

USSR

UDC 669.15.74

SAMOKHVAL, V. V., and VECHER, A. A., Minsk

"Thermodynamic Properties of Hard Al-Mn Alloys"

Moscow, IAN SSSR, Metally, No 2, Mar-Apr 71, pp 75-77

Abstract: The authors earlier demonstrated the possibility of measurement of the thermodynamic properties of aluminum alloys by the emf method using galvanic elements with calcium fluoride as the electrolyte. This method is used in this work to study the thermodynamic properties of the Al-Mn system in the 0-70 at. % Al concentration range at temperatures of 933-1040°K. The integral free Gibbs energy, enthalpy, and entropy of formation of alloys of liquid aluminum and  $\beta$  Mn at 980°K are calculated.

1/1

1/2 017

UNCLASSIFIED

PROCESSING DATE--30OCT70

TITLE--EVALUATION OF THE NATURE OF THE CONDUCTIVITY OF SOLID OXYGEN ANION  
ELECTROLYTES USABLE IN THERMODYNAMIC STUDIES --(1)-

AUTHOR--(02)--VECHER, D.V., VECHER, A.A.

COUNTRY OF INFO--USSR

SOURCE--VESTSI AKAD. NAVUK BELARUS. SSR, SER. KHIM. NAVUK 1970, (1),  
113-15

DATE PUBLISHED--70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--SOLID ELECTROLYTE, METAL OXIDE, OXYGEN, PARTIAL PRESSURE,  
THERMODYNAMIC CALCULATION, CRYSTAL ELECTRIC CONDUCTIVITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRA--2000/1140

STEP NO--UR/0419/70/000/001/0113/0115

CIRC ACCESSION NO--AP0124795

UNCLASSIFIED

2/2 017

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0124795

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE IONIC TRANSFERENCE NO. (T  
 SUB1) OF A SOLID ELECTROLYTE (ZRO SUB2, THO SUB2, ZRO SUB2-CAO, THO  
 SUB2-LAO SUB1.5, THO SUB2-YO SUB1.5) WAS CALCD. BY THE EQUATION T SUB1  
 EQUALS SIGMA SUB1--SIGMA SUB1 PLUS SIGMA SUBE), WHERE SIGMA SUB1 AND  
 SIGMA SUBE ARE IONIC AND ELECTRONIC CONDS., RESP. THE T SUB1 OF 0.85ZRO  
 SUB2-0.15CAO AT 1410-610DEGREE5K IS 0.995-0.974; WHERE TOTAL (IONIC AND  
 ELECTRONIC) TRANSFERENCE NO. IS UNITY. THE THERMODYNAMIC EQUATION, LOG  
 P SUBE EQUALS (MINUS 67,000-T) PLUS 19.5, DERIVED BY V. AND V. (1968),  
 WAS USED FOR CALCN. OF P SUBE, THE PARTIAL PRESSURE OF O ABOVE THE SOLID  
 ELECTROLYTE AT WHICH SIGMA SUB1 EQUALS SIGMA SUBE. AT 1000DEGREES, LOG  
 P SUBE FOR THO SUB2 OR ZRO SUB2 WAS MINUS 33.1.  
 BELORUSS. GOS. UNIV. IM. LENINA, MINSK, USSR. FACILITY:

UNCLASSIFIED

1/2 033 UNCLASSIFIED PROCESSING DATE--16OCT70  
TITLE--THERMODYNAMIC PROPERTIES OF ALLOYS OF TITANIUM WITH ALUMINUM -U-  
AUTHOR--(02)-SAMOKHVAL, V.V., VECHER, A.A. ✓  
COUNTRY OF INFO--USSR  
SOURCE--AKADEMIIA NAUK BSSR, DOKLADY, VOL. 14, FEB. 1970, P. 119-121.  
DATE PUBLISHED-----70  
SUBJECT AREAS--MATERIALS, CHEMISTRY  
TOPIC TAGS--THERMODYNAMIC PROPERTY, TITANIUM ALLOY, ALUMINUM CONTAINING  
ALLOY, CALCIUM FLUORIDE  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAME--1996/0982 STEP NO--UR/0250/70/014/000/0119/0121  
CIRC ACCESSION NO--AT0118147  
UNCLASSIFIED

2/2 033

UNCLASSIFIED

PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AT0118147

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DERIVATION OF THERMODYNAMIC DATA FOR THE REACTION OF THE FORMATION OF ALLOYS OF TITANIUM WITH ALUMINUM FROM COMPONENTS IN THE COMPOSITION RANGE FROM 0 TO 50 AT. PERCENT ALUMINUM. THESE DATA ARE OBTAINED ON THE BASIS OF MEASUREMENTS OF THE EMF OF GALVANIC CELLS WITH A SOLID ELECTROLYTE (CALCIUM FLUORIDE) IN THE TEMPERATURE RANGE FROM 890 TO 1010 K. THE RESULTS OF THIS STUDY ARE SHOWN TO CONFIRM THE PRESENCE OF ORDERING IN THE COMPOSITION OF Ti3Al AND THE EXISTENCE OF A TWO PHASE REGION BETWEEN 12.6 AND 22.4 AT. PERCENT ALUMINUM AT TEMPERATURES IN THE NEIGHBORHOOD OF 660 C.  
FACILITY: BELDRUSSKII GOSUDARSTEVNYYI UNIVERSITET, MINSK, BELOURSSIAN SSR.

UNCLASSIFIED

1/2 011 UNCLASSIFIED PROCESSING DATE--04DEC70  
TITLE--DIFFERENCES IN SOME BIOCHEMICAL INDEXES IN DI AND TETRAPLOID SUGAR  
BEETS -U-  
AUTHOR-(03)-VECHER, A.S., TROITSKAYA, T.M., MASNYI, M.N.  
COUNTRY OF INFO--USSR ✓  
SOURCE--VESTSI AKAD. NAVUK BELARUS. SSR, SER. BIYAL. ANVUK 1970, (1), 24-9  
DATE PUBLISHED-----70  
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES  
TOPIC TAGS--AGRICULTURE CROP, SUCROSE, PLANT GENETICS, CHLOROPLAST, CELL  
PHYSIOLOGY, TRACE ELEMENT  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRA--3003/1150 STEP NO--UR/0440/70/000/001/0024/0029  
CIRC ACCESSION NO--AP0130178  
UNCLASSIFIED

2/2 011

UNCLASSIFIED

PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0130178

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CHLOROPL. A AND B CONTENT OF LEAVES OF YOUNG TETRAPLOID SUGAR BEETS WAS LESS THAN THAT OF DIPLOID PLANTS BUT IT INCREASED WITH AGE AND FINALLY EXCEEDED THE LATTER. THE CHLOROPHYLL CONTENT PER UNIT WT. OF CHLOROPLASTS WAS HIGHER IN THE FORMER THAN IN THE LATTER. DIFFERENCES WERE ALSO FOUND IN FIXATION OF MANY MINERAL ELEMENTS (FE, MN, CU, ZN, NI, MO). FACILITY: INST. EKSP. BOT., MINSK, USSR.

UNCLASSIFIED

1/2 017 UNCLASSIFIED PROCESSING DATE--30OCT70  
TITLE--EVALUATION OF THE NATURE OF THE CONDUCTIVITY OF SOLID OXYGEN ANION  
ELECTROLYTES USABLE IN THERMODYNAMIC STUDIES --U-  
AUTHOR--(02)--VECHER, D.V., VECHER, A.A.  
COUNTRY OF INFO--USSR  
SOURCE--VESTSI AKAD. NAVUK BELARUS. SSR, SER. KHIM. NAVUK 1970, (1),  
113-15  
DATE PUBLISHED--70  
SUBJECT AREAS--PHYSICS  
TOPIC TAGS--SOLID ELECTROLYTE, METAL OXIDE, OXYGEN, PARTIAL PRESSURE,  
THERMODYNAMIC CALCULATION, CRYSTAL ELECTRIC CONDUCTIVITY  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAME--2000/1140 STEP NO--UR/0419/70/000/001/0113/0115  
CIRC ACCESSION NO--AP0124795  
UNCLASSIFIED



2/2 017

UNCLASSIFIED

PROCESSING DATE—30OCT70

CIRC ACCESSION NO--AP0124795

ABSTRACT/EXTRACT—(U) GP-0- ABSTRACT. THE IONIC TRANSFERENCE NO. ( $t_{\text{SUB1}}$ ) OF A SOLID ELECTROLYTE (ZRO SUB2, THO SUB2, ZRO SUB2-CAO, THO SUB2-LAO SUB1.5, THO SUB2-YO SUB1.5) WAS CALCD. BY THE EQUATION  $t_{\text{SUB1}} = \frac{\sigma_{\text{SUB1}}}{\sigma_{\text{SUB1}} + \sigma_{\text{SUBE}}}$ , WHERE  $\sigma_{\text{SUB1}}$  AND  $\sigma_{\text{SUBE}}$  ARE IONIC AND ELECTRONIC CONDS., RESP. THE  $t_{\text{SUB1}}$  OF 0.85ZRO SUB2-0.15CAO AT 1410-610DEGREEK IS 0.995-0.974; WHERE TOTAL (IONIC AND ELECTRONIC) TRANSFERENCE NO. IS UNITY. THE THERMODYNAMIC EQUATION,  $\log P_{\text{SUBE}} = \text{MINUS } 67,000 - T \text{ PLUS } 19.5$ , DERIVED BY V. AND V. (1968), WAS USED FOR CALCN. OF  $P_{\text{SUBE}}$ , THE PARTIAL PRESSURE OF O ABOVE THE SOLID ELECTROLYTE AT WHICH  $\sigma_{\text{SUB1}}$  EQUALS  $\sigma_{\text{SUBE}}$ . AT 1000DEGREES,  $\log P_{\text{SUBE}}$  FOR THO SUB2 OR ZRO SUB2 WAS MINUS 33.1. FACILITY: BELORUSS. GOS. UNIV. IM. LENINA, MINSK, USSR.

