The Reaction of Trimethylsily Diethyl Esters of Phosphorous Acid with Organic Acids"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), Vyp 11, 1972, pp 1579-1580

Abstract: The title reaction using acetic acid proceeds with the formation of diethylphosphorus acid and trimethylsilyl acetate according to the following reaction:



$R = CH_3, C(CH_3) = CH_2, CH = CH_2$.

The analogous reaction occurs with methacrylic and acrylic acids. Thus, these substituted phosphorous acids react with either saturated or with α, β-unsaturated organic acids by the Arbuzov reaction due to the initial protonation of the phosphorous atom of the silophosphorous acid.

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USSR

UDC 615.849.2+616-073.916:546.79

BOCHKAREV, V. V., LEVIN, V. I., STANKO, V. I., SEDOV, V. V., KHARLAMOV, V. T., KOZLOVA, M. D., and TARASOV, N. F., Institute of Biophysics, Ministry of Health USSR

"New Radiopharmaceuticals and Prospects for Their Clinical Use"

Moscow, Meditsinskaya Radiologiya, No 1, 1972, pp 4-12

Abstract: Description of the methods of preparation and most important properties of some recent Soviet-developed radioactive drugs based on relatively short-lived isotopes: (a) In^{111} preparations for liver (colloidal solution) and kidney (citrate complex) scanning; (b) iodobenzoic acid with I^{131} to study liver detoxification function; (c) colloidal solution of Pd^{103} for prolonged and uniform preoperative irradiation of tumors of different sites and sizes; (d) combined oleophilic preparations with different isotopes (Y^{90}, In^{111}, Pd^{103}, Au^{198}) for local irradiation of lymph nodes; (e) X-ray contrast media, iodoethiol and iodolinethol, to visualize lymph nodes; (f) resorptive beta applicator with Y^{90} for the treatment of eye tumors (clinical trials of the applicator in a group of patients with melanoblastomas showed complete or partial resorption of the tumor and no recurrences during the observation period (6 months to 2 years). Improvement in the technology of preparing two important

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APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201310009-3"

(3)

USSR

BOCHKAREV, V. V., et al., Meditsinskaya Radiologiya, No 1, 1972, pp 4-12

diagnostic agents containing I^{131} albumin macroaggregates (used for scanning in many lung diseases) and polyvinylpyrrolidone (used in the diagnosis of exudative enteropathy and other diseases) has resulted in marked enhancement of their quality.

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USSR

UDC 619:616.988.75-084.47:636.5

LAGUTKIN, N. A., CHERNYSHEV, V. V., BONDARENKO, I. M., KHARLAMOV, V. T., POLIKARPOV, B. V., BOLOTOV, B. V., NEZAMETDINOV, P. B., and RUDOBEL'SKAYA, G.A.

"Aerosol Vaccination of Poultry Against Newcastle Disease"

Moscow, Veterinariya, No 1, 1972, pp 54-56

Abstract: One-time aerosol vaccination of poultry against Newcastle disease produced strong and lasting immunity in almost 3 million animals of different ages and breeds and had to adverse effect on their productivity. The procedure required fewer workers and considerably less vaccine than for nasal or intramuscular vaccination. For example, some 80,000 to 90,000 5-day-old chicks could be vaccinated per day by three men. In 5- to 12-day old chicks hatched from the eggs of hens inoculated with live vaccine, transovarian passive immunity interfered with the development of postvaccinal immunity. Such animals required increased doses of the vaccine or revaccination 12 to 14 days later.

1/2 021 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--KINETICS AND MECHANISM OF THE ISOMERIZATION OF N,PENTANE ON THE HYDROGEN FORM OF MORDENITE -U-
AUTHOR-(03)-MINACHEV, KH.M., GARANIN, V.I., KHARLAMOV, V.V.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, SER. KHIM. 1970, (4), 835-40

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--REACTION KINETICS, CHEMICAL REACTION MECHANISM, ISOMERIZATION, PENTANE, ACTIVATION ENERGY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3006/1016 STEP NO--UR/0062/70/000/004/0835/0840

CIRC ACCESSION NO--AP0134728
UNCLASSIFIED

2/2 021 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0134728

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE TITLE REACTION, STUDIED IN A FLOW REACTOR IN H ATM., SHOWED DIRECT PROPORTIONALITY BETWEEN THE RATE OF ISOMERIZATION OF PENTANE AND ITS PARTIAL PRESSURE. THE RATE WAS INVERSELY PROPORTIONAL TO H PRESSURE, AND THE APPARENT ACTIVATION ENERGY IS 31 KCAL-MOLE IN THE 210-30DEGREES RANGE. THE REACTION EVIDENTLY PROCEEDS BY A CARBONIUM ION MECHANISM. FACILITY: INST. ORG. KHIM. IM. ZELINSKOGO, MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC: 535.22

KARTASHEV, A. I., KHARLAMOVA, G. N., All-Union Scientific Research Institute of Metrology imeni D. I. Mendeleyev

"Results of Measurement of the Speed of Light by the Interference Modulator Method With Photoelectric Registration"

Leningrad, Issledovaniya v Oblasti Opticheskikh i Svetovykh Izmereniy, Trudy Metrologicheskikh Institutov SSSR, No 114(174), 1970, pp 32-37

Abstract: A report on research to determine the speed of light in a vacuum. The work is a repetation of the experiment done at the All-Union Scientific Research Institute of Metrology in 1952 (Kartashev, A. I., "A New Method of Measuring the Speed of Light", Trudy VNIIM, No 26(86), Moscow-Leningrad, "Mashgiz", 1955), but with a number of improvements made in the interference modulator. Diagrams of the Fabry-Perot interference standard and the optical system of the installation are given, and the design improvements are explained. The measurement procedure is described. The results give an average value of 299 791.8·10^3 m/s with a mean-square error of 0.66·10^3 m/s. In the opinion of the authors, the equipment and procedure used in the experiment give a precision which is close to the

Bionics

USSR

KHARLAMOVA, S.

"Biological Currents Control the Prosthesis"

Moscow, Zdorov'ye, No 2, 1971, p 8

Abstract: A 10-man interdisciplinary group of the USSR scientists, and engineers were awarded the 1970 State Prize of the USSR for designing and constructing a forearm prosthesis with bioelectric control. The prosthesis is operated by a miniature motor powered by the wearer's own bodily electrical impulses amplified thousands of times. It can perform most of the functions of the normal arm, including the perception of temperature, humidity, and discrimination of physical objects (through sensors mounted in the fingers). Besides the obvious medical uses, bioelectric control will in time find application in atomic laboratories, deep-sea bathyspheres, and so forth.

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USSR UDC 616.24-003.668.4-092.9-008.939.6

PAVLOVA, I. V., KHARLAMOVA, S. F., and KURYSHEVA, N. G., Institute of Labor Hygiene and Occupational Diseases, Academy of Medical Sciences USSR

"Protein Metabolism in Experimental Berylliosis"

Moscow, Gigiyena Truda i Professional'nyye Zabolevaniya, No 5, 1970, pp 56-57

Abstract: Single injections of rats with BeO (intratracheally) or $BeSO_4$ (intramuscularly) decreased the albumin content, while increasing the content of alpha- and gamma-globulins in serum. Injections also decreased the content of SH groups in liver mitochondria. Radioisotope studies (1-C^{14}-lysine and 1-C^{14}-glycine) revealed a high rate of incorporation of the isotope into soluble and insoluble proteins in both liver and lung tissue after the rats were poisoned with BeO. Thus, protein metabolism is significantly affected by beryllium. Shifts were noted primarily in the organs for which the element has an affinity. Shifts involved protein synthesis and lysis as well as protein structure (electrophoretic mobility, lowered level of SH groups).

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USSR UDC: 621.396.6:621.315.5

LEVITIN, I. B., KHARLAMOVA, T. Ye., KONTSEVICH, A. I.

"Effective Emissibity of Some Electrovacuum Metals"

Elektron. tekhnika. Nauchno-tekhn. sb. Materialy (Electronic Technology. Scientific and Technical Collection. Materials), 1970, vyp. 3, pp 16-19 (from RZh-Radiotekhnika, No 12, Dec 70, Abstract No 12V417)

Translation: In connection with the introduction of non-contact methods of studying temperature fields in electronic radio equipment, it is necessary to have information on the emissivity of the different materials used, in particular for electrovacuum metals. In this paper, the authors have measured the effective emissivity of Ta, Nb, Ni, Mo, Ti and Kovar and the temperature dependence of emissivity in the 40-200°C temperature range. The measurements were made with the IKR-1 radiometer, using a plate covered with a dense thin film of soot from burning transformer oil as the conventional black reference body. The measurement results given show that the effective emissivity for all the above-mentioned metals increases with rising temperature, the increase being chiefly linear with the exception of titanium. Two illustrations, one table, bibliography of 13 titles. N. S.

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USSR

UDC 541.8:547.831:547.261/262

POPOV, V. A., YUSHKOVA, I. K., BOLAVINA, I. G., CHERKASOV, N. KH., and KHARLAMPOVICH, G. D.

"Study of the Solubility of Monosubstituted Quinoline, Isoquinoline, Quinaldine, and Lepidine Phosphates in Ethanol and Methanol of Different Concentrations"

Leningrad, Zhurnal Prikladnoy Khimii, Vol 44, No 11, Nov 71, pp 2589-2591

Abstract: Solubility of monosubstituted quinoline, isoquinoline, quinaldine, and lepidine phosphates in aqueous-alcoholic mixtures of ethanol and methanol increases with with temperature increase and with a drop in the concentration of alcohols. In the 0-10° temperature range the phosphates can be arranged in the following order of decreasing solubility: lepidine phosphate isoquinoline phosphate quinoline phosphate quinaldine phosphate. In the 30-50° range the order is: isoquinoline phosphate quinaldine phosphate lepidine phosphate quinaldine phosphate. These differences in their solubility may be used to obtain pure products.

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1/2 010 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--APPARATUS FOR DETERMINING THE INDUCTION PERIOD OF PARAFFIN OXIDATION BY A DIFFERENTIAL THERMAL METHOD -U-
AUTHOR-(03)-GOLTSOVA, L.F., KHARLAMPOVICH, G.D., KOLLEGOV, V.F.

COUNTRY OF INFO--USSR

SOURCE--ZAVOD. LAB. 1970, 36(2), 247-8

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHEMICAL LABORATORY APPARATUS, ALKANE, HYDROCARBON OXIDATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--2000/1995 STEP NO--UR/0032/70/036/002/0247/0248

CIRC ACCESSION NO--AP0125584

UNCLASSIFIED

2/2 · 010 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0125584

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE TITLE APP. IS DESCRIBED IN DETAIL. THE METHOD IS BASED ON THE RAPID TEMP. INCREASE OF THE PARAFFIN SAMPLE BECAUSE OF INTENSIVE RELEASE OF HEAT ON AUTOCATALYSIS AFTER THE END OF THE INDUCTION PERIOD. PARAFFIN SAMPLES (WITH OR WITHOUT ANTIOXIDANTS) WERE ADDED TO 5 TEST TUBES (THE STD. IS IN THE 6TH ONE) AND LOWERED INTO THE INNER VESSEL OF AN ULTRATHERMOSTAT WITH REQUIRED TEMP. (ACCURACY PLUS OR MINUS 0.2DEGREES). AFTER HEATING THE SAMPLE TO THE OEPRATING TEMP., CLEANED AND PREHEATED AIR WAS INTRODUCED AND THE SAMPLE TEMPS. WERE MEASURED BY A THERMOCOUPLE. AFTER THE END OF THE INDUCTION PERIOD, A TEMP. RISE (1.5-2.0DEGREES) TOOK PLACE. ON THE BASIS OF IODOMETRIC DETN. OF H SUB2 O SUB2, IT WAS FOUND THAT THE TEMP. DURING INDUCTION PERIOD INCREASED BY 0.6DEGREES. ON COMPARISON OF RESULTS OF IODOMETRIC AND THERMAL METHODS, THE THERMAL METHOD IS SHOWN TO BE MORE ACCURATE THAN THE IODOMETRIC (RELATIVE ERROR 0.5-1.0 AND 3.0-4.0PERCENT, RESP.). FACILITY: URAL. POLITEKH. INST. IM. KIROVA, SVERDLOVSK, USSR.

UNCLASSIFIED

USSR UDC 616-006-018.15"52"

KHARLAMPOVICH, S. I. and SVIHOGEYEVA, T. P., Institute of Medical Radiology, Academy of Medical Sciences USSR, Obninsk

"Circadian Rhythm of Cell Division in Tumors"

Moscow, Byulleten' Eksperimental'noy Biologii i Meditsiny, No 2, 1973, pp 66-68

Abstract: IMR-1 and T-1 sarcomas transplanted to adult August rats exhibited a stable circadian rhythm of cell division regardless of seasonal fluctuations or number of generations of the tumor. Mitotic activity in the IMR-1 sarcoma (15th generation) was highest between 0400 and 0700 hours and lowest at 1300 hours; the same pattern was observed in the 122d generation. In the case of the T-1 sarcoma, the peak of mitosis occurred at 1300 hours, while the low point was recorded at 0700 and 1900 hours.

USSR

UDC 620.17:669.24

KHARLANOVA, V. M., GORELIK, S. S., and KNIZHNIK, G. S.

