"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR UDC 577.1:615.7/9

ORLOVA, F. I.

"On the Toxicity of Organic Lauroyl and Dicumyl Peroxides Under Chronic Experimental Conditions"

Sb. nauch. tr. Kuybyshev. NII gigiyeny (Collection of Scientific Works of Kuybyshev Scientific Research Institute of Hygiene), 1971, vyp. 6, pp 101-102 (from RZh-Biologicheskaya Khimiya, No 19, 10 Oct 71, Abstract No 19F2119 by D. G.)

Translation: Dicumyl and lauroyl peroxides were administered to male rats for four months in their food in doses equal to 0.02 or 0.004 LD_{50} and LD_{33}. It was established that with prolonged administration the preparations caused a decline in Hb content and erythrocyte count and an increase in the reticulocyte count in the peripheral blood, an increased formation of MtHb, a drop in blood sulfhydryl groups, and a certain lowering of blood peroxidase activity. As regards liver function, a decline was observed in total blood protein due to a preferential drop in albumin fractions, as well as a lowering of synthesis of hippuric acid by the end of the experiment. LD_{50} and LD_{33} doses caused no variations. For early diagnosis of intoxication by these organic peroxides it is recommended that a determination be made of Hb and MtHb, erythrocyte and reticulocyte count, and blood peroxidase activity.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

1/2 025 UNCLASSIFIED PROCESSING DATE--27NOV70

TITLE--ACRYLONITRILE POLYMERIZATION IN LIQUID AMMONIA -U-

AUTHOR-(03)-KRASULINA, V.N., NOVOSELOVA, A.V., ORLOVA, G.A.

COUNTRY OF INFO--USSR

SOURCE--VYSOKOMOL. SOEDIN., SER. A 1970, 12(5), 1029-32

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--LOW TEMPERATURE EFFECT, POLYMERIZATION, ACRYLONITRILE, AMMONIA

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3007/1018 STEP NO--UR/0459/70/012/005/1029/1032

CIRC ACCESSION NO--AP0136445

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

2/2 025 UNCLASSIFIED

CIRC ACCESSION NO--AP0136445 PROCESSING DATE--27NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE POLYMN. OF ACRYLONITRILE (I) IN LIQ. NH SUB3 SOLNS. OF LI, NA, AND LINH SUB2 AT MINUS 70DEGREES GAVE WHITE POLYACRYLONITRILE (OF MOL. WT. 78,000-430,000) IN HIGH YIELDS. THE POLYMN. RATE REACHED A MAX. AT MINUS 70 TO MINUS 50DEGREES AND DECREASED AT HIGHER TEMPS. THE POLYMN. WAS ZERO ORDER WITH RESPECT TO I. FACILITY: INST. VYSOKOMOL. SOEDIN., LENINGRAD, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

1/2 011 UNCLASSIFIED PROCESSING DATE--11DEC70

TITLE--KINETICS OF THE CHEMICAL ETCHING OF INDIUM ARSENIDE IN ACID SOLUTIONS OF FERRIC CHLORIDE -U-

AUTHOR-(03)-ORLOVA, G.M., SVESHNIKOVA, L.L., NIKIFOROVSKAYA, L.P.

COUNTRY OF INFO--USSR

SOURCE--ZH. PRIKL. KHIM. (LENINGRAD) 1970, 43(4), 784-8

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--AQUEOUS SOLUTION, CHEMICAL REACTION KINETICS, FERRIC CHLORIDE, CHEMICAL DECOMPOSITION, INDIUM ARSENIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3004/0946 STEP NO--UR/0080/70/043/004/0784/0788

CIRC ACCESSION NO--AP0131531

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

2/2 011 UNCLASSIFIED PROCESSING DATE--11DEC70

CIRC ACCESSION NO--AP0131531

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE RATE OF DISSOLN. OF MONOCRYST. INAS WAS INVESTIGATED IN PERCHLORIC ACID SOLNS. OF FERRIC CHLORIDE AS A FUNCTION OF MIXING, TEMP., AND COMPN. OF THE SOLN. FACILITY: LENINGRAD. GOS. UNIV. IM. ZHDANOVA, LENINGRAD, USSR.

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APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5"

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Glass and Ceramics

USSR

UDC 546.19'23'15'666.1

DOYNIKOV, L. I., MIKHAYLOV, V. N., and ORLOVA, G. N., Leningrad State University imeni A. A. Zhdanov

"The Thermal Stability of $AsSe_xI_y$ Glasses"

Moscow, Izvestiya Akademii Nauk SSSR, Neorganicheskiye Materialy, Vol 6, No 6, Jun 70, pp 1177-1178

Abstract: An investigation was made of the microhardness and thermal stability of $AsSe_xI_y$ glass-like alloys with x = 0.8; 1.0; 1.5; 2.5; 4.0; 9.0; and 20.0. The alloys were synthesized by vibration vacuum melting at 700°C with subsequent air hardening. The introduction of iodine lowered considerably the microhardness and thermal stability of the investigated alloys. The effect of iodine depends on the ratio of the As and Se content, with alloys in which Se/As= 1.5 possessing the maximum hardness.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR UDC 547.241

KRASIL'NIKOVA, Ye. A., ZYKOVA, T. V., RAZUMOV, A. M., STARSHOV, I. M., ORLOVA, G. V., and SALAKHUTDINOV, R. A., Kazan' Chemical-Technological Institute Imeni S. M. Kirov

"Investigation of the Series of Phosphinic and Phosphinous Acid Derivatives. XC. Effect of the Structure of Alkyl Halide on the Reaction With Esters of Ethyl(Phenyl)dithiophosphonous Acid"

Leningrad, Zhurnal Obshchey Khimii, Vol 43 (105), No 8, Aug 73, pp 1701-1705

Abstract: The study included reactions of normal and branched alkyl halides with dipropyl esters of ethyl- and phenyldithiophosphonous acids. The normal alkyl halides react much faster in this reaction than the branched alkyl reagents. The reaction can be described by the equation $RP(SC_3H_7)_2 + R'Br \rightarrow RR'P(S)(SC_3H_7) + RR_2'P(S) + RP(S)(SC_3H_7)_2 +$

$$C_3H_7Br + R'SC_3H_7$$

as supported by NMR ^{31}P data. It was shown that changing from normal alkyl halides to the branched isomers increases the tendency of this reaction to occur via the sulfur atom rather than through the phosphorus atom.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR

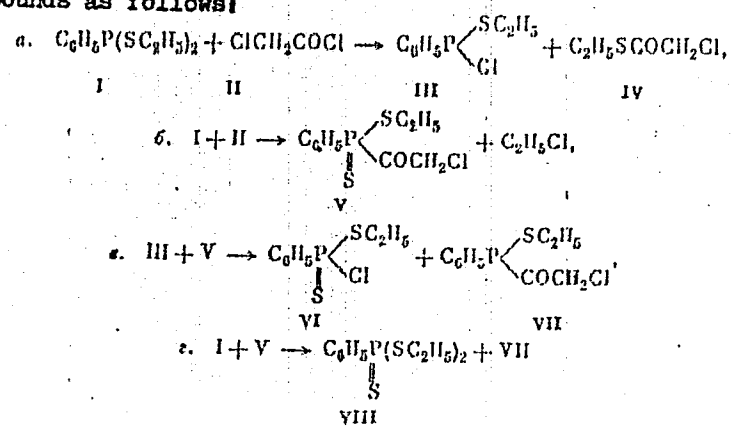
UDC 547.26'118

KRASIL'NIKOVA, YE. A., ORLOVA, G. V., MOSKVA, N. A., and RASUMOV, A. I., Kazan Chemical Technological Institute imeni S. M. Kirova

"The Reaction of the Diethyl Esters of Phenyldithiophosphonous Acid with Chloroacetic Acid Chloride"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), Vyp 11, 1972 pp 2578-1579

Abstract: The title reaction results in a complex mixture of products. Products of the initial reaction may react further resulting in the formation of a number of compounds as follows:



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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR

KRASIL'NIKOVA, YE. A., et al., Zhurnal Obshchey Khimii, Vol 42(104), Vyp 11, 1972, pp 1578-1579

Products were separated on a chromatographic column and analyzed by IR, NMR, and PMR spectra.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR

BANKOVSKAYA, N. N., ORLOVA, G. V.

"Chromatographic Activity and Dipole Moments of Certain Organothiophosphorus Compounds"

Tr. Kazan. Khim.-tekhnol. In-ta [Works of Kazan Institute of Chemical Technology], No 46, 1971, pp 57-59 (Translated from Referativnyy Zhurnal, Khimiya, No 2, 1972, Abstract No 2 B1410 from the Resume).

Translation: The dipole moments of a number of organothiophosphorus compounds are determined. The dependences established between their polarity and chromatographic activity.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

1/2 019 UNCLASSIFIED PROCESSING DATE--27NOV70

TITLE--COMBATTING BRUCELLOSIS -U-

AUTHOR-(02)-POGULYAY, V.D., ORLOVA, G.V.

COUNTRY OF INFO--USSR

SOURCE--VETERINARIYA, 1970, NR 1, PP 52-54

DATE PUBLISHED--------70

SUBJECT AREAS--AGRICULTURE, BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--BRUCELLOSIS, DISEASE CONTROL, EPIZOOTIOLOGY, VACCINATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3007/1290 STEP NO--UR/0346/70/000/001/0052/0054

CIRC ACCESSION NO--AP0136696

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

2/2 019 UNCLASSIFIED PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0136696

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. BRUCELLOSIS IN ALTAY KRAY HAS DECREASED FROM FORMER PEAKS TO 3.8 AND 3.5PERCENT POSITIVELY REACTING CATTLE AND SHEEP, RESPECTIVELY, IN 1955. THE BRUCELLOSIS CONTROL PROGRAM EMPHASIZED ISOLATED REARING OF YOUNG, DISTRIBUTION OF PASTURES BY EPIZOOTIOLOGICAL CRITERIA, ORGANIZATION OF SUMMER QUARTERS, GRADUAL ELIMINATION OF BRUCELLOSIS ISOLATION AREAS, AND DISINFECTION MEASURES. SPECIAL ATTENTION WAS PAID TO SEMINARS WITH VETERINARY AND MEDICAL SPECIALISTS ON BRUCELLOSIS DIAGNOSIS AND SANITATION (VACCINATION AND EXTERMINATION PROCEDURES, ETC.). ON FARMS WITH SMALL HERDS, SEROLOGICAL TESTING AND SLAUGHTER WERE EMPLOYED. ANIMALS IN UNSAFE AREAS WERE VACCINATED WITH STRAIN 19 VACCINE. A TOTAL OF 2.5 MILLION HEAD OF CATTLE WERE VACCINATED BETWEEN 1955 AND 1967. VACCINATION PROGRAMS HELPED ELIMINATE BRUCELLOSIS IN UNSAFE AREAS WITHIN THREE YEARS. ANIMALS WERE REEXAMINED 1.5-2 YEARS AFTER VACCINATION OR 2.5-3 YEARS AFTER REVACCINATION; HIGH POSITIVES WERE SLAUGHTERED AND LOW POSITIVES KEPT UNDER OBSERVATION. NEW MEASURES PLANNED FOR 1971 WERE MOSTLY DESIGNED TO PREVENT THE SPREAD OF THE DISEASE INTO THE AREA FROM THE OUTSIDE. FACILITY: ALTAYSKOYE KRAYSEL'KHOZUPRAVLENIYE.

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UDC: 621.378.325

USSR

GORLANOV, A. V., KALININA, A. A., LYUBIMOV, V. V., ORLOVA, I. B., PETROV, V. F.

"Investigation of the Possibilities for Making Telescopic Laser Amplifiers With High Amplification Factors"

Minsk, Zhurnal Prikladnoy Spektroskopii, Vol 17, No 4, Oct 72, pp 617-622

Abstract: Based on the theory of unstable resonant cavities, an investigation is made into the feasibility of attaining high amplification factors ($\sim 10^5$) in telescopic laser amplifiers. It is shown that when a single GOS-1001 light source is used, a three-pass amplifier is optimum, while the optimum number of passes is two for an amplifier using two such light sources. An amplification factor of approximately 160 000-200 000 is achieved (for a weak signal).

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR

UDC 621.375.82

LYUBIMOV, V. V., ORLOVA, I. B., FROMZEL', V. A.