UNCLASSIFIED

021  
 TITLE--THERMODYNAMIC PROPERTIES OF A SILVER, CADMIUM, ANTIMONY, N SUBAG  
 DOUBLE BOND N SUBSB EQUALS 1:1, TERNARY SYSTEM -U-  
 AUTHOR--(02)-VECHER, R.A., TUMASH, A.S.  
 COUNTRY OF INFO--USSR  
 SOURCE--ZH. FIZ. KHIM. 1970, 44(4), 1097-9  
 DATE PUBLISHED-----70  
 SUBJECT AREAS--CHEMISTRY, MATERIALS  
 TOPIC TAGS--SILVER, CADMIUM, ANTIMONY, ENTHALPY, ENTROPY, TERNARY ALLOY  
 CONTROL MARKING--NO RESTRICTIONS  
 DOCUMENT CLASS--UNCLASSIFIED  
 PROXY REEL/FRAE--3004/0899  
 CIRC ACCESSION NO--AP0131485  
 UNCLASSIFIED  
 TEP NO--UR/0057/70/044/004/1097/1099

2/2 021

CIRC ACCESSION NO--AP0131485  
ABSTRACT/EXTRACT--(U) GP-0-

UNCLASSIFIED

PROCESSING DATE--04DEC70

ABSTRACT. THE EXCESS FUNCTIONS DELTAH  
PRIMEEX, DELTA S PRIMEEX, AND DELTA G PRIMEEX IN AG-CD-SB MELTS WERE DETD.  
AT 810DEGREESK AND PLOTTED AGAINST N SUBCD (AT. CONC.N.) WHICH WAS VARIED  
FROM 0.08 TO 0.75. THE DELTA G PRIMEEX AND THE ACTIVITY OF CD IN THE  
MELTS SHOWED A NEG. DEVIATION FROM IDEAL BEHAVIOR WITH A MAX. IN THE  
REGION 0.2-0.6 N SUBCD. THIS IS ACCOUNTED FOR BY THE PRESENCE OF  
STRUCTURAL GROUPS OF THE TYPE CDSB. FACILITY: BELORUSS. GGS.  
UNIV. IM. LENINA, MINSK, USSR.

UNCLASSIFIED

USSR

UDC: 621.373.8

VECHKANOV, G. P.

"Correction of Dynamic Errors in Quantizing Phase by Parametric Emission"

Tr. Kuybyshev. aviats. in-t (Works of Kuybyshev Aviation Institute), 1970, vyp. 44, pp 107-113 (from RZh-Radiotekhnika, No 6, Jun 71, Abstract No 6D151)

Translation: As a result of analysis of the differential equation of a parametric oscillator with linear capacitance of the PN junction, a circuit is proposed for correcting the dynamic errors of the oscillator which arise when the frequency of the phasing signal differs from half the pumping frequency. The phasing signal is parallel fed to the parametric oscillator and to the input of a frequency detector. The correcting voltage is sent from the output of the frequency detector to the bias circuit of the nonlinear-capacitance PN junction of the oscillator tank circuit, detuning it in proportion to the deviation of the phasing signal frequency from half the pumping frequency. It is shown that correction with the use of a linear frequency detector is possible only within a very narrow detuning range. Use of a detector with a nonlinear relationship between output voltage and frequency may appreciably extend the range of satisfactory correction. Bibliography of three titles. Yu. B.

1/1

USSR

UDC: 547.944/945

BAN'KOVSKAYA, A. N., SHEYCHENKO, V. I., BAN'KOVSKIY, A. I., VECHKANOVA, L. D.,  
KABANOV, V. S., All Union Scientific Research Institute of Medicinal Plants

"Ergovalide -- a New Alkaloid From Ergot Spurs"

Tashkent, Khimiya Prirodnykh Soyedineniy, No 1, 1973, p 134

Abstract: Paper chromatography was used to isolate a new alkaloid from ergot spurs. The base has empirical formula  $C_{21}H_{26}O_2N_4$ , a melting point of 152.2-154°C (from methanol),  $[α]_D^{20}$  80.8°C (c 0.47; chloroform), M 366 (mass spectrometrically determined), and has been named "ergovalide". Chemical, UV, NMR and mass spectral analysis suggest that the base has the structure of N lysergylvalylamide.

1/1

USSR

UDC 543.062:547.94:633.88

VECHKANOVA, L. D., BAN'KOVSKIY, A. I., BAN'KOVSKAYA, A. N., All-Union Scientific Research Institute of Medicinal Plants

"Method of Quantitative Analysis of Ergometrine in Ergot Spurs"

Tashkent, Khimiya Prirodnikh Soyedineniy, No 4, 1972, pp 483-487

Abstract: Results are presented from studies connected with the development of a method of quantitative analysis of ergometrine in spurs of ergot of the ergometrine strain of VILR (All-Union Scientific Research Institute of Medicinal Plants) breeding which is the basic raw material for obtaining ergometrine. Primary consideration was given to studying the conditions of extracting the ergometrine from the raw material, its chromatography and removal from the sorbent. The method provides for fat extraction from the ground ergot spurs using petroleum ether as was described for ergotamine (A. N. Ban'kovskaya, et al., Med. prom. SSSR, No 4, 42, 1964). Diethyl ether in a 1:20 ratio was used to extract the total alkaloids from the raw material. The alkaloids were extracted with continuous mixing for 2 hours. Both paper and thin-layer chromatographic techniques are described.

1/1

USSR

UDC: 547.945.1

BAN'KOVSKAYA, A. N., VECHKANOVA, L. D., and BAN'KOVSKIY, A. I., All-Union Scientific Research Institute of Medicinal Plants, Bittsa, Ministry of Health USSR

"Composition of Alkaloids From Ergot of Ergometrinic Strain Spores"

Tashkent, Khimiya Prirodnikh Soyedineniy, No 3, 1970, pp 381-382

Abstract: Ergot of ergometrinic strain spores is studied as to its alkaloid composition. Alkaloids were extracted from ground ergot with dichloroethane, from which they were exhaustively removed with a solution of tartaric acid. Bases were extracted from tartaric extracts with chloroform after alkalization with ammonia. Upon standing in the cold, white crystals with m. p. 159-160° were isolated (from methylethyketone and ethylacetate) of composition  $C_{19}H_{23}O_2N_2$ . The base dissolves readily in methanol, ethanol, acetone, moderately so in benzene and water; it forms a chlorohydrate with m. p. 175° (decomposes). From composition, melting point of the compound and its salts, test of mixing with reliable sample, and infrared spectrum it was identified as ergometrine.

1/1

- 5 -

USSR

UDC: 621.372.832

VECHKANOVA, R. A., CHEKINA, A. S.

"Waveguide Directional Couplers With Strong Coupling at the Wide Wall"

Tr. Kuybyshev. aviats. in-t (Works of the Kuybyshve Aviation Institute),  
1970, vyp. 44, pp 65-68 (from RZh-Radiotekhnika, No 6, Jun 71, Abstract  
No 6B168)

Translation: Various versions of couplers with coupling at the wide wall  
are considered. Cross-coupling attenuation is analyzed as a function of  
displacement of the coupling aperture relative to the wide wall and the  
dimensions of the aperture. It is noted that computational results agree  
satisfactorily with experimental data. Three illustrations, bibliography  
of four titles. N. S.

1/1

- 163 -



USSR

UDC: 51:155.001.57:681.3.06

VECHKIS, A. S., KEMESHIS, P. P.

"Some Statistical Relations in Recognition of a Limited Set of Words"

V sb. Avtomatika i vychisl. tekhn. (Automation and Computer Technology--  
collection of works), Vil'nyus, "Mintis", 1971, pp 131-137 (from RZh-  
-Kibernetika, No 12, Dec 71, Abstract No 12V1021)

Translation: The experimental results which are presented show that it  
is advisable to use probabilistic methods for recognizing a limited set  
of words (speech signal envelopes) since speech patterns intersect strongly  
in the tag space. Authors' abstract.

1/1

- 95 -

USSR

UDC 531.1

VECHTOMOV, V. M., Moscow

"Thermal Drift of a Floated Ball Gyroscope"

Moscow, Mekhanika tverdogo tela, No. 2, Mar/Apr 72, pp 9-16

Abstract: A floating gyroscope of spherical shape with a small gap of variable thickness and enclosed in a reservoir filled with viscous liquid is studied. The chamber is kept in a fixed position relative to the reservoir (although in actual gyros the restriction relative to linear displacements of the float and the external reservoir shell is achieved through a centering device and relative to angular displacements is achieved with servosystems or angular correction systems). Convection currents arise if the steady-state temperature field in the device is nonhomogeneous due to nonhomogeneity of the density field of the liquid and hence a dragging moment which acts on the float, which causes drift of the gyroscope. Previous studies discussed the perturbing effect produced on the cylindrical chamber of a two-stage floated gyroscope or accelerometer by a freely convecting supporting liquid. The perturbing moment relative to the axis of suspension of the float was determined on the basis of a solution of the one-dimensional gyrodynamic problem

1/2

USSR

VECHTOMOV, V. M., Mekhanika tverdogo tela, No. 2, Mar/Apr 72, pp 9-16

of a thin layer. This article discusses a similar problem as applied to a spherical floated gyroscope. The two-dimensional problem of free convection of the supporting liquid is solved for the case when the temperature field of the liquid is an arbitrary function in spherical coordinates. A sample calculation of the components of the drift rate of a particular gyroscope is given.

2/2

- 113 -

USSR

UDC 621.357.3.035.2

GRAMM-OSIPOVA, V. N., and VECHVRA, L. V.

"Electrochemical and Catalytic Reactions of Platinum Copper Electrodes  
Relative to the Hydrogen Overvoltage"

Nekotoryye problemy kinetiki elektrodovostok, (English Version Above), Topic  
Books from the Dal'nevost University, Vladivostok, 1972, pp 28-32 (from  
Referativnyy Zhurnal -- Khimiya, No 8(II), 1973, Abstract No 8L269 by V. V.  
Grinina)

Translation: The electrocatalytic and catalytic properties of high-surface-  
area platinum-copper electrodes for different concentrations of copper were  
studied as an example of the reduction reaction of maleic acid. It was shown  
that the relationship of the rate of the electrochemical catalytic reaction  
was related to the copper content is a singular function and passes through  
a maximum at 62% copper. The overvoltage of the hydrogen was monotonically  
related to the concentration of copper. It was assumed that the activity of  
the platinum-copper precipitates relative to the catalytic and electrochemical  
reduction for the hydrogen overvoltage was related to the electron structure  
of the electrode. Both processes actually occur according to the general  
mechanism.

1/1

1/2 007

UNCLASSIFIED

PROCESSING DATE--23OCT70

TITLE--ROLE OF ELECTRICAL DOUBLE LAYER IN THE SETTING OF SLAG PORTLAND CEMENT -U-

AUTHOR--(05)-VED. E.I., BAKLANOV, G.M., ZHAROV, E.F., NITCHENKO, V.S., SIDOROVA, T.A.