"Relationship of the Mechanical Properties of Alloy Kh20N80 to Prior Deformation"

Moscow, Metallovedeniye i Termicheskaya Obrabotka Metallov, No 1, Jan 74, pp 75-76

Abstract: The effect of degree of prior deformation on the strength properties and, especially, creep rate of alloy Kh20N80 was studied. Alloy blanks were cold rolled to 3-30% reduction and recrystallized at 1080° C for eight hours. The most significant factor noted in this study was that the degree of prior deformation has a drastic effect on creep rate of this heat-resistant alloy. For a 5% prior deformation the creep rate is $1.4 \cdot 10^{-3}$/sec. Rhis value drops to a minimum at 15% deformation ($0.5 \cdot 10^{-3}$/sec) and then shoots up to a maximum value of $2 \cdot 10^{-3}$/sec for 25-30% prior deformation. The reasons for this variation of creep rate to prior deformation lie in the fact that at 15% deformation the main deformation takes place in the grain boundaries and not in the grain volume, while at 25-30% deformation the

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USSR

KHARLANOVA, V. M., et al., Metallovedeniye i Termicheskaya Obrabotka Metallov, No 1, Jan 74, pp 75-76

number of fine grains resulting from crushing of coarse increases drastically so as to cause a large increase in the number of lines of slip, thus yielding the high creep rate. Three figures, five bibliographic references.

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USSR

UDC: 621.372.853.1.09

KAZANTSEV, Yu. N., KHARLASHKIN, O. A.

"Wide Waveguides of Rectangular Cross Section With Small Losses"

Moscow, Radiotekhnika i Elektronika, Vol. 16, No 6, Jun 71, pp 1063-1065

Abstract: Strict expressions for normal modes are used to find attenuation in a wide metal waveguide of rectangular cross section in which layers of dielectric with a given permittivity are applied to the opposite inside walls. The dimensions of the inner cavity are many times greater than a wavelength. It is found that the attenuation of EM-waves in such a waveguide decreases as the wavelength becomes shorter. Losses in such a waveguide were experimentally studied by the resonance method in the 2 mm and 8 mm wave bands. The results show that a dielectric coating on the narrow walls of the waveguide reduces attenuation by a factor of 4-5.

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USSR

UDC 615.373-07:616-003.725(048)

PODOBED, V. A., KAZARYAN, B. M., and KHARLIP, B. V.

"Dependence of Immunogenic Properties of Influenza Vaccine on Its Biological Activity"

Minsk, Zdravookhraneniye Belorussii, No 12, 1972, p 74

Abstract: Immunogenic properties of type A_2 and type B flu vaccines were examined in 1971 during inoculations of 69 watch factory workers. Vaccinations of type A_2 were biolgoically highly active; of type B, less active. Pronounced antibody increase (double or more) occurred in 85.4% of the type A_2 cases, but in only 47.7% of the type B cases. Biological activity of the virus was determined in chick embryos by the hemagglutination reaction. Immunogenic ability was indicated by antibody titers of paired sera in the hemagglutination inhibition test with 1% chicken erythrocytes. The average titer for type A_2 antibodies was 36.1 and for type B was 11.6 before vaccination; after inoculation it was 130 and 22.9 resepctively. The dependence of immunogenic ability of vaccine upon its biological activity is evident. Increases in resistance among some nonvaccinated persons were noted.

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1/3 027 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--TEMPERATURE DEPENDENCE OF DEFORMATION RESISTANCE IN NICKEL MOLYBDENUM AND NICKEL TUNGSTEN ALLOYS -U-

AUTHOR-(03)-SUKHOVAROV, V.F., KARAVAYEVA, V.V., KHARLOVA, R.P.

COUNTRY OF INFO--USSR

SOURCE--IZV. VYSSH. UCHEB. ZAVED., FIZ. 1970, 13(1), 89-93

DATE PUBLISHED-------70

SUBJECT AREAS--MECH., IND., CIVIL AND MARINE ENGR, MATERIALS

TOPIC TAGS--NICKEL ALLOY, TUNGSTEN ALLOY, MOLYBDENUM ALLOY, REFRACTORY METAL, METAL DEFORMATION, DEFORMATION RESISTANCE, TEMPERING, METAL AGING, METAL COMPRESSIBILITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/1367 STEP NO--UR/0139/70/013/001/0089/0093

CIRC ACCESSION NO--AT0120162

UNCLASSIFIED

2/3 027 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AT0120162

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ALLOYS DIFFERING IN THE LEVEL OF K STATE EFFECT WERE STUDIED TO DET. WHAT PROCESSES ARE RESPONSIBLE FOR THE CREATION OF THE ANOMALOUS DEPENDENCE OF DEFORMATION RESISTANCE ON TEMP. AND RATE. ALLOYS OF NI WITH 5 AND 10PERCENT MO AND 5PERCENT W WERE HOMOGENIZED 50 HR AT 1200DEGREES AND FORGED INTO RODS, FROM WHICH WIRE AND COMPRESSION SPECIMENS WERE PREPD. THE FOLLOWING EFFECTS WERE STUDIED: (A) THE DEPENDENCE OF ELEC. RESISTANCE ON THE TIME OF TEMPERING AT 400DEGREES, (B) THE DEPENDENCE OF RESISTANCE TO COMPRESSION ON TEMP. AND RATE AT 20-600DEGREES, AND (C) DEFORMATION CHARACTERISTICS DURING TENSION AT 20-600DEGREES. TWO COMPRESSION DEFORMATION RATES WERE USED: 20 AND 2400PERCENT-HR, WHILE THE TENSION RATE WAS ONLY 48PERCENT-HR. BEFORE TESTING, THE SPECIMENS WERE HELD 3 HR IN VACUO AT 950DEGREES AND THEN HARDENED IN WATER. DURING TEMPERING THE NI MO 10PERCENT ALLOY SHOWED THE HIGHEST INCREASE OF ELEC. RESISTANCE OF ALL THE ALLOYS, THE ALLOY NI MO 5PERCENT SHOWED ONLY A SLIGHT INCREASE, AND THE ALLOY NI 5PERCENT W HAD A DECREASE OF ELEC. RESISTANCE; ONLY THE NI MO 10PERCNET UNDERWENT I STATE TRANSFORMATION TO A SIGNIFICANT DEGREE. FROM THE DEPENDENCE OF RESISTANCE TO COMPRESSION DEFORMATION ON TEMP. ALL THE ALLOYS UNDER WENT DEFORMATION AGING AT GREATER THAN 150DEGREES. THIS IS CONFIRMED BY THE OCCURRENCE OF AN ANOMALOUSLY HIGH RESISTANCE TO COMPRESSIONDEFORMATION FOR NI MO 10PERCENT AT HIGH DEFORMATION RATES (2400PERCENT-HR). DEFORMATION AGING WAS REDUCED CONSIDERABLY BY DECREASING THE CONC. (BY HEATING THE SPECIMEN 25 HR AT 1150DEGREES IN ATM. OF H).

UNCLASSIFIED

3/3 027 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AT0120162

ABSTRACT/EXTRACT--THE PREFERENTIAL FORMATION OF K STATE IN TH ALLOY NI PLUS MO 10PERCENT TO A LARGER EXTENT THAN IN OTHER ALLOYS WAS CONFIRMED BY THE LARGER DEGREE OF STEP WISE CHARACTERISTIC OF DEFORMATION THAN WITH ALLOYS CONTG. 5PERCENT MO OR W.

UNCLASSIFIED

USSR

UDC [621.357.5:621.79.027]:669.14

GLEMBOTSKIY, Z. A., and KHARMAN, N. G.

"Question of the Product of the Anode Solution of Metals Obtained During Electrochemical Processing"

Bul. Akad. Shtiintse RSSMold, Izv. AN Mold SSR. Ser. fiz.-tekh. i mat. n. (Bulletin of the Academy of Shtiintse (translit) Russian Soviet Socialist Moldania, Studies of the Academy of Sciences Moldania SSR. Physical-technical and Mathematical Sciences Series), No 3, 1972, pp 86-87 (from Referativnyy Zhurnal -- Khimiya, No 8(II), 1973, Abstract No 8L285)

Translation: A study was made of the anode solution of steel-45 obtained during the electrochemical processing in 15% NaCl solution. It was shown that the electrolyte turns into a colloid solution according to the amount of product dissolved in it. Electro-flotation method of purifying an electrolyte results in a four-fold decrease in iron ions in solution.

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1/2 026 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--THE DURATION OF PASSIVE IMMUNITY IN PROPHYLAXIS OF TETANUS -U-

AUTHOR-(05)-MATVEYEV, K.I., KASHINTSEVA, N.S., PETROV, P.N., KASPAROVA, YE.M., KHARMOVA, S.A.

COUNTRY OF INFO--USSR

SOURCE--ZHURNAL MIKROBIOLOGII, EPIDEMIOLOGII I IMMUNOBIOLOGII, 1970, NR 5, PP 32-36

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--PASSIVE IMMUNITY, PROPHYLAXIS, TETANUS TOXOID, TETANUS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1994/0104 STEP NO--UR/0016/70/000/005/0032/0036

CIRC ACCESSION NO--AP0114500

UNCLASSIFIED

2/2 026 UNCLASSIFIED PROCESSING DATE 18OCT76

CIRC ACCESSION NO--AP0114500

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CHANGES OF ANTITOXIN TITRE AFTER THE ADMINISTRATION OF 3,000 AU OF ANTITOXIN SERUM WERE STUDIED ON 98 PATIENTS OF THE TRAUMATOLOGICAL DEPARTMENT OF THE SKLIFOSOVSKY INSTITUTE. BLOOD ANTITOXIN TITRE WAS DETERMINED ON THE 2ND, 4TH, 6TH, 8TH, 10TH, 12TH, 15TH, 20TH AND 30TH DAYS. IN THE MAJORITY OF CASES THE ANTITOXIN TITRE REMAINED WITHIN THE RANGE OF 0.01 AU-ML UP TO THE 8TH-12TH DAY. LATER ITS TITRE DISPLAYED A RAPID FALL. TO INCREASE THE EFFICACY OF TETANUS PROPHYLAXIS IN NONIMMUNIZED WOUNDED PERSONS AN ACTIVE PASSIVE PROPHYAXIS WITH THE SERUM AND TOXOID IS NECESSARY. FACILITY: INSTITUT EPIDEMIOLOGII I MIKROBIOLOGII IM. SAMALEI AMN SSSR AND INSTITUT IM. SKLIFOSOVSKOGO, MOSCOW.

UNCLASSIFIED

USSR

UDC 547.341:547.52/59,023

KHARRASOVA, F. M., ZYKOVA, T. V., SALAKHUTDINOV, R. A., and RAKHIMOVA, G. I., Kazan' Chemical Technological Institute imeni S. M. Kirov

"Data of ^{31}P NMR Spectroscopy of the Acid Chlorides and Esters of Some Arylphosphonic Acids"

Leningrad, Zhurnal Obshchey Khimii, Vol 43 (105), No 12, Dec 73, pp 2642-2644

Abstract: The NMR ^{31}P spectra of the acid chlorides and esters of phenylphosphonic acid and its p-substituted derivatives were studied showing that the effect of conjugation between the aromatic nucleus and tetracoordinated phosphorus atom exceeds considerably the inductive effects. This leads to increased shielding of the phosphorus atom nucleus as compared to alkylphosphonic esters of analogous structures.

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USSR UDC 547.341

KHARRASOVA, F. M., RAKHIMOVA, G. I., ZYKOVA, T. V., and SALAKHUTDINOV, R. A., Kazan' Chemical Technological Institute imeni S. M. Kirov

"The Action of Carbon Tetrachloride and Chloral on Some β-Chloroethyl Esters of Arylphosphonous Acids"

Leningrad, Zhurnal Obshchey Khimii, Vol 43 (105), No 9, Sep 73, pp 1930-1934

Abstract: The reaction of some arylphosphonous acid bis-β-chloroethyl esters with carbon tetrachloride and chloral was investigated, showing that with chloral the β-chloroethyl-β', β'-dichlorovinyl esters of arylphosphonous acids are obtained. The formation of β-chloroethyl esters of aryltrichloromethylphosphinous acids in the reaction of bis-β-chloroethylphosphonites with carbon tetrachloride is accompanied by the oxidation of these esters to arylphosphonates. The NMR ^{31}P spectra of the products obtained have been studied.

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USSR"

KAMAY, G. KH., ERRE, E. A., and KHARRASOVA, F. M.

"Synthetic Method for Amidoesters of Alkyl(aryl)thiophosphoric Acids"

USSR Author's Certificate No 367112, filed 1 Mar 71, published 12 Mar 73 (from RZh-Khimiya, No 19, Oct 73, Abstract No 19N504 P)

Translation: The method is based on the reaction of acid alkyl esters of alkyl(aryl)thiophosphonous acids with amines or hydrazines in CCl_4: $RP(S)(OR') + 2R"_2NH + CCl_4 \rightarrow RP(S)(OR')NR"R'"$ (I) + $R"_2NH \cdot HCl + CHCl_3$, the following I being obtained (R, R', R", R"' or R"R"'N, yield in %, b.p. in °C/mm or m.p. in °C, n_D^{20}, d_4^{20} being reported): Et, Pr, iso-Pr, H, 72.8, 78-80/1, 1.4804, 0.9980; Et, Pr, Ph, H, 57.4, 118-120/2, 1.5532, 1.217; Et, Pr, NHPh, H, 73.6, 72-3, -, -; Et, Pr, Pr, Pr, 64, 88-91/1, -, (n_D^{23} 1.4760), -; Et, Pr, morpholino, 63.2, 101-2/1, 1.4997, 1.0976; Ph, Et, morpholino, 79.1, 75-6, -,-; Ph, Et, iso-Pr, H, 68, 108-9/0.8, 1.5495, 1.0924. The synthesized I are interesting as possible pesticidal agents.