"Effect of Nonhomogeneity of Population Inversion on the Transverse Structure of Oscillations in Solid-State Lasers"

V sb. Kvant-elektronika (Quantum Electronics -- Collection of Works), No 3, Moscow, "Sov. radio," 1972, pp 94-96 (from RZh-Fizika, No 1, Jan 73, Abstract No 1D881)

Translation: The effect of nonhomogeneity of population inversion, occurring during spiking operation, on the transverse structure of the radiation field of a laser was investigated on the basis of geometrical optics. The condition for the small effect of the nonhomogeneity of inversion in a direction perpendicular to the axis of the resonator on the radiation properties was obtained. The transverse structure of neodymium-glass laser radiation was investigated for various types of effects of inversion nonhomogenity. Authors' abstract.

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USSR UDC 621.378.325

VANYUKOV, M. P., GORLANOV, A. V., LYUBIMOV, V. V., ORLOVA, I. B., PETROV, V. F.

"A Neodymium Glass Multichannel Monopulse Laser"

Moscow, Kvantovaya Elektronika, Sbornik Statey, No 4, "Sovetskoye Radio", 1971, pp 117-120

Abstract: The authors consider certain problems in the design of multichannel monopulse laser systems. An evaluation is made, and experimental data are presented on the influence which scattering of light in the gate has on the angular divergence of a beam from a laser with an unstable cavity. An experimental study is made of the limiting possibilities of a single-channel amplification system based on neodymium glass rods 45 mm in diameter and 600 mm long. A six-channel monopulse laser system is described with a total emission energy of 1 000 J and a pulse power of 15 GW. Four figures, bibliography of nine titles.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR UDC 666.76:536.421.5

KAYNARSKIY, I. S., DEGTYAREVA, E. V., and ORLOVA, I. G., Ukrainian Scientific Research Institute of Refractory Materials

"Technology for the Production of Refractory Materials From Sintering-Active Materials"

Moscow, Ogneupory, No 12, 1972, pp 41-46

Abstract: The technology for producing refractories from materials capable of active sintering (ASM) is reviewed. Active sintering materials include magnesite, chromite, alumina, chamotte, and others. These materials should be ground to particles 10 μm in size in order to produce items of low porosity and high thermal stability. A vibrational mill is best suited for grinding ASM, with 1200 vibrations/min and capable of producing 1-1.2 tons magnesite or chromite powder per hour. Different types of presses are recommended for production of briquettes from ASM. Rotary-ring and tunnel-type furnaces are best suited for sintering of items produced from ASM. Refractory materials produced by the suggested method are characterized by low porosity, low shrinkage, a low thermal expansion coefficient, high density, good thermal stability, and high compressive strength. Numerical indicators of the above properties are presented in tables.

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USSR UDC 553.65:548.522

ORLOVA, I. G., SHAPIRO, Ya. Z., and GUL'KO, N. V., Ukrainian Scientific Research Institute of Refractory Materials

"The Effect of Some Oxides on the Crystallization of Corundum Whiskers From the Gas Phase"

Moscow, Izvestiya Akademii Nauk SSSR, Neorganicheskiye Materialy, Vol 7, No 7, Jul 71, pp 1188—1191

Abstract: The crystallization of corundum whiskers according to a previously described method (V. S. Papkov et al., Kristallografiya, 9, 442, 1964) by vaporization of Al_2O_3 in a C-atmosphere in the presence of additions of SiO_2 , TiO_2 , and ZrO_2 was investigated. The semicrystalline corundum ceramic was heated up to 1700—2000 $^{\circ}$ C in a furnace by passing through it Ar containing 0.003 % O_2 and 0.01 % N_2 . The positive effect of TiO_2 and ZrO_2 additions is demonstrated and their optimum application conditions are determined. It was found that crystals of corundum crystallize only on graphite; they have the growth forms A_I and C and crystals of the growth form A_I are characterized by a mean breaking strength of $\sim$50,000 kg/cm^2 and higher. One table, nine biblio. refs.

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Source: JPRS #59580 23 Jul 73

Hydrometeorology

UDC 551.509.335

SORTING ANALOGS TO COMPOSITE-KINEMATIC MAPS OF NATURAL SYNOPTICS PERIODS

[Article by Candidate of Physical and Mathematical Sciences O. V. Satyreva, L. I. Orlova, USSR Hydrometeorological Scientific Research Center; Moscow, Meteorologiya i Gidrologiya, Russian, No 5, 1973, submitted 4 July 1972, pp 50-57]

In sorting the analogs to the composite-kinematic maps of the natural synoptic periods, four parameters are proposed which take into account the similarity of the fields with respect to sign and direction of displacement of the baric formations. On the basis of the results of the visual sorting of the analogs, the threshold values of the parameters are determined by the Bayes method which separate the situations analogous to the given one. The results of estimating the sort of the analogs on dependent and independent material are presented.

The analog method is the primary method of long-range forecasting, and it is widely used in operative practice. Until recently the analogs were basically sorted manually. This required large expenditures of time. Therefore, many studies were devoted to the automation of this process. At this time there are a number of computerized procedures for estimating the degree of similarity of the meteorological fields; however, the discovery of the analogy of the development of the synoptic processes, that is, sorting the analogs to the composite-kinematic maps of natural synoptic periods is of great interest too. An objective procedure for this type of sorting was proposed in the paper by Kh. Kh. Rafailova [4].

All the characteristic features of the synoptic processes described by the composite-kinematic maps are represented by Kh. Kh. Rafailova in the form of provisional numbers pertaining to each of the 96 squares into which the space of the first natural region is divided. These numbers describe both the sign of the field and the direction of the displacement of the baric formations. For characterization of the degree of similarity of the two composite-kinematic maps Kh. Kh. Rafailova proposes five parameters similar to the parameters proposed earlier [2, 3] as the analogy criteria of the anomaly fields of the mean monthly temperature. These are primarily the "correlation coefficient" and

ORLOVA, L. I.

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Measuring, Testing, Calibrating

USSR UDC (546.17+546.21):543.51

VITOL', E. N., ORLOVA, K. B., and IVANENKO, K. A.

"Background Registration of the Mass-Spectrometer and Reproducibility of the Determination of the Isotopic Composition of Nitrogen and Oxygen"

Moscow, Zavodskaya Laboratoriya, Vol 37, No 12, 1971, pp 1466 -1469

Abstract : The background effect on results of the isotopic analysis of nitrogen, oxygen, and hydrogen by molecular peaks of N_2, O_2, and H_2 which coincide with the most intensive background peaks was investigated with the mass-spectrometer MI-1305. The extrapolation of linear graphs in coordinates $k - 1/\Sigma$ (where: k=concentration of the heavy isotope calculated by disregarding the background and Σ=sum of measured molecular peaks on the axis of ordinates, $\Sigma \to \infty$) yields concentrations which are independent of the effect of the background. Concentrations which are close to extrapolation results are received by subtraction from peak values of the analyzed gas 1/2

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USSR

VITOL', E. N., et al., Zavodskaya Laboratoriya, Vol 37, No 12, 1971, pp 1466-1469

of values of corresponding background peaks. The reproducibility of the isotope analysis is defined by scattering of the background and the reading error on the millivoltmeter scale. Such errors as the instability of the filling with gas and the working of the ion source and the ion current amplifier are unessential. Four illustr., three tables, four formulas, two biblio. refs.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

Acc. Nr AP0041540 Abstracting Service: CHEMICAL ABST. 4/70 Ref. Code UR0366

89983e Reactions of α-chlorinated ethers in the presence of zinc. IX. Synthesis of dihydroxy- and dialkoxydiphenylmethanedicarboxylic acid esters. Lapkin, I. I.; Orlova, L. D. (Perm. Gos. Univ., Perm, USSR). *Zh. Org. Khim.* 1970, 6(1), 68–71 (Russ). The reaction of 2,4-$RR^1C_6H_3CO_2H$ (I) with $ClCH_2OMe$ in the presence of Zn in Et_2O gave 30–45% $CH_2[C_6H_2R^1R(CO_2H)\text{-}2,4,5]_2$. I ($R = R^1 = H$) gave no reaction. The mechanism of the analogous reactions of $ClCH_2OMe$ in the presence of Zn with nonaromatic compds. was discussed earlier (Lapkin, I. I.; 1967). CPJR

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

ORLOVA, L.K.

Microelectronics

JPRS 57333

25 October 1972

MICROELECTRONICS

Excerpts from Russian-language book edited by F. V. Lukin; Mikroelektronika, No 5, 1972, Sovetskoye Radio Publishing House, Moscow, UDC 621.382:621.396.6-181.5.

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recording and readout. The memory element consists of two four-electrode Gunn instruments, the first of which serves for recording and storage, the second of which serves for readout of the stored information. The time of the recording-readout cycle is about 0.5 nsec. The power computed in storage mode 1 is about 100 mW; in storage mode 0 it is about 115 mW.

The article contains 4 figures and 3 bibliographic references.

UDC 681.142 → 621.374.3

Diode-Transistor Logic Circuit With Feedback. Naumov, Yu.Ye. and Puchkov, I.P. In the Collection Mikroelektronika, edited by F.V. Lukin, No 5, p 166, Sovetskoye Radio Publishing House, 1972.

The article gives a theoretical analysis of the electrical parameters of a circuit with feedback; its advantages are analyzed in comparison to the diode-transistor circuit without feedback. It is shown that the use of a feedback circuit is especially effective in designing micropower circuits. An experimental investigation is given for the circuit with feedback in the micropower band a comparison is given with the microcircuit "Mikrovatt-1".

The article contains 11 figures, 1 table, and 6 bibliographic references.

UDC 621.382.029.64

Logic Elements on Gunn Diodes. Voronkova, G.M., Orlova, L.M., Starosel'skiy, V.I., and Sapel'nikov, A.K. In the Collection Mikroelektronika, edited by F.V. Lukin, No 5, p 182, Sovetskoye Radio Publishing House, 1972.

The article describes the properties of experimental samples of planar Gunn diodes. On 200-μm long samples the authors make a current impulse shaper and memory elements of two types.

The article contains 6 figures, 1 table, and 5 bibliographic references.

UDC 621.375.001.24:621.382.32

Static Analysis of the Simplest Differential Cascade on MDP Transistors. Stepanenko, I.P. In the Collection Mikroelektronika, edited by F.V. Lukin, No 5, p 190, Sovetskoye Radio Publishing House, 1972.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR UDC 615.31:547.75

PREOBRAZHENSKAYA, M. N., ORLOVA, L. M., LIBERMAN, S. S., MOSINA, G. S., AVRAMENKO, V. G., SOROKINA, N. P., and SUVOROV, N. N., All Union Scientific Chemical-Pharmaceutical Research Institute imeni S. Ordzhonikidze, Moscow

"Synthesis and Investigation of Pharmacological Activity of the Indole Series Hydroxyketones"

Moscow, Khimiko-Farmatsevticheskiy Zhurnal, Vol 6, No 1, Jan 72, pp 32-38

Abstract: 10 g of 3-chloroacetylindole (I) in 300 ml dimethylformamide is added to 18.3 g molten potassium acetate, the mixture is stirred at 60-70°, filtered, and evaporated. The residue is recrystallized from water yielding 44% of 3-acetoxyacetylindole (II), m.p. 139-140°. Analogously a series of other 3 α-acetoxyacylindoles is obtained. To synthesize 3-benzoylhydroxyacetylindole (III), m.p. 187-189°, an analogous procedure was used employing potassium benzoate instead of the acetate. When (II) was heated with 2% NaOH solution, it hydrolyzed easily yielding 3-hydroxyacetylindole (IV), m.p. 167-169°. 5-Acetoxyacetylindole, m.p. 123-124.5° was obtained similarly to (II) starting from 5-hydroxyacetylindole, m.p. 177-179°. In each group several representative compounds were synthesized using reported reactions. 3-Hydroxyacetylindole was found to have neurotropic activity; modifications in its structure as a rule led to a lower biological activity.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR UDC 621.793.6

CHEVELA, O. B., ORLOVA, L. M., and MOROZOV, I. A., Voronezh

"Investigation of the Shearing Strength of Plasma Coatings"