COUNTRY OF INFO--USSR

SOURCE--BUDICEL'NI MATER. KONSTR. 1970, (1), 31-2

DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--CEMENT, CALCIUM CHLORIDE, COHESION STRENGTH

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1995/1478

STEP NO--UR/0635/70/000/001/0031/0032

CIRC ACCESSION NO--AP0116915

UNCLASSIFIED

2/2 007

UNCLASSIFIED

PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0116915

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SETTING PROCESS IS EXPLAINED IN TERMS OF THE SHAPE OF THE ZETA POTENTIAL CURVES. ADDN. OF SMALL AMTS. OF CACL SUB2 CAUSES SHARP DROP IN ZETA POTENTIAL, INDICATING COMPRESSION OF ELEC. DOUBLE LAYER AND LIMITED MIGRATION OF NEG. CHARGED OH AND CL IONS. RISE IN ZETA POTENTIAL WITH INCREASING ADDN. OF CACL SUB2 INCREASES IN DIFFUSION REGION OF ELEC. DOUBLE LAYER OF NEG. CHARGED OH AND CL IONS AND ACCELERATION IN SETTING. COHESION FORCES RISE AND STRENGTH INCREASES.

UNCLASSIFIED

USSR

UDC: 661.143

KOVALEV, B. V., SHIKUNOVA, S. T., VEDEKHIN, A. F.

"On an Accelerated Method of Determining the Drop in Luminescence Brightness of Electrofluorescent Scopes"

Sb. nauch. tr. VNI lyuminoforov i osobo chist. veshchestv (Collected Scientific Works of the All-Union Scientific Research Institute of Phosphors and Extra Pure Materials), 1971, vyp. 5, pp 98-107 (from RZh-Khimiya, No 7, Apr 72, Abstract No 7L176)

Translation: An accelerated procedure is proposed for determining the operating time of electroluminescent scopes on a frequency of 400 Hz over a relatively short period with high precision. Resumé.

1/1

USSR

UDC: 661.143

KOVALEV, B. A., VEDEKHIN, A. F., SHIKUNOVA, S. T.

"Investigation of the Effect of the Reflecting Layer on the Characteristics of Low-Voltage Electroluminescent Devices"

Sb. nauch. tr. VNII lyuminoforov i osobo chist. veshchestv (Collected Scientific Works of the All-Union Scientific Research Institute of Phosphors and Extra Pure Materials), 1971, vyp. 5 pp 207-209 (from RZh-Khimiya, No 7, Apr 72, Abstract No 7L182)

Translation:  $TiO_2$  and barium titanate  $BaTiO_3$  are used in combination with VS-530 dielectric lacquer binder as materials for a reflecting layer. These materials with high permittivity increase the brightness of electroluminescent devices when the weight ratio of the material of the reflecting layer to the dielectric binder is (3-4):1. Resumé.

1/1



USSR

UDC: 661.143

KOVALEV, B. A., VEDEKHIN, A. F., SHIKUNOVA, S. T., KHAYDANKOVA, A. K.  
"Concerning the Question of the Possibility of Developing Low-Voltage  
Electroluminescent Capacitors"

Sb. nauch. tr. VNII lyuminoforov i osobo chist. veshchestv (Col-  
lected Scientific Works of the All-Union Scientific Research  
Institute of Phosphors and Extra Pure Materials), 1971, vyp. 5,  
pp 83-92 (from RZh-Khimiya, No 7, Apr 72, Abstract No 7L181)

Translation: The authors consider the feasibility of making low-voltage powder  
electroluminescent devices. A study is made of the effect which the thickness  
of the luminescent layer, the filling of the luminescent composition in the  
dielectric and the permittivity of the material in the reflecting layer have  
on the distribution of voltage between the reflecting and luminescent layers.  
It is shown on the example of a blue electroluminescent device that a bright-  
ness of 11-12 nits can be produced at a voltage of 50 V and a frequency of 400  
Hz when the thickness of the luminescent layer is 10-13 microns, the weight  
ratio of luminescent composition to dielectric is 3 to 1, the effective permit-  
tivity of the reflecting layer is 600 or more, and the thickness of the  
reflecting layer is 7-20 microns. Test results are presented for experimental  
CRT models. Bibliography of 6 titles. Resumé.

1/1

USSR

UDC 621.314.14 (088.8)

VEDENEYEV, G.M.

"Static D-C To A-C Voltage Converter"

USSR Author's Certificate No 262251, filed 16 Jan 63, published 28 May 70 (from RZh--Elektronika i yeye primeneniye, No 12, December 1970, Abstract No 12B536P)

Translation: The defect of static converters of d-c voltage into a-c, constructed on the basis of transistors, the base circuits of which are connected to the transformer winding of a master oscillator, consists in the possibility of simultaneous conductance of both transistors. In order to increase reliability, choke coils and shunted semiconductor diodes are connected to the base circuits of the transistors, while the cathodes of the semiconductor diodes are connected to the transistor bases. The choke coils are made on coils, the material of which has a rectangular hysteresis loop. The presence of the choke coils eliminates the possibility of simultaneous conductance of the two transistors of a converter. 1 ill. V.Sh.

1/1

VEDENEYEV I.M.

Acc. Nr.: AN0104123

Ref. Code: UR 9003

TITLE-- ANNOUNCEMENT OF THE COMMITTEE ON LENIN AND STATE PRIZES, U.S.S.R.

49

NEWSPAPER-- IZVESTIYA, MAY 28, 1970, P 4, COLS 1-5

ABSTRACT-- NINETY ONE BASIC AND APPLIED RESEARCH WORKS HAVE BEEN NOMINATED FOR THE STATE PRIZES. TWO OF THESE, "THE MULTI-PURPOSE INDUSTRIAL HELICOPTER KA-26", BY N. I. KAMOV, V. B. ALPEROVICH, V. B. BARSHEVSKIY, A. A. DMITRIYEV, G. I. IOFFE, M. A. KUPFER, L. A. POTASHNIK, N. N. PRIPOV, A. G. SATAROV, I. M. VEDENEYEV, S. B. BREN, AND V. A. NAZAROV, AND "THE DEVELOPMENT OF TURBOFAN JET ENGINES NK-8 AND NK-8-4, AND THE DEVELOPMENT AND REDUCTION TO SERIAL PRODUCTION A SYSTEM OF TECHNOLOGICAL PROCESSES WHICH ASSURED WIDE USES FOR TITANIUM ALLOYS", BY N. D. KUZNETSOV, M. T. VASILISHIN, V. A. KURGANOV, P. M. MARKIN, V. D. RADCHENKO, P. A. SUKHOV, A. A. MUKHIN, V. G. SHITOV, G. I. MUSHENKO, L. A. SHKOD, AND G. P. DOLGOLENKO, HAVE BEEN SUBMITTED BY THE MINISTRY OF THE AVIATION INDUSTRY.

1/2

Reel/Frame  
19870555

#

Acc. Nr.: AN0104123

"A SERIES OF INVESTIGATIONS INTO THE DYNAMICS OF A BODY WITH FLUID-FILLED CAVITIES", /65-68/, BY N. N. MOISEYEV, A. A. PETROV, V. V. RUMYANTSEV AND F. L. CHERNOUS, KO AND "ULTRA HIGH PRECISION JIG BORING MILLS WITH 1,000 X 1,600 AND 1,400 X 2,240 MM PLATENS", BY A. I. KIR, YANOV, V. G. ABRAMOVICH, I. V. GUTKIN, A. S. ALIMPIYEV, G. B. PAUKOV, AND A. S. YEGUDKIN, HAVE BEEN SUBMITTED BY THE COMPUTATION CENTER OF THE ACADEMY OF SCIENCES AND THE MINISTRY OF THE MACHINE TOOL CONSTRUCTION AND TOOL INDUSTRY, RESPECTIVELY.

"THE RADICALLY IMPROVED MELTING TECHNOLOGY OF CRITICAL-PURPOSE HIGH-ALLOY STEELS AND ALLOYS OF IMPROVED QUALITY ACHIEVED BY THE INERT GAS TREATMENT OUTSIDE THE FURNACE", BY YU. V. GERASIMOV, O. M. CHEKHOMOV, N. V. SIDOROV, S. K. FILATOV, B. A. CHEREMNYKH, R. M. KHAYRUTDINOV, I. P. BARMOTIN, L. K. KOSYREV, K. P. BAKANOV, N. N. VLASOV, P. I. MELIKHOV, AND N. A. TULIN, HAS BEEN SUBMITTED BY THE ZLATOUST METALLURGICAL PLANT.

2/2

Reel/Frame  
19870556

KZ

USSR

UDC 536.46

VEDENEYEV, V. I., GERSHENZON, YU. M., SARKISOV, O. M., Moscow

"Upper Limit of Spontaneous Combustion of Hydrogen with Oxygen"

Novosibirsk, Fizika gorennya i vzryva, Vol 8, No 3, 1972, pp 403-408

Abstract: A study was made of the basic experimental laws with respect to the upper limit of spontaneous combustion beginning with the mechanism including only the reaction of O and H atoms and the OH, HO<sub>2</sub> radicals. The chemical formulas and mathematical descriptions are presented for these reactions. A study is then made of the combustion limit for vessels with an active surface, for example, KCl. The proposed kinetic system both qualitatively and quantitatively describes the existing experimental data with respect to the second limit of combustion of hydrogen with oxygen as demonstrated by the fact that the values of the constants of the elementary stages do not contradict the published data. A brief survey of experimental facts and data is presented in support of the developed laws.

1/1

- 68 -

Combustion

USSR

UDC 541.126.2,546.16:546.11.022

BULATOV, V. P., ~~VEDENEV, V. I.~~, GERSHENZON, YU. M., DEZENT'YEV, A. P., and SARKISOV, O. M., Institute of Chemical Physics, Academy of Sciences USSR

"The Non-Linear Mechanism of Spontaneous Combustion in the Reaction Between Fluorine and Deuterium"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, No 3, 1972, pp 557-559

Abstract: Previously it had been determined from the isothermal spontaneous combustion of phosphorus in fluorine that the vibrationally-excited deuterium molecules bring about branching in this reaction. In this study, the influence of the external initiation of active centers in the limit of the spontaneous combustion reaction between fluorine and deuterium is determined. The reaction mixture was composed of  $O_2, D_2, F_2$  in the ratio of 5.5:1:1 at a pressure of 1 torr. A plot of the rate of radical accumulation as a function of temperature shows an abrupt change at  $T = 590^{\circ}K$ . Increasing in reaction time 2.7-fold did not significantly change the disruption temperature. The value of  $T$  decreased with increasing partial pressure of fluorine at a constant total pressure, and also with an increase in the total pressure, and increased on addition of small amounts of  $CO_2$ . Previously it had been shown that the

1/2

USSR

BULATOV, V. P., et al., Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, No 3, 1972, pp 557-559

contributions of the nonlinear phases are essentially related to the experimental conditions determining the competition of the rates of branching according to the following paths -- (1)  $D_2(v = 1) + F_2 = D + DF + F$ ; and (2)  $D_2(v > 1) + F_2 = D + DF + F$  -- by the ratio of the constants  $k_2/k_1 \approx \exp 9000/RT$  and that of  $[D_2](v > 1)/[D_2](v = 1)$ . It was concluded that the lower limit of spontaneous combustion  $F_2 + D_2$  is related to the rate of production of active centers. The expansion of the region in which this reaction occurs on external initiation confirms the nonlinear mechanism of branching presented above.

