"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

1/2 010 UNCLASSIFIED PROCESSING DATE--27NOV70

TITLE--REFRACTORY MIXTURE FOR LINING THE IRON TROUGHS OF BLAST FURNACES -U-

AUTHOR-(05)-PRYADKO, V.M., KOTOV, K.I., MAGALA, V.S., ZHAK, A.M., TKACH, I.T.

COUNTRY OF INFO--USSR

M

SOURCE--U.S.S.R. 265,135

REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRAZTSY, TOVARNYE ZNAKI 1970,

DATE PUBLISHED--09MAR70

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

TOPIC TAGS--BLAST FURNACE, REFRACTORY MATERIAL, METALLURGIC PATENT, TECHNICAL STANDARD/(U)GOST TSMTU446954 REFRACTORY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3003/1060 STEP NO--UR/0482/70/000/000/0000/0000

CIRC ACCESSION NO--AA0130095

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

UNCLASSIFIED PROCESSING DATE--27NOV70

2/2 010

CIRC ACCESSION NO--AA0130099

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A REFRACTORY MIXT. CONTG. A FILLER [illegible] THE FOLLOWING COMPN. IN KG-M PRIME3: CRUSHED HIGH [illegible] ALUMINA BRICK (PARTICLE SIZE [illegible]) 900-1000, CRUSHED ALUMINA BRICK (PARTICLE SIZE 5-10 MM) 900-1000, CRUSHED ALUMINA BRICK (PARTICLE SIZE SMALLER THAN 0.09 MM) 400-500, FE FREE ZR (ACCORDING TO GOST TSMTU 4469 54) 200-50, AND 80PERCENT PHOSPHORIC ACID 180-200 L.-M PRIME3. FACILITY: DNEPROPETROVSK CONSTRUCTION ENGINEERING INSTITUTE AND PETROVSKII, G. I. METALLURGICAL PLANT, DNEPROPETROVSK.

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

AUTHOR--NAGALNIK, G.

COUNTRY OF INFO--USSR

SOURCE--PRAVDA UKRAINY, AUGUST 28, 1970, P 3, COLS 1-5

DATE PUBLISHED--28AUG70

SUBJECT AREAS--ATMOSPHERIC SCIENCES, ASTRONOMY,ASTROPHYSICS, NUCLEAR SCIENCE AND TECHNOLOGY

TOPIC TAGS--COSMIC RAY, QUARK, RADIO TELESCOPE, EXTENSIVE AIR SHOWER, NUCLEAR PHYSICS APPARATUS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3008/1695 STEP NO--UR/9013/70/000/000/0003/0003

CIRC ACCESSION NO--AT0136671

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

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Microbiology

UDC 575.123:576.851

USSR

IGNATOV, V. V., SHENDEROV, B. A., PANASENKO, V. I., PIDENKO, A. P., and MAGAGINA, A. N., Saratov State University imeni N. G. Chernyshevskiy, Saratov

"Elimination of the Genetic Determinants of Resistance in Staphylococcus aureus Under the Effect of an Intensive Electromagnetic Field"

Moscow, Genetika, Vol 9, No 4, Apr 73, pp 57-61

Abstract: Two strains of Staph. aureus, 33 and 1074, were subjected to the action of an electromagnetic field with a frequency of 2375 megacycles and an intensity of 1516 kw. The strains, which had been isolated from patients, were typical with respect to their microbiological properties. They were polyresistant to penicillin, tetracycline, chloramphenicol, streptomycin, erythromycin, mercuric chloride, and albucide. Under the action of the electromagnetic field, some of the determinants of drug resistance were eliminated. The effect was due to the action of heat produced by the electromagnetic waves. A great number of cultures differing with respect to the determinants of drug resistance that had been eliminated could be segregated. After being stored for 10 mos in 0.8% Hottinger agar at 4°, the majority of segregated cultures retained their new type of drug resistance.

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USSR

IGNATOV, V. V., et al., Genetika, Vol 9, No 4, Apr 73, pp 57-61

In some cases, however, there was restoration of some of the lost factors of drug resistance, but not of all of them. The phenomenon described can be used for the study of the extra-chromosomal determinants in microorganisms that are responsible for drug resistance.

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UNCLASSIFIED PROCESSING DATE--27NOV70

1/2 010

TITLE--REFRACTORY MIXTURE FOR LINING THE IRON TROUGHS OF BLAST FURNACES -U-

AUTHOR-(05)-PRYADKO, V.M., KOTOV, K.I., MAGALA, V.S., ZHAK, A.M., TKACH, I.T.

COUNTRY OF INFO--USSR

SOURCE--U.S.S.R. 265,135

REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRAZTSY, TOVARNYE ZNAKI 1970,

DATE PUBLISHED--09MAR70

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

TOPIC TAGS--BLAST FURNACE, REFRACTORY MATERIAL, METALLURGIC PATENT, TECHNICAL STANDARD/(U)GOST TSMTU446954 REFRACTORY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

STEP NO--UR/0482/70/000/000/0000/0000

PROXY REEL/FRAME--3003/1060

CIRC ACCESSION NO--AA0130095

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2"

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UNCLASSIFIED PROCESSING DATE--27NOV70

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CIRC ACCESSION NO--AA0130095

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A REFRACTORY MIXT. CONTG. A FILLER AND BINDER HAS THE FOLLOWING COMPN. (IN KG-M PRIME3): CRUSHED HIGH ALUMINA BRICK (PARTICLE SIZE FRACTION 0.15-5 MM) 500-600, CRUSHED HIGH ALUMINA BRICK (PARTICLE SIZE 5-10 MM) 900-1000, CRUSHED ALUMINA BRICK (PARTICLE SIZE SMALLER THAN 0.09 MM) 400-500, FE FREE ZR (ACCORDING TO GOST TSMTU 4469 54) 200-50, AND 80PERCENT PHOSPHORIC ACID 180-200 L.-M PRIME3. FACILITY: DNEPROPETROVSK CONSTRUCTION ENGINEERING INSTITUTE AND PETROVSKII, G. I. METALLURGICAL PLANT, DNEPROPETROVSK.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

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TITLE--COSMIC RAYS -U- UNCLASSIFIED PROCESSING DATE--27NOV70

AUTHOR--MAGALNIK, G.

COUNTRY OF INFO--USSR

SOURCE--PRAVDA UKRAINY, AUGUST 28, 1970, P 3, COLS 1-5

DATE PUBLISHED--28AUG70

SUBJECT AREAS--ATMOSPHERIC SCIENCES, ASTRONOMY,ASTROPHYSICS, NUCLEAR SCIENCE AND TECHNOLOGY

TOPIC TAGS--COSMIC RAY, QUARK, RADIO TELESCOPE, EXTENSIVE AIR SHOWER, NUCLEAR PHYSICS APPARATUS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3008/1695 STEP NO--UR/9013/70/000/000/0003/0003

CIRC ACCESSION NO--AN0138671

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

2/2 024 UNCLASSIFIED PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AN0138671

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A TEAM OF SCIENTISTS OF THE CHAIR OF EXPERIMENTAL NUCLEAR PHYSICS AT THE KHAR'KOV UNIVERSITY HAS COMPLETED A SERIES OF ORIGINAL STUDIED OF COSMIC RAYS, USING AN INSTRUMENT DEVELOPED BY THE CHAIR FOR RECORDING WHAT THE SOVIET SCIENTISTS CALL "SHAL", THE WIDE AIR SHOWER. THE SAME INSTRUMENT CAN ALSO BE USED FOR DETECTING QUARKS. ACCORDING TO DOCTOR OF PHYSICAL MATHEMATICAL SCIENCES, I. I. ZALYUBOVSKIY, WHO DIRECTED THE COSMIC RAY RESEARCH, THE INSTITUTE OF RADIO PHYSICS AND ELECTRONICS OF THE UKRAINIAN ACADEMY OF SCIENCES PROVIDED FOR THE STUDIES ITS RADIO TELESCOPE WITH AN AREA OF 1,000 SQUARE METERS.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

UDC 535.37

USSR

KNAB, O. D., MAGALYAS, V. I., FROLOV, V. D., SHVEYKIN, V. I., and SHMERKIN, I. A.

"Measurement of the Photoluminescence, Photoelectromotive Force and Electroluminescence of Semiconductor Materials and Structures"

Moscow, Pribory i Tekhnika Eksperimenta, No 4, Jul/Aug 71, pp 225-226

Abstract: The paper describes an installation for high-resolution measurement of the photoluminescence, photoelectromotive force and electroluminescence of semiconductor structures and materials. The device is based on the principle of normal reflection of a light beam. The exciting and receiving optical systems are combined to enable the use of short-focus objective lenses. This appreciably reduces the size of the light spot and thus increases resolution. The exciting and excited light are separated by a narrow-band interference filter. Placement of the surface of the specimen normal to the beam of incident light makes it possible to measure the photoelectromotive force and electroluminescence of diode structures.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

UDC 621.371:551.510.52

USSR

STOTSKIY, A. A., KAYDANOVSKIY, M. N., and MAGAMADOVA, T. A.

"Structural Functions of Phase Fluctuations in Radio Waves Propagated in Atmospheric Layers Near the Ground"

Moscow, V sb. X Vses. konf. po rasprostr. radiovoln. Tezisy dokl. Sekts. 2 (Tenth All-Union Conference on the Propagation of Radio Waves; Report Theses; Section 2--collection of works) "Nauka," 1972 pp 56-60 (from RZh--Radiotekhnika, No 10, 1972, Abstract No 10A356)

Translation: Results are given of an experimental determination of the difference in electrical range distances and the computation of the time structure functions of the fluctuation in this quantity. It is established that in propagating waves along paths near the ground, the index for the degree of the structural function is 0.6-0.9, which is quite different from the "5/3" law typical of the free atmosphere. Three illustrations, bibliography of five. A. L.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

1/2 022

UNCLASSIFIED

TITLE--MECHANISM OF THERMAL AROMATIZATION -U- PROCESSING DATE--13NOV70

AUTHOR-(02)-MAGARIL, R.Z., KORZUN, N.V.

COUNTRY OF INFO--USSR

SOURCE--NEFTEPEREREAB. NEFTEKHIM. (MOSCOW) 1970, (5), 48

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CYCLOHEXANE, THERMAL DECOMPOSITION, CHEMICAL REACTION MECHANISM, CHAIN REACTION, BENZENE, THERMAL EFFECT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3006/1088 STEP NO--UR/0318/70/000/005/0048/0048

CIRC ACCESSION NO--AP0136777

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

2/2 022 UNCLASSIFIED

CIRC ACCESSION NO--AP0134777 PROCESSING DATE--13NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CYCLOHEXANE (I) WAS DECOMPD. AT 540-550DEGREES. AT LOW TEMP., THE DECOMPN. OF I OCCURRED VIA A MOL. CHAIN REACTION. CHAIN REACTIONS DEVELOPED WITH TEMP. INCREASE TO GIVE CRACKING PRODUCTS OF COMPLEX COMPN. C SUB6 H SUB6 WAS NOT PRODUCED BY DEHYDROGENATION OF CYCLOHEXADIENE (II), BUT BY CRACKING OF II IN THE CHAIN MECHANISM. FACILITY: TYUMEN. IND. INST., TYUMEN, USSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

USSR

UDC 621.383.45

RCKAKH, A.G., VAGARSHAK, E.S.