Kiev, Poroshkovaya Metallurgiya, No 8, Aug 70, pp 83-86

Abstract: The article considers the shearing strength of tungsten coating with stainless steel Kh18N10T. It is shown that spraying distance has a definite effect on the shearing strength. A correlation between the shearing strength with microstructure and residual stresses in the coating is shown. The fracture during shear tests takes place between layers-flakes of sprayed coating, and not in the zone coating--sublayer interface.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR UDC 616.288.75+616.2-036.11]-053.2-085.339:576.858]-039.71

YERMOL'YEVA, Z. V., BLINOVA, M. I., FURER, N. M., RITOVA, V. V., KUCHERENKO, L. P., NEMIROVSKAYA, B. M., SHCHERBAKOVA, E. G., SCHASTNYY, E. I., ORLOVA, L. N., and FAYNSHTEYN, S. L., Chair of Microbiology, Central Institute for Advanced Training of Physicians, and Institute of Virology imeni D. I. Ivanovskiy, USSR Academy of Medical Sciences, Moscow

"Prophylaxis of Influenza and Other Acute Respiratory Diseases Among Children Through Administration of Leukocytic Interferon and a Stimulant of Interferon Production (UF Virus)"

Moscow, Voprosy Virusologii, No 4, Jul/Aug 71, pp 442-446

Abstract: An express method of preventing influenza and other acute respiratory diseases was tested in childrens' institutions in Moscow during the interepidemic period of March-June 1968 and during the influenza epidemic in January-February 1969. The project was carried out under strictly controlled, coded experimental conditions. The 750 children, aged 10 months to 7 years, were divided into four groups at random, and the preventive agents were administered intranasally. One group received leukocytic interferon two times per day for 7 to 42 days. The second group received interferon with liquid ecmoline. The third group received UF virus once daily for 3-4 days with

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YERMOL'YEVA, Z. V., et al, Voprosy Virusologii, No 4, Jul/Aug 71, pp 442-446

intervals of 3-4 days. The fourth group received placebos. The effectiveness index of interferon was 3.0 (frequency of diseases three times smaller than in the placebo group) in the interepidemic period and 2.2 during the epidemic. The effectiveness index of interferon with ecmoline was 1.8, and that of UF virus was 3.0 in the interepidemic period. All differences are statistically significant. Since no toxic effects were observed, the method is recommended for the prevention of influenza and other acute respiratory diseases.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR UDC: 621.3.049.75

SERCHUGOVA, A. G., OSHARIN, V. I., FILIP'YEVA, N. I., ORLOVA, L. N.

"A Method of Making Printed-Circuit Boards"

Moscow, Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, No 5, Feb 71, Author's Certificate No 293312, Division H, filed 31 Mar 69, published 15 Jan 71, p 182

Translation: This Author's Certificate introduces a method of making printed-circuit boards with metallized holes by a positive combined method. As a distinguishing feature of the patent, the quality and reliability of the boards is improved and cost is reduced by electrophoresis polymer coating of the printed-circuit drawing formed by chemical and galvanic copper plating. This polymer coating is stripped off after removal of the photoresist and etching of the copper foil.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

1/2 017 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--COULOMETRIC DETERMINATION OF MANGANESE(II), CERIUM(III), AND VANADIUM(IV) -U-

AUTHOR-(03)-KOSTROMIN, A. A., AKHMETOV, A.A., ORLOVA, L.N.

COUNTRY OF INFO--USSR

SOURCE--ZH. ANAL. KHIM. 25, 195-6 JAN 1970

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--POTENTIOMETRIC TITRATION, MANGANESE, CERIUM, VANADIUM, ANALYTIC CHEMISTRY, BRONZE, BRASS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1980/1192 STEP NO--UR/0075/69/025/000/0195/0196

CIRC ACCESSION NO--AP0049370

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

2/2 017 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0049370

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE COULOMETRIC TITRATION OF SMALL AMOUNTS OF MANGANESE(II), CERIUM(III), AND VANADIUM(IV) WITH ELECTROGENERATED DICHROMATE HAS BEEN CARRIED OUT IN 12M H SUB3 PO SUB4. THE END POINT OF TITRATION HAS BEEN ESTABLISHED BY VARIOUS METHODS. THE POSSIBILITY OF DETERMINING MANGANESE IN BRASS AND BRONZE IS DISCUSSED.

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USSR UDC 576.851.49.097.22:615.332 (STREPTOMYCINUM)

(2)

TARANENKO, T. M., VEYNBLAT, V. I., BAKHRAKH, Ye. E., MALININA, Z. Ye., ORLOVA, L. S., and ANDREYEVA, I. P., All-Union Mikrob Antiplague Institute, Saratov

"Comparative Characteristics of Somatic Polysaccharides Isolated From Strain EV and Its Streptomycin-Resistant Variant"

Moscow, Antibiotiki, Vol 18, No 3, 1973, pp 213-216

Abstract: Chemical and immunochemical comparisons were made of the lipopolysaccharide (LPS) and the main somatic antigens (MSA) isolated from the vaccine strain EV NIIEG of the P. pestis (I), and its nonimmunogenic streptomycin resistant variant EV Str^r61 (II). The cells were grown on a solid nutrient medium for 48 h at 28°, and the antigenic preparations were obtained from acetone-dried cells. MSA was obtained by extraction with trichloroacetic acid, purified on a column of Biogel P-200, and MSA-containing fractions selected on the basis of serologic reactivity and absorption at 280 nm. LPS was isolated by water-phenol extraction; phenol was removed by dialysis and MSA and nucleic acids by gel filtration on a Sepharise 2B column. For sugar analyses LPS and MSA were hydrolyzed with H_2SO_4, and the monosaccharides identified by thin-layer chromatography on silica gel. Infrared (IF) spectra

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USSR

TARANENKO, T. M., Antibiotiki, Vol 18, No 3, 1973, pp 213-216

were used for the detection of lipids. MSA was found to be present in greater quantities in I than in II, and in both cases lipids were absent. MSA isolated from I and II contained glucose, galactose, and glucosamine; however, twice as much glucosamine was present in MSA derived from I than in that derived from II, while more galactose was present in the MSA derived from II than in that from I. In addition, MSA isolated from II also contained mannose, and a sugar with an R_f value close to that of fucose. Gel precipitation with equine antiplague serum and the first component of MSA showed that the titer of the preparation derived from I was 2.5 times as great as that of the preparation from II. No significant chemical differences were found between LPS derived from I and II; both preparations contained virtually identical amounts of reducing substances (about 19%), glucosamine (2-2.5%), and limited quantities of proteins and nucleic acids. IF spectra for both preparations were virtually indistinguishable. The obtained data indicate that streptomycin does not affect the LPS component of the P. pestis cell wall, but alters the metabolic processes involved in the formation of MSA.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

Steels

USSR UDC 621.73.073

(1)

TISHAYEV, S. I., KONRAD, YU. G., POZNYAK, L. A., STETSENKO, N. V., and OSADCHIY, A. N.

"New Steel 5Kh2VMNF (DI-32) for Hot Deforming Die Tool"

Moscow, Kuznechno-Shtampovochnoye Proizvodstvo, No 8, Aug 73, pp 14-16

Abstract: The results of comparative studies of the basic properties are presented for a new steel 5Kh2VMNF (DI-32), standard grade steel 5KhNM, and a steel recently presented, 40KhSMF, as well as the strength of dies made from the new steel and 5KhNM. Chemical composition of the three steels was (in %):

	C	Mn	Si	Cr	Mo	Ni	W	V
5Kh2VMNF	0.47	0.49	0.40	1.78	0.49	1.50	0.87	0.37
5KhNM	0.54	0.64	0.24	0.80	0.19	1.65	--	--
40KhSMF	0.38	0.57	0.80	1.69	0.95	0.10	--	0.35

Data of mechanical tests showed that the new steel surpasses the other two steels in both heat resistance and impact strength for the same level of strength. The new steel also had higher hardness than the other two steels for all tempering temperatures. The average strength of dies made from

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR

TISHAYEV, S. I., et al., Kuznechno-Shtampovochnoye Proisvodstvo, No 8, Aug 73, pp 14-16

steel 5Kh2VMNF was 2.5-3 times higher than dies made from 5KhNM and the economic effect from use of the new steel amounts to 1000 rubles/ton. Tests of the new steel and 5KhNM were conducted for tools made of the two steels at the Tokmaksk Die-Forging Plant. Four tables, four bibliographic references.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

1/2 019 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--THE TIME OF HISTONE SYNTHESIS IN REGENERATING RAT LIVER -U-

AUTHOR-(02)-ORLOVA, L.V., RODIONOV, V.M.

COUNTRY OF INFO--USSR

SOURCE--EXP CELL RES 59(2): 329-333. 1970

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--LIVER, TISSUE, TRITIUM, CHEMICAL LABELLING, AMINO ACID

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1989/1367 STEP NO--US/0000/70/059/002/0329/0333

CIRC ACCESSION NO--AP0107840

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

2/2 019 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0107840

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CHANGES IN THE CONTENTS OF HISTONES AND DNA IN THE CELL NUCLEI OF REGENERATING RAT LIVER CELLS AS WELL AS INCORPORATION OF RADIOACTIVE LEUCINE AND THYMIDINE IN THESE SUBSTANCES WERE STUDIED. THE AMOUNT OF HISTONES IN THENUCLEI OF REGENERATING LIVER CELLS THEIR INCORPORATION OF PRIME3 H,LEUCINE STARTED TO INCREASE AND REACHED THE MAXIMUM EARLIER THAN THE RESPECTIVE ONSET AND PEAK OF THE DNA CONTENT, AND UPTAKE OF PRIME14 C,THYMIDINE. CHANGES IN THE HISTONE AMOUNT IN THE NUCLEI OF REGENERATING LIVER CELLS CAN BE ACCOUNTED FOR BY CHANGES OCCURRING IN THE CELLS OF THE PROLIFERATIVE POOL. FACILITY: INST. BIOL. AND MED. CHEM., USSR. ACAD. MED. SCI., MOSCOW, USSR.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

1/2 038 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--PROPERTIES OF THE OLIGOESTER ACRYLATE MGF-9 HARDENED WITHOUT HEATING -U-

AUTHOR-(03)-PETRILENKOVA, YE.B., ORLOVA, L.V., STRIKOVSKAYA, G.G.

COUNTRY OF INFO--USSR

SOURCE--PLAST. MASSY 1970, (2), 48-9

DATE PUBLISHED--------70

SUBJECT AREAS--AERONAUTICS

TOPIC TAGS--PHYSICAL CHEMISTRY PROPERTY, GLASS FIBER, REINFORCED PLASTIC, FOAM PLASTIC, P LASIC CONCRETE, CHEMICAL REACTION RATE, POLYMERIZATION, PEROXIDE, CATALYST, ESTER, POLYMER BINDER/(U)MGF9 BINDER FIBER GLASS PLASTIC

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1992/1700 STEP NO--UR/0191/70/000/002/0048/0049

CIRC ACCESSION NO--AP0112694

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

2/2 038 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0112694

ABSTRACT/EXTRACT--(U) GP-0- ABSRACT. OLIGOESTER ACRYLATE MGF-9 (I) WAS HARDENED AT ROOM TEMP. IN THE PRESENCE OF 2-5 PARTS CUMENE HYDROPEROXIDE (II) AND ACCELERATOR K FOR 2-28 DAYS. II AFFECTED THE HARDENING RATE ONLY DURING THE INITIAL 5 HR, THEREAFT ER HE POLYMN. OCCURRED AT A CONST. RATE AND WAS COMPLETED AFTER 5-7 DAYS. THE HARDENED I EXHIBITED SUPERIOR PHYSICOMECH. PROPERTIES AND WAS USED AS A BINDER FOR GLASS FIBER REINFORCED PLASTICS, FOAMS, AND PLASTIC CONCRETES. T

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

1/2 018 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--INCORPORATION OF RADIOACTIVELY LABELED PRECURSORS INTO HISTONES AND DNA OF REGENERATING RAT LIVER -U-

AUTHOR-(03)-ORLOVA, L.V., SMIRNOVA, N.V., RODIONOV, V.M.