2/2

- 3 -

1/2 018 UNCLASSIFIED PROCESSING DATE--27NOV70  
TITLE--MECHANISM OF THE DEHYDROGENATION OF ISOPENTANE BY IODINE IN THE  
PRESENCE OF OXYGEN -U-  
AUTHOR--(05)-ADELSON, S.V., ADELSONVELSKIY, G.M., VEDENEYEV, V.I.,  
KATSNELSON, I.G., NIKONOV, V.I.  
COUNTRY OF INFO--USSR  
SOURCE--DOKL. AKAD. N-UK SSSR 1970, 192(3), 594-7  
DATE PUBLISHED-----70  
SUBJECT AREAS--CHEMISTRY  
TOPIC TAGS--DEHYDROGENATION, ISOPENTANE, IODINE, OXYGEN, CHEMICAL REACTION  
RATE, KINETIC EQUATION, ISOPRENE, CHEMICAL REACTION MECHANISM  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAE--3004/1865 STEP NO--UR/0020/70/192/003/0594/0597  
CIRC ACCESSION NO--AT0132127  
UNCLASSIFIED



2/2 018

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AT0132127

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. KINETIC DATA WERE TABULATED FOR FOR REACTION RATED AND RATE CONSTS. IN THE DEHYDROGENATION OF ISOPENTANE BY IODINE IN THE PRESENCE OF O AT 500DEGREES. IN ALL, 19 REACTION STEPS WERE REPRESENTED BY APPROPRIATE KINETIC EQUATIONS AND THEIR THERMODYNAMIC CHARACTERISTICS WERE TABULATED FROM COMPUTER ANAL., USING EXISTING LITERATURE DATA ON ACCUMULATION OF REACTION PRODUCTS. CONVERSION DATA ON ISOPRENE AND ISOPENTENE ISOMERS WERE ALSO INCLUDED IN THE ANAL. A REACTION MECHANISM WAS PROPOSED. FACILITY: MOSK. INST. NEFTEKHIM. GAZOV. PROM. IM. GUBKINA, MOSCOW, USSR.

UNCLASSIFIED

1/2 015  
UNCLASSIFIED  
PROCESSING DATE--23OCT70  
TITLE--MECHANISM OF BRANCHING IN THE REACTION OF FLUORINE WITH DEUTERIUM.  
I -U-  
AUTHOR--(03)-VEDENEYEV, V.I., PROPOY, V.I., SARKISOV, O.M.  
COUNTRY OF INFO--USSR  
SOURCE--KINET. KATAL. 1970, 11(1), 36-40  
DATE PUBLISHED-----70  
SUBJECT AREAS--CHEMISTRY  
TOPIC TAGS--FLUORINE, DEUTERIUM, CHEMICAL KINETICS  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAME--1997/1462  
STEP NO--UR/0195/70/011/001/0036/0040  
CIRC ACCESSION NO--AP0120249  
UNCLASSIFIED

2/2 015

CIRC ACCESSION NO--AP0120249

UNCLASSIFIED

PROCESSING DATE--23OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE DEPENDENCE OF THE EMISSION KINETICS IN THE D SUB2, F SUB2, AR SYSTEM ON AR PRESSURE WAS STUDIED AT A TOTAL D PLUS F PRESSURE OF 0.03 TORR AND A 3:5 F:D CONC. RATIO AT 273 DEGREE SK. UP TO SIMILAR TO 50 TORR, DECAY OF AT. F AND D OCCURRED BY A HETEROGENEOUS MECHANISM PARTIALLY ON D IMPURITIES WHICH WERE INTRODUCED WITH F. THE EFFECTIVE DECAY CONST., G SUBEFF EQUALS KAPPA PRIME SUBEFF PLUS KAPPA PRIME PRIME SUBEFF (O SUB2) (AR), WHERE KAPPA PRIME SUBEFF APPROXIMATELY EQUAL TO 0.2 SEC PRIME NEGATIVE 1 AND KAPPA PRIME PRIME SUBEFF EQUALS 3 TIMES 10 PRIME NEGATIVE 32 CM PRIME 6 MOL. PRIME NEGATIVE 2 SEC PRIME NEGATIVE 1. IT IS ASSUMED THAT THE REACTION D SUB2 PLUS F SUB2 EQUALS F PLUS D IS THE BASIC CHAIN INITIATION REACTION.

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

UNCLASSIFIED

Reaction Kinetics

USSR

UDC 541.126+542.943

VEDENEYEV, V. I., GERSHENZOU, Yu. M., and SARKISOV, O. M., Institute of Chemical Physics of the Academy of Sciences of the USSR

"Chain Reaction and the Liberation of Heat Near the Lower Limit of Self Ignition of an Oxygen-Hydrogen Mixture"

Moscow, Doklady Akademii Nauk SSSR, Vol 208, No 1, 1973, pp 116-119

Abstract: The purpose of this work was to establish the effect of various nonlinear processes on the behavior of the oxygen-hydrogen reaction near the lower self ignition limit. It is found that although the experimentally defined self ignition limits in the kinetic and diffusion regions of the reaction chain termination are described by the same condition,  $\psi=0$ , the reaction kinetics in the two regions differ significantly in principle. The difference between the self ignition limit and the limit of slow reaction manifests itself in that near the self ignition limit increase of temperature of the gas mixture can change significantly the reaction kinetics.

1/1

USSR

UDC 523.164.32:621.317.757.38

VEDENEYEV, YU. B., PRYTKOV, N. M.

"Radiospectrographs in the 0.3-3 meter Range"

Moscow, Pribery i Tekhnika Eksperimenta, No 5, 1972, pp 122-124

Abstract: Two spectrographs for the 0.3-0.6 meter and 1.2-3 meter bands are described. The heterodyne method of analysis with a "zero" intermediate frequency is used. The heterodynes are adjusted mechanically for one second. The noise factor is 10-30. The spectrographs are used to record the radio wavelength emission of the sun on a radio telescope with a parabolic mirror 15 meters in diameter. Some example spectrograms are presented. The measured values of the sensitivity to the radio wavelength emission of the sun agree with the calculated results. The spectrographs are currently used to record the solar radio wavelength emission spectra at the Zimenki station.

1/1

- 174 -

USSR

UDC: 621.892.16

KULIYEV, A. M., LEVSHINA, A. M., FARZALIYEV, V. M., SULEYMANOVA, F. G., VEDENEYEVA, L. YA., NAMAZOV, I. I., and MKHITARYAN, SH. A.

"Synthesis and Investigation of Polymer Multifunctional Additives"

Prisadki k Smazochn. Maslam (Lubricating Oil Additives -- Collection of Works), No 2, pp 23-26, Baku, Academy of Sciences AzerbSSR, 1969 (from Referativnyy Zhurnal--Khimiya, No 2, 1970, Abstract No 2 P266, by E. Bukhina)

Translation: Polymer additive IKhP-361 is synthesized, with high detergent, dispersion, anticorrosion, and antioxidizing properties, on the basis of the product of the reaction (at 220-240° for 3 hours in an atmosphere of N<sub>2</sub>) of PCl<sub>5</sub> with an isobutylene copolymer with styrene, treated successively with ethylene diamine and boric acid (I). The copolymer is produced with ratios of isobutylene to styrene of 90:10, at 15-20° in the presence of the Zigler-Natt metallorganic catalyst. The ethylene diamine is added at 70-80° and the process is performed at 130°. The additive produced (after distillation of the solvent) has a molecular weight of 2000-3000; ash content 7.5%; S content 0.7-0.8%; P 3.7%; N 2.7%.

1/1

USSR

UDC 621.892.099.6

KULIYEV, A. M., LEVSHINA, A. M., ~~VEDENEYEVA, I. M.~~, FARZALIYEV, V. M.,  
SULEYMANOVA, F. G., NAMAZOV, I. I. and MKHITARYAN, SH. A.

"Synthesis and Investigation of a Sulfur- and Phosphorus-Containing Polymeric Polyfunctional Additive to Lubricating Oils"

V sb. Prasadki k smazochn. maslam (Additives to Lubricating Oils--collection of works), No 2, Baku, Azerbaydzhan SSR Academy of Sciences, 1969, pp 15-17 (from RZh-Khimiya, No 1(II), 10 Jan 70, Abstract No 1 P 258)

Translation: A copolymer of 90 parts (by weight) isobutylene and 10 parts styrene (molecular weight 500-1500) were treated with 15%  $P_2O_5$  at  $235^\circ$  for 3 hours in an  $N_2$  atmosphere. The reaction product was diluted with benzene or gasoline and washed three times with a mixture of hot water and  $Me_2CHOH$ . Then the solvent was distilled off. A mixture of 60 parts of washed reaction product and 20 parts alkylphenol was neutralized with 20 parts  $MgO$  in the presence of water and  $MeOH$  and then passed through a mixture of  $CO_2$  for 2 hours at  $80-85^\circ$  and for 2 hours at  $135^\circ$ . The neutralization product in a solution of equal volume of benzene was centrifuged and filtered, and the solvent was distilled off from filter under vacuum in an  $N_2$  stream, resulting in the additive (IChP-388) in the form of a  
1/2

USSR

KULIYEV, A. M., et al, Prisadki k smazochn. maslam, No 2, 1969, pp 15-17 (from RZh-Khimiya, No 1(II), 10 Jan 70, Abstract No 1 P 258)

transparent viscous light brown liquid. S 1.7-2.8%, p 1.6-2.5%, ash content 7.5-9%, and alkalinity 86-90 mg KOH/gram. The IKhP-388 additive (5% in D-11 petroleum oil) exhibits good anticorrosion (based on the NAMI [Central Scientific Research Institute of Automobiles and Automobile Engines] method, detergent [based on the PZV [expansion unknown] method], and antioxidation [using the Papok method] action.