"Concerning The Effect Of Photorectification Of Longitudinal Film CdS Photoconductive Cells"

Elektron. tekhnika. Nauchno-tekhn. sb. (Electronics Technology. Scientific-Technical Collection), 1970, Series 14, No 1, pp 75-76 (From RZh--Elektronika i yeye primenen-iye, No 8, August 1970, Abstract No 8B208)

Translation: The film photoconductive cells Al-CdS-CdO, which in darkness have a voltage-current characteristic close to ohmic, can display considerable rectification during illumination by white light, with a rectification factor reaching 10. The hypotheses expressed in the literature cannot even explain the sign of the effect which has been observed. An assumption is made concerning the responsibility for the photorectification of the contact being illuminated, which in the dark can be enriched or inert, and in the light becomes depleted. Summary.

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USSR UDC 621.371:551.510.52

STOTSKIY, A. A., KAYDANOVSKIY, N. N., and MAGAMAZOVA, T. A.

"Structural Functions of Phase Fluctuations in Radio Waves Propagated in Atmospheric Layers Near the Ground"

Moscow, V sb. X Vses. konf. po rasprostr. radiovoln. Tezisy dokl. Sekts. 2 (Tenth All-Union Conference on the Propagation of Radio Waves; Report Theses; Section 2--collection of works) "Nauka," 1972 pp 56-60 (from RZh--Radiotekhnika, No 10, 1972, Abstract No 10A356)

Translation: Results are given of an experimental determination of the difference in electrical range distances and the computation of the time structure functions of the fluctuation in this quantity. It is established that in propagating waves along paths near the ground, the index for the degree of the structural function is 0.5-0.6, which is quite different from the "5/3" law [illegible]

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TITLE--MECHANISM OF THERMAL AROMATIZATION -U-

AUTHOR-(02)-MAGARIL, R.Z., KORZUN, N.V.

COUNTRY OF INFO--USSR

SOURCE--NEFTEPEREERAB. NEFTEKHIM. (MOSCOW) 1970, (5), 48

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CYCLOHEXANE, THERMAL DECOMPOSITION, CHEMICAL REACTION MECHANISM, CHAIN REACTION, BENZENE, THERMAL EFFECT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3006/1088 STEP NO--UR/0318/70/000/005/0048/0048

CIRC ACCESSION NO--AP0134777

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2/2 022 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0134777

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CYCLOHEXANE (I) WAS DECOMPD. AT 540-650DEGREES. AT LOW TEMP., THE DECOMPN. OF I OCCURRED VIA A NON CHAIN REACTION. CHAIN REACTIONS DEVELOPED WITH TEMP. INCREASE TO GIVE CRACKING PRODUCTS OF COMPLEX COMPN. C SUB6 H SUB6 WAS NOT PRODUCED BY DEHYDROGENATION OF CYCLOHEXADIENE (II), BUT BY CRACKING OF II IN THE CHAIN MECHANISM. FACILITY: TYUMEN. IND. INST., TYUMEN, USSR.

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USSR

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RCKAKH, A.G., MAGARSHAK, E.S.

"Concerning The Effect Of Photorectification Of Longitudinal Film CdS Photoconductive Cells"

Elektron. tekhnika. Nauchno-tekhn. sb. (Electronics Technology. Scientific-Technical Collection), 1970, Series 14, No 1, pp 75-76 (from RZh--Elektronika i yeye primenen-iye, No 8, August 1970, Abstract No 8B208)

Translation: The film photoconductive cells Al-CdS-CdO, which in darkness have a voltage-current characteristic close to ohmic, can display considerable rectification during illumination by white light, with a rectification factor reaching 10. The hypotheses expressed in the literature cannot even explain the sign of the effect which has been observed. An assumption is made concerning the responsibility for the photorectification of the contact being illuminated, which in the dark can be enriched or inert, and in the light becomes depleted. Summary.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

1/2 033 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--COERCIVE FORCE AND STRUCTURE OF AN IRON PLATINUM ALLOY -U-

AUTHOR-(05)-MAGAT, L.M., IVANOVA, G.V., SOLINA, L.V., SHCHEGOLEVA, N.N., SHUR, YA.S.

COUNTRY OF INFO--USSR

SOURCE--FIZ. METAL METALLOVED. 1970, 29(2), 400-3

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS, PHYSICS

TOPIC TAGS--IRON ALLOY, PLATINUM CONTAINING ALLOY, METAL MICROSTRUCTURE, MAGNETIC COERCIVE FORCE, MAGNETIC ANISOTROPY, CRYSTALLOGRAPHY, PLASTIC DEFORMATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3001/0337 STEP NO--UR/0126/70/029/002/0400/0403

CIRC ACCESSION NO--AP0126093

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

2/2 033 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0126093

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE STRUCTURE WAS STUDIED FOR FE,PT ALLOYS WITH A HIGH COERCIVE FORCE. THE EFFECT WAS STUDIED OF PLASTIC DEFORMATION AND TEMPERING ON THE COERCIVE FORCE. IN A 1:1 ALLOY, THE MAX. COERCIVE FORCE OCCURRED IN THE SINGLE PHASE ORDERED STATE. THE SIZE OF THE TETRAGONAL PHASE CRYSTALLITES (FOR A MAGNETIC, CRYSTALLOGRAPHIC, ANISOTROPY CONST. OF THE ORDER OF 10 PRIME7 ERGS-CM PRIME3) IS THE MAIN FACTOR DETG. THE VALUE OF THE COERCIVE FORCE.

FACILITY: INST. FIZ. METAL., SVERDLOVSK, USSR.

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

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UR 0482

Soviet Inventions Illustrated, Section II Electrical, Derwent,

2/70

243017 AMPLIFIER WITH A REVERSIBLE POLARITY has been designed in the form of a brdige. Two arms of the bridge are formed by two thyristors (1 & 2) and two by D.C. supplies (3 & 4). The load (5) is connected in the diagonal of the bridge. The commutation is done by an inductor (6) and two capacitors (7 & 8). The polarity of the amplifier is determined by the control modules (9 & 10) switching the voltage (U_3) in the appropriate direction. The voltage (U_3) represents A.C. with aD.C. control component superimposed on it.

23.2.68 as 1221130/24-7 G.G. MAGAZINNIK GORKI "ELEKTROPROEKT" INST. (24.9.69) Bul 16/5.5.69. Class 21c, 21a. Int.Cl. H 03f, H 02p.

Gor'kovskoye Otdeleniye Gosudarstvennogo Proyektnogo Instituta "Elektroproyekt"

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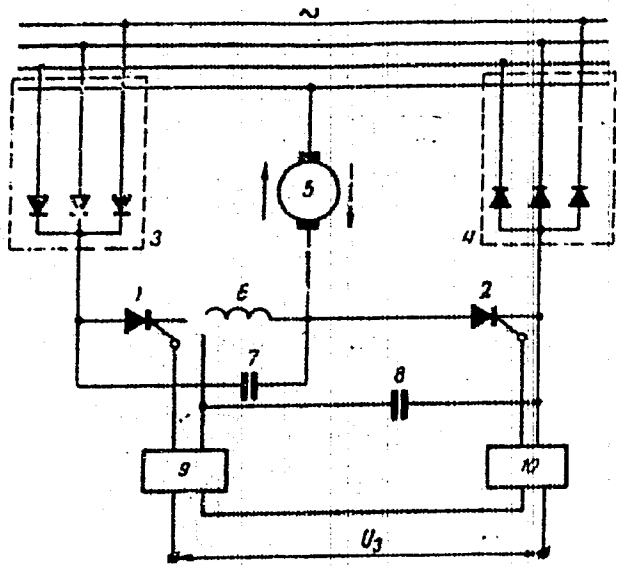
AA0044263



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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

USSR UDC 615.217.34.015.45:612.816

MAGAZANIK, L. G., Institute of Evolution Physiology and Biochemistry imeni I. M. Sechenov, Academy of Sciences USSR, Leningrad

"Mechanism of the Antiacetylcholine Effects of Some Mononitrous Cholinolytics in the Neuromuscular Synapse"

Moscow, Farmakologiya i Toksikologiya, Vol 34, No 3, May-Jun 71, pp 292-297

Abstract: Some cholinolytics, which inhibit the terminal lamina (end plate) action potentials upon stimulation of the motor nerve, and inhibit responses to the administration of acetylcholine from a micropipette, were compared in tests set up on a neuromuscular preparation of sartorius muscle in the Rana temporaria frog. It was concluded that the action of a non-current acetylcholine action of some cholinolytics is to be ascribed to their ability to speed up desensitization with respect to acetylcholine. Mespenal (I), Arpenal (II), Spasmolytin (III), Tropacin (IV), Mepanit (V) and Cypenam (VI) depressed the responses to microapplication of cholinesterase 10-20 times more effectively than the action potentials of terminal lamina caused by nerve stimulation. Antiacetylcholinic activity of Tubocurarine, Atropine, Amizil, and Metacin is similar under similar conditions. The curareform activity of (I) is reinforced by Prozerin, and (II) increases the blocking

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

USSR

MAGAZANIK, L. G., Farmakologiya i Toksikologiya, Vol 34, No 3, May-Jun 71, pp 292-297

action of Ditiline, even though it has no depolarizing activity alone. (I), (II), (III), (IV), (V), and (VI) accelerate the desensitization to acetylcholine in those concentrations in which they depress the sensitivity of m. rectus abd. towards it.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

1/2 019 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--REGULATION OF THE DURATION OF AUTONOMIC GANGLION BLOCKADE -U-

AUTHOR-(03)-KERCHEVBORISOV, N.V., GMIRO, V.YE., MAGAZANIK, L.G.

COUNTRY OF INFO--USSR

SOURCE--DOKL. AKAD. NAUK SSSR 1970, 191(3), 729-31

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--GANGLIONIC BLOCKING AGENT, CAT, BLOOD PRESSURE, CURARE, SODIUM SULFATE, DRUG EFFECT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3005/1660 STEP NO--UR/0020/70/191/003/0729/0731

CIRC ACCESSION NO--AT0133565

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

2/2 019 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AT0133565

ABSTRACT/EXTRACT--(U) GP-0-- ABSTRACT. INJECTION OF DITHIAHEXONIUM (ME SUB3 INCH SUB2 CH SUB2 S) SUB2 AT 1-2 MICRO-MOLE-G INTO CATS CAUSED A DROP IN ARTERIAL PRESSURE AND DECLINE OF THE TONE OF THE NICTITATING MEMBRANE, INDICATING PARTIAL BLOCK OF THE NERVE CONDUCTION VIA THE SYMPATHETIC GANGLIA. SIMULTANEOUS INTAKE OF NA SUB2 SO SUB3 RAPIDLY INHIBITED THE GANGLION BLOCKING EFFECT OF THIS DRUG BUT THIS WAS NOT THE CASE WITH (ME SUB3 INCH SUB2 CH SUB2 CH SUB2) SUB2. THE ACTION OF NA SUB2 SO SUB3 APPEARS TO BE THE CLEAVAGE OF THE SS LINK AND FORMATION OF IONIC FRAGMENTS OF THE 2 PORTIONS. THE DRUG HAD A STRONG CURARE-LIKE ACTION BUT WAS 0.1 AS ACTIVE IN THIS RESPECT AS (ME SUB3 INCH SUB2) SUB5) SUB2 OR (ME SUB3 INCH SUB2 CH SUB2 CH SUB2 CH SUB2 S) SUB2. THE ACTION OF THE LATTER IS BUT LITTLE AFFECTED BY NA SUB2 SO SUB3, EVIDENTLY DUE TO WEAKENED AID TO NUCLEOPHILIC ATTACK AT THE SS GROUP BY THE MORE REMOTE QUATERNARY N CHARGE. FACILITY: INST. EKSP. PED., LENINGRAD, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