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USSR

UDC 546.9 + 541.124.7

BARABANOV, V. P., TSENTOVSKIY, V. M., TRET'YAKOVA, A. YA., KHARRASOV F. M., and BREYENKOVA, V., Kazan' Chemical-Technological Institute Imeni S. M. Kirov

"Ionization Constants of Some Arylphosphonic, Aryltrichloromethylphosphinic, and Arylphosphonous Acids in Dimethylformamide and Acetone"

Leningrad, Zhurnal Obshchey Khimii, Vol 43 (105), No 5, May 73, pp 1147-1150

Abstract: Thermodynamic ionization constants for some aryl(alkyl)phosphonic and arylphosphinic acids in dimethylformamide at 25° were determined by the potentiometric method. It was established that the substituent at the phosphorus atom has a strong effect on the ionization of the acids. In connection with a change in electronegativity of the substituent, ethylphosphonic acid is weaker than the phenylphosphonic acid. Introduction of a chlorine atom into the para position of the phenyl group increases the proton donating ability of the compound. Replacing one hydroxyl group by trichloromethyl radical increases the acid strength by almost a 4 fold order.

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USSR

UDC 539.143.43+661.718.1

ISHMAYEVA, E. A., KHARRASOVA, F. M., ZAV'YALOV, A. P., and PUDOVIK, A. N., Kazan State University imeni V. I. Ul'Yanov-Lenin, Kazan

"The Dipole Moments of Para-Substituted Phenylphosphonates"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, No 3, Mar 71, pp 619-620

Abstract: The dipole moments of the p-substituted phenylphosphonates $p\text{-}XC_6H_4P(O)(OEt)_2$ (X = Me, MeO, Cl, Br) and of $PhP(O)(OEt)_2$ were determined experimentally. They were also calculated on the assumption that the dipole moment of the $(EtO)_2P(O)$ - group had the value 2.30 D which followed from an orientation of this group in such a manner that the components along the coordinate axes had the values $m_x = 0.72$, $m_y = 0$, $m_z = 2.19$ D (shmayeva, et al Izv. AN SSSR, Ser. Khim., 1970, 2695). The calculated values for compounds $p\text{-}XC_6H_4P(O)(OEt)_2$ did not correspond to the experimental values, apparently because of an interaction of X with the $(EtO)_2P(O)$-group by conjugation, through the phenyl ring. The experimentally determined dipole moment of $PhP(O)Cl_2$ corresponded to the calculated moment. 1/1

USSR

UDC 547.241

KAMAY, G. Kh. (deceased), KHARRASOVA, F. N., ERRE, E. A., Kuzan' Institute of Chemical Technology imeni S. M. Kirov

"On Synthesis of Dialkyl-(Aryl)phosphinic and Thiophosphinic Acid Amides and Alkyl-(Aryl)-phosphonic Acid Ester Amides"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), No 6, Jun 72, pp 1295-1299

Abstract: Amides of dialkyl- and diarylphosphinic and thiophosphinic acids and mixed ester amides of alkyl(aryl)phosphonic acids were synthesized in order to study their pesticidal properties. Oxides and sulfides of secondary phosphines, and also partial esters of alkyl and aryl phosphonous acids reacted with amines in the presence of carbon tetrachloride to give amides of dialkyl-(aryl)phosphinic and thiophosphinic acids, and amide esters of alkyl-and aryl-phosphonic acids, respectively. It was found that sulfides of secondary phosphines react with carbon tetrachloride and trichlorobromomethane in the absence of bases to form the corresponding dialkyl(aryl)-phosphinic acid halides.

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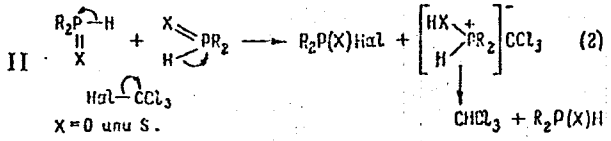
USSR

KAMAY, G. Kh. (deceased), et al., Zhurnal Obshchey Khimii, Vol 42(104), No 6, Jun 72, pp 1295-1299



The resultant compounds are herbicides.

USSR

UDC: 547.241

RAKHIMOVA, G. I., KHARRASOVA, F. M., Kazan' Institute of Chemical Technology imeni S. M. Kirov

"Action of Carbon Tetrachloride and Chloral on β-Chloroethyl Esters of Certain Alkylphosphonous Acids"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), No 6, Jun 72, pp 1244-1247

Abstract: β-Chloroethyl esters of methyl-, ethyl-, propyl- and butylphosphonous acids were reacted with CCl_4 and chloral. When reacted with chloral, these compounds were readily converted to β-chloroethyl-β',β'-dichlorovinyl esters of the corresponding alkylphosphonic acids:

$$RP(OCH_2CH_2Cl)_2 + CCl_3CHO \longrightarrow RP(O)\begin{matrix}OCH_2CH_2Cl\\ \diagdown\\ OCH{=}CCl_2\end{matrix} + ClCH_2CH_2Cl.$$

On the other hand, reaction with CCl_4 yielded chiefly β-chloroethyl esters of the corresponding alkyltrichloromethylphosphinous acids:

$$RP(OCH_2CH_2Cl)_2 + CCl_4 \longrightarrow \begin{matrix}R\\ \diagdown\\ CCl_3\end{matrix}P(O)OCH_2CH_2Cl + ClCH_2CH_2Cl.$$

The identification of these acid esters was confirmed by thin layer chromatography.

1/1

USSR

UDC 547.242

TSENTOVSKIY, V. M., BARABANOV, V. P., KHARRASOVA, F. M., and BUSYGINA, T. A.,
Kazan' Institute of Chemical Technology imeni S. M. Kirov

"Study of Ionic Association of Onium Salts in Solutions. IV. Conductance of Tetraalkyl(aryl)phosphonium Halides in Acetone, Dimethylformamide and Nitromethane"

Leningrad, Zhurnal Obshchey Khimii, Vol 41, No 8, Aug 71, pp 1659-1662

Abstract: The article describes results of a study of the conductance of tetraphenylphosphonium chloride, bromide and iodide and tetrabutyl-, tetraanyl- and tetrahexylphosphonium bromides in acetone, nitromethane and dimethylformamide. It is shown that the association capacity of ions is determined by the nature of the hydrocarbon radical of the phosphonium cation, as well as the nature of the anion, and is retained in the transition from acetone to nitromethane and dimethylformamide, despite the decrease in size of the solvated ion.

1/1

USSR

UDC 632.95

ODINTSOV, V. S., PETRENKO, V. S., TERTYSHNYY, V. N., KHARSUN, A. I.

"Enzymes -- Targets of Organophosphorous Insecticides in the Metamorphosis of Flies"

Fiziol. aktivn. veshchestva. Resp. mezhved. sb. (Physiologically Active Substances. Republic Interdepartmental Collection), 1972, vyp. 4, pp 26-28 (from RZh-Khimiya, No 2 (II), Feb 73, Abstract No 2N474)

Translation: In order to discover the relation between the activity of esterases and the physiological activity of insecticides with respect to insects a study was made of the nature of the activity dynamics of acetylcholinesterase, carboxylesterase and arylesterase in larvae, pupae and winged houseflies during ontogenesis. The colorimetric hestrine method was used to establish the high activity of the three esterases in the given steps of metamorphosis. The weak physiological activity of organophosphorous compounds in the individual stages of metamorphosis, in particular, the pupae, is explained not by the absence of active enzymes -- targets -- but by a peculiarity of pupal metamorphosis (a nonfeeding phase) and the physical-chemical properties of the compounds. The necessity for using strongly fumigating organophosphorous insecticides for successful control of the pupae stage of development of insects is demonstrated.

MEDICINE

KHARSUN, M.S.

D-1

UDC 355.55:[614.23:355/359+359.6

THE PREPARATION OF ARMY AND NAVAL PHYSICIANS FOR RENDERING EMERGENCY MEDICAL ASSISTANCE

/Article by Lieutenant Colonel M.S. Kharsun, Medical Service; Moscow, Voyenno-Meditsinskiy Zhurnal, Russian, No. 9, 1971, submitted November 1970, signed to press 31 August 1971, pp 13-15/

Emergency medical assistance, being a most important section of therapeutic work, occupies an important place in the practice of army and naval physicians. Their activities include several peculiarities which affect the organization of emergency assistance: the remoteness from hospitals, the long voyages (ships) and others. Under such conditions, the medical staff very seldom may receive assistance or carry out timely evacuation of the patient (casualty) to a hospital for qualified or provide specialized medical assistance. This very circumstance requires especially careful preparation of military physicians for independent rendering of emergency medical assistance under different conditions.

In the discussion in an article by I.V. Solivunov, in the "Military Medicine Journal" concerning the primary preparation of military physicians by various authors, as a rule, the importance of teaching sections related to emergency medical assistance was emphasized (N.F. Voytenko, 1967; N.V. Buzulutskiy, 1969; N.A. Baranskov, 1969; S.A. Fomchenkov, A.A. Shmurov, V.T. Novikov, 1970 and others). The experience of the work of the medical staff of ships, units and hospitals indicates a general tendency toward the improvement of the quality of emergency medical assistance in recent years. There are, however, some deficiencies in this area of medical work. Basically, they involve errors of diagnostic and therapeutic and of a medical-tactical nature. Young physicians in the first years of independent practice experience the greatest difficulties while rendering emergency assistance. This is shown by the comparatively high frequency of errors committed by them. This

AA0040706

UR 0482

Soviet Inventions Illustrated, Section I Chemical, Derwent, 3/70

235239 SYNTHETIC FIBRES with improved dyeability and other properties are produced by spinning into a coagulating bath a solution containing a polymer mixt. which comprises a sulphonated copolymer(s) of styrene and its derivs. containing 1-15% (by weight of the copolymer) of sulphur in the form of sulphonate groups. The sulphonated copolymer may be dissolved separately from other polymers; subsequently, both solutions are mixed together. In an example, 98 parts of polyacrylonitrile and 2 parts of sulphonated styrene-acrylonitrile copolymer (the ratio styrene acrylonitrile being 7:3, and the sulphur content

AUTHORS: Peters, W.; Khartig, Z.; Meissner, V.; Rudolf, H.; and Berger, W.

19750339

AA0040706

4.8%) were dissolved together in dimethylformamide at 70°C (for 2 hrs.). The resulting 16% soln. was spun into a 50:50 dimethylformamide - water coagulating bath at 15-16°C. The resulting fibres were stretched in two steps at 98-100°C the total stretching ratio was 1:6. The fibres had a strength of 2.86 g/d. elongation 21%, and a good dyeability. 26.7.67. as 1175317/23-5, PETERS, W. et al. (Priority: 22.8.66. East Germ. 119415) (26.5.69) Bul. 5/16.1.69. Class 29b, Int. Cl. D 01f.

19750340

USSR

UDC: 629.78.015.4

KHARUN, N.M. and SHELOMOV, N.A.

"Stressed State of System Near the Point of Application of Concentrated Transversal Force"

Samoletostr. i tekhn. vozd. flota. Resp. mezhved. temat. nauch.-tekhn. sb. (Aircraft Building and Aviation Technology. Interagency Topical Scientific-Technical Symposium) 1972, vyp 28, pp 79-84 (from Referativnyy Zhurnal-Raketostroyeniye, No 7, 1972, Abstract No 7.41.215)

Translation: The application of combined system calculation method to the stress analysis of a structure, consisting of a very thin shell, two elastic end frames and a perfectly rigid column is investigated. The structure is loaded by a concentrated transversal force applied to the frame. Solution of a specific problem by means of a BESM-4 computer is presented (2 illustrations, 1 table, 5 references, resume).

1/1

KHARYBIN, A. Ye.

Radio

Source: JPRS 50453
01 June 1962

UDC 621.7.056.54.001

II. STATISTICAL ANALYSIS OF RADAR [illegible]

ANALYSIS OF THE OPERATION OF PULSE RADAR AUTOMATIC RANGE FINDERS

A. Ye. Kharybin, Candidate of Technical Sciences

[illegible]

Introduction

Pulse radar automatic range finders are used for automatic lock-on and range tracking of the target. Usually these operations are performed at some distance determined on the one hand by a value of the maximum range R_{max}, and on the other hand, by the skip zone of the radar R_{min}.

In pulse radar, the range to the target is determined by the delay time of the signal reflected from the target with respect to the main bang of the radar.

Therefore, in the automatic search mode in a range finder the so-called range pulse (range gate) is generated the delay time of which with respect to the main bang of the radar varies continuously with respect to a periodic law from the value of t_{min} to a value of t_{max} and back. The values of t_{min}, t_{max} are determined by the known expression

$$t_R = \frac{2R}{c}$$

in accordance with the search, lock-on and tracking range (R_{min}, R_{max}). The signal reflected from the target or, for short, the target pulse, has a finite length τ_{target}. For point targets τ_{target} is approximately equal to the duration of the main bang of the radar τ_i.