COUNTRY OF INFO--USSR

SOURCE--TSITOLOGIYA 1970, 12(1), 111-14

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--RADIOACTIVE TRACER, DNA, ORGAN REGENERATION, MALE RAT, LIVER, LEUCINE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1996/0458 STEP NO--UR/9053/70/012/001/0111/0114

CIRC ACCESSION NO--AP0117694

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

2/2 018 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0117694

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. MALE RATS (WT. 180-200 G) WERE KILLED 6, 12.5, 14, 15, 17, AND 18 HR AFTER PARTIAL HEPATECTOMY; 30 MIN BEFORE SACRIFICE, THYMIDINE,2,PRIME14C AND LEUCINE,2,PRIME3H (20 AND 40 MUCI-100 G, RESP.) WERE INJECTED I.P. FROM THE INCORPORATION OF THE LABELED COMPDS. INTO SOL. AND PRECIPITABLE HISTONES AND DNA, IT WAS FOUND THAT THE SYNTHESIS OF HISTONES STARTED BETWEEN 12.5 AND 14 HR, WHILE THE SYNTHESIS OF DNA BEGAN 15 HR AFTER HEPATECTOMY.

FACILITY: LAB. CELL BIOCHEM., INST. BIOL. MED. CHEM., MOSCOW, USSR.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR

UDC: 532.526

VVEDENSKAYA, N. D., ORLOVA, M. G.

"Concerning a Property of Flow in a Three-Dimensional Laminar Boundary Layer"

Tr. II Resp. konf. po aerogidromekh., teploobmenu i massoobmenu. Sekts. "Aerodinamika bol'sh. skorostey" (Works of the Second Republic Conference on Aerohydromechanics, Heat Exchange and Mass Exchange. "High-Velocity Aerodynamics" Section), Kiev, Kiev University 1971, pp 132-142 (from RZh-Mekhanika, No 5, May 72, Abstract No 5B954)

Translation: A qualitative description is given of the results of numerical analysis of singularities in the behavior of the solution of a three-dimensional system of Prandtl equations on the leeward side of a body (blunt and sharp circular cones in a supersonic flow at small angles of attack α). The results show that when $\alpha < \alpha_{cr}$ there is a smooth solution of the problem in the region $x \geqslant 0$, $0 \leqslant z \leqslant L$, $|\theta| \leqslant \pi$. When $\alpha > \alpha_{cr}$ a smooth solution exists only when $x < x_{cr}$, but when $x > x_{cr}$ a singularity arises at $\theta = \pi$. Here x is the coordinate along the generatrix of the body reckoned from its vertex, z is the coordinate normal to the washed surface, θ is the angular coordinate from the plane of symmetry on the windward side. V. A. Bashkin.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR

UDC 546.799.541.5

ZAKHAROVA, F. A., ORLOVA, M. M., and GEL'MAN, A. D.

"Solid Compounds of Plutonium (VII)"

Leningrad, Radiokhimiya, Vol 14, No 1, 1972, pp 123-125

Abstract: Earlier it was reported that neptunium (VII) and plutonium (VII) are present in alkaline solutions as the anion MeO_5^{3-} which form slightly soluble compounds with the alkali and alkaline earth metals. The most suitable cations for the formation of sparsely soluble compounds of neptunium (VII) were shown to be the electropositive complex ions of hexamine cobalt chloride $[Co(NH_3)_6]Cl_3$ (compound A) and chloropentaminoplatinum chloride (IV) $[Pt(NH_3)_5Cl]Cl_3$ (compound B). However, problems occurred when this method was applied to Pu and therefore a new method of precipitation was developed. For compound A this involved preparing a solution 1.68×10^{-2} M in Pu(VII) by oxidizing a slurry of biplutonate with ozone in a 5.2M solution of sodium hydroxide. A solution containing a stoichiometric amount of A (or slightly less) was quickly added to the Pu solution. A greenish-black precipitate was formed which separated rapidly from the mother liquor. The precipitate was

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USSR

ZAKHAROVA, F. A., et al., Radiokhimiya, Vol 14, No 1, 1972, pp 123-125

transferred to a porous glass filter and separated under vacuum. The reduction of plutonium from (VII) to (VI) in the precipitate is accompanied by a change in color from greenish-black to reddish-brown. Additional reactions occur if the precipitate is not separated from the solution. A 90.3% yield was obtained for the compound $[Co(NH_3)_6][PuO_5 \cdot 3H_2O]$. For compound B, an aqueous or weakly alkaline solution containing a stoichiometric amount of B was added to a 2-5M NaOH solution of Pu(VII) resulting in a dark green fine-grained precipitate. Excess B results in the reduction of Pu(VII) but Pt(IV) catalyzes the reaction to a lesser degree than does the cobalt. This precipitate was also separated from the solution by filtration, washed and analyzed for Pu and Pt. It had the formula $[Pt(NH_3)_5Cl][PuO_5 \cdot 3H_2O]$; no % yield was given. Optical-crystallographic studies indicated that both precipitates were anisotropic, the one from A being in the form of platelets and the one from B in the form of grains.

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USSR UDC 546.799.541.5

ZAKHAROVA, F. A., ORLOVA, M. M., and GEL'MAN, A. D.

"Solid Compounds of Plutonium (VII)"

Leningrad, Radiokhimiya, Vol 14, Vyp 1, 1972, pp 123-125

Abstract: Earlier it was reported that neptunium (VII) and plutonium (VII) are present in alkaline solutions as the anion MeO_5^{3-} which form slightly soluble compounds with the alkali and alkaline earth metals. The most suitable cations for the formation of sparsely soluble compounds of neptunium (VII) were shown to be the electropositive complex ions of hexamine cobalt chloride $[Co(NH_3)_6]Cl_3$ (compound A) and chloropentaminoplatinum chloride (IV) $[Pt(NH_3)_5Cl]Cl_3$ (compound B). However, problems occurred when this method was applied to Pu and therefore a new method of precipitation was developed. For compound A this involved preparing a solution 1.68×10^{-2}M in Pu(VII) by oxidizing a slurry of biplutonate with ozone in a 5.2M solution of sodium hydroxide. A solution containing a stoichiometric amount of A (or slightly less) was quickly added to the Pu solution. A greenish-black precipitate was formed which separated rapidly from the mother liquor. The precipitate was transferred to a porous glass filter and separated under vacuum. The reduction of plutonium from (VII) to (VI) in the precipitate

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USSR

ZAKHAROVA, F. A., et al., Radiokhimiya, Vol 14, Vyp 1, 1972, pp 123-125

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR

UDC 576.858.75.095.18:615.373

HEKLYUDOVA, L. I., MAKAROVA, G. I., and ORLOVA, N. G., Institute for Advanced Training of Physicians and Institute of Epidemiology and Microbiology imeni N. F. Gamaleya, Moscow

"The Effect of Antineuraminidase Sera on the Enzymatic Activity and Reproduction of Influenza A2/Hong Kong Virus"

Moscow, Voprosy Virusologii, No 5, Sep/Oct 72, pp 599-602

Abstract: Serum antitoxic to cholera vibrio and serum antitoxic to influenza virus were obtained in rabbits. Through repeated adsorption, all types of antibodies (hemagglutinating, complement-fixing, and antitissue) except those with antineuraminidase activity were completely removed. Both purified sera effectively inhibited influenza virus neuraminidase. Similarly, both sera inhibited reproduction of influenza virus in 10-day old chick embryos and in the lungs of immune mice, though the antiviral serum was more powerful than the antivibrio serum. The findings suggest that individuals who have had cholera are more immune to influenza.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

ORLOVA, N.G.

So: JPRS 57717
18 Dec 72

SOME RESULTS OF THE DEVELOPMENT OF HOLOGRAPHY

(Conference in Tbilisi)

[Article by Candidates of Technical Sciences N. F. Bukhonskiy and N. G. Orlova; Moscow, Vestnik Akademii Nauk SSSR, Russian, Vol 42, No 10, October 1972, pp 123-125]

The concept "holography" (total writing) includes an aggregate of methods of recording and subsequent restoration of wave fronts of radiation containing complete information about an object, which makes it possible to obtain three-dimensional images of the object. Any wave process (radio-frequency, visible or infrared radiation of electromagnetic waves, and acoustic vibrations) can be recorded on a suitable registering medium in the form of an interference picture.

Holography as a universal method of investigation finds application in very varied areas of science and technology. There are, for example, processes and effects which at the present time are not amenable to precise quantitative study by holographic methods. This applies in particular to very rapid physical processes such as the formation of tracks in bubble chambers, the combustion of fuel in a working engine, and gas flows in wind tunnels. Holographic methods are irreplaceable in the flaw detection of industrial articles. Holography is also of exceptional importance in medical diagnosis, where it can be used to visualize internal organs of man.

The sphere of application of holography is steadily expanding. Testifying to this was the first all-union conference, held in Tbilisi on 23-26 May by the Scientific Council for Holography of the AS USSR, the Institute of Cybernetics of the AS Georgian SSR and the Moscow Institute of Radio Engineering, Electronics and Automation, in which about 300 representatives of 203 scientific organizations of the country participated. The purpose of the conference was to sum up the results of the

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

1/2 017 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--COMPARATIVE INVESTIGATION OF NEURAMINIDASE ACTIVITY OF TWO INFLUENZA A2 STRAINS -U-

AUTHOR-(02)-ORLOVA, N.G., MEKHEDOV, L.N.

COUNTRY OF INFO--USSR

SOURCE--VOPROSY VIRUSOLOGII, 1970, NR 3, PP 341-346

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--INFLUENZA VIRUS, ERYTHROCYTE, ENZYME ACTIVITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/1837 STEP NO--UR/0402/70/000/003/0341/0346

CIRC ACCESSION NO--AP0125448

UNCLASSIFIED

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

2/2 017 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125448

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. NEURAMINIDASE ACTIVITY WAS STUDIED IN TWO INFLUENZA A2 STRAINS (971-MOSCOW-59 AND 101-KRASNODAR-59) DIFFERING IN A NUMBER OF GENETIC MARKERS. THE 971 STRAIN PATHOGENIC FOR MAN AND PRACTICALLY INCAPABLE OF ELUTION FROM ERYTHROCYTES WAS FOUND TO POSSESS NEURAMINIDASE ACTIVITY WHICH WAS CHARACTERIZED BY A LOWER TEMPERATURE OPTIMUM (38DEGREESC INSTEAD OF 58DEGREES FOR THE 101 STRAIN) AND A NARROWER RANGE OF OPTIMUM PH (PH 6.0-6.2 IN 0.13M PHOSPHATE BUFFER AS COMPARED WITH PH 5.3-6.0 F OR THE 101 STRAIN). ADDITIONAL DIFFERENCE WAS FOUND IN KINETICS OF VIRAL NEURAMINIDASE INTERACTION WITH THE SUBSTRATE: WITH THE 971 STRAIN, SPLITTING OF NEURAMINIC ACID FROM OVOMUCOID OR NEURAMINE LACTOSE WAS OBSERVED AS EARLY AS 1 MIN. OR 20 SEC. AFTER MIXING THE SUBSTRATE WITH THE VIRUS PREPARATION WHILE THE 101 STRAIN SOME DELAY WAS OBSERVED LASTING FROM 1 TO 5 MIN. THIS DELAY BECAME SHORTER AT HIGHER INCUBATION TEMPERATURES AND COULD BE ELIMINATED BY ADDITION OF THE SURFACE ACTIVE AGENTT (0.1PERCENT SOLUTION OF TWEEN-80). SIMILAR DELAY IN NEURAMINIDASE ACTION WAS FOUND IN EXPERIMENTS WITH 3 INFLUENZA TYPE B VIRUS STRAINS UNDER STUDY.

FACILITY: INSTITUT EPIDEMIOLOGII I MIKROBIOLOGII IMENI N. F. GAMALEI AMN SSSR, MOSKVA.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

1/2 023 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--SOME FEATURES OF INFLUENZA EPIDEMIC IN THE TOWN OF GLAZOV -U-

AUTHOR--AKSENOV, V.A., ORLOVA, N.N., SELIDOVKIN, D.A., ARSENOV, L.A., ZORIN, V.S.