USSR

M

UDC 612.823.5.014.46:615.21.015.154

MAGAZANIK, L. G., Institute of Evolutionary Physiology and Biochemistry imeni I. M. Sechenov, Academy of Sciences USSR, Leningrad

"The Mechanism of the Effect of Diethylaminoethyl Ester of Diphenylpropylacetic Acid (SKF-525A) on Neuromuscular Synapses"

Moscow, Byulleten' Eksperimental'noy Biologii i Meditsiny, No 3, 1970, pp 10-14

Abstract: Using neuromuscular apparatus n. ischiadicus-m. sartorius of Rana temporaria as the experimental model, it was demonstrated that the diethylaminoethyl ester of diphenylpropylacetic acid (SKF-525A) shortened the time of increase of end plate potentials in a dose of 10^{-5} - 10^{-4} M, without affecting their amplitude. The amplitude was lowered after proserin inhibition of cholinesterase in synapses ($2 \cdot 10^{-6}$ g/l) by a $2 \cdot 10^{-5}$ to $3 \cdot 10^{-5}$ dose of SKF-525A. In smaller doses, SKF-525A suppresses the responses to ionophoretic microapplication of acetylcholine to end plates, accompanied by intensified desensitization of acetylcholine action. It was postulated that SKF-525A increases the desensitization of the postsynaptic membrane, exerting an influence on the subsequent mechanism of changes in ionic permeability rather than on cholinoreceptors. The mechanism of potentiating action of SKF-525A towards depolarizing muscle relaxants may also be based on this intensification and desensitization action.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

1/2 021 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--ON THE MECHANISM OF INFLUENCE OF DIETHYLAMINOETHYL ETHER OF DIPHENYLPROPYLACETIC ACID ON NEUROMUSCULAR SYNAPSES -U-

AUTHOR--MAGAZANIK, L.G.

M

COUNTRY OF INFO--USSR

SOURCE--BYULLETEN' EKSPERIMENTAL'NOY BIOLOGII I MEDITSINY, 1970, VOL 69, NR 3, PP 10-14

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--NERVOUS SYSTEM DRUG, MUSCLE PHYSIOLOGY, ACETYCHOLINE, MUSCLE RELAXANT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3005/0371 STEP NO--UR/0219/70/069/003/0010/0014

CIRC ACCESSION NO--AP0132600

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

2/2 021 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0132600

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IN EXPERIMENTS ON THE NEUROMUSCULAR APPARATUS OF N. ISCHIADICUS M. SARTORIUS OF RANA TEMPORARIA IT IS SHOWN THAT DIETHYLAMINOETHYL ETHER OF DIPHENYLPROPYLACETIC ACID (SKF-525 A) IN A CONCENTRATION OF 1 TIMES 10 PRIME NEGATIVE5 MINUS 1 TIMES 10 PRIME NEGATIVE4 M, NOT INFLUENCING THE AMPLITUDE OF LAMINA TERMINALIS POTENTIALS, SHORTENS THEIR TEMPORAL RUN. AFTER PROSERIN INHIBITION OF CHOLINESTERASE IN SYNAPSES (2 TIMES 10 PRIME NEGATIVE6 GM PER ML) SKF-525A (2 TIMES 10 PRIME NEGATIVE5 MINUS 3 TIMES 10 PRIME NEGATIVE5 M) REDUCES THE AMPLITUDE OF LAMINA TERMINALIS POTENTIALS. IN MUCH LESSER CONCENTRATIONS (5 TIMES 10 PRIME NEGATIVE7 M AND HIGHER) SKF-525A SUPPRESSES RESPONSES TO IONOPHORETIC MICROAPPLICATION OF ACETYLCHOLINE TO LAMINAE TERMINALIS. THIS IS ATTENDED BY A MARKED INTENSIFICATION OF DESENSITIZATION TO THE ACTION OF ACETYLCHOLINE. A SUPPOSITION IS SET FORTH THAT SKF-525A INTENSIFIES DESENSITIZATION OF THE POSTSYNAPTIC MEMBRANE EXERTING AN INFLUENCE ON THE SUBSEQUENT CHAINS OF THE MECHANISM OF CHANGES OF IONIC PERMEABILITY RATHER THAN ON THE CHOLINORECEPTORS. INTENSIFICATION OF DESENSITIZATION MAY ALSO BE THE BASIS OF THE MECHANISM OF THE POTENTIATING ACTION OF SKF-525A IN RESPECT TO EFFECTS OF DEPOLARIZING MUSCLE RELAXANTS.

FACILITY: I. M. SECHENOV INSTITUTE OF EVOLUTIONARY PHYSIOLOGY AND BIOCHEMISTRY OF THE ACADEMY OF SCIENCES OF THE USSR, LENINGRAD.

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

1/2 019 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--DESENSITIZATION TO THE ACETYLCHOLINE IN VARIOUS FROG MUSCLES -U-

AUTHOR-(02)-MAGAZANIK, L.G., SHEKHIREV, N.N.

COUNTRY OF INFO--USSR

M

SOURCE--FIZIOLOGICHESKIY ZHURNAL SSSR IMENI I. M. SECHENOVA, 1970, VOL 56, NR 4, PP 582-588

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--ACETYLCHOLINE, FROG, MUSCLE PHYSIOLOGY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1986/1959 STEP NO--UR/0239/70/056/004/0582/0588

CIRC ACCESSION NO--AP0103678

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

UNCLASSIFIED PROCESSING DATE--18SEP70

2/2 019

CIRC ACCESSION NO--AP0103678

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE METHOD OF IONTOPHORETIC ACETYLCHOLINE (ACH) MICRO APPLICATION TO SENSITIVE SPOTS OF THE M. SARTORIUS AND M. RECTUS ABD. FIBERS WAS USED TO SHOW THAT THE ONSET RATE OF DESENSITIZATION IN THESE TWO MUSCLES' FIBERS IS ESSENTIALLY DIFFERENT. A RELATIVELY FAST DESENSITIZATION IS CHARACTERISTIC FOR THE M. SARTORIUS FIBERS. THE AMPLITUDE OF TEST RESPONSES DECREASED BY 60 TO 70PERCENT 20 SEC. AFTER THE STANDARD CONDITIONING DEPOLARIZATION INDUCED BY THE ACH INFLOW THROUGH THE SECOND CHANNEL OF MICROPIPETTE. THE SAME PROCEDURE FOR THE M. RECTUS ABD. FIBERS CAUSED ONLY A 30 TO 40PERCENT DECREASE IN THE AMPLITUDE OF THE TEST RESPONSE. FIBERS OF TWO TYPES WERE REVEALED IN THE M. RECTUS ABD.: 1) FIBERS SIMILAR TO THOSE FROM THE M. SARTORIUS BY THEIR REACTION TO ACH; 2) FIBERS WITH THE LOW RATE OF DESENSITIZATION. THE LATTER TYPE IS CHARACTERIZED BY A GREATER ACH SENSITIVE ZONE LENGTH AND A STEEPER RELATION CURVE FOR THE CURRENT THROUGH ACH MICROPIPETTE AND THE AMPLITUDE OF INDUCED DEPOLARIZATION. THE RATE OF DESENSITIZATION BECAME FASTER WITH INCREASED (CA PRIME2 POSITIVE) SUBO. THE ROLE OF DESENSITIZATION RATE IN THE DURATION OF MAINTENANCE OF A FIBER ACH CONTRACTION IS DISCUSSED.

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(3)

JPRS 58042

23 January 1973

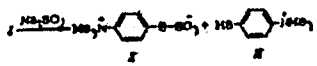
UDC 615.216.5+615.217.4

CONTROLLED MYORELAXANTS AND GANGLIOBLOCKERS WITH A DISULFIDE BOND

[Article by N.V. Khromov-Borisov, V. Ye. Gnirs and L.G. Magazanik, Institute of Experimental Medicine AMN USSR, Institute of Evolutionary Physiology and Biochemistry imeni I.M. Sechenov, AS USSR, Leningrad; Moscow, Khimiko-farmatsevticheskiy Zhurnal, Russian, No 11, 1972, submitted 16 July 1971, pp 21-24]

Until recently, there was not developed effective methods of control of the effect of biologically active substances which would not be based, in the final analysis, upon the use of natural protective forces of the organism (biochemical transformation of the substances which lead to its inactivation and excretion). Methods of active chemical effect on the fate of medicines in the organism may be more effective and operational. We assumed an experimental model of such effect, based upon the following principle: a medicine with a weak link in the molecule is used as well as an agent capable of destroying this link /1-3/. We used a disulfide bond as the weak link and some nucleophilic compounds, sodium sulfite, for example, which destroy it, as agents.

The first model compound-I (see Table), synthesized by us for checking this hypothesis belongs to the pharmacological class of myorelaxants. It contains an aromatic disulfide bond, weakened by the electron acceptor effect of quaternary ammonia groups. In an aqueous solution, at room temperature I is easily destroyed by the effect of sodium sulfite, forming a Bunt salt in the form of a zwitter-ion (II) and an arylthiol (III) /2/.



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MAGAZANIK, L. G.

JPRS 58042
23 Jan 73

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USSR

UDC 612.741+612.748

MAGAZANIK, L. G. and VYSKOCHIL, F., Biophysics of Synoptic Processes Group, Institute of Evolutionary Physiology and Biochemistry imeni I. M. Sechenov, Academy of Sciences USSR, Leningrad

"Mechanism of Action of Neurotoxins from Snake Venom"

Leningrad, Zhurnal Evolyutsionnoy Biokhimii i Fiziologii, No 5, 1972, pp 555-557

Abstract: The effect of bungarotoxin and najatoxin on postsynaptic electrogenesis was investigated in frog skeletal muscle. At concentrations of $1 \cdot 10^{-7}$ to $1 \cdot 10^{-6}$ g/ml the neurotoxins irreversibly depressed both end-plate and acetylcholine potentials derived consecutively from the same fiber. The rate of decrease in amplitude of the acetylcholine potentials was much higher, perhaps because of the capacity of the neurotoxins to hasten desensitization to acetylcholine. The neurotoxins are thought to act not only (or not so much) on the choline receptors as on some other functional elements of the postsynaptic membrane directly related to electrogenesis, perhaps ionophores.

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USSR UDC 615.217.34:547.944.31.017:615.234

MAGAZANIK, N. A. Second Chair of Therapy, Central Institute of Advanced Training of Physicians

"The Bronchodilating Effect of Atropine Aerosols"

Moscow, Klinicheskaya Meditsina, No 5, 1970, pp 142-145

Abstract: Several aerosols (atropine, ephedrine, isadrine, isoprenaline) and intravenous injection of diaphylline were tested on 82 patients with severe bronchial obstruction. It was found that an atropine aerosol was an extremely effective bronchodilator. Its effect lasted from 2-5 hours. This result indicated that the vagal component is of great importance in the removal of a bronchial obstruction also under clinical conditions. Atropine seems to be particularly effective against obstructions of a nonallergic nature; however, even in the case of the asthma patients studied, a fine aerosol containing atropine was found to be effective.