A. M. Ravikovich

2/2



Corrosion

USSR

UDC 620.197(075.8)

TOMASHOV, N. D., ZHUK, N. P., TITOV, V. A., and VEDENEYEVA, M. A.

"Laboratornyye raboty po korrozii i zashchite metallov" (Laboratory Studies on Corrosion and Protection of Metals), Moscow, Izd-vo "Metallurgiya," 1971, 280 pp

Translation of Annotation: An account is given of 34 laboratory works on the course of corrosion and protection of metals. Each work contains a brief theoretical introduction, a description of equipment and work methods, and a discussion of methods of data processing. The reference data necessary for calculations and a recommended bibliography are presented at the end.

The book is intended for students at schools of higher technical education as a handbook of laboratory studies, and may be used by corrosion laboratory personnel. 72 figures, 50 tables, 10 references.

TABLE OF CONTENTS

Foreword	
Introduction	5
I. Processing and formulation of measurement data	9
II. Brief information on the use of certain apparatus	9
1/4	21

USSR

TOMASHOV, N. D., et al., "Laboratornyye raboty po korrozii i zashchite metallov" (Laboratory Studies on Corrosion and Protection of Metals), Moscow, Izd-vo "Metallurgiya," 1971, 280 pp

III. Safety measures in carrying out laboratory work 31

Part I

Chemical (Gas) Corrosion of Metals and Methods of Protection 34

Introduction 34

Work No. 1. Kinetics of metal oxidation in air 39

Work No. 2. Influence of temperature on the metal oxidation rate in air 45

Work No. 3. Heat resistance of metals and alloys in air 50

Work No. 4. Thermodiffusion coatings 53

Part II

Electrochemical Corrosion of Metals 59

2/4

USSR

TOMASHOV, N. D., et al., "Laboratornyye raboty po korrozii i zashchite metallov" (Laboratory Studies on Corrosion and Protection of Metals), Moscow, Izd-vo "Metallurgiya," 1971, 280 pp

Introduction	
Work No. 5. Electrode potential of metals	59
Work No. 6. Electrochemical heterogeneity of corroding metal surface	64
Work No. 7. Effect of alloy cathode structural components on the rate of electrochemical corrosion	73
Work No. 8. Polarization and depolarization of the working corrosion pair electrodes	82
Work No. 9. Cathode depolarization by oxygen	86
Work No. 10. Hydrogen overvoltage	94
Work No. 11. Passivity of steel	103
Work No. 12. Contact corrosion of metals	109
Work No. 13. Potentiostatic method of studying the corrosion behavior of steels	116
Work No. 14. Acid resistance of alloys	121
Work No. 15. Temperature effect on acid metal corrosion	130
	139

3/4

USSR

TOMASHOV, N. D., et al., "Laboratornyye raboty po korrozii i zashchite metallov" (Laboratory Studies on Corrosion and Protection of Metals), Moscow, Izd-vo "Metallurgiya," 1971, 280 pp

Work No. 16.	Ground (underground) corrosion of metals	143
Work No. 17.	Intercrystalline corrosion of chrome-nickel steel	152
Work No. 18.	Point corrosion of corrosion-resistant steels	160
Work No. 19.	Corrosion of welded joints	164
Work No. 20.	Corrosion of steel at constant tensile stress	171
Work No. 21.	Corrosion fatigue of metals	175
Work No. 22.	Comparative metal corrosion tests on special apparatus and installations	182

4/4

Transformation and Structure

USSR

UDC: 537.29:669.15

VEDENEYEVA, M. A., ZHUK, N. P., KRASIKOV, K. I., and MIGAY, L. L.

"Effect of the Structure of Kh18N10T Steel on Its Anodic Behavior"

Moscow, Fizika i Khimiya Obrabotki Materialov, no 6, Nov-Dec 70,  
pp 128-131

Abstract: This paper deals with the effect of the structure of Kh18N10T steel subjected to electromagnetic (maximum strain rate) and explosive forming on its anodic behavior. Hydrostatic forming (a low-rate strain) was selected for correlation with the high-rate strain types. A metallographic examination of the structure of steel deformed by various methods indicates no size reduction of the grain. There were a great number of twins in the steel following explosive and electromagnetic forming than after hydrostatic forming, which points to the contribution of twinning to the plastic flow of the material under these methods of strain. X-ray diffraction examination has shown that following either electromagnetic or explosive forming, there is a greater widening of interference lines, with an increase in deformation rate, than after hydrostatic forming.

1/2

USSR

VEDENEYEVA, M. A., et al, Fizika i Khimiya Obrabotki Materialov, no 6,  
Nov-Dec 70, pp 128-131

The analysis of the anodic polarization curves for Kh18N10T steel indicates that both the type of forming and the rate of deformation have an insignificant effect on the curve shape in both the transition and repassivation regions and have hardly any effect on the total passivity potential; however, they significantly affect the current density with the total passivity region. With an increase in deformation rate, the current density in the total passivity region in the specimens after explosive and hydrostatic forming increases; in specimens with an equal extent of deformation after hydrostatic forming, the current density in the total passivity region is much greater than that in specimens after explosive forming. It is also shown that the capacity of Kh18N10T steel to change to a passive state in  $H_2SO_4$  solutions is independent of the number of defects and the type of their distribution in the structure of the metal but does depend on the amount of the  $\alpha$ -phase, which increases the heterogeneity of the structure and impairs the protective properties of the film on steel in the passive state.

2/2

USSR

UDC 531.7+621.317

VEDERNIKOV, V. M., KIR'YANOV, V. P., KLITORIN, I. F., and KOKSHAROV, H. A.

"Principles of the Construction of Computing Devices in Laser Displacement Meters"

Novosibirsk, Avtometriya, No 3, 1973, pp 46-52

Abstract: The laser displacement meter is defined as consisting of two units -- a laser interferometer with photoelectric converters, and a computing unit -- and is used to determine dimensions, displacements, velocities, and other physical quantities. The purpose of this paper is to examine the basic principles in the construction of the computer unit in this instrument, analyze its characteristics, and determine the most typical of its areas of applicability. The analysis begins with a discussion of the basic problem in the design of this unit, which is the conversion of the interferometer's output signals into digital form, involving also the representation of the measurement results in an acceptable system of units and the introduction of corrections for the deviations from the normal measurement conditions. The basic structural set-up of the computer unit and the way it realizes its operations are also concerned.

1/1

- 81 -

Acc. Nr.: AT0046534

Ref. Code: UR0146

USSR

UDC 62-754.4

VEDENIN, V.P.

"Gyroscope Drift During Base Oscillations"

Ob ukhodakh giroskopa pri kolebaniyakh osnovaniye (cf. English above), Leningrad, Izvestiya Vysshikh Uchebnykh Zavedeniy, Priborostroyeniye, 1970, No 1, pp 90-96

Translation:

The article examines a three-degree-of-freedom astatic gyroscope mounted on a base which oscillates with large amplitudes. The relations for determining the gyro drift are obtained.

Reel/Frame  
19781795

4

di



USSR

UDC 576.809.4

SAVEL'YEVA, N. D., ZAVARZIN, G. A., and VEDENINA, I. Ya.

"Hydrogen Bacteria"

Uspekhi mikrobiologii (Advances in Microbiology), No 7, 1971

Abstract: A survey of the hydrogen bacteria, microorganisms that synthesize all the cell components from molecular hydrogen, oxygen, and carbon dioxide, is presented. It is suggested that three main species be distinguished: *Hydrogenomonas eutropha*, *H. pantotropha*, and *H. facilis*. There is a discussion of the growth characteristics of hydrogen bacteria in non-flow-type culture and of the prospects for making practical use of them.

1/1

- 85 -

1/2 017

UNCLASSIFIED

PROCESSING DATE--30OCT70

TITLE--PELIDIN IN THE COMPLEX TREATMENT OF CHRONIC NON SPECIFIC PROSTATITIS -U-

AUTHOR--(031)-VEDENKO, B.G., BELTS, YE.A., MAKARETS, K.S.

COUNTRY OF INFO--USSR

SOURCE--VRACHEBNUYE DELG, 1970, NR 6, PP 115-117

DATE PUBLISHED--70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--GLAND, REPRODUCTIVE SYSTEM, ANTIBIOTIC

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3002/1743

STEP NO--UR/0475/70/000/006/0115/0117

CIRC ACCESSION NO--AP0129111

UNCLASSIFIED

2/2 017

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0129111

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

ABSTRACT. PELOIDIN WAS COMBINED WITH ANTIBIOTICS IN THE TREATMENT OF 103 PATIENTS SUFFERING OF CHRONIC NON SPECIFIC PROSTATITIS. PELOIDIN WAS USED IN THE FORM OF MICROENEMAS 50 ML, 40DEGREESC, 10-12 PER COURSE). RECOVERY WAS SEEN IN 79.6PERCENT, IMPROVEMENT IN 16.5PERCENT, FAILURE IN 3.9PERCENT. CONTROL STUDIES IN PATIENTS NOT RECEIVING PELOIDIN SHOWED THAT INCLUSION OF PELOIDIN IN THE COMPLEX TREATMENT OF CHRONIC NON SPECIFIC PROSTATITIS HAS MAJOR ADVANTAGES.

FACILITY: UROLOGICHESKOYE OTDELENIYE Pervoy GORGDSKOY KLINICHESKOY BOL'NITSY. FACILITY: POLIKLINICHESKOYE OTDELENIYE ZHELEZNODOROZHNOY KLINICHESKOY BOL'NITSY.

UNCLASSIFIED

1/2 011

TITLE--PERIODS OF EFFECTIVENESS OF STERILE NOVOCAINE SOLUTIONS -U-  
UNCLASSIFIED PROCESSING DATE--23OCT70

AUTHOR--VEDENKO, B.G.