The range pulse also has a finite duration τ_{radar}. The length of the range pulse is usually twice as long as the main bang of the radar, that is,

$$\tau_{radar} = 2\tau_i.$$

Therefore, for continuous variation of the range pulse delay time, sooner or later the time position of the range pulse coincides with the time

USSR

UDC 621.396.965.8

KHARYBIN, A. Ye.

"Analysis of the Operation of Automatic Range Finders in Pulse Radar Stations"

Tr. Mosk. aviats. in-ta (Works of Moscow Aviation Institute), 1971, vyp. 207, pp 40-53 (from RZh-Radiotekhnika, No 12, Dec 71, Abstract No 12G37)

Translation: This paper presents the block diagram of an automatic range finder in a pulse radar combined with a search and lock-on system. The circuitry for the automaton and lock-on is presented, and it is shown that the automatic lock-on device operates on a principle analogous to that of a circuit for integrating binary quantized signals, which determines the presence of a target when K_{av} signals in a row appear. Basic considerations are presented on selecting the rate of target search. An example is given of analysis of the operation of an automatic pulse range finder by means of z-transformation. Seven illustrations, bibliography of five titles. Resumé.

1/1

USSR UDC: 621.317.79

KHARYBIN, N. K., All-Union Scientific Research Institute of Surgical Equipment and Instruments

"A Device for Automatically Measuring the Scalar Electrical Impedance of a Biological Object and Dynamic Changes of its Resistance in an AC Circuit"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 28, 1970, Soviet Patent No 280646, Class 21, filed 17 Jan 69, pp 66-67

Abstract: This Author's Certificate introduces a device for automatically measuring the scalar electrical impedance of a biological object and dynamic changes of its resistance in an AC circuit. The unit contains a working frequency oscillator, two transformers, buffer elements such as emitter followers, and recording instruments. As a distinguishing feature of the patent, reliability, accuracy and operating safety are improved, and the weight and overall dimensions of the device are reduced by connecting the primary winding of one transformer to the working frequency oscillator, while its secondary is connected to the object to be studied, and the second transformer is electrically coupled to the auxiliary windings of the first transformer. One of these auxiliary windings is connected through the buffer element and a circuit with a high time constant to the primary winding of the second transformer. The high-frequency input of the modulator for the circuit with a high time constant is fed from the working frequency oscillator. The secondary winding of the second transformer is connected to an auxiliary secondary winding on the first transformer, and also to the input of an instrument which registers dynamic changes in resistance. The instrument which records the scalar electrical impedance is connected to one of the auxiliary windings of the first transformer in the circuit following the buffer element.

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EQUIPMENT
Measuring, Testing, Calibrating

USSR

UDC 551.510.62:539.293

TAGANOV, O. K., PROSKURYAKOV, M. V., KHAR'YUZOV, V. A. and FILIPPOV, O. K.

"The Determination of Optical Constants of Semiconductor Glasses in the Spectral Region 1.1 to 1.6 mm"

Leningrad, Optiko-Mekhanicheskaya Promyshlennost', No 2, Feb 73, pp 62-63

Abstract: A method for experimentally determining the optical constants of semiconductor glasses in the submilimeter region of the spectrum, using a prism at minimum deflection for determining the refraction coefficient, a plane-parallel plate for the absorption coefficient, a goniospectrophotometer, an optical acoustic detector and a reverse wave lamp is presented. The results obtained make it possible to calculate the absorption coefficient and the refraction. As an example of the use of this method the results of the measurement of a sample of chalcogenite glass are presented.

1/1

USSR

BUDAGOV, YU. A., VINOGRADOV, V. B., VOLOD'KO, A. G., DZHELEPOV, V. P., KLADNITSKIY, V. S., KUTSIDI, N. K., Tbilisi State University, LOMAKIN, YU. F., MAKSIMENKO, V. A., MARTINSKA, G., FLYAGIN, V. B., KHARZHEYEV, YU. N., and SHANDOR, L.

"Possible Existence of $\pi^- \gamma$-Resonance With a Mass of 270 MeV"

Moscow, Pis'ma v Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, Vol 13, No 12, 20 Jun 71, pp 665-668

Abstract: The preliminary results of this experiment were presented in 1970 at the Fifteenth International Conference on High-Energy Physics in Kiev. The authors find experimental signs of the possible existence of a new meson resonance. They observe a narrow peak when M = 270 MeV in the spectrum of effective masses of the system $\pi^- \gamma$, which forms in the reaction $\pi^- p \rightarrow \pi^- p + (2,3)\gamma$ at 5 GeV/c. The authors study events of the type $\pi^- p \rightarrow \pi^- p + (2,3)\gamma$ which satisfy the following conditions: (1) the protons are identified by ionization and stopping in the camera, and the impulses of the protons do not exceed 900 MeV/c; (2) the length of the tracks of secondary charged particles from the star is no less then 2 cm, and the impulses of these particles are measured with an

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APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201310009-3"

USSR

BUDAGOV, YU. A., et al., Pis'ma v Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, Vol 13, No 12, 20 Jun 71, pp 665-668

accuracy no worse than 30%; (3) the γ-quanta have impulses greater than 30 MeV/c, measured with an accuracy no worse than 25%; (4) the scattering angles between the two γ-quanta do not exceed 2°. As a result of the experiment, the authors find that the effect which they observed is caused by the existence of a new meson resonance. The figures depict the distribution by effective mass of quanta. The article contains 2 figures and a bibliography of 7 entries.

2/2

USSR

UDC 612.822.3.087

[redacted] and KHASABOVA, V. A., Laboratory of Physiology and Pathology of Higher Nervous Activity, Institute of Experimental Pathology and Therapy of the USSR Academy of Medical Sciences, Sukhumi

"Cortico-Cortical Functional Relations in Macacus rhesus Monkeys Revealed by Evoked Responses"

Leningrad, Fiziologicheskiy Zhurnal SSSR imeni I. M. Sechenov, Vol 58, No 9, 1972, pp 1,347-1,354

Abstract: A study was made of the functional relationships between various cortical areas by means of evoked responses to a single electrical stimulus applied by implanted cortical electrodes to the frontal, motor, somatosensory, parietal and occipital regions of the cortex. A single electrical stimulation of the frontal region of the cortex arouses responses in the motor and parietal cortex in 16% of the cases of the given location of the stimulating electrodes. Various stimulation of the same fields of the motor and parietal cortex leads to the development of responses in the frontal cortex in 66% of the cases ($p < 0.01$). The same electrical stimulation of the frontal cortex causes responses in the occipital cortex in 10% of the cases, whereas stimulation of the occipital cortex leads to responses in the frontal cortex in 70% of the cases ($P < 0.01$). The frequency of occurrence of responses in the occipital cortex to a single electrical stimulation of the motor and parietal cortexes

USSR

KHASABOV, G. A., and KHASABOVA, V. A., Fiziologicheskiy Zhurnal SSSR imeni I. M. Sechenov, Vol 58, No 9, 1972, pp 1,347-1,354

(56%) and responses in the motor and parietal cortexes to stimulation of the occipital cortex (43%) did not differ statistically ($p > 0.05$). Comparison of the percentage indexes of the occurrence of cortico-cortical responses indicates significant predominance of the afferent couplings of the frontal cortex over its efferent couplings (within the limits of the neocortex of one hemisphere). Thus, it can be considered as a region in which the couplings from other cortical zones converge. The responses reflecting the relationships of the investigated cortical regions occur with latent periods of 1.5-6.0 milliseconds. In almost all groups of responses characterizing these couplings latent periods of up to 2 milliseconds are encountered. The existence of responses with minimum latency indicates the participation of the direct cortico-cortical paths in their generation.

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USSR

UDC 612.822.3.087

KHASABOV, G. A., and KHASABOVA, V. A., Laboratory of Physiology and Pathology of Higher Nervous Activity, Institute of Experimental Pathology and Therapy of the USSR Academy of Medical Sciences, Sukhumi

"Cortico-Cortical Functional Relations in Macacus rhesus Monkeys Revealed by Evoked Responses"

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USSR

KHASABOV, G. A., and KHASABOVA, V. A., Fiziologicheskiy Zhurnal SSSR imeni I. M. Sechenov, Vol 58, No 9, 1972, pp 1,347-1,354

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2/2

USSR

AL'TSHULER, S. A., VALISHEV, R. M., KOCHELAYEV, B. I., and KHASANOV, A. KH., Kazan' State University imeni V. I. Lenin

"Study of a Phonon System by the Mandelstam-Brillouin Light Scattering Method Under Paramagnetic Resonance Saturation"

Moscow, Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, Vol 62, No 2, Feb 72, pp 639-651

Abstract: The article gives a detailed account of the results of an experimental and theoretical study of a phonon bottleneck in cerium magnesium nitrate by the Mandelstam-Brillouin light scattering method. Continuous paramagnetic resonance saturation of the Ce^{3+} ions was used to study steady-state "heating" of the phonon system; then measurements were made during spin system excitation by periodic rectangular pulses, and the steady-state process was studied together with the transient process occurring at the moment of inclusion of a saturating field. New peculiarities of the phonon bottleneck effect were found during saturation at the end of the EPR line: viz., saturation on frequencies differing from resonance frequency by approximately 1/3

USSR

AL'TSHULER, S. A., et al., Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, Vol 62, No 2, Feb 72, pp 639-651

±100 Mhz corresponds to the maximum steady-state "heating" of the phonon system. Moreover, during pulsed saturation with detuning, an avalanche-type growth in the number of phonons was observed behind the leading edge of the pulse, followed by a comparatively slow drop and the transition of the process to a steady-state mode. The equilibrium state was reestablished after the end of the saturating pulse. The phonon peak intensity depended on the detuning value and at $\Delta\omega/2\pi \approx \pm 100$ Mhz reached a maximum value of 8000° K. The dependence of characteristic parameters of the observed phenomenon on the detuning value ($\Delta\omega > 0$) was measured in another series of experiments. The avalanche reaches maximum intensity at intermediate detuning values, declines on both sides of the optimal value of $\sim$100 Mhz, and completely disappears at the point $\Delta\omega = 0$. The effective temperature of phonons in the steady-state region changes similarly. The spectral distributions of effective temperatures for "hot" phonons in the avalanche peak and in the steady-state region were found for $\Delta\omega/2\pi = 100$ Mhz. An important peculiarity is the fact that the maximums of the phonon spectral distributions fail to coincide with the frequency ω_0 or the frequency ω_1 and are displaced from the saturation point even further along the end of the EPR line. In addition, the "hot"

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AL'TSHULER, S. A., et al, Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, Vol 62, No 2, Feb 72, pp 639-651

phonon band is significantly narrower than the EPR line width. Phonons in the frequency band below 30 Mhz take part in the avalanche. The frequency scale of the entire pattern is reduced almost in half by dilution of the crystal.

Kinetic equations are derived to describe EPR saturation in the general case when all three coupled subsystems -- Zeeman, spin-spin interaction, and phonon -- are in a nonequilibrium state. It is shown that in particular cases the equations coincide with those of B. I. PROVOTOROV and the phonon bottleneck theory. Steady-state EPR line saturation is considered first, then transient processes arising in the phonon subsystem after inclusion of a saturating variable field. It is shown that the character of the time variation of the state of the system depends essentially on the saturating power level. The experimental results obtained are considered in terms of the developed theory.

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USSR

UDC 632.95

KHASANOV, A. S., TSAREV, S. G., KAMAY, G. Kh., AZERBAYEV, I. N., GABDULLINA, N. Z.

"Synthesis of New Chloral-Based Organophosphorus Insecticides"

Alma-Ata, Khimiya atsetilena i tekhnol. karbida kal'tsiya--sbornik (Chemistry of Acetylene and Technology of Calcium Carbide--collection of works), "Kazakhstan," 1972, pp 359-361 (from RZh-Khimiya, No 9, May 73, abstract No 9N476 by T. Ya. Ogibina)

Translation: Agricultural insecticides are synthesized — ethyl α-naphthyl β,β-dichlorovinyl phosphate (I) and ethyl β-naphthyl β,β'-dichlorovinyl phosphate (II). Example. 0.228 mole of Cl_3CCHO diluted by an equal volume of ether is gradually added with agitation and cooling to -10°C to an ether solution of 0.228 mole of diethyl α-naphthyl phosphite. The mixture is kept for 1 hour at ~20°C, the ether is driven off, the residue is distilled twice under vacuum giving compound I with a yield of 68% $C_{14}H_{13}Cl_2O_4P$, boiling point 150-1°/0.12, d_4^{20} 1.3370, $n^{20}D$ 1.5648. In a similar procedure compound II is produced with a yield of 73.3% $C_{14}H_{13}Cl_2O_4P$, boiling point 161-3°/0.1, d_4^{20} 1.3395, $n^{20}D$ 1.5030. Compounds I and II are insoluble in water, and dissolve readily in ether, acetone and other organic solvents.