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1/2 011 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--THE BRONCHODILATING EFFECT OF ATROPINE AEROSOLS -U-

AUTHOR--MAGAZANIK, N.A.

M

COUNTRY OF INFO--USSR

SOURCE--KLINICHESKAYA MEDITSINA, 1970, VOL 48, NR 5, PP 142-145

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--AEROSOL, ATROPINE, RESPIRATORY DRUG

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3001/1007 STEP NO--UR/0497/70/048/005/0142/0145

CIRC ACCESSION NO--AP0126645

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

2/2 011 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0126645

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. AEROSOL INHALATIONS OF ATROPINE, EPHEDRINE, EUSPIRAN, AS WELL AS INTRAVENOUS INJECTION OF AMINOPHYLLINE, WERE CARRIED OUT IN 82 PATIENTS SUFFERING FROM DIFFUSE BRONCHIAL OBSTRUCTION. THE DURATION OF INHALATIONS WAS SIMILAR FOR ALL DRUGS, THE EFFECT WAS EVALUATED WITH THE AID OF THE STANDARD METHOD. THE BRONCHODILATING EFFECT OF A 0.1 PER CENT ATROPINE SOLUTION WAS SIGNIFICANTLY GREATER THAN THAT OF A 5 PER CENT EPHEDRINE SOLUTION, LESSER THAN A 1 PER CENT ISOPRENALINE SOLUTION AND EQUALLED THAT OF 0.24 GM OF AMINOPHYLLINE (IN INTRAVENOUS INJECTION OF THE LATTER). THE EFFECT OF ATROPINE LASTED FOR 2-5 HOURS. IN SUCH A ROUTE OF ADMINISTRATION THE UNTOWARD REACTIONS TO ATROPINE WERE ABSENT OR WERE MINIMAL. A CONCLUSION IS DRAWN THAT ATROPINE IN AEROSOL IS VERY EFFECTIVE IN THE COMBAT WITH BRONCHIAL OBSTRUCTION. THIS POINTS TO THE IMPORTANCE OF PARASYMPATHETIC MECHANISMS IN BRONCHIAL OBSTRUCTION.

FACILITY: 2-YA KAFEDRA TERAPII TSENTRAL'NOGO INSTITUTA USOVERSHENSTVOVANIYA VRACHEY.

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UDC 616.61-002.26:616.92/.93

USSR

CHURKIN, G. S., Lt Col Med Serv; POPOV, N. V., Lt Col Med Serv, Candidate of Medical Sciences; MAGAZNOV, A. M.

"Using the Complement-Fixation Reaction to Detect Antigen of the Agent of Hemorrhagic Fever With a Renal Syndrome"

Moscow, Voyenno-Meditsinskiy Zhurnal, No 7, 1971, p 81

Abstract: The complement-fixation test, with serum from convalescent animals as immune serum and a chloroform extract from the kidneys, lungs, spleen, and liver as antigen, was performed in foci of hemorrhagic fever with a renal syndrome as a means of early detection of the disease among rodents and other small animals. Examination of the organs of 552 animals (493 caught in foci of the infection and 59 in places free of the disease) revealed C.F.T.-positives only in the organs of animals caught in foci of the infection. Antigen was found in almost 40% of animals.

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Epidemiology

UDC 616.91

USSR

POPOV, H. V., Candidate of Medical Sciences; MAGAZNOV, A. M.; CHURKIN, G. S., Lt Col Med Serv

"Focus of Hemorrhagic Fever With Renal Syndrome"

Moscow, Voyenno-Meditsinskiy Zhurnal, No 9, Sep 71, pp 71-72

Abstract: In Tambovskaya Oblast, hemorrhagic fever with a renal syndrome (HFRS) was first recorded in 1965 (two cases). Since the disease reappeared in 1967, epidemiological and epizootiological studies were initiated in that year. The HFRS focus is located between the mixed forest zone and the chernozem steppe with wheat, corn, and sugar beet fields where the groundwater level is high. The forest is a convenient zoological habitat. The village where seven HFRS cases were recorded in 1967 and 1968 is located in a small, neatly kept clearing in the forest. All patients were persons employed on construction work in the forest and working directly with underbrush and building material refuse. The area was highly infested with murine rodents with

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POPOV, H. V., et al, Voyenno-Meditsinskiy Zhurnal, No 9, Sep 71, pp 71-72

the common vole most numerous (about 50% of all murine rodents caught). Serological tests performed on these animals revealed the presence of HFRS antibodies in 59.4% of common voles during outbreak periods, and in 11% of common voles and in 3.7% of field mice during disease-free periods. Morbidity among the workers occurred only during periods when the number of common voles inhabiting that area was high. The data indicate that the disease was transmitted from common voles to men working with refuse material polluted by these rodents. The above-described area seems to be the only focus, and a relatively young one, of HFRS in Tambovskaya Oblast.

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USSR UDC: 621.3.014.2

LEMBERG, Ye. A., TKACH, Yu. V., MAGDA, I. I., GADETSKIY, N. P., and ABRAMOVICH, V. U.

"Switching Dischargers With a Pulsed Gas Laser in the Ultraviolet Range"

Moscow, Pribory i tekhnika eksperimenta, No 1, 1973, pp 140-142

Abstract: The use of a nitrogen gas laser operating at a wavelength of 3371 Å in the control of an air discharger is investigated in this experimental paper. A simplified diagram is given of the experimental equipment together with a curve of the discharger operation as a function of the voltage across its electrodes, and an oscillogram of the current pulses from two dischargers connected by a constant delay circuit. The power of the laser was 25-30 kW at a pulse duration of 10 nsec, and the laser was pumped by an oscillator of the Arkad'yev-Marks circuit producing a pulse with a steep leading edge. The experiments involved tests of dischargers using various types of electrode metals -- Cu, Zn, and Mo -- with the laser radiation focused by a quartz lens on the electrode with the negative potential. Synchronization of two identical dischargers by the laser beam was also investigated. The authors thank L. I.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

USSR UDC: 621.3.014.2

LEMBERG, Ye. A., et al, Pribory i tekhnika eksperimenta, No 1, 1973, pp 140-142

Bolotin and Ya. B. Faynberg for their interest and their comments.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

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JPRS 59677
1 Aug 73

UDC 621.3.014.2

USING PULSED ULTRAVIOLET-WAVEBAND GAS LASERS TO SWITCH SPARK GAPS

[Article by Ye.A. Lemberg, Yu.V. Tkach, I.I. Magda, P.P. Godetskiy, and V.U. Abramovich; Moscow, Pribory i Tekhnika Eksperimenta, Russian, No 1, January 1973, pp 140-142]

Two air spark gaps could be ignited at a frequency of 15-20 hertz using a pulsed ultraviolet molecular nitrogen laser generating radiation with wavelength 3,371 Å and power 30 kw. The breakdown synchronization attained was not worse than ±1 nsec. The dependence of the time of laser-initiated spark gap activation on the voltage applied is shown for various spark gap lengths.

The possibility of controlling an air spark gap by a nitrogen gas laser with a generation wavelength of 3,371 Å is investigated in this paper. The gap is activated by distortion of the space charge field by photoelectrons emitted upon irradiation of the electrodes by quanta possessing an energy level close to the photoionization threshold. Although the probability of photoelectron emission is lower in this case than in experiments with shorter wavelength radiation, nevertheless since coherent radiation is employed a greater photon density can be created which compensates for the reduced number of photoelectrons.

Experiments were conducted with the setup diagrammed in Figure 1. The nitrogen laser's generation power attained 25-30 kw with a pulse length of 10 nsec. Pumping was performed by a generator producing a very steep pulse front assembled on the basis of an Arkad'yev-Marks circuit. A system of compensating capacitors was used to reduce pulse rise time

Magda, I. I.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

USSR

UDC: None

TKACH, Yu. V., FAYNBERG, Ya. B., BOLOTIN, L. I., BESSARAB, Ya. Ya., GADETSKIY, N. P., MAGDA, I. I., and SIDEL'NIKOVA, A. V.

"Laser Using Plasma-Beam Discharge"

Moscow, Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, vol 62, No 5, 1972, pp 1702-1716

Abstract: Experiments to investigate the generation of stimulated radiation in the visible range of the spectrum are described. In the equipment described in this paper a pulsed electron beam with a pulse width of 90 μs at a current of 35 amp and an energy of up to 40 kev was injected into a stainless steel plasma chamber with a diameter of 110 mm and a length of three meters. At the end of the chamber a water-cooled collector was placed for dissipating the beam power, reaching a level of as much as 1.5 kW. A block diagram of the equipment and an explanation of its operation given. These experiments demonstrated the possibility of using collective processes in a high-temperature plasma for pumping gas lasers; it is asserted, in fact, that this type of pumping in a plasma-beam discharge is best for obtaining oscillation in the shortwave end of the visible range. The authors, members of the Physico-Technical Institute of the Ukrainian Academy of Sciences, express

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

UDC: None

USSR

TKACH, Yu. V., et al, Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, vol 62, No 5, 1972, pp 1702-1716

their gratitude to V. P. Tychinskiy, V. V. Slezov, V. D. Shapiro, and V. I. Shevchenko for their comments and advice.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

1/2 050 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--MEASUREMENT OF THE ELECTRON TEMPERATURE IN A BEAM PLASMA DISCHARGE LASER ON THE BASIS OF THE BREMSSTRAHLUNG X RADIATION SPECTRUM -U-

AUTHOR-(05)-GADETSKIY, M.P., BULGTIN, L.I., TKACH, YU.V., BESSARAB, YA.YA., MAGDA, I.I.

COUNTRY OF INFO--USSR

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SOURCE--UKRAINS'KII FIZICHN II ZHURNAL, VOL, 15, APR. 1970, P 662-664

DATE PUBLISHED----APR70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--MEASUREMENT, ELECTRON TEMPERATURE, LASER, BREMSSTRAHLUNG, X RADIATION, PLASMA DISCHARGE, PLASMA BEAM, POPULATION INVERSION, RADIATION SPECTRUM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3002/0658 STEP NO--UR/0185/70/015/000/0662/0664

CIRC ACCESSION NO--AP0128195

UNCLASSIFIED

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2/2 050 UNCLASSIFIED PROCESSING DATE--13NOV70

IRC ACCESSION NO--AP0128195

BSTRACT/EXTRACT--(U) GP-0- ABSTRACT. INVESTIGATION OF THE PARAMETERS OF A HIGH ENERGY GROUP OF PLASMA ELECTRONS IN A LASER BASED ON A BEAM PLASMA DISCHARGE. THIS GROUP ARISES DUE TO THE ACCELERATION OF ELECTRONS BY HIGH FREQUENCY FIELDS EXCITED IN THE PLASMA. THE TEMPERATURE OF ELECTRONS IN THE GROUP IS MEASURED BY THE SPECTRUM OF THE BREMMSTRAHLUNG X RADIATION TO BE BETWEEN 0.8 AND 1 KEV, WHILE THE NUMBER OF CONSTITUENT PARTICLES IS 10 BILLION PER CU CM, AS MEASURED BY THE ABSOLUTE INTENSITY OF X RAY EMISSION. THE TEMPERATURE AND DENSITY ARE SUFFICIENT FOR CRITICAL POPULATION INVERSION IN THEPULSED MODE OF OPERATION OF THE LASER. FACILITY: AKADEMIIA NAUK UKRAINS'KOI RSR, FIZIKO-TEKHNICHNII INSTITUT, KHARKOV, UKRAINIAN SSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

UDC 547.241+547.341

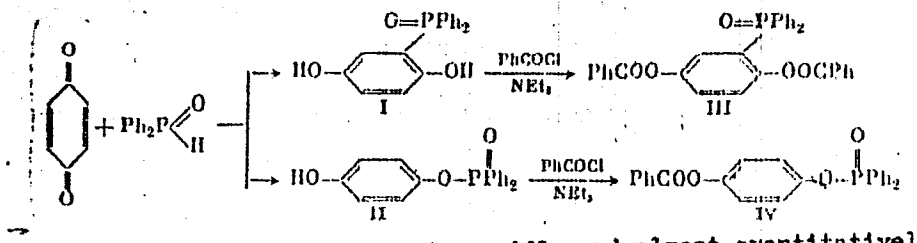
USSR

MAGDEYEV, I. M., LEVIN, YA. A., and IVANOV, B. YE., Institute of Organic and Physical Chemistry imeni A. Ye. Arbuzova, Academy of Sciences USSR

"The Product of the Reaction of Diphenylphosphinous Acid and Its Chloroanhydride with p-Benzoquinone"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), Vyp 11, 1972, pp 2415-2418

Abstract: The title reaction using the acid may proceed via two paths



The reaction generating I proceeds rapidly and almost quantitatively to form 1:1 adduct in a benzene solution in the absence of a catalyst. This reaction may also proceed generating product II by attack on the oxygen.