COUNTRY OF INFO--USSR

SOURCE--FARMATSIYA (MOSCOW) 1970, 19(1), 79-80

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--ANALGESIC DRUG, AQUEOUS SOLUTION, STERILIZATION, CHEMICAL STABILITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAME--1997/0170

STEP NO--UR/0466/70/019/001/0079/0080

CIRC ACCESSION NO--AP0119166

UNCLASSIFIED

2/2 011

UNCLASSIFIED

PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0119166

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. BOTTLES (213) CONTG. 0.25PERCENT  
NOVOCAINE SOLN., WITH RUBBER OR GLASS STOPPERS, COATED WITH PARAFFIN  
AFTER STERILIZATION WITH STEAM (30 MIN, 100DEGREES), WERE EXAMD. DAILY  
FOR STERILITY (ON GLUCOSE BROTH OR AGAR, AT 37DEGREES, 8 DAYS  
INCUBATION, AS WELL AS BY ANIMAL INOCULATION). IN NO CASE WAS  
BACTERIAL GROWTH RECORDED DURING 30 DAYS CONSERVATION. CONTROL BOTTLES  
(44) WERE NOT ALL STERILE. THE EXPTL. BOTTLES WERE USED IN MINOR  
SURGERY AND SHOWED A FULL ANESTHETIC EFFECT. REPEATED STERILIZATION OF  
NOVOCAINE SOLN. DECREASES ITS EFFECTIVENESS. FACILITY: I,  
VINNITS. GOROD. KLIN. BOL'NITSA, VINNITSY, USSR.

UNCLASSIFIED

1/2 013

UNCLASSIFIED

PROCESSING DATE--04DEC70

TITLE--MATHEMATICAL PLANNING DURING THE EPOXIDATION OF UNSATURATED  
COMPOUNDS USING UREA PEROXIDE TO OBTAIN THE MAXIMUM EPOXY NUMBER --U-  
AUTHOR--(05)-MALINOVSKIY, M.S., DUBROV, YU.I., VEDENOV, G.N., KARTSYNEL,  
M.B., SKRODSKAYA, T.S.  
COUNTRY OF INFO--USSR

SOURCE--LAKOKRASOCH. MATER. IKH PRIMEN. 1970, (2), 29-31

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--UREA DERIVATIVE, PEROXIDE, PHTHALIC ANHYDRIDE, ETHANOL,  
EPOXIDE, VEGETABLE OIL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY FICHE NO----FD70/605019/B08 STEP NO--UR/0303/70/000/002/0029/0031

CIRC ACCESSION NO--AP0140903

UNCLASSIFIED

2/2 013

UNCLASSIFIED

PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0140903

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

ABSTRACT. A REGRESSIVE EQUATION THAT OFFERED A MEANS FOR DETG. THE OPTIMUM EPOXIDN. CONDITIONS OF VEGETABLE OILS WAS DERIVED. OPTIMUM AMTS. OF UREA PEROXIDE, PHTHALIC ANHYDRIDE, AND ETOH PER DOUBLE BOND WERE 1.273, 1.213, AND 0.347 MOLES RESP.

UNCLASSIFIED

Acc. Nr.: AP0046490 ✓

Ref. Code: UR 0115

USSR

UDC 621.383:531.717

KORNDORF, S. F., and VEDENOV, V. M.

"Photoelectric Method for Control of Rectilinearity"

Moscow, Izmeritel'naya Tekhnika (Measurement Technology), No 1, 1970, pp 30-31

Translation: The article substantiates a photoelectric method for control of rectilinearity using a system of rectangular mirrors and position-sensitive photo-detectors. It was shown that the proposed method enables continuous space and time control of profile rectilinearity of an object directly in linear units. A description is given of an experimental unit in which the energy axis of a laser is used as a straight line specimen. The experimental results of investigation of the unit are presented. (2 figures)

1/1

21 Ad

Reel/Frame  
19781743



1/2 022  
 TITLE--ROENTGENOLOGICAL STUDY OF VEINS OF THE LOWER EXTREMITIES AND PELVIS  
 -U-  
 AUTHOR--(103)--KUZMIN, D.S., VEDENSKIY, A.N., LEVASHOV, YU.N. PROCESSING DATE--09OCT70  
 COUNTRY OF INFO--USSR  
 SOURCE--VESTNIK KHIRURGII IMENI I. I. GREKOVA, 1970, VOL 104, NR 5, PP 52-57  
 DATE PUBLISHED-----70  
 SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES  
 TOPIC TAGS--RADIOLOGY, VEIN, EDEMA, DIAGNOSTIC METHODS  
 CONTROL MARKING--NO RESTRICTIONS  
 DOCUMENT CLASS--UNCLASSIFIED  
 PROXY REEL/FRAME--1990/1016  
 CIRC ACCESSION NO--AP0109167  
 STEP NO--UR/0589/70/104/005/0052/0057  
 UNCLASSIFIED

2/2 022

UNCLASSIFIED

PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0107167

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IN THE PAPER THE EXPERIENCE WITH RENTGENOLOGICAL STUDY OF VENOUS SYSTEM OF THE LOWER EXTREMITIES IN 710 PATIENTS AND PELVIC VEINS IN 86 PATIENTS IS SUMMARIZED. THE TECHNIC OF ASCENDING (DISTAL) VENOGRAPHY IN TWO PROJECTIONS, AS WELL AS FUNCTIONAL DYNAMIC, RETROGRADE (DESCENDING) AND PELVIC VENOGRAPHY ARE PRESENTED. EMPHASIS IS LAID ON INDICATIONS AND CONTRAINDICATIONS TO VARIOUS KINDS OF VENOGRAPHIC INVESTIGATION OF VEINS OF THE LOWER EXTREMITIES AND PELVIS IN PATIENTS WITH POSTTHROMBOPHLEBITIC SYNDROME VARICES AND EDEMA OF NON VENOUS ORIGIN.

FACILITY: RENTGENOLOGICHESKOGO OTD. AND DRASNOGO ZNAMENI N-I INSTITUTA GEMATOLOGII I PERELIVANIYA KROVI.

UNCLASSIFIED

Acc. Nr: **AP0044684** ✓

Ref. Code: **UR 0531**

PRIMARY SOURCE: *Khirurgiya*, 1970, Nr 1, pp 46-51

**PHLEBOGRAPHY IN DISTURBANCES OF THE PATENCY OF SUBCLAVICULAR AND AXILLARY VEINS**

**Portnoy, M. V.; Vedenskiy, A. N.; Pantgof, P. D.**

The article discusses the diagnostic importance of contrast investigation of veins of the upper extremities and shoulder girdle in their acute obstruction. Phlebography was performed during the administration into the subcutaneous cubital vein of a 35 per cent solution of diodon, cardiocontrast and other iodine agents in a quantity of 20-30 ml. In 32 patients 48 investigations were performed at different periods (from 1 day to 7 years) after the onset of the disease. Phlebographic changes are described in acute thrombosis, in sequelae of sustained thrombosis and compressed veins.

The authors arrive at the inference that phlebography in combination with other techniques in most cases enables to establish the nature of the process, its localization and extent, as well as the degree of development of collaterals. Phlebography is particularly important when deciding the problem of the operative treatment. In order to avoid incorrect interpretation of phlebographic data one should take into consideration all the changes on a series of roentgenograms and compare them with the clinical picture of the disease.

41

REEL/FRA  
**19771415**

DI 02

USSR

UDC 624.131.43+539.21.084-492.3

SHIRINKULOV, T., and VEDERNIKOV, A. A.

"The Calculation of Frame Structures Lying on an Inhomogeneous Soil Base"

Tashkent, Prochnost; 1 Seismostoykost' Sooruzh. -- Sbornik (The Strength and Earthquakeproof Nature of Structures -- Collection of Works), Jan 71, pp 128-139 (from Referativnyy Zhurnal, Mekhanika, No 2, Feb 72, Abstract No 2V547 by G. M. Shefter)

Translation: A procedure is proposed for the static calculation of a frame structure, which lies on an isotropic inhomogeneous elastic semispace, the elasticity modulus of which is an exponential function of the depth with an exponent smaller than unity. The method for calculating a rectangular frame, which is being acted upon by known loads of distributed forces, consists in separating it into several elements; a top crossbar and a bottom one, and two side columns. The unknown bending moments at the angle points are determined from the condition of equality of the deflection angles of the elements forming the angle under consideration. The deflection angles themselves are found by the authors by means of the method of initial parameters. For determining the bending moments in the bottom crossbars, an ordinary differential Euler-Bernoulli equation of a beam is integrated; the beam is in rigid contact with

1/2

USSR

SHIRINKULOV, T., and VEDERNIKOV, A. A., The Strength and Earthquakeproof Nature of Structures -- Collection of Works, Jan 71, pp 128-139

an elastic inhomogeneous semispace, the vertical movement of points in it being given by an infinite series with respect to even Gegenbauer polynomials. For an approximate solution of the problem, only the first three terms of the series are retained.

Results of numerical calculations of the bending moments in a structure having the most characteristic cross sections, for a distributed load and for a concentrated force acting in the center of the bottom crossbar, are presented in the form of a table. Analysis of the numerical information shows that in the calculation of frames, account must be taken of the influence of inhomogeneity of the soil properties, since in the opposite case the calculated values of the bending moments may turn out to be too low, and this decreases the carrying capacity of the structures. Six references.

2/2

- 37 -

UNCLASSIFIED

TITLE--GROUP CLASSIFICATION AND PARTICULAR SOLUTIONS OF THE ENERGY EQUATION FOR AN ELECTRIC ARC IN A GAS FLOW -U-  
 AUTHOR--(03)-VEDERNIKOV, G.A., STRONGIN, M.P., URYUKOV, B.A.  
 PROCESSING DATE--04DEC70

COUNTRY OF INFO--USSR

SOURCE--AKADEMIIA NAUK SSSR, SIBIRSKOE OTDELENIE, IZVESTIYA, SERIYA TEKHNICHESKIKH NAUK, FEB. 1970, P. 22-29

DATE PUBLISHED---FEB70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--ELECTRIC ARC, ENERGY THEORY, GAS FLOW

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/1271

CIRC ACCESSION NO--AP0124922

STEP NO--UR/0288/70/000/000/0022/0029

UNCLASSIFIED

038

CTRC ACCESSION NO--AP0124922  
ABSTRACT/EXTRACT--(U) GP-0-

UNCLASSIFIED

PROCESSING DATE--04DEC70

ABSTRACT. STUDY OF THE BEHAVIOR OF AN ELECTRIC ARC IN AN UNBOUNDED GAS FLOW ASSUMED TO BE STEADY AND AXISYMMETRIC. PARTICULAR SOLUTIONS TO THE ENERGY EQUATION FOR THIS PROBLEM ARE SOUGHT ON THE BASIS OF A GROUP CLASSIFICATION OF THE ENERGY EQUATION, SINCE KNOWLEDGE OF THE MAIN GROUP MAKES IT POSSIBLE TO OBTAIN A BROAD CLASS OF PARTICULAR SOLUTIONS CALLED INVARIANT GROUP SOLUTIONS. FACILITY: AKADEMIJA NAUK SSSR, INSTITUT TEORETICHESKOI I PRIKLADNOI MEKHANIKI, NOVOSIBIRSK, USSR.