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USSR

KHASANOV, A. S., et al., Khimiya atsetilena i tekhnol. karbida kal'tsiya -- sbornik, "Kazakhstan," 1972, pp 359-361

The insecticidal and toxic properties of the chemicals were studied as well as their myotic and anticholinesterase effect and their curative action when hypodermically injected in cattle. It is shown that the toxicity of I for warm-blooded animals is 1.5 times less than that of chlorophos, while that of II is two times less, while the larvicidal effect on midge larvae is ten times greater than that of chlorophos. The curative action of I in hypodermic injection of cattle was studied in 1.5 and 3% concentrations. The preparation was used externally in the form of an emulsion with OP-7 in a dose of 200 ml. The animals were treated in March. Compound II in this method of injection is used only in the form of a 3% emulsion with OP-7. Observations showed that I is 100% lethal and II is 98% lethal for ox bot larvae.

2/2

USSR UDC: 547.241+547.653

KAMAY, G. Kh., KHASANOV, A. S., AZERBAYEV, I. N., GABDULLINA, N. Z.,
Institute of Chemical Sciences, Academy of Sciences of the Kazakh SSR

"Products of the Reaction of Chloral With Dialkyl Naphthyl Phosphites"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), No 6, Jun 72, pp 1300-1302

Abstract: Continuing their work on the synthesis of dialkyl naphthyl phosphites, the authors studied the reaction of dialkyl α-naphthyl and dialkyl β-naphthyl phosphites with chloral and studied the physiological activity of the resultant compounds. Chloral was added slowly to an ether solution of the phosphite. The reactions yielded alkyl naphthyl β,β'-dichlorovinyl phosphates and the corresponding alkyl chlorides

$$C_{10}H_7OP(OR)_2 + Cl_3CCHO \rightarrow C_{10}H_7OP(O)(OR)OCH{=}CCl_2 + RCl$$

The resultant products are colorless liquids which gradually hydrolyze in air. All the compounds are excellent insecticides with comparatively low toxicity for warm-blooded animals. Because of their low toxic properties and their curative effect in treatment of hypodermatosis of cattle, alkyl naphthyl β,β'-dichlorovinyl phosphates show promise for use in veterinary practice.

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1/2 027 UNCLASSIFIED PROCESSING DATE--27NOV70
TITLE--THE VIABILITY OF THE BUK VACCINAL STRAIN OF AUJESZKY'S DISEASS VIRUS IN AEROSOL -U-
AUTHOR-(03)-SELIVANOV, A.V., KHASANOV, CH.G., KAMALOV, G.KH.

COUNTRY OF INFO--USSR

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UNCLASSIFIED

2/2 027 UNCLASSIFIED PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0130223

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE BUK VACCINAL STRAIN OF AUJESZKY'S DISEASE VIRUS IN AEROSOL LOSES ITS ABILITY TO INFECT A CULTURE OF CHICK EMBRYO CELLS, BUT RETAINS ITS VIRULENCE FOR RABBITS AND GUINEA PIGS. RABBITS AND GUINEA PIGS AREA SENSITIVE MODEL FOR STRAIN BUK VACCINAL VIRUS UPON INTRAMUSCULAR OR AEROSOL ADMINIATRATION. AEROSOL GENERATOR PEG,TGU,66 WITH PRESSURE OF 2.5 ATM AND FEED OF 2 ML-MIN OF VACCINAL SUSPENSION CREATES A STABLE, FINELY DISPERSED AEROSOL (PARTICLE SIZE NOT GIVEN). THE VIRAL DOSE ASPIRED BY THE ANIMALS WAS CALCULATED ACCORDING TO THE FORMULA D EQUALS C TIMES V TIMES P TIMES T, WHERE C IS THE CONCENTRATION OF VIRAL AEROSOL (IN TCD SUB50-ML) IN THE AEROSOL CHAMBER, V IS THE RESPIRATORY VOLUME (IN ML-MIN PER 1 G OF WEIGHT), P IS THE WEIGHT OF THE ANIMAL IN GRAMS, AND T IS THE TIME OF CONTACT WITH THE AEROSOL (IN MIN). FACILITY: KAZAN VETERINARY INSTITUTE.

UNCLASSIFIED

USSR

UDC 678.7.074

GINIYATULLIN, M. KH., KHASANOV, M. KH., TIMERGALEYEV, R. G., and VOSKRESENSKIY, V. A., Chair of Plastic Materials, Kazan' Engineering Construction Institute

"Synthesis and Study of Modifying Properties of Phosphorus Containing Oligourethanes"

Ivanovo, Izvestiya VUZ -- Khimiya i Khimicheskaya Tekhnologiya, Vol 16, No 4, 1973, pp 631-632

Abstract: A study was carried out on the possibility of modifying polyvinyl chloride with specially synthesized oligourethanes containing phosphorus. The oligomers were obtained by reacting 2,4-toluylenediisocyanate, a simple polyester, with trihydroxymethylphosphine at 80°, in a stream of nitrogen. A complex of physical properties of the system PVC-oligourethane has been presented as a function of the concentration of components. An interpretation has been presented for the non-linear type of changes of the effective viscosity, glassing temperature, temperature of fluidity, and flow index n for the above system. It has been shown that addition of small quantities of oligourethanes (4-5 weight parts per 100 weight parts of PVC) to PVC lowers the n_{ef}, T_s and increases 1/2

USSR

GINIYATULLIN, N. KH., et al., Izvestiya VUZ -- Khimiya i Khimicheskaya Tekhnologiya, Vol 16, No 4, 1973, pp 631-632

relative elongation, improving the processing and utilization qualities of the material.

USSR

UDC 547.241

VALETDINOV, R. K., ZARIPOV, SH. I., and KHASANOV, M. KH., Kazan' Branch of the All Union Scientific Research Institute of Synthetic Rubber Imeni S. V. Lebedev

"Reaction of Alkyldi(hydroxymehtyl)phosphines and Their Oxides With Isocyanates"

Leningrad, Zhurnal Obshchey Khimii, Vol 43 (105), No 5, May 73, pp 1029-1034

Abstract: Reactions of alkyldi(hydroxymethyl)phosphines and their oxides with phenyl and m-chlorophenyl isocyanates yield respective alkyldi(arylurethanomethyl)-phosphines and their oxides. It was noted that the catalytic effect of alkyldi-(hydroxymethyl)phosphines on the polymerization of phenyl isocyanate and dimerization of m-chlorophenyl isocyanate is in direct relationship to the nucleophilicity of the phosphorus atom. It has been shown that alkyldi(hydroxymethyl)phosphines are more reactive than their oxides in the reaction with isocyanates.

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Organophosphorous Compounds

USSR UDC 678.664-985.002.612

VALETDINOV, R. K., ZUYKOVA, A. N., KHASANOV, M. KH., and SHARIFULLIN, A. SH., Kazan' Branch of the All Union Scientific Research Institute of Synthetic Rubber Imeni S. V. Lebedev

"Properties of the Phosphorus Containing Urethane Elastomers Based on Simple Polyesters"

Moscow, Kauchuk i Rezina, No 11, 1972, pp 15-17

Abstract: A method has been proposed for the modification of industrial rubber SKU-PF based on polyfurite by a partial or complete replacement of the trimethylolpropane and monoallyl ether of the glycerine with tri-(hydroxymethyl)-phosphine or its oxide. Thus modified rubbers show higher thermal stability and lesser flammability in comparison to the SKU-PF rubber. When the tri-(hydroxymethyl)-phosphine is used, the physical-mechanical properties of the vulcanized rubber remain practically unchanged.

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UDC 621.316.721

USSR

RAKHIMOV, G.R., KHASANOV, P.F., KARIMBERDYYEV, T.

"Some Variations Of The Balanced Circuits Of Nonautooscillating Current Regulators"

[Nauchn.tr.] Tashkent. politekhn. in-t ([Scientific Works] Tashkent Polytechnical Institute), 1970, No 65, pp 220-224 (from RZh--Elektronika i yeye primeneniye, No 12, December 1970, Abstract No 12B565)

Translation: The circuits are considered of nonautooscillating current regulators (NCR) which can be fulfilled with a power supply from a single-phase or 3-phase net. Both NCR types are fulfilled by a differential or bridge circuit. Instead of a power transformer, an autotransformer can be used in the NCR if galvanic decoupling of the supply circuit and load is not required. For all balanced NCR a saturation choke coil is required, the core of which the NCR has. For production of a regulated current, parallelism is required of the volt-ampere characteristics of all arms of the power transformer and achievement of a shift of the current axis of the volt-ampere characteristic. Balanced NCR operate with a wide range of variations of the voltage supply, and load. The dependence of the stabilization factor of balanced NCR on a change of frequency of the power supply is insignificant. 5 ill. 2 ref. V.Sh.

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UDC 632.95

USSR

TULYAGANOV, S. R., ALIMOV, E., KHASANOV, S. A., KHIKMATOV, A., KAMILOVA, R. M., and RAKHIMOV, A. A., Institute of the Chemistry of Plant Materials, Academy of Sciences Uzbek SSR; and Institute of Experimental Biology of Plants, Academy of Sciences Uzbek SSR

"Herbicides"

USSR Author's Certificate kl. [expansion unknown] A 01 n 9/02, No 338, 207, Filed 14 Oct 70, Published 12 June 72 (from Referativnyy Zhurnal -- Khimiya, No 7, 1973, Abstract No 7N695 by T. A. Belyayeva)

Translation: To control weeds during the planting of cotton, it was suggested to use phenyl compounds such as $PhN(COMe)CH_2CH_2OC_6H_4Cl$-4 (I) which have the active groups β-acetoxyethylaceanilide and p-ClC_6H_4OH. Compound (I) is almost completely lethal to amaranth and purslane in doses of 10 Kg/Lectare but is not toxic to the cotton.

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1/2 026 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--COPOLYMERIZATION OF LACTAMS OF HEXAHYDRO,P,AND M,AMINOBENZOIC ACIDS
-U-
AUTHOR-(04)-VOLOKHINA, A.V., KHARITONOVA, A.S., RYZHENKO, L.M.,
KUDRYAVTSEV, G.I.
COUNTRY OF INFO--USSR

SOURCE--VYSOKOMOL. SOEDIN. SER. B 1970, 12(3), 225-7

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--COPOLYMERIZATION, AMINE, BENZOIC ACID, CAPROLACTAM, INTRINSIC VISCOSITY, SYNTHETIC FIBER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--2000/1676 STEP NO--UR/0460/70/012/003/0225/0227

CIRC ACCESSION NO--AP0125297
UNCLASSIFIED

2/2 026 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125297

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE TITLE LACTAMS WERE POLYMD. AND COPOLYMD. IN VARIOUS PROPORTIONS IN THE PRESENCE OF 1 MOLE PERCENT METALLIC K AND 0.25 MOLE PERCENT N-ACETYL-EPSILON-CAPROLACTAM AT 200DEGREES TO GIVE THE STABLE TITLE POLYMERS (I) (SMALLER THAN OR EQUAL TO 400DEGREES). THE DEGREE OF CONVERSION AND THE INTRINSIC VISCOSITY WERE INVERSELY PROPORTIONAL TO THE REACTION TEMP., BUT WERE ESSENTIALLY INDEPENDENT OF MONOMER RATIOS. TENSILE FIBERS WERE OBTAINED FROM I DISSOLVED IN CONCD. H SUB2 SO SUB4. THE EFFECTS OF CHEM. STRUCTURE OF I ON THEIR SOFTENING POINTS ARE DISCUSSED. FACILITY: VSES. NAUCH.-ISSLED. IN T. ISKUSSTV. VOLOKNA, MYTISHCHI, USSR.

UNCLASSIFIED

1/2 029 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--PREPARATION AND PROPERTIES OF FIBERS FROM THE LACTAM OF 4 AMINOCYCLOHEXANECARBOXYLIC ACID -U-

AUTHOR-(05)-VOLOKHINA, A.V., MURASHKINA, S.I., KHARITONOVA, A.S., TUZHIKOVA, S.S., ROLEV, M.YA.

COUNTRY OF INFO--USSR

SOURCE--KHIM. VOLOKNA 1970, (2), 67-8

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--COPOLYMERIZATION, LACTAM, CAPROLACTAM, SULFURIC ACID, SYNTHETIC FIBER, ELONGATION, NYLON, AMINE, CYCLOHEXANE, CARBOXYLIC ACID

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/0831 STEP NO--UR/0183/70/000/002/0067/0068

CIRC ACCESSION NO--AP0124498

UNCLASSIFIED

2/2 029 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0124498

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE COPOLYMN. OF THE TITLE LACTAM (I) (PREPD. BY HEATING CIS 4 AMINOCYCLOHEXANECARBOXYLIC ACID AT 300DEGREES IN AN AUTOCLAVE) WITH EPSILON CAPROLACTAM (II) WAS DONE AT 185-240DEGREES DEPENDING ON THE I-II RATION IN THE PRESENCE OF K METAL AND II N ACETYL DERIV. THE POLYMER MELTS CANNOT BE SPUN INTO FIBERS, BUT 10-12PERCENT SOLNS. IN H SUB2 SO SUB4 WERE SPUN INTO WATER, GIVING EXCELLENT FILAMENTS. THE OPTIMUM MONOMER RATIO WAS 1:1, THE TEMP. 185DEGREES. THE FIBERS PREPD. UNDER THE OPTIMUM CONDITIONS HAD 589 KG-MM PRIME2 MODULUS AT 3PERCENT ELONGATION AND RESISTED 41,080 FLEX CYCLES UNDER 5 KG-MM PRIME2 LOADING IN BOTH CASES, EXCEEDING THESE PROPERTIES OF NYLON 6.