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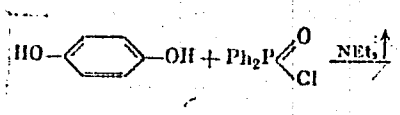
"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

USSR

MAGDEYEV, I. M., et al., Zhurnal Obshchey Khimii, Vol 42(104), Vyp 11, 1972, pp 2415- 418

The ether II may also be prepared by the following reaction starting with the anhydride:



Two additional compounds (III) and (IV) were prepared from compounds I and II respectively., by treatment with PhCOCl and triethylamine. Structures were confirmed by IR spectra. Preparation, compositional and physical data are given for the above four compounds.

2/2

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

USSR UDC: 547.341.07

MAGDEYEV, I. M., LEVIN, Ya. A., IVANOV, B. Ye., Institute of Organic and Physical Chemistry imeni A. Ye. Arbuzov

"A Method of Synthesizing 2,5-Dihydroxyphenyldiphenylphosphine Oxide"

Moscow, Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, No 15, May 71, Author's Certificate No 302346, Division C, filed 16 Mar 70, published 28 Apr 71, p 81

Translation: This Author's Certificate introduces: 1. A method of synthesizing 2,3-dihydroxyphenyldiphenylphosphine oxide by the reaction of a phosphinous acid derivative with p-benzoquinone in an organic solvent with heating, and isolating the product by conventional methods. As a distinguishing feature of the patent, the process is simplified by using diphenylphosphinous acid dichloride as the phosphinous acid derivative, and carrying out the process in the presence of water. 2. A modification of this method distinguished by the fact that the process is carried out at 60-65°C. 3. A modification of this method distinguished by the fact that benzene is used as the solvent. 4. A modification of this method distinguished by the fact that the diphenylphosphinous acid dichloride is added with strong agitation to an emulsion of water and a benzene solution of p-benzoquinone. 5. A modification of this method distinguished by the fact that the initial reagents are taken in equimolar proportions.

1/1

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

1/2 019 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--COLOR INDEX PHENOMENA IN CHALCONES AND RELATED COMPOUNDS. III. ELECTRONIC ABSORPTION SPECTRA OF 4 PRIME, AND 3

AUTHOR-(02)-MAGDEYEVA, R.K., BELOTSVETOV, A.V.

M

COUNTRY OF INFO--USSR

SOURCE--IZV. VYSSH. UCHEB. ZAVED., KHIM. KHIM. TEKHNOL. 1970, 13(1), 66-9

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ELECTRON SPECTRUM, BENZENE DERIVATIVE, ACETONE, ELECTRON DONOR

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/0785 STEP NO--UR/0153/70/013/001/0066/0069

CIRC ACCESSION NO--AP0124454

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

2/2 019 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0124454

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. FROM STUDIES OF THE ELECTRONIC ABSORPTION SPECTRA OF THE DIBENZALACETONES, R PRIME1 C SUB6 H SUB4 CH:CHCOCH: CHC SUB6 H SUB4 R (I) (R PRIME1 EQUALS 3, OR 4,O SUB2 N, R EQUALS H OR 4,MEO, HO, ACNH, NH SUB2 OR NME SUB2), 2 CHROMOPHORIC SYSTEMS ARE IDENTIFIED. THE 1ST IS A CONTRAPOLARIZING SYSTEM APPARENT ONLY IN THE SHORTWAVE REGION, AND THE 2ND A SYN POLARIZING SYSTEM NOTED SIGNIFICANTLY IN BANDS CORRESPONDING TO TRANSITIONS FOR CHARGE TRANSFER FROM A HETERO ATOM TO THE CARBONYL O. EXCITATION OF THE 1ST BY THE 2ND LEADS TO A BATHCHROMIC BAND DISPLACEMENT. FOUR TYPICAL BANDS FOUND ARE IN THE REGIONS 231-260, 250-330, 321-432, AND 410-550 NM. PREPD. ARE I (R PRIME1, R, AND M.P. GIVEN): 4,NO SUB2, OH, 217.5-18.0DEGREES; 4,NO SUB2, ACNH, 224-5DEGREES; 4,NO SUB2, NH SUB2, 212.5-14.0DEGREES; 3,NO SUB2, OH, 235.3-6.3DEGREES; 3,NO SUB2, ACNH, 217.5-19.0DEGREES; 3,NO SUB2, NME SUB2, 171-1.5DEGREES. FACILITY: MOSK. GOS. PEDAGOG. INST. IM. LENINA, MOSCOW, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

USSR UDC 621.376

MAGDICH, L.N., SAFRONOV, O.I., SASOV, V.N.

"Microwave Modulation Of Infrared Radiation"

Kvantovaya elektronika (Quantum Electronics), Moscow, No (12), 1972, pp 111-112

Abstract: Experiments are described concerned with modulation using a resonator type modulator with gallium arsenide crystals of laser radiations with wavelengths of 3.39 and 10.6 micron. The resonator is a symmetrical strip line loaded with two gallium arsenide crystals and shorted at the ends. Radiation was only transmitted through one crystal; the other was used for retardation of the modulation wave in the line, necessary with synchronous interaction of the modulation waves and the radiation. Two plane-parallel plates of gallium arsenide inclined to the Brewster angle are used as an analyzer. The length of the resonator is 100 mm, the cross section of the crystals is 3 x 3 mm. G4-5 and G3-21 standard generators were used as sources of the modulating signal. 1 fig. 1 tab. 4 ref. Received by editors, 6 April 1972.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

TECHNICAL TRANSLATION

165

FTD | FSTC-HT-23-2015-72

29 Dec 72

ENGLISH TITLE: PROBLEMS OF LASER BEAM DATA TRANSMISSION
PROCEEDINGS OF THE FIRST ALL-UNION CONFERENCE, KIEV, SEPTEMBER 1968

FOREIGN TITLE: PROBLEMY PEREDACHI INFORMATSII LAZERNYM IZLUCHENIYEM

AUTHOR: I. A. DERYUGIN, ET AL.

SOURCE: KIEV ORDER OF LENIN STATE UNIVERSITY IMENI T.G. SCHEVCHENKO

Translated for FSTC by ACSI

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- Title Page -

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

USSR UDC 669.18:621.746.58

MAGER, A. YE., RAKEVICH, S. Z., KRAMAROV, A. D., LARIONOV, V. I., SEMENOV, YU. N., and PROISKIKH, S. N., Cherepovets Metallurgical Plant, Northwestern Polytechnical Institute, and Central Scientific Research Institute of Ferrous Metallurgy

"Effect of Pouring Rate and Metal Composition on Steel Ingot Quality for Deep Drawing"

Moscow, Stal', No 10, Oct 73, pp 888-892

Abstract: Steels 08Fkp, 08Yu, and 08kp were smelted in 250-ton open-hearth furnaces and poured into molds through an 80-mm diameter opening to form 14-14.5-ton ingots. These ingots were compared with ingots made of steel 08kp(N) which had been poured into molds with a 30-mm-diameter opening. Ingots of steel 08kp(N), 08kp, and 08Fkp were covered after pouring to allow boiling periods of 15, 20 and 20 minutes respectively. By increasing the pouring rate with simultaneous use of an active boiling intensifier [not specified], a fovarable rimmed-steel ingot structure was produced. A content of 0.06% V in the steel make it possible to diminish development of segregation phenomena in rimmed steel which then makes it similar to semikilled steel. The vanadium

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

USSR

MAGER, A. YE., et al., Stal', No 10, Oct 73, pp 888-892

content in the crust zone and in a ladle sample of the rimmed steel was the same and exceeded the vanadium concentration in the internal areas of the ingot. Four figures, four bibliographic references.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

Acc. Nr. AP0045179 Abstracting Service: CHEMICAL ABST. 5-70 Ref. Code UR0191

91225c **Physicomechanical properties of adhesive cyanacrylate compositions.** Korshak, V. V.; Polyakova, A. M.; Mager, K. A.; Semyantsev, V. N.; Askadskii, A. A.; Cherashchenko, Z. V. (USSR). *Plast. Massy* 1970, (1), 44-5 (Russ). Adhesive compns., e.g., Et α-cyanoacrylate (I), Pr α-cyanoacrylate, Bu α-cyanoacrylate, and allyl α-cyanoacrylate were modified with plasticizers and thickening agents. Addn. of 20% ethylene glycol dimethacrylate or diallyl phthalate reduced the elastic modulus of poly(ethyl α-cyanoacrylate) (II). Addn. of 20% di-Bu phthalate and 10% II to I compns. gave adhesives of superior adhesive bond strength and low elastic modulus. Some monomers were also effective as plasticizers of adhesive compns. Best results were obtained with 20% Et α-cyanosorbate. CKJR

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

UDC 616.981.551

USSR

VALITOV, S. S., FISHELEV, V. M., and MAGER, O. N.

"Reanimation in Generalized Tetanus"

Kazan', Kazanskiy Meditsinskiy Zhurnal, No 5, 1971, pp 91-93

Abstract: The importance of nonspecific therapy for acute generalized tetanus is emphasized in this detailed description of the successful efforts made by a hospital team, provided with special equipment and facilities, to save the life of a 43-year-old woman who developed tetanus 10 days after receiving a head injury. She was given intravenous and then intramuscular injections of PSS (prophylactic dose of tetanus antitoxin) for the first 3 days until convulsions set in and gradually intensified. Sodium hydroxybutyrate provided only temporary relief. Respiratory and cardiac arrest occurred during a seizure. Prompt intubation of the trachea, artificial lung ventilation, external massage of the heart, and injection of various drugs (neuroplegics, tubocurarine) eventually restored the heart beat and normal breathing. The main efforts thereafter were directed toward controlling pulmonary complications and hyperthermia, maintaining normal hemodynamics, and correcting the water-electrolyte balance and alkaline reserve. The most dangerous complication was hypokalemic

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USSR

VALITOV, S. S., et al., Kazanskiy Meditsinskiy Zhurnal, No [illegible], 1971, pp 91-93

alkalosis which was treated with 0.3% KCl in a 5% glucose solution with insulin for 3 days. The patient was discharged in satisfactory condition 1-1/2 months after admission to the hospital.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

UNCLASSIFIED PROCESSING DATE--30OCT70

1/2 014

TITLE--NORMS OF THE ENZYMIC ACTIVITY OF LEUKOCYTES -U-

AUTHOR-(05)-MIKHEYEVA, A.I., KARDOS, V.S., KLIONSKAYA, A.G., MAGID, E.M., MAGID, A.E.