COUNTRY OF INFO--USSR

SOURCE--VOPROSY VIRUSOLOGII, 1970, NR 1, PP 97-101

DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--EPIDEMIOLOGY, INFLUENZA, BLOOD SERUM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1987/0063 STEP NO--UR/0402/70/000/001/0097/0101

CIRC ACCESSION NO--AP0103743

UNCLASSIFIED

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

2/2 023 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0103743

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. AN EPIDEMIC OF INFLUENZA WITH A TWO WAVE COURSE WAS OBSERVED IN THE TOWN OF GLAZOV. THE OUTBREAK WAS DEVELOPING AGAINST THE BACKGROUND OF FAVOURABLE CONDITIONS WITH REGARD TO INFLUENZA IN THE SURROUNDING TERRITORY, A FEW WEEKS BEFORE THE ONSET OF INFLUENZA EPIDEMIC IN THE USSR. THE FIRST WAVE OF THE EPIDEMIC WAS REGISTERED IN NOVEMBER DECEMBER 1966, THE SECOND IN FEBRUARY 1967. THE FIRST WAVE INVOLVED PREDOMINANTLY CHILDREN IN KINDERGARTENS AND SCHOOL CHILDREN, IN THE SECOND WAVE THE MORBIDITY OF INFLUENZA WAS RELATIVELY UNIFORMLY DISTRIBUTED BETWEEN ADULT AND CHILD CONTINGENTS. A RISE OF ANTIBODY TO INFLUENZA A SUB2 VIRUS WAS OBSERVED IN THE SERA OF PATIENTS IN THE FIRST WAVE OF THE EPIDEMIC. A STRAIN OF INFLUENZA VIRUS WAS ISOLATED MORPHOLOGICALLY AND SEROLOGICALLY CONSIDEREE TO BE AN ATYPICAL A SUB1 STRAIN WITH ALTERED ANTIGENIC STRUCTURE. THE STRAIN HAD NO EPIDEMIC SPREAD.

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USSR UDC 616.921.5-036.22(470.51)"1966-1967"

AKSENOV, V. A., ORLOVA, N. N., SELIDOVKIN, D. A., AKSENOV, L. A., ZORIN, V. S., VOLOGHKOV, A. D., GLADINA, YE. B., SAMUSEV, N. F., ZAKSTEL'SKAYA, L. YA., and YEVSTIGNEYEVA, N. N., Institute of Virology imeni D. I. Ivanovskiy, Academy of Medical Sciences USSR, Ministry of Health USSR

"Some Features of the 1966-1967 Influenza Epidemic in Glazov"

Moscow, VoProsy Virusologii, No 1, 1970, pp 97-101

Abstract: This epidemic occurred in two waves: the first in November-December, 1966, when few cases of influenza or other acute respiratory diseases were reported in most of the USSR and localities adjacent to Glazov, and the second in February, 1967. The first wave affected mostly young children, while the second wave affected children and adults to almost the same degree, 10.6 and 9.8 per 100 persons. The course of the disease was severe among children, but relatively mild among adults. The high incidence of influenza in the first wave, characteristic dynamics of the curve with a sharp rise, quick attainment of a peak, and sharp drop, as well as the results of serological examinations, implicated the A_2 virus as the

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USSR

AKSENOV, V. A., et al., Moscow, Voprosy Virusologii, No 1, 1970, pp 97-101

causative agent. The second wave was attributed to the B virus. A peculiar virus - an atypical A, strain with altered antigenic structure - was also isolated during the epidemic. However, the absence of antibodies in both children and adults indicated that it did not play an etiological role in the outbreak.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

AP9034859 CHEMICAL ABST. 3-69 UR0460

30963z Synthesis and study of complexing polymers containing hydroxyquinoline groups. Tolmachev, V. N.; Orlova, N. N. (Khar'kov. Gos. Univ. im. Gor'kogo, Kharkov, USSR). *Vysokomol. Soedin., Ser. B* 1969, 11(4), 284-7 (Russ). Polycondensation of 8-hydroxyquinoline (I) with HCHO in the presence of either resorcinol (II) or PhOH gave weakly acidic resins capable of absorbing metal ions from solns. The resins were prepd. by first condensing II or PhOH with HCHO and subsequently adding 2 moles I to 1 mole of the II-HCHO or PhOH-HCHO resin in water and heating 1.5 hrs. on a water bath. The low mol. wt. resin layers were then sepd., washed with hot water, and heated 4-5 hrs. at 110-20°. The resins (0.25-0.50 mm. grains) were treated with 10% HCl, thoroughly washed with water, and air-dried. They were insol. in the usual org. solvents and unstable in aq. basi media. The potentiometric titrn. curves and the exchange capacity vs. pH curves showed that the resins were weakly acidic, and the absence of discontinuities indicated that the OH groups of the I, II, and PhOH groups could not be distinguished. The exptl. values of the static exchange capacities in

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AP9034859

all cases were lower than the calcd., apparently because of steric hindrance and the very weakly acidic properties of the polymer OH groups. The resins swelled more in basic than in neutral media because of the greater dissocn. of the OH groups at high pH, which leads to an electrostatic repulsion of the charged macromol. particles causing its disintegration and addnl. hydration. Preliminary results of the study of the absorption of metallic ions by the resins showed that they absorb ions better at high pH because of their weakly acidic properties. DHJR.

DJ

2/2 1940 1006

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR

UDC: 538.574.6

ORLOVA, N. S.

"Diffraction of a Plane Electromagnetic Wave by an Ideally Conductive Arbitrary Convex Body of Large Electrical Dimensions"

Moscow, Radiotekhnika i Elektronika, Vol. 16, No 6, Jun 71, pp 914-917

Abstract: Approximate division of an electromagnetic field into TE- and TM-waves is used together with the parabolic equation method and constructions of the boundary layer type to derive a short-wave asymptotic representation for the electromagnetic field close to an arbitrary convex surface for the entire shadow region including the umbral and penumbral areas up to contiguity with formulas of geometric optics. The solution of Maxwell's equations accounts for the change in geometry of the surface in the shadow region, and also takes account of the interference of waves coming around a closed surface from opposite sides. In the case of diffraction by a metal sphere of radius a, the resultant formulas completely coincide with the asymptotic behavior of the exact solution when $ka \geqslant 10$. In conclusion, the author thanks G. T. Markov for directing the work.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

Titanium

USSR

UDC 669.295'28.3

REZNICHENKO, V. A., MOYNOV, S. G., MAKAROV, S. B., IVANOV, A. N., and ORLOVA, N. V., Moscow

"Study of the Process of Alloy Formation by the Joint Magnesiothermal Reduction of Titanium and Molybdenum Chlorides"

Moscow, Izvestiya Akademii Nauk SSSR Metally, No 1, Jan/Feb 74, pp 27-30

Abstract: Results are presented from studying the formation of alloys by the joint reduction of titanium and molybdenum chlorides and subsequent vacuum separation of the reaction masses. The phase composition of the reduction products was a mixture of alpha-titanium and two body-centered cubic, titanium- and molybdenum-base solid solutions and it was determined that the alpha-titanium is formed directly in the reduction process and not during the vacuum separation process at 850 to 1000° C. Extended soaking of the reaction masses at 800-850° C after reduction did not change phase composition of the produced metal. Evidently, particles of the b.c.c-solid solutions and alpha-Ti in the reaction mass were separated from each other by sublayers which hindered diffusion equalization of the concentration. After complete vacuum separation at 1000° C it was established that the main phase constituent is the b.c.c-solid solution which contains about 35% Mo in the titanium. One figure, two tables, one bibliographic references.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

ORLOVA, N. V.

UDC 669.017.3

EFFECT OF TUNGSTEN ON THE LAVES PHASE STRUCTURE IN THE CO-NB-W SYSTEM

[Article by K. V. Varli, N. P. D'yakonova, N. V. Orlova, Ya. S. Umanskiy, Moscow Steel and Alloy Institute, Department of Roentgenography and Physics of Metals; Moscow, Izvestiya Vysshikh Uchebnykh Zavedeniy, Tsvetnaya Metallurgiya, Russian, No 1, 1972, submitted 2 July 1971, pp 115-117]

In the Co-Nb-W ternary system, the following crossections were investigated: 1A — Co_2Nb — Co_2W — the section runs along the boundary of the region of homogeneity of the Laves phase ($MgCu_2$ type) from the Nb side; section 1B is parallel to section 1A and passes through the middle of the region of homogeneity of the Co_2Nb phase [1], that is, it is shifted toward higher Co content; section 2 — Co_3Nb ($MgNi_2$ type) [1] — Co_3W (Mg_3Cd type) [2]; section 3 — Co_3Nb — Co_3Nb — Co_2W. The compositions of the investigated alloys are presented in Table 1.

Table 1
Composition of the investigated alloys

		at. %		
		Co	Nb	W
1A	1	66,7	33,3	—
	2	66,7	29,3	5,0
	3	66,7	24,3	10,0
	4	66,7	18,3	15,0
	5	66,7		33,3
1Б	6	70	30,0	—
	7	70	25,0	5,0
	8	70	20,0	10,0
	9	70	15,0	15,0
2	10	75	25,0	—
	11	75	20,0	5,0
	12	75	15,0	10,0
	13	75	10,0	15,0
3	10	75	25,0	—
	14	71	22,0	4,0
	15	71	19,0	8,0
	16	72	16,0	12,0
	17	70	11,0	19,0
	18	66,7	—	33,3

JPRS 55942
9 May 72

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR

UDC 615.28:632.957.015.4

ORLOVA, N. V., KHOVAYEVA, L. A., and AKINCHEVA, M. YA., Laboratory of Pesticide Toxicology, Institute of Nutrition, Academy of Medical Sciences USSR, Moscow

"Special Aspects of the Effect of Pesticides of Different Chemical Structure on Warm-blooded Animals"

Moscow, Voprosy Pitaniya, No 6, Nov/Dec 71, pp 32-38

Abstract: Biochemical processes were investigated in the gonads, brain, liver, and blood of male and female Wistar rats receiving small daily peroral doses of ethylene-bis-dithiocarbamates (maneb and zineb, 30 mg/kg) for 5 months. Maneb and Zineb induced shifts (usually decrease in level) in the activity of several enzymes, especially dehydrogenases and aminotransferases, changes in SH-group concentrations in the various organs, and reduction in the fructose concentration in male sex organs. Keltan exerted selective effects on the enzymatic systems of the liver.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

ORLOVA, T. A.

SO:JPRS 53388
17 JUN 71

UDC 612.015.3+612.46/-057:629.78

POSTFLIGHT METABOLISM AND RENAL FUNCTION OF CREW MEMBERS ON THE 'SOYUZ-6,' 'SOYUZ-7,' and 'SOYUZ-8' FLIGHTS

5707593 (All Space Medicine)

[Article by I. S. Balakhovskiy, A. I. Grigor'yev, I. G. Dlusskaya, G. I. Kozyrevskiy, V. I. Legen'kov, [illegible] Ye. [illegible] Orlova; Moscow, Kosmicheskaya Biologiya i Meditsina, Russian, Vol 5, No 2, 1971, pp 37-44, submitted for publication 23 April 1970]

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Abstract: Different metabolic parameters of crew members of the "Soyuz-6," "Soyuz-7," and "Soyuz-8" spacecraft were studied before and after the flight. Functional changes were observed, but these constituted no health hazard. Weight losses were associated with an increased excretion of water and minerals, as indicated by the post-flight retention of water, chlorine, sodium and potassium in the body. The blood content of cholesterol, lipid phosphorus and sugar remained unchanged. No symptoms of disorders in adrenal function were noted.

Weight loss by cosmonauts during flight and impairments in the renal water-eliminating function thereafter have already been reported (Yu. V. Natochin, et al.; Ye. I. Vorob'yev, et al.; Berry and Catterson). Since the excretion of nitrogen with the urine did not increase, the weight decrease can be attributed only to dehydration, not to tissue breakdown. Such conclusions were drawn as a result of observation of a relatively limited number of cosmonauts. Accordingly, it was of interest to continue these observations by a detailed examination of the seven cosmonauts making the group flight on the "Soyuz-6," "Soyuz-7," and "Soyuz-8" ships at the same time: we traced their dynamics of excretion of electrolytes and studied their renal function.