UNCLASSIFIED

USSR

KHASANOV, V. Kh., and LI, A. P., Khorezmskaya Oblast Sanitation and Epidemiological Station

"Investigation of the Activity of Serum Cholinesterase as an Indicator of the Effect of Organophosphorus Pesticides on a Healthy Population"

Tashkent, Meditsinskiy Zhurnal Uzbekistana, No 7, Jul 70, pp 12-13

Abstract: The effects of organophosphorus pesticides on healthy subjects were studied. Air samples obtained between July and October were analyzed to determine the content of methylmercaptophos and butyphos from the spraying of crops. A direct inverse relationship was found between the content of these toxic agents in the air and the distance from the field being sprayed, regardless of the method used for spraying. Serum cholinesterase activity was used as an indicator of exposure to toxic agents. Three groups of people were studied: 35 youths living in the country, 35 youths living in the city (control), and 42 workers whose employment involved the direct handling of these pesticides. A 30-50% drop in cholinesterase activity was noted in the first and third groups during the period when pesticides were being used. The control group showed no such drop.

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BIOLOGY

Agriculture

USSR UDC 614.72:615.285.7]:632.931.44

KHASANOV, V. Kh., Khorezmskaya Oblast Sanitary Epidemiological Station

"Contamination of Atmosphere with Butyphos During Defoliation of Cotton Plants"

Moscow, Gigiyena i Sanitariya, No 9, Sep 70, pp 86-87

Abstract: Contamination of the air with butyphos was studied at distances of 300 and 3500 m from the periphery of cotton fields being sprayed by aircraft in the Khorezmsk oasis. On the 2nd day after spraying, the mean concentration of butyphos was 0.041 mg/m^3 at a distance of 300 m and 0.028 mg/m^3 at 3500 m (the maximum permissible limit is 0.009 mg/m^3). The concentration of butyphos was much higher in the daytime than at night. At a distance of 3500 m, the concentration was 4-7 times higher than the maximum permissible during the daytime on the day of spraying but dropped below the permissible level at night. In Central Asia most cotton fields are less than 1000 m from populated areas. In farming areas, 70-75% of the cotton fields are closer than 300 m to farms. The 300 m protective zone prescribed by Sanitary Rules Nos 531-565 is inadequate to prevent contamination of the air of populated areas with butyphos under the climatic conditions encountered in Khorezmsk Oblast.

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USSR

UDC 615.285.7.015:551.581(213)

ATABAYEV, Sh. T., KHASANOV, Yu. U., and NAZAROVA, L. S., Candidates of Medical Sciences, Uzbek Scientific Research Institute of Sanitation, Hygiene, and Occupational Diseases

"Persitence of the Pesticide Aldrin in a Hot Climate"

Moscow, Gigiyena i Sanitariya, No 4, 1970, pp 108-109

Abstract: Aldrin is used in Tashkent, Andizhan, Fergana, and Khorezm oblasts to treat cotton seeds and control various insects. The pesticide tends to disappear fairly quickly in the upper soil layers due to the effect of high temperature (decomposition), microbiological processes, uptake by plants, and removal by irrigation. However, it was found to persist in the 70-100 cm layer for 5 years or more. The amount persisting varies with the soil group. The residue is greater in meadow-bog soils than in clayey or sandy soils, because there is more organic matter and, consequently, greater uptake of aldrin in the former than in the latter. Aldrin constitutes a health hazard because soils sprayed with it or soils in which treated seeds of plants are grown become a secondary source of pollution of open bodies of water, which are used by a large part of the Uzbek population for drinking and household purposes.

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USSR

UDC 632.95

ZAKHIDOV, A. Z., KHASANOV, YU. U., YAKUBOVA, R. A.

"Aldrin Content in Soil, Cotton Plants, and Their Products"

Moscow, V. sb. Vopr. gigiyeny i toksikol. pestitsidov (Problems of the Hygiene and Toxicology of Pesticides), "Meditsina", 1970, pp 262-263 (from RZh-Khimiya, No 24(II), 25 Dec 70, Abstract No 24N632, by P. V. Popov)

Translation: After aircraft spraying of cotton plantings with aldrin (I), I residues in soil varied from 0.5 to 1.1 mg/kg. After application to soil containing seeds, the amount of I in the 0-30 cm layer varied within the limits 0.017-0.2 mg/kg, and in the 70-100 cm layer, within the limits 0.002-0.04 mg/kg. Planting cotton with seeds treated with I (0.5-0.75 kg/hect) led to contamination of oil with I (0.3 mg/l), and also to I contamination of oil cake, pods, seed kernels, and seeds (0.09-0.15 mg/kg). I residues were found also in cotton a year after planting I treated seeds: 0.05-0.6 mg/l in oil, 0.05-0.4 mg/kg in seeds, and 0.05-0.3 mg/kg in pods and oil cake.

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1/2 020 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--NEW METHOD FOR SYNTHESIZING ARYTHIOLS -U-

AUTHOR-(03)-KOPYLOVA, B.V., KHASANOVA, M.N., FREYDLINA, R.KH.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, SER KHIM. 2970, (3), 633-6

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--THIOL, ORGANIC SYNTHESIS, PICRIC ACID, BENZENE DERIVATIVE, BORON COMPOUND, COMPLEX COMPOUND, CHLORINATED ORGANIC COMPOUND, CHEMICAL DECOMPOSITION, SULFIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/0736 STEP NO--UR/0062/70/003/000/0633/0636

CIRC ACCESSION NO--AP0124406

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201310009-3"

2/2 020 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0124406

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A MIXT. OF 2 G 3,4 CL SUB2 C SUB6 H SUB3 N SUB2 BF SUB4 AND 1.8 G POWD. SC(NH SUB2)SUB2 HEATED IN H SUB2 O TO 50-60DEGREES UNTIL GAS EVOLUTION HAD CEASED GAVE, AFTER EXTN. WITH C SUB6 H SUB6 AND ADDN. OF PICRIC ACID IN ETOH, 1.5 G 3,4 CL(H SUB2 NC(:NH)S)C SUB6 H SUB3 SC(:NH) NH SUB2 2C SUB6 H SUB2(NO SUB2)SUB3 OH, M. 236DEGREES; SIMILARLY 2,6 CL SUB2 C SUB6 H SUB3 N SUB2 BF SUB4 GAVE 90PERCENT 2,6 DICHLOROPHENYLISOTHIURONIUM PICRATE, M. 223-4DEGREES. THE REACTION MIXT. PREPD. SIMILARLY FROM O CLC SUB6 H SUB4 N SUB2 BF SUB4 GAVE AFTER EXTN. WITH C SUB6 H SUB6 AND NEUTRALINATION WITH NAHCO SUB3, O-CHLORO PHENYLISOTHIURONIUM BICARBONATE, WHICH HEATED WITH AQ. H SUB2 SO SUB4 1-2 HR UNDER N GAVE 22PERCENT O CLC SUB6 H SUB4 SH, B. 204-6DEGREES; SIMILARLY WERE PREPD. O CHLOROPHENYLENEDITHIOL, 22PERCENT, B SUB10 120DEGREES; 2,6 DICHLOROTHIOPHENOL, 50PERCENT, M. 44-6DEGREES; AND P PHENYLENEDITHIOL, 20PERCENT, M. 98DEGREES. SPONTANEOUS DECOMPN. OF P NITROPHENYLENEDITHIOL BICARBONATE GAVE P O SUB2 NC SUB6 H SUB4 SH, DIRECTLY OXIDIZED IN AIR TO THE DISULFIDE, M. 178-9DEGREES. A REACTION MIXT. OF 11.3 G O CLC SUB6 H SUB4 N SUB2 BF SUB4 AND 7.6 G SC(NH SUB2) SUB2 IN H SUB2 O WAS EXTD. WITH C SUB6 H SUB6 AND THE AQ. LAYER, AFTER ADDN. OF CONCD. KOH UNTIL ALK., WAS REFLUXED UNDER N 2 HR TO YIELD AFTE ACIDIFICATION WITH HCL 25PERCENT O CLC SUB6 H SUB4 SH. FACILITY: INST. ELEMENTOORG. SOEDIN., MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC 543.42

KISELEVA, YE. D., KHASANOVA, V. M., SEMENOVSKAYA, Y. D., and CHMUTOV, Institute of Physical Chemistry, USSR Academy of Sciences, Moscow

"An Infrared-Spectroscopic Study of the Thermal Stability of the Anionite VP-1 AP"

Moscow, Zhurnal Fizicheskoy Khimii, Vol XLV, No 11, Nov 71, pp 2862-2866

Abstract: Vinylpyridine anionites, on account of their chemical and thermal stability, have become widely used in the separation of anions in acid solutions at high temperatures. With heating in water or in alkali solutions, however, these anionites darken and exhibit reduced ion-exchange capacity. No data have been published which might explain this behavior as a result of structural changes. Experiments conducted by the authors showed that heating VP-1 AP in water produces hydroxypyridines and leads to oxidation of the CH_3-substitutes of the ring, with formation of aldehydes and carboxyl groups. In the case of thermal treatment in alkaline solutions, oxidation of the CH_3 - substitutes similarly appears, but accompanied by formation of the essentially stable form of pyridines, and this, in turn, leads to sharp reduction of ion-exchange capacity. However, restoration of ion-exchange capacity is possible through protonizing the oxygen atoms of the pyridines, to form hydroxypyridines. Graphic and tabular data are included in the paper.

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USSR

UDC 532.517.4

VEZIROV, A. M., KHASAYEV, A. M., ALIYEV, Sh. N., ALIYEV, Ye. M.

"Study of the Rheology and the Effect of Polymer Additives on the Turbulent Flow of Two-Fluid Systems"

V sb. 3-y Simpoz. po primeneniyu nen'yutonovsk. sistem v neftedobyche, Krasnodar, 1972. Tezisy dokl. (Third Symposium on the Application of Non-Newtonian Systems in Oil Drilling, Krasnodar, 1972. Subjects of Papers -- Collection of Works), Moscow, 1972, pp 48-49 (from RZh-Mekhanika, No 3, Mar 73, Abstract No 3B1067)

Translation: A description and the operating principle of a laboratory setup for studying the rheological behavior of two-phase mixing and nonmixing fluid systems with polymer additives in the velocity interval shifting from 0 to 1000 sec^{-1} are presented. The effect of phase concentration and polymer additives on the magnitude of the coefficient of hydraulic resistances under a turbulent regime of the motion of water and oil with polymer additives of the polyzobutylene type in the Reynolds numbers range 5000-40,000 is investigated. Experimental data are presented on operational wells supplying oil and water. I. G. Bulina.

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Mining, Petroleum, Geological

UDC 532.517.4

USSR

ALIYEV, Ye. M., KHASAYEV, A. M.

"Controlling the Parameters of Multiphase Turbulent Flow of a Polymer Additive"

V sb. 3-y Simpoz. po primeneniyu nen'yutonovsk. sistem v neftedobyche, Krasnodar, 1972. Tezisy dokl. (Third Symposium on the Application of Non-Newtonian Systems in Oil Drilling, Krasnodar, 1972. Subjects of Papers -- Collection of Works), Moscow, 1972, pp 47-48 (from RZh-Mekhanika, No 3, Mar 73, Abstract No 3B1066)

Translation: Experimental studies of turbulent gas-liquid and multiphase flows in tubes with additives of high molecular compounds at large Reynolds numbers (up to $4.2 \cdot 10^4$) are described. The functional dependence of the structure of the gas-liquid flow on the concentration of polymer additives in the mixture is noted. An increase in the gas saturation of the flow with an increase in the concentration of polymer additives in the range of Froude criteria 0.1-0.6 is noted. Experimental-industrial tests of the application of polymer additives in operational wells are analyzed. I. G. Bulina.

1/2 019 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--EFFECT OF OXIDATIVE PHOSPHORYLATION UNCOUPLERS ON THE RELEASE OF ACETYLCHOLINE FROM NERVE ENDINGS -U-

AUTHOR--GLAGOLEVA, I.M., LIBERMAN, YE.A., KHASHAYEV, Z.M.