COUNTRY OF INFO--USSR

SOURCE--LAB. DELO 1970, (1), 5-7

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--LEUKOCYTE, ENZYME ACTIVITY, LYMPHOCYTE, ESTERASE, PHOSPHATASE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

STEP NO--UR/9099/70/000/001/0005/0007

PROXY REEL/FRAME--1997/0212

CIRC ACCESSION NO--AP0119208

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UNCLASSIFIED PROCESSING DATE--30OCT70

2/2 014

CIRC ACCESSION NO--AP0119208

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ENZYMIC ACTIVITIES IN LEUKOCYTES OF 50 HEALTHY MEN WERE DETD. BY THE KAPLOW METHOD (1955). ALK. PHOSPHATASE IN NEUTROPHILS WAS 5-67 UNITS, MEAN 27.5 UNITS. ACCORDING TO THE ACTIVITY OF ACID PHOSPHATASE (I) LEUKOCYTES WERE CLASSED INTO 4 GROUPS. (1) NO TIVITY F CYOPLASMA DI NOT CONT IN GRANULES 2) CYTO LA ZA W TH ZS THM O EQ L T 5 RA LES ( ) 6-20. (4) LARGER THAN 20 GRANULES. IN NEUTROPHILS, THE 1ST 2 GROUPS WERE MOST COMMON (MEAN 38.6 UNITS); 8-62PERCENT OF THE NEUTROPHILS CONTAINED I. LYMPHOCYTES CONTAINED 6-60 UNITS (MEAN 26.8 UNITS) I. NONSPECIFIC ESTERASE (II) ALSO CLASSED LEUKOCYTES INTO THE SAME GROUPS AS I AND IN NEUTROPHILS IT ACTVITY AS T HATOF LEUKO Y GROUPS 3; 20-90PE CENT OF THE LYMPHOCYTES XONTAIN D TIVE II (1 -13 JN TS, MEAN 72.4 UNITS).

FACILITY: GL. KLIN. VOEN. GOS. IM. BURDENKO, MOSCOW, USSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

MAGID, B. M.

Construction

CONSTRUCTION, CONSTRUCTION MACHINERY AND BUILDING MATERIALS

JPRS 54742
14 JAN 72

UDC 69.003:65.014:681.14

AUTOMATED SYSTEM FOR CONTROLLING CONSTRUCTION DESCRIBED

[Article by V. M. Ignin, Chief of the Main Administration for Construction in the Bashkir ASSR under the USSR Ministry of Industrial Construction, and B. M. Magid, division chief of the Scientific-Research Institute for Industrial Construction: "The First Stage in Creating an Automated Construction Control System in Glavbashstroy"; Moscow, Promyshlennoye Stroitel'stvo, Russian, No 11, 1971, pp 2-4]

An ASUS [avtomatizirovannaya sistema upravleniya stroitel'stvom; automated construction control system] has been developed in Glavbashstroy [Main Administration for Construction in the Bashkir ASSR] and is being introduced in stages.

In the first stage an ISOU [informatsionnaya sistema operativnogo upravleniya; operational control information system] for construction was developed in 1966 and was put into operation.

Technological planning, monitoring, and regulation of construction of all the most important complexes and installations are executed by means of this system.

The system developed is based on broad use of critical-path planning and control methods, punch-card accounting equipment, and communications equipment for the constant streams of operational information necessary for all levels of control -- highest, intermediate, and lowest.

The full system is in operation at the highest control level (central board leadership), a subsystem of general contracting trusts operates at the intermediate level, and, at the lowest level, local subsystems created within general contracting SU's [construction administrations], large

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

1/2 014 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--NORMS OF THE ENZYMIC ACTIVITY OF LEUKOCYTES -U-

AUTHOR-(05)-MIKHEYEVA, A.I., KARDOS, V.S., KLIONSKAYA, A.G., MAGID, E.M., MAGID, A.E.

COUNTRY OF INFO--USSR

SOURCE--LAB. DELO 1970, (1), 5-7

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--LEUKOCYTE, ENZYME ACTIVITY, LYMPHOCYTE, ESTERASE, PHOSPHATASE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/0212 STEP NO--UR/9099/70/000/001/0005/0007

CIRC ACCESSION NO--AP0119208

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

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CIRC ACCESSION NO--AP0119208

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ENZYMIC ACTIVITIES IN LEUKOCYTES OF 50 HEALTHY MEN WERE DETD. BY THE KAPLOW METHOD (1955). ALK. PHOSPHATASE IN NEUTROPHILS WAS 5-67 UNITS, MEAN 27.5 UNITS. ACCORDING TO THE ACTIVITY OF ACID PHOSPHATASE (I) LEUKOCYTES WERE CLASSED INTO 4 GROUPS. (1) NO TIVITY F CYOPLASMA DI NOT CONT IN GRANULES 2) CYTO LA ZA W TH ZS THM O EQ L T 5 RA LES ( ) 6-20. (4) LARGER THAN 20 GRANULES. IN NEUTROPHILS, THE 1ST 2 GROUPS WERE MOST COMMON (MEAN 38.6 UNITS); 8-62PERCENT OF THE NEUTROPHILS CONTAINED I. LYMPHOCYTES CONTAINED 6-60 UNITS (MEAN 26.8 UNITS) I. NONSPECIFIC ESTERASE (II) ALSO CLASSED LEUKOCYTES INTO THE SAME GROUPS AS I AND IN NEUTROPHILS IT ACTVITY WAS T HATOF LEUKO Y GROUPS 3; 20-90PE CENT OF THE LYMPHOCYTES XONTAIN D TIVE II (1 -13 UN TS, MEAN 72.4 UNITS).

FACILITY: GL. KLIN. VOEN. GOS. IM. BURDENKO, MOSCOW, USSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

Radar

USSR

UDC 621.391.82

ANDREYEV, G. A., LEVENETS, B. P., MAGID, R. M., KHOKHLOV, G. I., Gor'kiy State University

"Effect of Additive and Multiplicative Noise on the Accuracy of Measuring the Angular Position of a Radiation Source by Systems with Pulse-Duration Modulation"

Gor'kiy, Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, Vol XV, No 9, 1972, pp 1367-1375

Abstract: Theoretical expressions were obtained for the mean square error in measuring the angular position of a radiation source by the pulse-time method under the effect of additive and multiplicative noise. The relative error caused by multiplicative noise significantly exceeds that caused by additive noise. This is explained by the fact that the multiplicative noise is not equivalent to additive noise with respect to the parameters of the spectrum. Multiplicative noise can be reduced by lowering the response threshold, increasing the integration time by comparison with the correlation time or attenuating the depth of the random modulation of the received signal. The implemented measuring system provides an accuracy which is $\sqrt{2}$ times less than the potential accuracy.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

UDC 538.56:621.371.24

USSR

ANDREYEV, G. A., MAGID, R. M., Scientific Research Radio Physics Institute

"Effect of Intensity Fluctuations on Measuring the Angular Position of the Radiation Source by the Optoelectronic Monopulse Method"

Gor'kiy, Izvestiya vysshikh uchevnykh zavedeniy, Radiofizika, Vol XV, No 1, 1972, pp 55-61

Abstract: An expression is obtained for the mean square error in measuring the angular position of a remote radiation source caused by random amplitude fluctuations as a result of atmospheric turbulence. The theoretical results and experimental data presented permit estimation of the possibilities of the monopulse method of measuring the angular position of an optical radiation source in a medium with random inhomogeneities. Partially correlated amplitude fluctuations essentially limit the possibilities of the monopulse method of operative determination of the angular position of a radiation source.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

UDC: 621.396.6-181.5

USSR

MAGIDENKO, Ye. R.

"Computation and Mechanical Control of Integrated Circuit Resistors"

Elektron. tekhnika. Nauchno-tekhn. sb. Mikroelektronika (Electronic Engineering, Scientific-Technical Collection, Microelectronics) 1970, No. 2(23), pp 40-41 (from RZh-Radioelektronika, No. 3, March 71, Abstract No. 3V347)

Translation: A method is described for gradual control of resistors in the manufacturing process of microcircuits by removing the previously provided shunting straps. The control is realized through a simple model of controllable resistor in the form of a set of series- and parallel-connected resistors. One illustration, bibliography of one.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

USSR UDC 536.24

MAGIDEY, P. L., VOROTNIKOV, Ye. G.

"Experimental Studies of the Effect of Recirculation on Heat Exchange in a Furnace"

Tr. Krasnodar. politekhn. in-t (Works of Krasnodarsk Polytechnical Institute), 1972, No. 39, pp 105-112 (from RZh-Mekhanika, No 3, Mar 73, Abstract No 3B917)

Translation: The results of an experimental study of the distribution of temperature and radiant flows in a furnace of a gas-oil boiler of productivity 120 t/hr. It is shown that the application of recirculation of smoke gases within limits up to 45% has a considerable effect on the distribution of temperature in radiant flows and in particular moves the high temperature zone upwards, and also balances the temperature distribution in the furnace. I. B. Palatnik.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

USSR UDC: 536.532

NOVIK, V. K., SAMBURSKIY, A. I., MAGIDIN, S. F., Special Design Office of Biophysical Equipment

"A Method of Determining the Temperature of Rotating Objects Without Making Electrical Contact"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 7, Mar 72, Author's Certificate No 329414, Division G, filed 23 Jun 70, published 9 Feb 72, p 162

Translation: This Author's Certificate introduces a method of determining the temperature of rotating objects without making electrical contact by modulating the parameters of the oscillatory process of a self-synchro oscillator with two heat-sensing elements, transmitting the information through an optical communications channel, and registering the signal by means of a stationary photoreceiver. As a distinguishing feature of the patent, precision is improved by simultaneously determining the period of the oscillator signals modulated by one heat-sensing element, e. g. by a capacitor, and the off-duty factor of the oscillations modulated by the other heat-sensing element, e. g. by a thermocouple, and determining the temperature at two points of the object from the resultant data.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

USSR UDC: 539.43

SHETULOV, D. I., MAGIDOV, M. B., MYASNIKOV, A. M., SHIBAKOV, V. V., and SOKOLOV, L. D. , Gor'kiy

"Study of Hardening in the Process of Fatigue in Some Pure Metals"