Method

In the analysis we took 0.1 ml of blood from the finger and preserved it by drying on filter paper. We determined the content of sugar, urea, cholesterol and lipid phosphorus using an original method which makes it

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USSR

UDC 576.858.095.383.095.18:615.273.53

MENIKEVICH, L. M., ZHDANOVA, L. V., ORLOVA, T. G., and SOLOV'YEV, V. D., Institute of Epidemiology and Microbiology imeni N. F. Gamaleya, Academy of Medical Sciences USSR, Moscow

"The Effect of Heparin on Interferon Induction and Interference Caused by Viruses and Synthetic Polynucleotides"

Moscow, Voprosy Virusologii, No 4, Jul/Aug 72, pp 401-404

Abstract: Chick embryo cells infected with Newcastle disease virus (NDV) and vesicular stomatitis virus (VSV) were treated with heparin to study the role of interferon in homologous and heterologous viral infections and in the defense reaction caused by synthetic interferon inducer (poly I:C). Although heparin had no effect on interferon activity itself, it did inhibit interferon production stimulated by the viruses and by poly I:C, even when poly I:C was combined with DEAE-dextran. Interference of NDV reproduction remained unchanged when cultures treated with heparin were infected with a homologous virus, while a great degree of suppression of such interference was noted in heparin-treated cultures infected with both NDV and VSV. This indicates that the interferon system is not involved in the interaction between homologous viruses, but that it is involved in heterologous interference. The effect of heparin on the action of poly I:C and a combination of poly I:C and DEAE-dextran indicates also that

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MENTKEVICH, L. M., et al, Voprosy Virusologii, No 4, Jul/Aug 72, pp 401-404

the interferon system is involved in the action of these synthetic polynucleotides. In addition to suppressing interferon production, heparin also reduced cellular DNA and RNA synthesis. Thus inhibition of DNA and RNA synthesis may be the path by which heparin suppresses interferon production.

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1/2 024 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--STRUCTURE OF CELLULOSE ACETATE SOLUTIONS IN SOLVENT PRECIPITATING AGENT MIXTURES -U-

AUTHOR-(04)-VOLYNSKIY, A.L., ORLOVA, T.M., BAKEYEV, N.F., KARGIN, V.A.

COUNTRY OF INFO--USSR

SOURCE--VYSOKOMOL. SOEDIN., SER. B 1970, 12(3), 202-4

DATE PUBLISHED----------70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--CELLULOSE RESIN, ACETATE, SEDIMENTATION, ELECTRON MICROSCOPY, POLYMER STRUCTURE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/0678

STEP NO--UR/0460/70/012/003/0202/0204

CIRC ACCESSION NO--AP0124350

UNCLASSIFIED

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

2/2 024

CIRC ACCESSICN NO--AP0124350 UNCLASSIFIED PROCESSING DATE--30OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ELECTRON MICROSCOPY, DETN. OF SEDIMENTATICN CONSTS., AND VISCOSITY OF CELLULOSE ACETATE SOLNS. IN DIOXANE CONTG. IS LESS THAN OR EQUAL TO 25PERCENT H SUB2 O OR LESS THAN OR EQUAL TO 15PERCENT DECALIN SHOWED THAT WHEN THE CONCN. OF THE PRECIPITANT APPROACHES THE POINT AT WHICH PHASE SEPN. TAKES PLACE, THE POLYMER MOLS. AGGREGATE, FORMING FIBRILLAR STRUCTURES.

FACILITY: MOSK. GOS. UNIV. IM. LOMONOSOVA, MOSCOW, USSR.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

1/2 022 UNCLASSIFIED

TITLE--INFLUENCE OF CATALYST RESIDUES ON THE PROPERTIES OF POLYETHYLENE -U-

PROCESSING DATE--11DEC70

AUTHOR-(05)-KOROBOVA, N.M., LUGOVA, L.I., MATVEYEVA, E.N., ORLOVA, T.P., PARAMONKOV, YE.YA.

COUNTRY OF INFO--USSR

SOURCE--PLAST. MASSY 1970, (5), 63-4

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY, MATERIALS, PHYSICS

TOPIC TAGS--POLYETHYLENE, CATALYTIC POLYMERIZATION, ALUMINUM OXIDE, CHROMIUM OXIDE, ELECTRIC PROPERTY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3006/0921

STEP NO--UR/0191/70/000/005/0063/0064

CIRC ACCESSION NO--AP0134650

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

2/2 022

CIRC ACCESSION NO--AP0134650 UNCLASSIFIED PROCESSING DATE--11DEC70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. MEDIUM D. POLYETHYLENE (I) WAS PREPD. BY USING AL SUB2 O SUB3 CRO SUB3 CATALYST. THE CATALYST WAS NOT REMOVED FROM I PRIOR TO TESTING AND ITS AMT. WAS APPROX. DETD. FROM THE AMT. OF ASH IN I. THE INCREASE OF ASH CONTENTS IN I FROM SIMILAR TO 0.00 TO 0.03PERCENT DECREASED THE OXION. INDUCTION PERIOD FROM 110 TO 15 MIN. THE ELEC. PROPERTIES OF I (DIELEC. LOSS TANGENT, RESISTANCE, DIELEC. CONST.) DID NOT CHANGE WITH THE INCREASE OF THE ASH CONTENTS IN I BEFORE AGING. HOWEVER, AFTER AGING, DUE TO THE INCREASED NO. OF CO AND CO SUB2 H GROUPS IN I WITH HIGH ASH CONTENTS, ITS ELEC. PROPERTIES WERE NOT SATISFACTORY.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

1/2 011

UNCLASSIFIED

TITLE--DESTRUCTIVE HYDROGENATION OF TRIALKYLACYLOXYSILANES -U-

PROCESSING DATE--20NOV70

AUTHOR-(05)-BULOTOV, B.A., ORLOVA, T.V., KHARITONOV, N.P., SHENBERG, N.N., BATYAYEV, YE.A.

COUNTRY OF INFO--USSR

SOURCE--ZH. OBSHCH. KHIM. 1970, 40(4), 823-7

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--HYDROGENATION, ORGANIC SILANE, METAL CATALYST, CARBOXYL RADICAL, NICKEL, CHROMIUM OXIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3002/1161

STEP NO--UR/0079/70/040/004/0823/0827

CIRC ACCESSION NO--AP0123583

UNCLASSIFIED

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

2/2 011 UNCLASSIFIED

CIRC ACCESSION NO--AP0128583 PROCESSING DATE--20NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. HYDROGENOLYSES OF RSUB3 SIO SUB2 CR PRIME1 WITH R SELECTED FROM ME, ET OR PR AND R PRIME1 FROM ET, PR, BU, C SUB5 H SUB11 OR C SUB6 H SUB13, AT 200-300DEGREES 20-250 ATM OVER RANEY NI OR NI-CR OXIDE CATALYSTS OCCURS AT THE C-O BOND WITH TRANSFORMATION OCCURRING MAINLY AT THE CARBOXYL GROUP. THE DISILOXANE PRODUCT IS FORMED BY DEHYDRATION OF THE RESULTING R SUB3 SIOH IN CONTACT WITH THE ACID. THE PRIMARY ALC. AND CARBOXYLIC ACID FORMED IN SUCH TRANSFORMATIONS ALSO REACT TO FORM THE APPROPRIATE ESTER. SATD. HYDROCARBONS ARE ALSO FORMED, OWING TO CATALYTIC CONVERSIONS OF THE ALCS. AND ACIDS OVER NI CATALYST AT SIMILAR TO 300DEGREES. THE REACTION ALSO GAVE SOME CO, CO SUB2, CH SUB4 AND VARIOUS UNIDENTIFIED OR TARRY PRODUCTS. RESULTS OF MANY RUNS WERE TABULATED. THUS THE PRODUCTS INCLUDED R PRIME1 H, R PRIME1 CH SUB2 OH, R PRIME1 CO SUB2 H, R PRIME2 CO SUB2 CH SUB2 R PRIME1 AND (R SUB3 SI) SUB2 O. FACILITY: LENINGRAD. GOS. UNIV., LENINGRAD, USSR.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

(9)

USSR

NEL'NIKOV, N. N., MANDEL'BAUM, YA. A., ABRAMOVA, G. L., SMIRNOVA, N. S., GAR, K. A., BOKAREV, YE. M., ORLOVA, V. I., and MAKEYEVA, V. F.

"Synthesis and Pesticidal Activity of Dithiophosphoric Acid Amides"

V sb. Khim. sredstva zashchity rast. (Chemical Plant Protective Agents -- collection of works), No 2, Moscow, 1972, pp 210-214 (from RZh-Khimiya, No 19, Oct 73, Abstract No 19N479)

Translation: Studying the relationship of structure-pesticidal activity a series of amides $R'R''N(ClCH_2CH_2O)P(S)SR'''$ (I) has been synthesized and evaluated (R=alkyl; R'=H or alkyl; R'''=alkyl, Ph, substituted phenyl) the compounds showing insecticidal and acaricidal activity. The following I have been obtained (R', R'', R''', d_4^{20}, n_D^{20}, m.p. °C being reported):

Me, H, Pr, 1.2210, 1.5450, -; Et, H, Pr, 1.1956, 1.5380, Pr, H, Pr, 1.1660, 1.5300, -; iso-Pr, H, Pr, 1.1735, 1.5318, -; Bu, H, Pr, 1.1485, 1.5320, -; iso-Bu, H, Pr, 1.1505, 1.5280, -; Me, H, Bu, 1.2018, 1.5410, -; Et, H, BU, 1.1795, 1.5360, -; Pr, H, Bu, 1.1500,

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

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MEL'NIKOV, et al., V sb. Khim sredstva zashchity rast., No 2, Moscow, 1972, pp 210-214

1.5285, -; iso-Pr, H, Bu, 1.1295, 1.5310, -; Bu, H, Bu, 1.1285, 1.5280, -; iso-Bu, H, Bu, 1.1285, 1.1545, -; Me, Me, Pr, 1.2123, 1.5450, -; Et, Et, Pr, 1.1313, 1.5180, -; Pr, Pr, Pr, 1.0831, 1.5040, -; Bu, Bu, Pr, 1.0601, 1.5031, -; Me, Me, iso-Pr, 1.1900, 1.5325, -; Et, Et, iso-Pr, 1.1233, 1.5160, -; Pr, Pr, iso-Pr, 1.0910, 1.5080, -; Bu, Bu, iso-Pr, 1.0732, 1.5090, -; Me, Me, Bu, 1.2133, 1.5500, -; Et, Et, Bu, 1.1123, 1.5160, -; Pr, Pr, Bu, 1.0827, 1.5160, -; Bu, Bu, Bu, 1.0581, 1.5060, -; Me, H, Ph, -, -, 124; Et, H, Ph, -, -, 65; Pr, H, Ph, -, -, 60; iso-Pr, H, Ph, -, -, 74-5; Bu, H, Ph, -, -, 45; iso-Bu, H, Ph, -, -, 78-9; Me, H, C_6H_4Cl-4, -, -, 118-9; Et, H, C_6H_4Cl-4, -, -,

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

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USSR

MEL'NIKOV, et al., V sv. Khim sredstva zashchity rast., No 2, Moscow, 1972 pp 210-214

71-2; Pr, H, C_6H_4Cl-4, -, -, 59-60; iso-Pr, H, C_6H_4Cl-4, -, -, 60-1; Bu, H, C_6H_4Cl-4, -, -, 60-1; iso-Bu, H, C_6H_4Cl-4, -, -, 61-62; Me, Me, C_6H_4Cl-4, 1.3632, 1.6081, -; Et, Et, C_6H_4Cl-4, 1.2700, 1.5705, -; Pr, Pr, C_6H_4Cl-4, 1.2261, 1.5565, -; Bu, Bu, C_6H_4Cl-4, 1.1821, 1.5530, -; Me, Me, Ph, 1.2561, 1.5720, -; Et, Et, Ph, 1.2223, 1.5675, -; Pr, Pr, Ph, 1.1700, 1.5520, -; Bu, Bu, Ph, 1.1610, 1.5500, -; Me, Me, $C_6H_3Cl_2$-2,5, -, -, 74-75; Et, Et, $C_6H_3Cl_2$-2,5, -, -, 70-1; Pr, Pr, $C_6H_3Cl_2$-2,5, -, -, 66-7; Bu, Bu, $C_6H_3Cl_2$-2,5, 1.2763, 1.5660, -; Me, H, Ph, -, -, 74-5; Et, H, Ph, -, -, 73-4; Pr, H, Ph, -, -, 64-5; iso-Pr, H, Ph, -,

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

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MEL'NIKOV, N. N., et al., V sb. Khim. sredstva zashchity rast., No 2, Moscow, 1972, pp 210-214

-, 69-70; Bu, H, Ph, -, -, 59-60; iso-Bu, H, Ph, -, -, 83-4; Me, Me, Ph, -, -, 78-9; Et, Et, C_6H_5, -, -, 61-3; Bu, Bu, C_6Cl_5, -, -, 40-1; Me, H, $C_6H_4NO_2$-4, -, -, 69-70; Et, H, $C_6H_4NO_2$-4, -, -, 65-6; Pr, H, $C_6H_4NO_2$-4, -, -, 62-3; iso-Pr, H, $C_6H_4NO_2$-4, -, -, 60-1; Bu, H, $C_6H_4NO_2$-4, -, -, 62-3; iso-Bu, H, $C_6H_4NO_2$-4, -, -, 60-2; Me, Me, $C_6H_4NO_2$-4, -, -, 73-4; Et, Et, $C_6H_4NO_2$-4, -, -, 70-1; Pr, Pr, $C_6H_4NO_2$-4, -, -, 69-70; Bu, Bu, $C_6H_4NO_2$-4, -, -, 65-6.