UNCLASSIFIED

USSR

SVOBODA, R. V., VEDERNIKOV, G. F., CHALIK, S. M.

UDC 669.71:621.035

"Improvement of the Technological Process for Producing the Anode Mass and Improving its Quality"

Tr. Vses. n.-i. i provektn. in-ta alumin., magn. i elektrodn. prom-sti  
(Works of the All-Union Scientific Research and Planning and Design Institute of Aluminum, Magnesium and Electrode Industry), 1970, No 71, pp 21-28 (from RZh-Metallurgiya, No 4, Apr 71, Abstract No 4G215)

Translation: On the basis of generalizing the operating experience of the Soviet aluminum industry in recent years, an analysis is presented of the results of introducing the technological process of firing the coke filler at reduced temperature, with consolidated granulometric composition of the dry charge and petroleum coke from the retarded coking units in anode mass production. Reducing the firing temperature of the coke permitted its losses during calcination to be reduced by 1.0-1.5%, which, just as consolidating the granulometric composition, led to improved operating properties of the anode mass. The basic areas of further improvement of the anode mass quality by introducing pitch with a high softening temperature and automation of the production process are demonstrated. There are 3 tables.

1/1

- 2 -



USSR

UDC 669.71.472

AMEL'KOVICH, D. I., VEDERNIKOV, G. F., DROBNIS, V. F., KLETSKO, N. L., OGURTSOV,  
G. M., SHIFMAN, G. A.

"Selection and Testing of Carbon Mass for Fastening of Nipples in Roasted Anodes"

Tr. Vses. N-i. i Proyechn. In-ta. Alyumin., Magn. i Elektrodn. Prom-sti [Works  
of All-Union Scientific Research and Planning Institute of the Aluminum, Magne-  
sium and Electrode Industry], 1970, No. 71, pp. 111-117. (Translated from Refer-  
ativnyy Zhurnal Metallurgiya, No. 5, 1971, Abstract No. 5 G156 by the authors).

Translation: Results are presented from laboratory and industrial testing of  
roasted anodes with nipples fastened in their carbon masses. The mass was packed  
into anodes with one square or cylindrical nipple receiver. The thickness of  
the layer of packed mass was 10-15 mm. The method of fastening of the nipples  
into the roasted anodes using the carbon mass allowed reliable suspension of the  
anodes, significantly decreased the voltage drop at the nipple-anode contact,  
and also simplified the process of pressing of anodes due to the elimination of  
the screw thread in the nipple receptacle. 4 figs; 2 tables.

1/1

USSR

BRODOV, L. Yu., ~~VEDEBNIKOV, G. V.~~, KOCHUGOV, N. A., LUKASHENKO, V. F.,  
MUKHUTDINOV, R. A., "Tatneftegeofizika" Trust

UDC: 550.834

"A Device for Automatic Processing of Seismic Recordings"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki,  
No 11, Apr 72, Author's Certificate No 333511, Division G, filed 25 Jan 71,  
published 21 Mar 72, pp 183-184

Translation: This Author's Certificate introduces a device for automatic processing of seismic recordings. The device contains operational drums with the primary information media, readout units, a computer unit, a correction unit and a registration unit. As a distinguishing feature of the patent, in order to suppress regular interference waves and retain the shape of the primary signal, the outputs of the readout units are connected through adders and subtractors, the computer unit and a discriminator to a switching element connected in the registration circuit to connect the output of the subtractor to the correction unit and the registration unit.

1/1

172 018

UNCLASSIFIED

TITLE—IMPORTANCE OF CEREBRAL CATECHOL AMINES FOR THE ANALGESIC ACTION OF MORPHINE —U—

AUTHOR—(02)—VEDERNIKOV, YU.P., AFRIKANOV, I.I.

PROCESSING DATE—09OCT70

COUNTRY OF INFO—USSR

SOURCE—FARMAKOL. TOKSIKOL. (MOSCOW) 1970, 33(2), 154-9

DATE PUBLISHED—70

SUBJECT AREAS—BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS—CATECHOLAMINE, MORPHINE, ANALGESIC DRUG, PAIN, RAT, RESERPINE

CONTROL MARKING—NO RESTRICTIONS

DOCUMENT CLASS—UNCLASSIFIED

PROXY REEL/FRAME—1994/1170

STEP NO—UR/0390/70/033/002/0154/0159

CIRC ACCESSION NO—AP0115189

UNCLASSIFIED

018

CIRC ACCESSION NO—AP0115189  
ABSTRACT/EXTRACT--(U) GP-0-

UNCLASSIFIED

PROCESSING DATE--09OCT70

ABSTRACT. COCAINE, PYROGALLIC, APOMORPHINE,  
AND PHENAMINE INCREASED THE PAIN THRESHOLD IN RATS BOTH TOLERANT AND  
NONTOLERANT TO MORPHINE AND INCREASED MORPHINE ANALGESIC ACTION.  
ALPHA-METHYLOPA INCREASED THE PAIN THRESHOLD AND STIMULATED MORPHINE  
ANALGESIA. IPRONIAZID WEAKENED MORPHINE ANALGESIA IN NONTOLERANT RATS  
AND INCREASED IT IN TOLERANT RATS. RESERPINE WEAKENED MORPHINE  
ANALGESIA.  
FACILITY: SVERDLOVSK. MED. INST. SVERDLOVSK. USSR.

UNCLASSIFIED

USSR

UDC 621.317.3

VEDERNIKOVA, G. A., KASPEROVICH, A. N., Novosibirsk

"Device for Sampling and Storing the Ordinates of a High-Frequency Signal"  
Novosibirsk, Avtometriya, No 3, 1971, pp 47-51

Abstract: A sampling and storage device for the ordinates of a high-frequency signal is described which comprises a video amplifier, a storage element, a switch with a control unit and a buffered amplifier. Each element of the sampling and storage device is discussed separately, and the dynamic error of the device is analyzed. Circuit diagrams of the individual elements are presented and the advantages and deficiencies of the particular layouts are discussed. Both closed [P. E. Harris, et al., IEEE Transactions on Electronic Computers, VEC-13, No 3, 1964] and open [Z. A. Khakimogdu, et al., Elektronika, No 6, 1963] are considered. The described open circuit has comparatively small static errors and small aperture time with a field transistor switch designed for successive storage of several ordinates in one channel.

1/1

USSR

Transformation and Structure

UDC 669.27.017

VEDERNIKOVA, V. A., MIL'MAN, Yu. V., POSTNOV, L. M., POPOV, A. P., SLENZAK, G. YE., TREFILOV, V. I., and SHUMILOV, I. M., Institute of Metal Physics, Academy of Sciences, Ukr SSR

"Structural Changes During Annealing of a Precipitation Hardened Tungsten Alloy"

Kiev, Metallofizika, No 40, 1972, pp 45-49

Abstract: Translucent electron microscopy, metallography, and diffraction line width measurements were used to study the structural changes resulting from the annealing of deformed tungsten in which 0.2% ZrC had been added during melting. At up to 1800°C a dispersed cellular structure is preserved in the alloy along with a structure stabilized by precipitations of a second phase. These were identified as ZrC in an x-ray investigation of the deposit obtained during electrochemical dissolving of the tungsten. In isolated sections of the alloy, with an increased density of second-phase particles, the cellular structure was preserved even after annealing at 2340°C. Increased recrystallization temperature is accompanied by increased heat resistance. 4 figures, 9 bibliographic references.

1/1

USSR

BURTOV, A. I., GRUSHVITSKIY, R. I., METTER, E. Ya., PETROV, V. A., PLATONOV, V. V., SAVUTKIN, V. V., VEDESHENKOV, V. A., VOLKOV, A. F., ZENKIN, V. D., LKHONINSKIY, V. S., and ŠOROKIN, G. K.

"Computer Device"

Moscow, Otkrytiya, izobreneniya, promyshlennyye obraztsy, tovarnyye znaki, No 27, 1972, p 162, No (11) 351216

Translation: This patent describes a computing device containing resolving modules with decoupling cells at the power supply inputs. It also has a control block connected to the inputs of a switching block and an efficiency indicator. Every output of the switching block is connected to the control input of one of the decoupling cells, thus improving the reliability of the device.

1/1

1/2 044

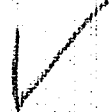
UNCLASSIFIED

PROCESSING DATE--02OCT70

TITLE--THE IONOSPHERIC EXPERIMENT ON INTERCOSMOS 2 -U-

AUTHOR--(02)--VEDESHIN, L.A., KROSHKIN, M.G.

COUNTRY OF INFO--USSR



SOURCE--AKADEMIZ NAUK SSSR, VESTNIK, VOL. 40, MAR. 1970, P. 37-42

DATE PUBLISHED-----70

SUBJECT AREAS--SPACE TECHNOLOGY, NAVIGATION, ATMOSPHERIC SCIENCES

TOPIC TAGS--ARTIFICIAL EARTH SATELLITE, SPACECRAFT CARRIED EQUIPMENT, RADIO WAVE PROPAGATION, IONOSPHERE, RADIO TRANSMITTER, SATELLITE ORIENTATION, RADIO SIGNAL/(U)INTECOSMOS 2 SATELLITE, (U)MAYAK RADIO TRANSMITTER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRA--1990/1713

CIRC ACCESSION NO--AP0109681

STEP NO--UR/0030/70/040/003/0037/0042

UNCLASSIFIED



2/2 044

CIRC ACCESSION NO--AP0109681  
ABSTRACT/EXTRACT--(U) GP-0-

UNCLASSIFIED

PROCESSING DATE--02OCT70

ABSTRACT. DESCRIPTION OF THE ONBOARD EQUIPMENT CARRIED ON THE INTERCOSMOS 2 IONOSPHERIC RESEARCH SATELLITE, LAUNCHED ON DEC. 25, 1969. THE INTERCOSMOS 2 CONSTITUTES A JOINT EFFORT ON THE PART OF THE SOVIET UNION AND VARIOUS OTHER SOCIALIST COUNTRIES TO PERFORM A COMPLEX OF MEASUREMENTS INCLUDING DIRECT PROBE MEASUREMENTS, OBSERVATIONS OF THE PROPAGATION OF RADIO SIGNALS EMITTED BY THE ONBOARD TRANSMITTER, AND STANDARD GROUND IONOSPHERIC OBSERVATIONS. TWO SPHERICAL ION TRAPS USED FOR MEASURING THE POSITIVE ION CONCENTRATION ALONG THE SATELLITE ORBIT ARE DESCRIBED, AS WELL AS TWO CYLINDRICAL LANGMUIR PROBES AND A HIGH FREQUENCY PROBE USED FOR MEASURING THE ELECTRON TEMPERATURE, THE ENERGY DISTRIBUTION OF THE ELECTRONS, AND THE ELECTRON CONCENTRATION IN THE IONOSPHERE. THE ONBOARD RADIO TRANSMITTER SERVES TO MEASURE THE TOTAL ELECTRON CONCENTRATION BETWEEN THE SATELLITE AND RADIO RECEPTION POINTS ON THE GROUND, AND ALSO TO STUDY THE EFFECT OF ITS RADIATION ON THE DIRECTION OF THE SATELLITE PROBE DEVICES. A SYSTEM WHICH INDICATES THE DIRECTION OF THE SATELLITE RELATIVE TO THE SUN IS ALSO PRESENT, AS WELL AS A MAGNETOMETER FOR MEASURING THE THREE MUTUALLY PERPENDICULAR COMPONENTS OF THE GEOMAGNETIC FIELD STRENGTH IN ORDER TO DETERMINE THE ORIENTATION OF THE SATELLITE IN SPACE.