COUNTRY OF INFO--USSR

SOURCE--BIOFIZIKA 1970, 15(1), 76-83

DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--ACETYLCHOLINE, PHOSPHORYLATION, NERVE ENDING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1985/0362 STEP NO--UR/0217/70/015/001/0076/0083

CIRC ACCESSION NO--AP0100849

UNCLASSIFIED

CIRC ACCESSION NO--AP0100849

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EFFECTS OF VARIOUS OXIDATIVE PHOSPHORYLATION UNCOUPLERS WERE STUDIED ON THE MINIATURE END PLATE POTENTIALS IN FROG NEUROMUSCULAR JUNCTIONS. IN THE PRESENCE OF THESE COMPDS. THE FREQUENCY INCREASED 2-3 ORDERS OF MAGNITUDE AND THE AMPLITUDE 2-3 FOLD. INCREASED CONCN. OF EACH UNCOUPLER DECREASED THE TIME REQUIRED FOR THE FREQUENCY TO REACH A MAX. AND THE TIME FOR THE SUBSEQUENT FALL IN FREQUENCY. THE EFFECTIVENESS OF THESE COMPDS. ON THE MINIATURE END PLACE POTENTIAL DECREASED IN THE FOLLOWING ORDER: CARBONYL CYANIDE M CARBONYL CYANIDE P TRIFLUOROMETHOXYPHENYLHYDRAZONE, CARBONYL CYANIDE M CHLOROPHENYLHYDRAZONE, TETRACHLORO,2,TRIFLUROMETHYLBENZIMIDAZOLE, DICOUMAROL, 2,4,DINITROPHENOL, AND M NITROPHENOL. THIS SERIES CORRESPONDED TO THE SEQUENCES OBTAINED DURING STUDY OF THE EFFECT OF THESE COMPDS. ON MITOCHONDRIAL RESPIRATION AND ON THE MOBILITY OF ARTIFICIAL MEMBRANE PHOSPHOLIPIDS. THE DATA VERIFY A PREVIOUS HYPOTHESIS THAT THE RELEASE OF ACETYLCHOLINE FROM THE NERVE ENDINGS IS CONNECTED WITH ADHESION OF THE SYNAPTIC VACUOLES WITH THE NERVE ENDING MEMBRANE UNDER THE ACTION OF VAN DER WAALS FORCES. INCREASED CONC. OF CA PRIME2 POSITIVE IN THE PROTOPLASM IS DUE TO LIBERATION FROM THE MITOCHONDRIA DURING THE ACTION OF THE UNCOUPLERS AND LEADS TO SHIELDING OF THE SURFACE NEG. CHARGE OF THE MEMBRANE AND TO INCREASED ACETYLCHOLINE SECRETION.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201310009-3"

USSR

UDC 612.419.014.24:576.312.36/.014.482

KOSICHENKO, L. P., and KHASHBA, I. I., Institute of Experimental Pathology and Therapy, Academy of Medical Sciences USSR, Sukhumi

"Frequency of Chromosome Aberrations in Bone Marrow Cells of Monkeys at Various Times After Irradiation"

Moscow, Byulleten' Eksperimental'noy Biologii i Meditsiny, Vol 72, No 11, Nov 71, pp 104-106

Abstract: Macaca mula monkeys of both sexes were irradiated with gamma-rays at doses of 550-650 R (LD_{70-90}). Studies carried out 3 months and 5 years after irradiation of the bone marrow cells of the animals showed that the number of structural chromosome aberrations was reliably higher than that for nonirradiated controls. The principal type of aberration was acentric reconstruction after a structural break. The number of structural chromosome aberrations in the ana- and telophases 6, 8, and 12 years after irradiation exceeded that for controls, but the difference was statistically unreliable. The remote somatic effect of irradiation, as indicated by the action on bone marrow cells, was the same irrespective of the sex of the animals.

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USSR UDC 547.944/945

KHASHIMOV, A. M., SHAKIROV, R., and YUNUSOV, S. Yu., Order of the Red Banner of Labor Institute of Chemistry of Plant Substances of the Uzbek SSR Academy of Sciences

"Study of Alkaloids from the Above-Ground Part of Veratrum Lobelianum. Structure of Veralosinine"

Tashkent, Khimiya Prirodnykh Soyedineniy, No 6, 1971, pp 779-784

Abstract: A study was made of the alkaloids of the above-ground part of veratrum lobelianum, and the structure of veralosinine was corrected. When separating the benzene fraction of the total above-ground part of veratrum lobelianum with an acetate buffered solution with pH 5.8-3.6, alkaloids with a melting point of 156-158° and 180-183° were isolated from the fraction with pH 5.8-5.6 and veratroyl zygadenin with a melting point of 263-265° was isolated from the fraction with pH 5.4-5.2. The infrared spectra for the diketone from a mixture of tetrahydroveralosidines and the diketone from a mixture of tetrahydrosoladines are presented for comparison. They show that the tetrahydoveralosidine and tetrahydrosolasodine are not identical. Solasodine and veralosidine were subjected to acetolysis and acetylation to further study the structure of veralosidine. Data are presented showing that
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USSR

KHASHIMOV, A. M., et al., Khimiya Prirodnykh Soyedineniy, No 6, 1971, pp 779-784

in veralosidine, the B/C and C/D rings are trans-linked. The second hydroxyl group is located at the C_{16} and is α-oriented. The structure of veralosinine is thus established as C_{16}-α-acetylveralosidine.

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Alkaloids

USSR UDC: 547.944/945

KHASHIMOV, A. M., SHAKIROV, R., and YUNUSOV, S. YU., Order of Labor Red Banner Institute of Chemistry of Plant Substances, Tashkent, Academy of Sciences Uzbek SSR

"Alkaloids of Veratrum Lobelianum"

Tashkent, Khimiya Prirodnykh Soyedineniy, No 3, 1970, pp 339-343

Abstract: Alkaloids in the epigeal part of Veratrum Iobelianum grown in the valley of the Kar-Kara River are reported on for the first time. Upon separation of the total ethereal fraction isolated from the epigeal part of the plant (collection made on 13 May 1968), new alkaloids were differentiated as to solubility and basicity: veralosin $C_{35}H_{55}O_8N$, veralosinin and veralosidin $C_{27}H_{43}O_2N$. It was found that at the outset of the vegetative period, total alkaloids in the epigeal part of Veratrum Iobelianum is 2.5% of dry matter weight, and at the end of this period -- 0.036%. Based on study of chemical properties, infrared, ultraviolet, nuclear magnetic resonance, and mass spectra, and also conversion to tetrahydrosolasodin, the most probable structure and configuration is established for veralosidin.

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JPRS 59208

6-73

KHASHIMOV, F.R.

XI-10. EFFECT OF THE GROWTH CONDITIONS ON THE PERFECTION OF CaF CRYSTALS

[Article by T. I. Ol'khovikova, A. P. Izergin, V. V. Malarev, F. R. Khashimov; Novosibirsk, III Simpozium po Prirodnym Kristallam Kristallov i Plenok, Russian, 12-17 June 1972, p 15.]

The methods of x-ray diffraction topography [Berman and Lang] were used to perform a systematic study of the degree of perfection of single calcium phosphide crystals obtained by drawing from a melt by the Czochralski method.

It was demonstrated that the undoped CaF crystals obtained from the flux layer have, as a rule, high dislocation density. In addition, there are impurity growth and stress bands in them frequently leading to cracking of the bar.

In this paper the problems of improving the technological process of obtaining single crystals are discussed, and results are presented from a study of the structure of the defects in them.

KHASHIMOV, F.R.

STRS 59068

6-73

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XIV-7. EFFECT OF SUBSTRATE DEFECTS ON THE STRUCTURE OF EPITAXIAL LAYERS OF GALLIUM ARSENIDE OBTAINED BY VARIOUS METHODS

[Article by T. I. Markova, Yu. N. Kuznetsov, F. R. Khashimov; Novosibirsk, III Simpozium po Protsessam Rosta I Sinteza Poluprovodnikovykh Kristallov I Plenok, Russian, 12-17 June 1972, p 199]

The methods of optical, infrared and electron microscopy were used to study the interrelation of the defects in the substrate and the epitaxial layers of gallium arsenide obtained by the methods of chloride and liquid epitaxy. Defects [scratches, chips and dislocations with density greater than 10^4 cm^{-2}] were introduced into the initial substrates intentionally, and the effect of the defects introduced into the substrates on the structural perfection of the epitaxial layers was traced. It was demonstrated that in the epitaxial layers obtained by the method of chloride epitaxy, high density of the growth defects was detected [10^2 $1/cm^2$] and high density of the packing defects was obtained [10^3 $1/cm^2$]; in individual sections the defect density was so high that the epitaxial layer became polycrystalline. The method of transmission electron microscopy was used to determine the type of packing defects, and it was demonstrated that the "subtraction" packing defects are observed.

In the epitaxial layers obtained by liquid epitaxy, microseparations were observed [greater than 10 microns] which apparently are regions absorbed by gallium. In these structures no increased defect density caused by the introduced defects in the substrate are observed. The absence of defects probably arises from the fact that at the initial point in epitaxial growth, solution of the substrate material by the liquid gallium takes place to a depth exceeding the depth of the disturbed layer.

Under analogous conditions, the growth of epitaxial layers was carried out on the surface of substrates with which the chemical polishing did not remove the defects caused by machining. In this case, in the layers obtained by the chloride method, no increased growth defect density or packing density was observed. In the structures obtained by the method of liquid epitaxy, the regions enriched in gallium are retained.

USSR

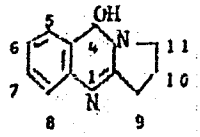
UDC 577.944/945

TELEZHENETSKAYA, M. V., KHASHIMOV, KH. N., YUNUSOV, S. YU., Order of the Red Banner of Labor Institute of the Chemistry of Plant Substances of the Uzbek SSR Academy of Sciences

"Peganol, a New Alkaloid from Peganum Harmala"

Tashkent, Khimiya Prirodnykh Soyedineniy, No 6, 1971, pp 849-850

Abstract: By continuing the separation of the mixture of bases isolated from Peganum harmala in the flowering stage and the beginning of fruiting [Kh. N. Khashimov, et al., KhPS, 456, 1969], a substance was obtained with a melting point of 178-180 degrees, optically inactive, with the composition $C_{11}H_{12}N_2O$, M 188 (mass spectrometry) -- the new base peganol. The results of ultraviolet, infrared and nuclear magnetic resonance spectral studies are analyzed. The structure of peganol is



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USSR UDC 547.944/947

KHASHIMOV, KH. N., TELEZHENETSKAYA, M. V., SHARKHIMOV, N. N., and YUNUSOV, S. YU., Red Banner of Labor Institute of Plant Chemistry, Uzbek Academy of Sciences

"Dynamics of the Accumulation of Alkaloids in Peganum Harmala"

Tashkent, Khimiya Prirodnykh Soyedineniy, No 3, 1971, p 382

Abstract: This is a continuation of S. YU. YANUSOV's earlier work (1970) on the little-known process of alkaloid accumulation in Peganum harmala, a tall, perennial, deep-rooted grass. Samples were collected in Bukharskaya and Samarkandskaya oblasts. Above-ground portions of the plant were tested o for alkaloid content in the vegetation, budding, flowering, fruit-bearing and terminal periods. There was a steady diminution, in that order, for above-ground portions, and also for roots, except that in the latter there was a slight upswing during the terminal period. Seeds collected following the terminal period showed a high alkaloid content (5.0%, as against a maximum 2.17% for the leaves and stalks), 84% of their alkaloids mass consisting of a mixture of harmine and harmaline. Pods yielded 1.08% of their dry weight in an alkaloid mass from which harmine and vasicinone were extracted. All yields were found to vary in connection with the age of the individual plant and growing site.

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UDC 547.944:945

USSR

KHASHIMOV, Kh. N., TELEZHENETSKAYA, M. V., RASHKES, Ya. V., and YUNUSOV, S. Yu., "Red Banner of Labor Order" Institute of Plant Chemistry, UzbekSSR Academy of Sciences

"Pegamine, a New Alkaloid from Peganum Harmala"

Tashkent, Khimiya Prirodnykh Soyedineniy, No 4, 1970, pp 453-455

Abstract: The total alkaloid content of Peganum harmala was found to be 2.17 percent and consisted of peganine, vasicinone, harmine, desoxypeganine, desoxyvasicinone, and a new alkaloid melting at 160-161°, which the authors named pegamine. The structure of the compound was ascertained from spectral data, including UV, IR, and mass spectra. A scheme for the mass spectral fragmentation of the compound was proposed.

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1/2 017 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--INDIRECT CORRELATIONS BETWEEN BLOOD AND LYMPH CIRCULATION -U-

AUTHOR--KHASHIMOV, N.KH.

K

COUNTRY OF INFO--USSR

SOURCE--DOKL. AKAD. NAUK TADZH. SSR 1970, 13(3), 49-52

DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--BLOOD CIRCULATION, LYMPHATIC SYSTEM, CORTICOSTEROID, MEDICAL EXPERIMENT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3003/0882 STEP NO--UR/0425/70/013/003/0049/0052

CIRC ACCESSION NO--AT0129951
UNCLASSIFIED

2/2 017 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AT0129951

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE RELATIVE 17 HYDROXY CORTICOSTEROID CONTENT OF VENOUS BLOOD AND LYMPH UNDER NORMAL CONDITIONS AND AFTER CUTTING OFF THE MAIN LYMPHATIC OR VENOUS VESSELS WAS INVESTIGATED IN DOGS. BLOOD SAMPLES WERE OBTAINED FROM THE VEIN OF THE SMALL INTESTINE, THE PORTAL VEIN, THE POSTERIOR VENA CAVA, THE LEFT VENOUS SINUS OF THE NECK, AND THE PERIPHERAL VESSELS. CHANGES IN THE ADRENAL HORMONE CONTENT OF THE VARIOUS BLOOD SAMPLES 1 HR AFTER INTERRUPTION OF THE BLOOD AND LYMPH FLOW WERE STATISTICALLY EVALUATED. THE 17;HYDROXY CORTICOSTEROID CONTENT IN THE BLOOD OF CONTROL ANIMALS WAS LESS THAN 25PERCENT THAT IN THE LYMPH. DIFFERENCES WERE ALSO SEEN BETWEEN THE PERIPHERAL AND THE CENTRAL BLOOD SYSTEM. THE HORMONE SECRETION APPARENTLY OCCURS THROUGH THE LYMPHATIC VESSELS FIRST, REACHING THE BLOOD VESSELS AFTERWARDS. FACILITY: TADZH. GOSMEDINST. IM. IBNSINO, USSR.