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APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR

UDC 632.95

ITSKOVA, A. L., GAR, K. A., MANDEL'BAUM, YA. A., FETISOVA, V. F., and ORLOVA, V. I.

"An Arcaricide"

USSR Authors' Certificate No 267244, Cl. A 01 n 9/36; A 01 n 9/14, filed 16 Sep 68, published 17 Jan 72 (from RZh-Khimiya, No 14, 25 Jul 72, Abstract No 14N468 by T. A. Belyayeva)

Translation: For the control of spider mites the authors suggest application of a thiophosphate with the general formula $(RO)(R'R''N)P(O)SCH_2CON(Et)SO_2Me$ (I) (R = Me or Et; R' = Me, Et, Pr; R'' = H, Me, Et). Results of I tests on spider mite specimens are presented.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR UDC 632.95

ABELENTSEVA, G. M., SEDYKH, A. S., ORLOVA, V. I.

"Sensitivity of the Biological and Thin-Layer Chromatographic Methods of Determining Pesticides"

Tr. 2-go Vses. soveshch. po issled. istatkov pestitsidov i profilakt. zagryaznoniya imi produktov pitaniya, kormov i vnesh. sredy (Works of the Second All-Union Conference on Investigation of Residues of Pesticides, and Prevention of Pesticide Contamination of Foodstuffs, Fodder and the External Environment), Tallinn, 1971, pp 331-334 (from RZh-Khimiya, No 11, Jun 72, Abstract No 11N406)

Translation: The biological method using mosquito larvae is 6700, 152 and 227 times more sensitive for determination of residues of Dursban, DDVF and chlorophos respectively than the method of thin-layer chromatography in a fixed layer in the hexane - acetone system (4:1 or 1:1) (developer: bromophenol blue with $AgNO_3$). The sensitivity of these methods is almost the same for sayfos and phosphamide. In most instances the biological method does not require purifying extracts of contaminating substances.

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Acc. Nr.: AP0046770 Ref. Code: UR0115

USSR UDC 681.2.002.3

MINAKOV, A. G., ZOLOTAREVA, R. S., MIN'KO, N. I., ORLOVA, YE. S., LITVINOV, A. V., and GUNILEVSKIY, A. A.

"Introduction of Pyroceramics in the Instrument-Making Industry"

Moscow, Izmeritel'naya Tekhnika (Measurement Technology), No 1, 1970, p 107

Translation: At the Scientific Research Institute of Auto Glass, transparent and semi-transparent pyroceramics were synthesized, replacing the jewels used in the instrument-making industry. Information was presented on the course of tests and adoption of the pyroceramics. (1 table)

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

1/2 018 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--REACTIVITY OF AN ACTIVATED METHYL GROUP IN NITRO COMPOUNDS. II. AROMATIC NITRO COMPOUNDS IN THE VILSMEIER HAACK REACTION -U-

AUTHOR-(03)-ZBARSKIY, V.L., BORISENKO, A.A., ORLOVA, YE.YU.

COUNTRY OF INFO--USSR

SOURCE--ZH. ORG. KHIM. 1970, 6(3), 520-5

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--AROMATIC-NITRO COMPOUND, XYLENE, PERCHLORATE, ORGANIC AZO COMPOUND, ACROLEIN, TOLUENE, BENZENE DERIVATIVE, ESTER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1992/1685 STEP NO--UR/0366/70/006/003/0520/0525

CIRC ACCESSION NO--AP0112679

UNCLASSIFIED

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

2/2 018 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0112679

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE VILSMEIER HAACK REACTION OF 2,4,6,TRINITROXYLENE WITH HCONME SUB2 GAVE 1,3,BIS(2,(DIMETHYLAMINO),1,FORMYLVINYL),2,4,6,TRINITROBENZENE. THE REACTION OF 2,4,6,TRINITROCRESOL WITH HCONME SUB2 IN THE PRESENCE OF POCL SUB3 FOLLOWED BY THE TREATMENT WITH HCLO SUB4 GAVE A MIXT. OF 4,(2,4,6,TRINITRO,3,CHLOROPHENYL),2,6,DIMETHYL,2,AZA,6,AZONIA,3,5,HEPTADIENE PERCHLORATE AND 4,(2,3,DICHLORO,4,6,DINITROPHENYL),2,6,DIMETHYL,2,AZA,6,AZONIA,3,5,HEPTADIENE PERCHLORATE. IN THE CASE OF 2,6,DINITRO,P,TOLUIC ACID (I) THE ONLY ISOLATED PRODUCT WAS 2,(2,6,DINITRO,4,CARBOXYPHENYL),3,DIMETHYL,AMINOACROLEIN. THE ATTEMPTS TO SUBJECT 2,4,DINITROTOLUENE, 4,CHLORO,2,4,DINITROTOLUENE, 2,CHLORO,4,6,DINITROTOLUENE, I ET ESTER, OR 2,4,6,TRINITROETHYLBENZENE TO VILSMEIER HAACK REACTION WERE NOT SUCCESSFUL. FACILITY: MOSK. KHIM.-TEKHNOL. INST. IM. MENDELEEVA, MOSCOW, USSR.

UNCLASSIFIED

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR UDC 615.31:547.751].012.1

PREOBRAZHENSKAYA, M. N., ORLOVA, Z. G., STAROSTINA, Z. G., LIBERMAN, S. S., SUKHININA, G. P., and SUVOROV, N. N., All Union Scientific Research Institute of Pharmaceutical Chemistry imeni S. Ordzhonikidze, Moscow

"Synthesis and Investigation of the Pharmacological Activity of 1-(Indolyl-3')-2-alkylaminoethanols"

Moscow, Khimiko-farmatsevticheskiy zhurnal, Vol 4, No 10, Oct 70, pp 5-9

Abstract: 1-(Indolyl-3')-2-alklaminoethanols were synthesized by hydrogenating the corresponding N- substituted 3-aminoacetylindoles, using Raney nickel as a catalyst. The resultant amino alcohols were converted to salts (chlorohydrates or adipinates) which were pharmacologically studied. The initial 3-alkylaminoacetylindoles were produced by interacting 3-chloroacetylindole or 3-bromoacetylindole with primary or secondary amines. The physicochemical properties of the 3-alkylaminoacetylindoles and 1-(indolyl-3')-2-alkylaminoethanols are tabulated. It was found that all amino alcohols containing the secondary amino group have sympathomimetic properties: they increase arterial blood pressure in rats and cats under anesthesia, cause contraction of the nictitating membrane, and constrict the peripheral vessels. This effect is

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR

PREOBRAZHENSKAYA, M. N., et al, Khimiko-farmatsevticheskiy zhurnal, Vol 4, No 10, Oct 70, pp 5-9

attributed to excitation of the α-adrenoreactive systems. The most active of all compounds studied was 1-(indolyl-3')-2-methylaminoethanol. This alcohol has only 1/10-1/20 the activity of adrenalin, but its effect is longer-acting. Amino alcohols containing the tertiary amino group did not cause contraction of the nictitating membrane, they reduced blood pressure and relaxed the peripheral vessels.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

1/2 014 UNCLASSIFIED PROCESSING DATE--02OCT70

TITLE--A STUDY OF THE STABILITY OF INTERGRATION OF F-LAC PLUS FACTOR INTO BACTERIAL CHROMOSOME -U-

AUTHOR--ORLOVKIY, V.I.

COUNTRY OF INFO--USSR

SOURCE--ZHURNAL MIKROBIOLOGII, EPIDEMIOLOGII I IMMUNOBIOLOGII, 1970, NR 3, PP 88-90

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--ESCHERICHIA COLI, CHROMOSOME, BIOLOGIC STAIN

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1990/1491 STEP NO--UR/0016/70/000/003/0088/0090

CIRC ACCESSION NO--AP0109551

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

2/2 014 UNCLASSIFIED PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0109551

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE AUTHOR STUDIED THE STABILITY OF INTERGRATION OF F-LAC PLUS FACTOR INTO BACTERIAL CHROMOSOME FOLLOWING TREATMENT OF THE POPULATION OF AN INTERMEDIATE E. COLI 200 PS DONOR WITH ACRIDINE ORANGE IN A DOSE OF 100 MICROGRAM-ML. IN THE MAJORITY OF THE CLONES EXAMINED THE INTERGRATION WAS UNSTABLE AND AFTER SUBSEQUENT TRANSFERS THE CLONE RETURNED TO THE INTERMEDIATE THIS WAS EXPRESSED IN REDUCTION OF THE FREQUENCY OF GENETIC HYBRIDIZATION AND OF THE EXTENT OF ELIMINATION OF THE F-LAC PLUS FACTOR. THREE CLONES, WHICH COULD BE REGARDED AS STABLE HFR DONORS, WERE ISOLATED.

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USSR UDC 616.45-001.1/.3-07:616.831-008.9-097.5-078

IVANSHINA, A. Z., GASKIN, L. Z., and ORLOVSKAYA, D. D., Institute of Psychiatry, USSR Academy of Medical Sciences, Moscow

"Antibodies to the Brain in Stress"

Moscow, Zhurnal Nevropatologii i Psikhiatrii, No 7, 1973, pp 983-987

Abstract: Rats were stressed by keeping them isolated for 21 days and then placing them together with other animals (10 in a cage) for the same length of time. Change in the levels of blood 11-hydroxycorticosteroids (11-HCS) served as an indicator of stress. Antitissue antibodies were detected in serum using the complement-fixation reaction in the cold. Isolation markedly increased blood 11-HCS from the first day. The peak occurred on day 12 after which it returned to normal. Subsequent grouping of the animals resulted in a new increase in 11-HCS, with peaks on days 1 and 18. Antibodies to the liver were few in the isolation period, but they increased thereafter on days 12 and 21 relative to the control. Thus, under similar conditions stress stimulated the formation of antibodies to a barrier organ, the brain, sooner and in greater quantities than to a nonbarrier organ, the liver.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR UDC 621.371.029.6

RZHEVSKIY, V. V., KORENBERG, Ye. B., OHLOVSKAYA, E. D., and AZBEL', M. D.

"Propagation of Broad-Band UHF Signals in Tunnels and Shafts"

Moscow, V sb. X Vses. konf. po rasprostr. radiovoln. Tezisy dokl. Sekts. 6 (Tenth All-Union Conference on the Propagation of Radio Waves; Report Theses; Section 6--collection of works) "Nauka," 1972, pp 64-67 (from RZh--Radiotekhnika, No 10, 1972, Abstract No 10A392)

Translation: Experiments investigating the passage of pulse signals in the tunnels of the Moscow subway are described. Triangular radio pulses 0.08 μs wide at half value were used, with a period of repetition at 200 μs, on a carrier frequency of 2200 MHz. To detect distortions of broad-band signals, television images were transmitted along shafts and in the tunnel of the subway. Results of the experiments showed that the distortion of the pulse fronts did not exceed 0.02 μs; the multibeam nature of the propagation has no effect on the accuracy of TM signal transmission; the quality of the TV transmission is good. Three illustrations, bibliography of one. N. S.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR UDC 621.371.029.6

RZHEVSKIY, V. V., KORENBERG, Ye. B., ORLOVSKAYA, E. D., and AZBEL', M. D.