Moscow, Izvestiya Akademii Nauk SSSR, Metally, no 6, Nov-Dec 70, pp 165-169

Abstract: Earlier research has shown that the capacity of metals to resist varying stresses is inversely related to their capacity to harden under static stress. The coefficient of hardening is determined by the slope of the stress-strain curve (hardening curve). The slope of the fatigue curve demonstrates the capacity of materials to resist varying stresses "better" or "worse". The value of the slope of the hardening curve varies inversely with the packing defect energy (γ), while the slope of the fatigue curve is a direct function of γ. Described here is an attempt to correlate both of these characteristics. The metals involved in the study were Al, Cd, Zn, Cu, Fe, and Ti. The experimental results indicate that the inclinations of the fatigue curves to the X-axis correlate with the packing defect energy (γ), i.e., the higher the γ, the steeper the slope. The slope of the fatigue curves is related to the slope of the hardening curves, i.e., the flatter the slope of the fatigue curve, the steeper the hardening curve.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

USSR UDC: 539.434:669.29/73

MAGIDOV, M. B., SHETULOV, D. I., and SOKOLOV, L. D., Dzerzhinsk Branch, All-Union Scientific Research and Design Institute of Chemical Machinery (NIIKhIMMASh)

"Feasibility of a Correlation Between the Slopes of Fatigue and Strengthening Curves as Exemplified by Titanium, Zinc, and Cadmium"

Minsk, Izvestiya Akademii nauk BSSR, Seriya fiziko-tekhnicheskikh nauk, No 1, 1972, pp 38-42

Abstract: The feasibility of an inverse correlation between the coefficients of strengthening during static strain and the slope of fatigue strength manifest in metals with a body-centered cubic lattice has been studied on Ti, Cd, and Zn. The imperfect packing energies of the test metals are given as 10, 150, and 270 erg/cm^2, respectively. The tests included rotary bending, tensile to rupture, and microstructural changes with fatigue. Use was made of the method of least squares to plot fatigue and strengthening curves. It is demonstrated that the slopes of the fatigue curves are steeper the higher the imperfect packing energies, i.e., in the sequence: Ti, Cd, and Zn. The slopes of the strengthening curves of these metals are in the reverse order: Zn, Cd, Ti. The data indicate that metals with good

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MAGIDOV, M. B., et al, Izvestiya Akademii nauk BSSR, Seriya fiziko-tekhnicheskikh nauk, No 1, 1972, pp 38-42

performance for fatigue (namely Ti) show a flat fatigue curve, a steep strengthening curve, and inhibited lateral slip. On the other hand, metals with poor fatigue properties (Cd, Zn) have a steep fatigue curve, a flat strengthening curve, and well-developed lateral slip. The properties of Cd and Zn are additionally analyzed relative to their imperfect packing energies. (5 illustrations, 9 bibliographic references).

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

1/2 017 UNCLASSIFIED PROCESSING DATE--02OCT70

TITLE--ULTRASONIC METHOD FOR STUDYING THE RATE OF CORROSION OF INDUSTRIAL CHEMICAL EQUIPMENT -U-

AUTHOR-(03)-MAGIDOV, M.B., MVASNIKOV, A.M., SHETULOV, D.I.

M

COUNTRY OF INFO--USSR

SOURCE--ZAVOD. LAB. 1970, 36(1), 39-40

DATE PUBLISHED--------70

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

TOPIC TAGS--CORROSION TEST, PIPELINE, ULTRASONIC TEST APPARATUS, THICKNESS GAGE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1989/1930 STEP NO--UR/0032/70/036/001/0039/0040

CIRC ACCESSION NO--AP0108259

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

2/2 017 UNCLASSIFIED PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0109259

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A TYPE UDM-1M ULTRASONIC TRANSDUCER, FITTED WITH A REMOTE SENSING PROBE, WAS SUED TO MEASURE THE WALL THICKNESS OF A PIPELINE OF DIAM., D, AND WALL THICKNESS, DELTA, AT A FREQUENCY OF 5 MHZ. WITH D EQUALS 35-216 MM. AND DELTA EQUALS 3-15 MM, THE MEASUREMENT ERROR WAS PLUS OR MINUS 3PERCENT. THE AREA TO BE MEASURED WAS 1ST CLEANED BY FILING AND THEN BY USING AN EMERY CLOTH FOLLOWED BY WIPING WITH A CLOTH SATD. WITH SPINDLE OIL AS THE CONTACT FLUID. FOR THICKNESS SMALLER THAN 5 MM, THE UDM-1M GAVE RESULTS EQUAL TO THOSE OBTAINED WITH THE TUK-3 ULTRASONIC RESONANCE THICKNESS GAGE, IF BOTH INSTRUMENTS WERE CALIBRATED WITH THE SAME SAMPLE. TO MEASURE THE THICKNESS OF THE LINING IN A TOWER, THE UDM-1M WAS MODIFIED TO USE A LONGER SHIELDED CABLE TO CARRY THE SENSING PROBE. EXPTL. WORK IN THE LAB. SHOWED THAT EQUIV. RESULTS WERE OBTAINED WITH BOTH CABLE LENGTHS USED. TO KEEP THE MEASUREMENT ERROR TO A MIN., THE SYSTEM WAS FREQUENTLY CALIBRATED WITH A KNOWN SAMPLE BETWEEN DETNS. TEMP. VARIATION HAD THE GREATEST EFFECT ON THE RESULTS FOR ALL THE PARAMETERS STUDIED.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

1/2 017 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--TREATMENT OF SALTS TO PREVENT CAKING -U-

AUTHOR--MAGIDSON, I.A.

COUNTRY OF INFO--USSR

SOURCE--U.S.S.R. 265,088
REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRAZTSY, TOVARNYE ZNAKI 1970,
DATE PUBLISHED--09MAR70

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

TOPIC TAGS--CHEMICAL PATENT, INORGANIC SALT, PROTECTIVE COATING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3004/0832 STEP NO--UR/0482/70/000/000/0000/0000

CIRC ACCESSION NO--AA0131425
UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

UNCLASSIFIED PROCESSING DATE--04DEC70

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CIRC ACCESSION NO--AA0131425

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. TO ACHIEVE UNIFORM DISTRIBUTION OF THE ADDITIVE, A STREAM OF THE FALLING SALT PARTICLES IS SPRAYED WITH A SOLN. OR EMULSION OF THE ADDITIVE.

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

1/2 052 UNCLASSIFIED PROCESSING DATE--09OCT70

TITLE--LARGE BENCH SCALE STUDY OF THE HEAT TRANSFER AND RADIATION FROM FLAME ENVELOPES -U-

AUTHOR-(03)-MAGIDSON, M.A., SHAKHLIN, V.I., SAVOSTIN, O.Z.

COUNTRY OF INFO--USSR

SOURCE--IZV. VYSSH. UCHEB. ZAVED., CHERN. MET. 1970, 13(2), 143-6

DATE PUBLISHED--------70

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

TOPIC TAGS--METALLURGIC FURNACE, STEEL PRODUCTION, NATURAL GAS, FUEL CONSUMPTION, COMBUSTION R AND D, HEAT TRANSFER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1994/1785 STEP NO--UR/0148/70/013/002/0143/0146

CIRC ACCESSION NO--AT0115614

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

2/2 052 UNCLASSIFIED PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AT0115614

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EFFECT OF THE MIXING OF GAS AND AIR AND OF MAZUT ADDNS. ON THE RADIATION OF THE FLAME AND ITS HEAT TRANSFER TOWARD THE HEARTH WHEN BURNING NATURAL GAS WAS STUDIED ON A LARGE BENCH IN A STEEL MILL. THE CONSTRUCTION OF THIS BENCH WAS DESCRIBED BY N. I. IVANOV, 1962. THE HEAT LOAD WAS CONST. AT 4 MILLION KCAL PER HR, THE TEMP. OF THE PREHEATED AIR WAS 650-700DEGREES, AND THE PERIOD BETWEEN THE SWITCHING OF AIR REGENERATORS WAS 25-30 MIN. WITHOUT MAZOUT ADDN. THE HIGHEST UTILIZATION OF O, AND THE HIGHEST TEMP. WAS PRODUCED WHEN ALL THE GAS WAA SUPPLIED TO THE UPPER BURNER AND THE CONSUMPTION OF THE AIR WAS 1 M PRIME3 AIR PER M PRIME3 GAS. CONSEQUENTLY, MIXING OF GAS AND AIR AND THE INCREASE OF LUMINOSITY OF THE FLAME LEAD TO THE DECREASE OF TEMP. AND LOWER HEAT TRANSFER. THE LUMINOSITY OF THE FLAME, AS WELL AS ITS RADIATION AND HEAT TRANSFER INCREASED WITH INCREASING AMTS. OF MAZOUT. THE MAZOUT SHOULD BE MIXED WITH AIR, WITH THE SIMULTANEOUS ADDN. OF GAS AND COMPRESSED AIR OR STEAM. FACILITY: NAUCH. ISSLED. INST. MET., CHELYABINSK, USSR.

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

1,2 015 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--OPENING THE AZEPINE RING IN 2,3,4,5,TETRAHYDRO,1H,AZEPINO(3,4 B)INDOLE DURING ALKYLATION BY ALCOHOL IN THE PRESENCE OF RANEY NICKEL

AUTHOR--GLUSHKOV, R.G., VOLSKOVA, V.A., KOSTYUCHENKO, N.P., SHEYNKER, YU.N., MAGIDSON, O.YU.

M

COUNTRY OF INFO--USSR

SOURCE--KHIM. GETEROTSIKL. SOEDIN. 1970, (2), 277-8

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES, CHEMISTRY

TOPIC TAGS--NICKEL, CATALYST ACTION, ALKYLATION, INDOLE DERIVATIVE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1984/1805 STEP NO--UR/0409/70/000/002/0277/0278

CIRC ACCESSION NO--AP0100379

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

2/2 015 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0100379

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE REDUCTION OF 1,METHOXY,4,5,DIHYDRO,3H,AZEPINO(3,4,B)INDOLE (I) WITH LIALH SUB4-ET SUB2 O GA VE 71PERCENT 2,3,4,5,TETRAHYDRO,1H,AZEPINO,(3,4,B)INDOLE (II), M. 182-6DEGREES; HYDROCHLORIDE M. 280-2DEGREES. ATTEMPS TO ALKYLATE II WITH MEI, ME SUB2 SO SUB4, OR CH SUB2 O IN THE PRESENCE OF HCO SUB2 H TO OBTAIN THE 2,ME DERIV. OF II WERE UNSUCCESSFUL. THE ALKYLATION OF I WITH ETOH OVER RANEY NI YIELDED 2,METHYL,3,(3,(DIETHYLAMINO)PROPYL)INDOLE, B SUB2 165-7DEGREES.

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Pharmacology and Toxicology

UDC 615.31:547.751].012.1

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

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

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

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

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1/2 020 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--N,4,PYRIMIDINYL,ETHYLAMINE. III. 2,5,6,DERIVATIVES -U-

AUTHOR-(05)-SOKOLOVA, V.N., MONIKOVA, G.A., MAGIDSON, O.YU., SHCHERBAKOVA, L.I., PERSHIN, G.N.

COUNTRY OF INFO--USSR

SOURCE--KHIM. GETEROTSIKL. SOEDIN. 1970, (3), 422-6

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES, CHEMISTRY

TOPIC TAGS--PYRIDINE, AMINE DERIVATIVE, ANTITUBERCULAR DRUG, BACTERIOSTASIS, MOLECULAR STRUCTURE, CHEMICAL SYNTHESIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3003/0995 STEP NO--UR/0409/70/000/003/0422/0426

CIRC ACCESSION NO--AP0130041

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

2/2 020 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0130041

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SHOWN ON MICROFICHE. HIGH TUBERCULOSTATIC ACTIVITY AGAINST H SUB37 RV (MYCOBACTERIUM TUBERCULOSIS) WAS FOUND FOR A FEW OF THE SYNTHESIZED COMPOS., THE OTHERS SHOWED BACTERIOSTATIC ACTIVITY AGAINST L(ACTOBACILLUS)CASEI 7369 AND STREPT(OCOCCUS) FAECALIS 8043. FACILITY: VSES. NAUCH.-ISSLED. KHIM.-FARM. INST. IM. ORDZHONIKIDZE, MOSCOW, USSR.