UNCLASSIFIED

1/2 024 UNCLASSIFIED PROCESSING DATE--20NOV70
TITLE--LIGHT SCATTERING ON ACOUSTICAL PHONONS AND POLARITONS IN LITAO SUB3 -U-
AUTHOR-(03)-KHASHKHOZHEV, Z.M., LEMANOV, V.V., PISAREV, R.V.

COUNTRY OF INFO--USSR

SOURCE--FIZ. TVERD. TELA 1970, 12(4), 1208-13

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY, PHYSICS

TOPIC TAGS--LITHIUM COMPOUND, PHONON, TATANIUM ALLOY, CRYSTAL, LIGHT SCATTERING, METAL OXIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3001/0376 STEP NO--UR/0181/70/012/004/1208/1213

CIRC ACCESSION NO--AP0126131
UNCLASSIFIED

2/2 024 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0126131

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. LIGHT SCATTERING WAS INVESTIGATED ON ACOUSTICAL PHONONS AND POLARITONS IN LITAO SUB3. THE VELOCITIES OF ACOUSTIC PHONONS FOR DIFFERENT DIRECTIONS IN THE CRYSTAL, OBTAINED FROM THE SHIFT IN THE FREQUENCY OF SCATTERED LASER LIGHT, ARE IN SATISFACTORY AGREEMENT WITH THE VELOCITIES CALCD. FROM KNOWN ELASTIC AND PIEZOELEC. CONSTS. A DIFFERENCE WAS NOTED BETWEEN EXPTL. OBSD. AND CALCD. INTENSITIES OF SCATTERING WHICH IS APPARENTLY DUE TO INACCURATE VALUES OF THE CONSTS. USED IN THE CALCN. SCATTERING OF LIGHT WAS INVESTIGATED ON PHONON PHOTON EXCITED POLARITONS RELATED TO THE TRANSVERSE PHONON MODE OF A SUB1 TYPE WITH LOWER ENERGY OF 203 CM PRIME NEGATIVE1 AT 300DEGREESK WHICH IS A SOFT MODE IN THE TRANSITION FROM THE FERROELEC. PHASE INTO THE PARAELEC. VARIATION WAS OBSD. OF THE FREQUENCY OF POLARITONS (203-141 CM PRIME NEGATIVE1) DEPENDING ON THE ANGLE OF SCATTERING (5-1.8DEGREES), CORRESPONDING APPROX. TO THE SCATTERING CURVE. INCREASE WAS OBSD. IN THE INTENSITY OF LIGHT SCATTERING ON POLARITONS WITH DECREASED ANGLE OF SCATTERING. FACILITY: INST. POLUPROV., LENINGRAD, USSR.

UNCLASSIFIED

1/2 012 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--MANDELSTAM BRILLOUIN SCATTERING OF LIGHT IN LITHIUM NIOBATE -U-

AUTHOR-(03)-KHASHKHOZHEV, Z.M., LEMANOV, V.V., PISAREV, R.V.

COUNTRY OF INFO--USSR

SOURCE--FIZ. TVERD. TELA 1970, 12(1), 128-31

DATE PUBLISHED-------70

SUBJECT AREAS--MATERIALS, PHYSICS

TOPIC TAGS--LIGHT SCATTERING, LITHIUM COMPOUND, NIOBATE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1980/0248 STEP NO--UR/0181/70/012/001/0128/0131

CIRC ACCESSION NO--AP0048527

UNCLASSIFIED

2/2 012 UNCLASSIFIED PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0048527

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SPECTRA WERE OBTAINED OF MANDELSTAM BRILLOUIN SCATTERING OF LIGHT IN LINBO SUB3. THE SCATTERING ON TRANSVERSE ACOUSTICAL PHONONS IN MOST CASES IS CONSIDERABLY MORE INTENSE THAN THE SCATTERING ON LONGITUDINAL PHONONS. VELOCITIES OF ELASTIC WAVES FOR VARIOUS DIRECTIONS IN THE CRYSTAL DETD. FROM THE SPECTRA ARE IN SATISFACTORY AGREEMENT WITH THE CALCD. VALUES.

UNCLASSIFIED

USSR

UDC 621.3.048

BORISENKO, A. I., NIKOLAYEVA, L. V., GOVOROVA, R. M., KHASHKOVSKIY, S. V., and RUDYUK, V. YA.

"Flexible Inorganic Electrically Insulating Coatings"

Leningrad, Zhurnal Prikladnoy Khimii, Vol 45, No 10, Oct 72, pp 2258-2261

Abstract: Flexible inorganic electrically insulating coatings are prepared from drosses in which a semicolloidal nitrate solution serves as the dispersion medium. In the process of thermal treatment such solutions decompose yielding a glassy binding and volatile components. Such coatings have many useful properties: excellent flexibility, stability against heat and high dielectric properties at 1000°. Glass-ceramic coatings are fixed durably on nickel, Nichrome, chromel, Alumel, Copel, platinum, tungsten, and tungsten-rhenium wires, the process of depositing and fixation being very simple, capable of continuous operation.

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1/2 024 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--DISTRIBUTION AND EXCRETION FROM MICE (INTACT AND WITH TRANSPLANTABLE TUMORS) OF C PRIME14 AURANTIN -U-

AUTHOR-(05)-SUSKOVA, V.S., KHASIGOV, P.Z., CHERNOV, V.A., KARPOV, V.L., SEREBRYAKOV, N.G.

COUNTRY OF INFO--USSR

SOURCE--ANTIBIOTIKI, 1970, VOL 15, NR 5, PP 437-441

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--MOUSE, TISSUE TRANSPLANT, TUMOR, SARCOMA, LYMPHATIC SYSTEM, LIVER, KIDNEY, LUNGS, SPLEEN, SMALL INTESTINE, RADIOACTIVE TRACER, THYMUS GLAND, AUTINEOPLASTIC DRUG, CARBON ISOTOPE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1994/1141 STEP NO--UR/0297/70/015/005/0437/0441

CIRC ACCESSION NO--AP0115160

UNCLASSIFIED

2/2 024 UNCLASSIFIED PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0115160

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DISTRIBUTION OF C PRIME14 AURANTIN IN MICE INTACT AND WITH TRANSPLANTABLE LYMPHOLEUCOSIS NK-LY AND LYMPHOSARCOMA LIO 1, AND ITS EXCRETION AFTER SINGLE INTRAVENOUS OR SUBCUTANEOUS ADMINISTRATIONS WERE STUDIED. THE DISTRIBUTION OF THE DRUG WAS NOT REGULAR. RADIOACTIVITY IN THE LIVER, KIDNEYS, LUNGS AND SPLEEN REGISTERED IN 30 TO 60 MINUTES AFTER THE DRUG ADMINISTRATION WAS REDISTRIBUTED IN 6 HOURS AFTER INTRAVENOUS ADMINISTRATION AND IN 18-24 HOURS AFTER SUCUTANEOUS ADMINISTRATION WITH AN INCREASE IN ITS LEVELS IN THE SPLEEN, THIN INTESTINE, THYMUS. MAXIMUM ACTIVITY IN TUMORS WAS OBSERVED BY THE END OF 24 HOURS, THE LEVEL IN NK-LY BEING HIGHER THAN IN LIO 1. AFTER INTRAVENOUS ADMINISTRATION THE ORGANS WERE MAINLY FREE FROM ACTIVITY BY THAT TIME, WHILE AFTER SUCUTANEOUS ADMINISTRATION THE ORGANS WERE MAINLY FREE FROM ACTIVITY BY THE END OF THE 2ND DAY AND LATER. AFTER SUBCUTANEOUS ADMINISTRATION OF C PRIME14 AURANTIN FOR 3 TIMES AT AN INTERVAL OF 48 HOURS NO ACCUMULATION OF THE DRUG IN THE ORGANS AND TISSUES, INCLUDING TUMORS WAS OBSERVED. THE RESULTS OBTAINED ARE DISCUSSED. FACILITY: INSTITUTE OF MEDICAL RADIOLOGY OF ACADEMY OF MEDICAL SCIENCES OF THE USSR, OBNINSK.

UNCLASSIFIED

USSR

UDC 627.82.012.43(088.8)

KHASIN, B. F.,

"Antiseepage Device for the Expansion Joint of a Hydroengineering Structure of the Concrete Dam Type"

USSR Author's Certificate No 269795, filed 1 Mar 68, published 10 Aug 70 (from RZh-Elektrotekhnika i Energetika,No 2, Feb 71, Abstract No 2 D191 P)

Translation: An antiseepage device for the expansion joint of a hydroengineering structure of the concrete dam type including the enclosing elements, the packing between them and the coupling element is described. The device is distinguished by the fact that in order to increase the degree of seal and its reliability, the packing is executed in the form of an elastic watertightinsert glued to the enclosing elements and having reinforcing lugs on the outside, and the connecting element is executed in the form of a watertight compensator built in rings into the enclosing elements. The proposed device is made up of individual antiseepage elements -- packets manufactured in advance under plant or test ground conditions. Each packet includes reinforced concrete enclosing elements 1 (see the figure), which enclose the joint cavity and have reinforcing lugs 2 on the outside which are connected to the reinforced frame of the structure 3 when installing the device, packing 4 in the form of an elastic watertight insert glued to the enclosing elements and

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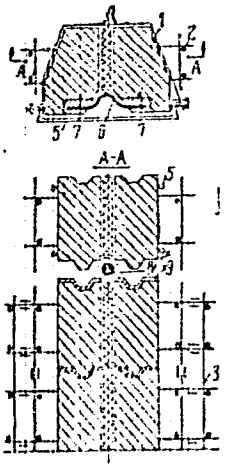
KHASNI, B. V., USSR Author's Certificate No 269795, filed 1 Mar 68, published 10 Aug 70

pressed between them by means of the conductor 5, a coupling element 6 executed in the form of a water-tight compensator built into the reinforced concrete elements in rings 7, and an elastic butt-end insert 8 coated with glue and placed in the joint cavity perpendicular to the longitudinal axis of the packets. A layer of plastic mortar 9 is applied to the ends of the reinforced concrete enclosing elements. There are 4 illustrations.



2/2

1/3 021 UNCLASSIFIED PROCESSING DATE--27NOV70
TITLE--CASES OF COMPLICATION OF EPIDEMIC HEPATITIS BY POLYARTHRITIS -U-

AUTHOR--KHASIN, D.I.

COUNTRY OF INFO--USSR

SOURCE--VOYENNO-MEDITSINSKIY ZHURNAL, 1970, NR 3, P 125-126

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--HEPATITIS, SYNDROME, DRUG TREATMENT, CTH, PREDNISONE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3006/0682 STEP NO--UR/0177/70/000/003/0125/0126

CIRC ACCESSION NO--AP0134427

UNCLASSIFIED

2/3 021 UNCLASSIFIED PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0134427

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. PATIENTS TS, 24 YEARS OLD, WAS TAKEN ILL ON 9 JULY 1966. THE DISEASE STARTED GRADUALLY WITH GENERAL DEBILITY, DYSPHORIA, TUSSIS, RHINITIS AND ELEVATION OF THE BODY TEMPERATURE TO 37.8DEGREES. ON THE THIRD DAY PAINS APPEARED IN THE RIGH HYPOCHONDRIAC REGION, REGURGITATION AND THE URINE BECAME DARK BROWN; ON 16 JULY JAUNDICE OF THE SCLERAS AND INTEGUMENTS WAS ADDED. UPON ADMITTANCE TO THE INFECTIOUS SECTION WELL EXPRESSED JAUNDICE OF THE INTEGUMENTS, VISIBLE MUCUOUS MEMBRANES AND SCLERAS WAS OBSERVED, AS WELL AS ENLARGEMENT OF THE LIVER AND SPLEEN, ACHOLIC STOOL, AND A BODY TEMPERATURE OF 36.9DEGREES. BLOOD ANALYSIS: 3 4,850,000, 14,400, ERYTHROCYTE SEDIMENTATION REACTION 3MM PER HOUR. TOTAL BLOOD BILIRUBIN 5 MG PERCENT, DIRECT 3.8 MG PERCENT, WELTMANN'S SERUM TEST 8.5, MERCURIC CHLORIDE TITER 1.5 ML, THYMOL TEST 7 UNITS ALDOLASE ACTIVITY 1 UNIT. URINE ANALYSIS; REACTION FOR BILE PIGMENTS AND UROBILIN SHARPLY POSITIVE, PROTEIN 0.033PERCENT-00, SINGLE FRESH ERYTHROCYTES. THERAPY: INTRAVENOUS DROPWISE INFUSION OF 5PERCENT GLUCOSE SOLUTION, INJECTION OF VITAMINS, AND DIET. ON THE NINTH DAY OF THE PATIENT IN THE DEPARTMENT, AT THE HEIGHT OF DEVELOPMENT OF JAUNDICE, HIS FEELING OF WELL BEING WORSENED: HIS TEMPERATURE ROSE TO 39.8DEGREES, HE BEGAN TO FEEL PAIN IN THE CERVICAL SECTION OF THE SPINE, IN THE JOINTS OF THE UPPER AND LOWER EXTREMITIES, HEADACHE, NAUSEA AND VOMITING.

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