"Experimental Investigation of the Propagation of UHF Radio Waves in Tunnels and Mine Shafts"

Moscow, V sb. X Vses. konf. po rasprostr. radiovoln. Tezisy dokl. Sekts. 6 (Tenth All-Union Conference on the Propagation of Radio Waves; Report Theses; Section 6--collection of works) "Nauka," 1972, pp 68-72 (from RZh--Radiotekhnika, No 10, 1972, Abstract No 10A393)

Translation: The investigation was conducted in tunnels of the subway, lined with tubing (circular cross section) and in mine shafts (rectangular cross section), sunk in gypsum strata. Results of the measurements showed that in rectilinear paths, the attenuation is comparatively low; this permits use of UHF waves for the transmission of information along shafts. In paths with turns, there is a substantial addition to the weakening of the field, and retranslators are needed for the transmission of information. Four illustrations. N. S.

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UNCLASSIFIED PROCESSING DATE--02OCT70

1/2 029

TITLE--STUDY OF SOME PROPERTIES OF HIGH MOLECULAR FIBRINOGEN TRYPTIC HYDROLYSIS PRODUCTS -U-

AUTHOR-(05)-BELITSER, V.O., VARETSKA, T.V., TSINKALOVSKA, S.M., POZDNYAKOVA, T.M., ORLOVSKA, N.M.

COUNTRY OF INFO--USSR

SOURCE--UKRAYNS'KIY BIOKHIMICHNIY ZHURNAL, 1970, VOL 42, NR 2, PP 165-174

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--FIBRINOGEN, HYDROLYSIS, POLYMERIZATION, TRYPSIN, AMINO ACID, ELECTROPHORESIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

STEP NO--UR/0300/70/042/002/0165/0174

PROXY REEL/FRAME--1988/1677

CIRC ACCESSION NO--AP0106423

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

UNCLASSIFIED PROCESSING DATE--02OCT70

2/2 029

CIRC ACCESSION NO--AP0106423

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IT IS KNOWN THAT HIGH MOLECULAR WEIGHT PRODUCTS FORMED DURING PROTEOLYTIC DEGRADATION OF FIBRINOGEN, INHIBIT THE FIBRIN MONOMER POLYMERIZATION. THE EXISTENCE OF COMPLEMENTARY STRUCTURES CHARACTERISTIC FOR THE SPECIFIC POLYMERIZATION CENTERS IN THESE FRAGMENTS MAY BE POSTULATED. HIGH MOLECULAR WEIGHT PRODUCTS, APPEARING DURING DEGRADATION OF FIBRINOGEN MOLECULE BY LOW CONCENTRATIONS OF TRYPSIN (ENZYME SUBSTRATE RATIO 1:2500 BY WEIGHT) WERE STUDIED. THEY WERE SEPARATED FROM TRYPTIC HYDROLYZATE OF FIBRINOGEN BY GEL FILTRATION ON SEPHADEX G 150. IT WAS SHOWN THAT DURING HYDROLYSIS LASTING FOR 120 HOURS AND MORE THESE PRODUCTS WERE GREATLY CHANGED IN THEIR ANTIPOLYMERIZING ACTIVITY, BEHAVIOUR IN GEL FILTRATION AND POLYACRYLAMIDE GEL ELECTROPHORESIS AND N TERMINAL AMINO ACIDS AS WELL. THE MOST ACTIVE AND AT THE SAME TIME THE LEAST HETEROGENEOUS PRODUCTS WERE PRODUCED DURING THE PROLONG HYDROLYSIS OF FIBRINOGEN BY TRYPSIN.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

Luminescence

UDC 535.37.541.77

USSR

BELOUS, V. M., MEL'NICHUK, L. P., ORLOVSKAYA, N. A., and CHIBISOV, K. V., Odessa Construction Engineering Institute, Odessa, Ministry of Higher and Secondary Specialized Education Ukrainian SSR; Corresponding Member of the Academy, Moscow State University imeni M. V. Lomonosov, Moscow, Ministry of Higher and Secondary Specialized Education USSR

"Mechanism of the Formation of Photographic Sensitivity of Bromoiodosilver Emulsions as Investigated by the Luminescence Method"

Moscow, Doklady Akademii Nauk SSSR, Vol 193, No 5, Aug 70, pp 1086-1089

Abstract: Data are reported on the study of luminescent and photographic properties of AgBr(I) subjected to the action of a solution of hydrazine chloride and thiourea. The results obtained showed that the ratio of I_2/I_1 -- intensity at a selected band to the maximum in the green band from the range of orange-red luminescence -- increases after treatment with solutions of thiourea and hydrazine chloride, indicating that in case of sulfur sensitation silver centers may form similar to those forming during reductive sensitation. The digestive action of thiourea is also very important in this process. The increase in light sensitivity of the investigated materials is accom-

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

USSR

BELOUS, V. M., et al, Doklady Akademii Nauk SSSR, Vol 193, No 5, Aug 70, pp 1086-1089

panied by an increase in the I_2/I_1 ratio. On the other hand, appearance of silver sulfide microcrystals on the surface of AgBr(I) results in a lowered I_2/I_1, meaning that the light sensitivity is principally predetermined by the atom-molecular dispersed silver centers, a portion of which is responsible for the orange-red band in the luminescence at low temperature. This principally holds for low sensitivity emulsions; highly sensitive emulsions did exhibit a flash of orange-red luminescence in some cases, and the reason for this is still unknown. It is proposed that the center of green luminescence of the microcrystals consists of an iodide ion and some kind of a defect. The energy resulting from the recombination of the free hole and the electron localized on the defect is transmitted to the iodide ion, and excites it.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

1/2 043 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--FLASH IGNITION OF THE LUMINESCENCE OF SILVER HALIDE PHOSPHORS -U-

AUTHOR-(03)-ORLOVSKAYA, N.A., BELOUS, V.M., GOLUB, S.I.

COUNTRY OF INFO--USSR

SOURCE--ZH. PRIKL. SPEKTROSK, 1970, 12(3), 460-6

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--CRYSTAL PHOSPHOR, SILVER COMPOUND, HALIDE, LUMINESCENCE CENTER, IR RADIATION, EXCITATION ENERGY, SINGLE CRYSTAL PROPERTY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1996/1490 STEP NO--UR/0368/70/012/003/0460/0466

CIRC ACCESSION NO--AP0118477

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202310015-5

UNCLASSIFIED PROCESSING DATE--13NOV70

2/2 043

CIRC ACCESSION NO--AP0118477

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. LUMINESCENT PROPERTIES WERE STUDIED AT AGBR, AGBR(I), AND AGCL,MN SINGLE CRYSTALS BY USING THE FLASH IGNITION OF LUMINESCENCE STIMULATED BY IR RADIATION. THE FLASH IGNITION IS OBSD. ONLY AT THE LUMINESCENT BANDS GENERATION OF WHICH RESULTS FROM RECOMBINATION OF FREE ELECTRONS ON LOCALIZED HOLES. BOTH KINETICS AND MICROSTRUCTURE OF LUMINESCENCE CNETERS IN MN ACTIVATED AGCL SINGLE CRYSTALS ARE DISCUSSED IN DETAIL.

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SHEPELYAKOVSKIY, K. Z., Doctor of Technical Sciences, VOSKRESENSKIY, V. V., Candidate of Technical Sciences, LAPSHIN, M. P., SUKHIN, S. S., CHUZNOVSKIY, V. S., ORLOVSKIY, A. G., ROZENTAL', G. A., and STEPIN, A. L., Moscow Evening Metallurgical Institute, Moscow Auto Plant imeni Likhachev

"High-Frequency Thyristor Converter for Induction Hardening Installations"

Moscow, Avtomobil'naya Promyshlennost' (Motor Vehicle Industry), No 1, 1970, pp 28-29

Translation: A thyristor frequency converter and a dynamoelectric one are compared. The power circuit and control and protection circuits of a 100 kw 2500 cps thyristor converter for an induction hardening installation are described. (4 illustrations)

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TITLE--OPERATIVE TREATMENT OF CLOSED, UNCOMPLICATED SPINE FRACTURES IN THE LOWER THORACIC AND LUMBAR SECTIONS -U-

AUTHOR-(02)-ORLOVSKIY, B.F., KHODOV, A.M.

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ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE AUTHORS REPORT THEIR EXPERIENCE WITH OPERATIVE TREATMENT OF UNCOMPLICATED COMPRESSION FRACTURES OF THE VERTEBRAL BODIES IN THE LOWER THORACIC AND LUMBAR SPINE AFTER THE METHOD OF J. L. TZIVIAN AND E. A. RAMIKH IN 51 PATIENTS BETWEEN THE AGES OF 20 AND 66 YEARS. THERE WERE NOT COMPLICATIONS IN THE POSTOPERATIVE PERIOD. TEMPORARY INTERNAL FIXATION OF THE DAMAGED SPINE SECTION ALLOWED TO DECREASE THE TERMS OF TREATMENT AT THE STATIONARY, ACHIEVE MAXIMUM RESOTRATION OF THE ANATOMICAL AND FUNCTIONAL DISORDERS, DIMINISH THE LOSS OF CAPACITY FOR WORK. DATA ARE PRESENTED WITH REGARD TO PREOPERATIVE PREPARATION, POSTOPERATIVE MANAGEMENT OF PATIENTS AND TERMS OF REHABILITATION. FACILITY: KLINIKI TRAVMATOLOGII, ORTOPEDII I VOYENNO-MORSKOY KHIRURGII VLADIVOSTOKSKOGO MEDITSINSKOGO INSTITUTA.

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BIOLOGY

Biophysics

USSR

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"Influence of the Cerebellum on Reticulospinal Neurons in Locomotion"

Moscow, Biofizika, Vol 15, No 5, Sep/Oct 70, pp 894-901

Abstract: The activity of reticulospinal neurons of the pons and medulla oblongata was recorded by carrying out intracellular measurements during the locomotion of mesencephalic and thalamic cats that had been subjected to cerebellectomy. Locomotion was either induced by stimulation of the mescencephalus or the hypothalamus or occurred spontaneously. Approximately 60% of the reticulospinal neurons were active during locomotion. The majority (92%) of the reticulospinal neurons that were active during locomotion generated relatively constant frequencies. Only 8% of these neurons generated frequencies that were modulated in accordance with the rhythm of locomotion. These results differed considerably from those obtained in earlier experiments that were carried out with the cerebellum intact, in which 52% of active reticulospinal neurons generated frequencies modulated in accordance with the locomotion rhythm. Afferent impulses from the moving legs exerted

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ORLOVSKIY, G. N., Biofizika, Vol 15, No 5, Sep/Oct 70, pp 894-901

an effect on the reticulospinal neurons in the presence of the cerebellum but almost no effect in its absence.

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ORLOVSKIY, V. V., VOBSI, B. A., and ZAKHAROVA, L. F., Leningrad Chemical Pharmaceutical Institute

"Preparation of the Dialkyl Esters of N-Substituted α-Aminobenzylphosphonic Acids"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), Vyp 5, 1972, pp 1165-1166

Abstract: The title esters may be prepared in high yield without using a catalyst by reacting the dialkyl esters of phosphorous acid with anils in solution at room temperature. If the reaction is carried out in an inert gas and the starting materials are carefully purified, it is not necessary to purify the product. Yields and physical data are for the compounds prepared.

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ORLOVSKIY, V. V., Engineer, TOLKACHEV, N. F., Engineer, Leningrad Department of the All-Union State Institute for the Design and Planning of Electrical Equipment for Heat Engineering Installations, State Regional Electric Power Plant 19, Leningrad

"A New System for Monitoring High-Capacity Power Units"

Moscow, Teploenergetika, No 8, Aug 72, pp 31-32

Abstract: The paper describes a central control system comprised of a control panel and four display boards for monitoring the operation of a 300 megawatt gas-oil electric power plant. The system incorporates 260 meters graduated in the appropriate parameters. When parameters deviate beyond preset limits, the situation is indicated by a change in the color of the light for the corresponding instrument, as well as by combined light-and--sound signals. The meters are mnemonically arranged with reinforcement by a large-scale diagram of the power installation. The system is now in use on three power plants, the first of which was put into operation in 1969. The system is reliable, and operation is readily learned by control personnel.

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