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USSR UDC 547.853.7'854.9'867.2.01

BRITIKOVA, N. YE., BELOVA, L. A., CHKHIKVADZE, K. A., and MAGIDZON, O. YU., (DECEASED), All Union Scientific Chemical-Pharmaceutical Research Institute imeni S. Ordzhonikidze, Moscow

"Derivatives of 5-Aminoorotic Acid"

Riga, Khimiya Geterotsiklicheskikh Soyedineniy, No 2, Feb 73, pp 270-272

Abstract: 2,4,8-Trioxoderivatives of pyrimido-[5,4-d] [1,3] oxazine have been synthesized and converted to esters and amides of 5-acetylaminoorotic acid. The acetyl group of 5-acetylaminoorotic esters hydrolyzes easily in acid medium yielding 5-aminoorotic esters; in contrast, the acetyl group of the 5-acetylaminoorotic amides does not hydrolyze easily.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

Nitrogen Compounds

USSR UDC 547.854.9.07

BRITIKOVA, N. YE., BELOVA, L. A., CHKHIKVADZE, K. A., and MAGIDSON, O. YU., (DECEASED), All Union Scientific Chemical-Pharmaceutical Research Institute imeni S. Ordzhonikidze, Moscow

"Synthesis of 5-Phenylamino Derivatives of Orotic Acid"

Riga, Khimiya Geterotsiklicheskikh Soyedineniy, No 2, Feb 73, pp 273-275

Abstract: Heating 5-bromoorotic acid with anizidine, aniline or p-chloroaniline in ethylene glycol at high temperature leads to a nucleophilic replacement of bromine and decarboxylation, yielding 5-phenylamino derivatives of uracyl. 5-Bromoorotic acid reacted with aromatic amines by the Ullman reaction in ethylene glycol, to give 5-phenylamino derivatives of orotic acid.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

USSR UDC: 517.9:539.3

MAGNARADZE, L. G.

"On General Representations of Solutions of Linear Differential Equations of Nonstationary and Nonhomogeneous Fields With the Use of Harmonic and Analytical Functions"

V sb. Seminar. In-ta prikl. mat. Tbilis. un-t. Annotatsii dok. T. 3 (Seminar of the Institute of Applied Mathematics. Tbilisi University. Annotations of the Reports. Vol. 3), Tbilisi, 1970, pp 49-57 (from RZh-Matematika, No 5, May 71, Abstract No 5B507)

Translation: A method is indicated for obtaining general expressions of certain classes of solutions of linear differential equations of some basic, nonstationary, nonhomogeneous, isotropic physical fields by using harmonic and analytical functions under certain conditions relative to variable coefficients, the absolute terms of these equations, and the regions where these equations are considered. Author's resume.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

Industrial

UDC:621.791.75

USSR

BUDNIK, N.N., Engineer, IVANOV, V.V., Engineer, IVNITSKIY, B.Ya., Engineer, KRAVCHENKO, V.G., Engineer, MAGNITOV, V.S., Senior Engineer, and YAMPOLSKIY, V.M., Candidate of Technical Sciences, Docent

"A Unit for Arc Metal Surfacing in Vacuum"

Moscow, Izvestiya Vysshikh Uchebnykh Zavedeniy, Mashinostroyeniye, No 3, 1970, pp 118-121

Abstract: An SDV-7 unit for arc surfacing with Stellite in a vacuum has been designed and built at the Moscow Higher Technical School im. Bauman. The design of the unit is based on a method of welding and surfacing with nonconsumable electrode in a vacuum, developed by the above mentioned School. Stellite 7 (see Fig. 1) is melted by a DC arc burning between cathode K and the article to be surfaced A--anode. The design of the unit incorporates parts and elements of a standard welding and vacuum equipment. The basic technological specifications of the SDV-7 unit are: volume of the vacuum chamber 300 l, ultimate vacuum in the chamber $5 \cdot 10^{-4}$ mm Hg, operational vacuum $2--3 \cdot 10^{-3}$ mm Hg, time required to achieve operational vacuum 3--4 min, diameter of

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

BUDNIK, N.N. et al., Izvestiya Vysshikh Uchebnykh Zavedeniy Mashinostroyeniye, No 3, 1970, pp 118-121

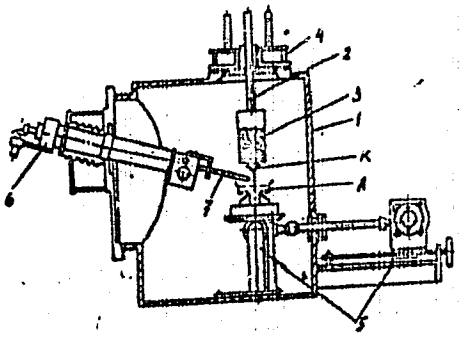

Fig. 1. Diagram of the SDV-7 metal surfacing unit

Stellite rod 6--7 mm, maximum diameter of surfaced articles 300 mm, and power input 10 kw. The unit (see Fig. 1) consists of a working

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

BUDNIK, N.N. et al., Izvestiya Vysshikh Uchebnykh Zavedeniy Mashinostroyeniye, No 3, 1970, pp 118-121

chamber of the vacuum system, welding gun with a mechanism for the vertical movement of a filler rod (Stellite), mechanism for rotating and longitudinal movement of the surfaced part, control panel, and power supply for the welding arc. The vacuum chamber, made of [illegible] 6 mm thick, is reinforced with V-shaped [illegible] power supply [illegible] 6 mm thick, is reinforced with V-shaped 1Kh18N9T stainless steel plate, 6 mm thick, is reinforced with V-shaped channels. Parts to be surfaced are loaded into the chamber through a hatch which seals hermetically by means of a vacuum seal and four lever clamps. The welding gun with a vertical movement mechanism, and electromagnet and electric arc supply terminals are located in the upper part of the chamber. A filler rod feeding mechanism and a valve for letting the air into the chamber are located in the side walls of the chamber. For visual observation of the surfacing process the chamber is fitted with three plastic windows, 20--25 mm thick. The vacuum system of the SDV-7 unit consists of a VN-4G preliminary vacuum pump, BN-3 high vacuum pump, vacuum shut-off valves, and connecting pipes. The degree of vacuum is controlled by VT-3 and VM-1 vacuometers. The welding gun consists of a water-cooled cathode and electromagnet 3. The electromagnet winding is made of an 8 mm copper tube. Cooling water is fed through special inlets 4 in one of the chamber's collars. The mechanism 5 for the movement of the part is

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

BUDNIK, N.N. et al., Izvestiya Vysshikh Uchebnykh Zavedeniy Mashinostroyeniye, No 3, 1970, pp 118-121

capable of moving the part longitudinally with a speed of 0 to 22 m/hr and rotate it at 0--6 RPM. The filler material feeding mechanism consists of a DC motor, reducer and feed rollers. It can hold either 6--7 mm diameter rods or a 20 mm wide strip. Smooth control of the feed rate in the 9--80 cm/min range, and reverse moving of the rod is accomplished by varying the voltage in the DC motor winding. The control panel is located right on the chamber. Welding transformer of the PS-500-type is used as an arc power supply. An industrial variant of this unit for arc surfacing of valve parts is being designed.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

Acc. Nr.: AR0106137 YE. I. MAGNITSKAYA Ref. Code: UR0000

JPRS 49937

Accuracy of GAL-OMPO-2 Gravimeter on Surface Vessel

/From: Moscow, Referativnyy Zhurnal, Geofizika, Svodnyy Tom, No 1, 1970, 1G171-DEP/

The authors evaluated the accuracy of operation of the GAL-OMPO-2 gravimeter during long-term ocean tests. The article describes the method for preparing the instrument for operation, making gravimetric measurements on a surface vessel and processing the observations. The total random observation error is determined, as well as the magnitude of the error dependent only on the gravimeter.

(Abstract: "Evaluation of the Accuracy of the GAL-OMPO-2 Gravimeter Operating on a Surface Vessel," by M. Ye. Artem'yev, E. A. Boyarskiy, V. I. Korenfel'd, Ye. I. Magnitskaya and V. A. Tulin; Moscow, Morsk. Avtomatizir. Gravimetr i yego Rabota, 1969, pp 141-161)

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Reel/Frame
19881362

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

1/2 007 UNCLASSIFIED PROCESSING DATE--27NOV70

TITLE--PROBLEM OF PHASE TRANSITIONS IN THE UPPER MANTLE AND ITS CONNECTION WITH THE EARTH'S CRUSTAL STRUCTURE -U-

AUTHOR-(02)-MAGNITSKY, V.A., KALASHNIKOVA, I.V.

COUNTRY OF INFO--USSR

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SOURCE--J. GEOPHYS. RES. (USA), VOL. 75, NO. 5, P. 877-85 (10 FEB. 1970)

DATE PUBLISHED--------70

SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY

TOPIC TAGS--UPPER MANTLE, EARTH CRUST, VERTICAL EARTH CRUST MOVEMENT, ASTHENOSPHERE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3007/1081 STEP NO--US/0000/70/075/005/0877/0885

CIRC ACCESSION NO--AP0136501

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

2/2 007 UNCLASSIFIED PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0136501

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. PHASE TRANSFORMATIONS IN THE UPPER MANTLE COULD BE CONSIDERED AS THE CAUSE OF RECENT VERTICAL CRUSTAL MOVEMENTS. USING DATA OBTAINED IN HIGH PRESSURE EXPERIMENTS, CALCULATIONS JUSTIFY SUCH AN ASSUMPTION. THE OSCILLATORY CHARACTER OF MOVEMENTS WITH PERIODS 10 PRIME4-10 PRIME5 YEARS IS EXPLAINED BY THE DECOUPLING EFFECT OF AN ASTHENOSPHERE LAYER WITH LOW VELOCITY.

FACILITY: MOSCOW STATE UNIV., USSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002201910004-2

Receivers and Transmitters

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"Low-Noise Input Circuits Of Microwave Receiving Devices"

Maloshumyashchiye vkhodnyye tsepi SVCh priyemnykh ustroystv (cf English above), Moscow, Izd. "Svyaz'," 1971, 280 pp, ill. 1 r 25 k.

Abstract: In the book an analysis is presented of various types of low-noise broad-band microwave amplifiers, also including the integrated type (transistorized amplifiers, amplifiers based on tunnel diodes, semiconductor parametric amplifiers, and others). The technological principles for creation of microwave integrated circuits are considered, and a computation is made of transmitting lines and various microwave devices of the integrated type. The most completely illuminated problems are connected with the construction and calculation of semiconductor parametric amplifiers. Most attention is paid to methods of synthesis of corrective networks and to methods of machine calculation of semiconductor parametric amplifiers and to optimization of their frequency characteristics. The book is intended for a wide circle of specialists occuped with planning, design, and construction of low-noise input circuits of the microwave band.

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