UNCLASSIFIED

013

UNCLASSIFIED

PROCESSING DATE--20NOV70

TITLE--EFFECT OF HYDROCORTISONE ON HEALING OF OSTEOCHONDRAL WOUND IN  
INTRAPARTICULAR FRACTURES, EXPERIMENTAL STUDY -U-

AUTHOR--(02)--LAVRISHCHEVA, G.I., VEDIZIZHEV, G.M.

COUNTRY OF INFO--USSR

SOURCE--ORTOPEDIYA, TRAVMATOLOGIYA I PRCTEZIROVANIYE, 1970, NR 5, PP 29-33

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--BONE FRACTURE, HYDROCORTISONE, WOUND HEALING, ANTIINFLAMMATORY  
DRUG

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3004/0724

CIRC ACCESSION NO--AP0131322

STEP NO--UR/9115/70/000/005/0029/0033

UNCLASSIFIED

2/2 013

CIRC ACCESSION NO--AP0131322

UNCLASSIFIED

PROCESSING DATE--20NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IN AN ENDEAVOR TO CLARIFY THE EFFECT OF SMALL DOSES OF HYDROCORTISONE ON THE POSTTRAUMATIC INFLAMMATION AND REPARATIVE PROCESSES IN THE JOINT IN INTRAARTICULAR FRACTURES, TWO SERIES OF EXPERIMENTS HAVE BEEN CARRIED OUT ON 58 RABBITS. IN CONTROL (1) SERIES HYDROCORTISONE WAS NOT INJECTED INTO THE KNEE JOINT CAVITY AFTER INFLECTION OF INTRAARTICULAR FRACTURE WITH SUBSEQUENT OSTEOSYNTHESIS. HYDROCORTISONE WAS ADMINISTERED IN SERIES II OF THE EXPERIMENT. DATA OF HISTOLOGICAL STUDIES INDICATE THAT INTRAARTICULAR INJECTION OF SMALL DOSES OF HYDROCORTISONE DECREASED THE POSTTRAUMATIC INFLAMMATION AND HAD NO INHIBITING EFFECT ON THE HEALING OF OSTEOCHONDRAL WOUND. MOREOVER, AFTER PRECISE APPPOSITION OF FRAGMENTS IN NONE OF THE ANIMALS HAS ARTHROSIS DEFORMANS DEVELOPED AT LATE DATES. IN THE CONTROL GROUP ARTHROSIS DEFORMANS DEVELOPED IN ALL THE CASES.

FACILITY: PATOLOGOANATOMICHESKOGO OTD. TSENTRAL'NOGO INSTITUTA TRAVMATOLOGII I ORTOPEDII AND KAFEDRY TRAVMATOLOGII I ORTOPEDII 2-GO MOSKOVSKOGO ORDENA LENINA MEDITSINSKOGO INSTITUTA IM. N. I. PIROGOVA.

UNCLASSIFIED

USSR

YERMOL'YEVA, Z. V., and VED'MINA, Ye. A.

Mikrobiologicheskaya Diagnostika Kholery (Microbiological Diagnosis of Cholera), Moscow, USSR Ministry of Health, 1971, 28 pp

Translation:

Table of Contents:

	Page
Goals and Objects of Investigation	4
Taking and Transporting Material Being Investigated	5
Methodology of Bacteriological Investigation for Cholera	8
Stages of Investigation	9
Stage I (Initial Investigation)	9
Stage II (5-6 Hours After Start of Investigation)	11
Stage III (10-12 Hours After Start of Investigation)	12
Stage IV (18-24 Hours After Start of Investigation)	15
Study of Pure Culture and Its Identification	15
Study of Cultural-Morphological Properties	15
Study of Biochemical Properties	15
Study of Proteolytic Activity	16
Study of Diastatic Activity	16
Study of Fermentation of Carbohydrates and Alcohols	16

1/3

USSR

YERMOL'YEVA, Z. V., and VED'MINA, Ye. A., *Mikrobiologicheskaya Diagnostika*  
Khcclery, Moscow, USSR Ministry of Health, 1971, 28 pp

	Page
Study of Reducing Properties and the Formation of Indol (Nitronso-Indol Reaction -- Cholera Red Reaction	17
Study of Hemolytic Activity	18
Study of Sensitivity of Cholera Phages	18
Study of Antigenic Properties	19
Tests Which Differentiate Biotypes of Cholera Vibrios (Classical Cholera Vibrios and El Tor Cholera Vibrios)	20
Test With Diagnostic C and El Tor-2 Phages	20
Polymyxin Test	21
Reaction of Hemagglutination of Chick Erythrocytes	21
Foges-Proskauer Reaction	21
Hexamine Test	21
Soda-Serum Agglutination	22
Soda-Mercuric Chloride Precipitation	22
Accelerated Methods of Bacteriological Cholera Diagnosis	22
	24

2/3

USSR

YERMOL'YEVA, Z. V., and VED'MINA, Ye. A., Mikrobiologicheskaya Diagnostika  
Kholery, Moscow, USSR Ministry of Health, 1971, 28 pp

Serological Methods of Cholera Diagnosis  
Agglutination Reaction  
Reaction for Analyzing Vibriocidic Antibodies

Page  
25  
25  
25

3/3

1/2 014 UNCLASSIFIED PROCESSING DATE--30OCT70  
TITLE--IN VITRO EFFECT OF SEMI SYNTHETIC PENICILLINS ON ORGANISMS CAUSING  
SURGICAL INFECTIONS -U-  
AUTHOR--(05)--VASINA, T.A., FRISHMAN, YE.M., VEDMINA, YE.A., GAMALEYA, L.A.,  
MIKHEYEVA, YE.V.  
COUNTRY OF INFO--USSR  
SOURCE--ANTIBIOTIKI, 1970, VOL 15, NR 6, PP 528-532  
DATE PUBLISHED-----70  
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES  
TOPIC TAGS--PENICILLIN, STAPHYLOCOCCUS INFECTION, TETRACYCLINE, ANTIBIOTIC  
RESISTANCE/(U)AMPICILLIN ANTIBIOTIC  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAE--2000/2002 STEP NO--UR/0297/70/015/006/0528/0532  
CIRC ACCESSION NO--AP0125591  
UNCLASSIFIED

2/2 014

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125591

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. NARROW AND BROAD SPECTRUM SEMISYNTHETIC PENICILLINS WERE STUDIED WITH RESPECT TO THEIR EFFECT ON STAPHYLOCOCCI CAUSING SURGICAL INFECTIONS. IT WAS SHOWN THAT MOST OF THE ISOLATES WERE MAINLY RESISTANT TO THE WIDELY USED ANTIBIOTICS (BENZYL PENICILLIN 87 PER CENT, TETRACYCLINES 56 TO 70 PER CENT). IN VITRO STUDIES ON THE EFFECT OF SEMISYNTHETIC PENICILLINS DEMONSTRATED THAT IN SPITE OF A SHORT PERIOD OF THEIR USE IN MEDICAL PRACTICE, STRAINS RESISTANT TO THE ANTIBIOTIC CONCENTRATIONS IN THE HOST OCCURRED ALONG WITH SENSITIVE CULTURES (NARROW SPECTRUM SEMI SYNTHETIC PENICILLINS 19.2 TO 28.4 PER CENT, PYOPEN 18 PER CENT, AMPICILLIN 39.5 PER CENT). FACILITY: INSTITUTE FOR CLINICAL AND EXPERIMENTAL SURGERY, CENTRAL POST GRADUATE MEDICAL INSTITUTE, MOSCOW.

UNCLASSIFIED



I/2 014 UNCLASSIFIED PROCESSING DATE--30OCT70  
TITLE--ESTIMATION OF IN VITRO EFFECT OF COMBINATIONS OF SEMI SYNTHETIC  
PENICILLINS ON PATHOGENIC STAPHYLOCOCCI -U-  
AUTHOR-(02)-VEDMINA, YE.A., VASINA, T.A.  
COUNTRY OF INFO--USSR  
SOURCE--ANTIBIOTIKI, 1970, VOL 15, NR 6, PP 522-526  
DATE PUBLISHED-----70  
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES  
TOPIC TAGS--PENICILLIN, STAPHYLOCOCCUS, ANTIBIOTIC  
RESISTANCE/(U)METHICILLIN ANTIBIOTIC, (U)OXACILLIN ANTIBIOTIC,  
(U)VERACILLIN ANTIBIOTIC  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRA--2000/1864 STEP NO--UR/0297/70/015/006/0522/0526  
CIRC ACCESSION NO--AP0125475  
UNCLASSIFIED

2/2 014

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125475

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. COMBINATIONS OF BROAD SPECTRUM SEMI SYNTHETIC PENICILLINS, SUCH AS AMPICILLIN AND PYOPEN WITH SEMI SYNTHETIC PENICILLINS ACTIVE AGAINST GRAM POSITIVE ORGANISMS, SUCH AS METHICILLIN, OXACILLIN AND VERACILLIN WERE ESTIMATED WITH RESPECT TO THEIR IN VITRO EFFECT ON PATHOGENIC STAPHYLOCOCCI ISOLATED FROM SURGICAL CASES. ACCORDING TO SOME CRITERIA, I.E. SENSITIVITY LEVELS, MINIMUM INHIBITORY CONCENTRATIONS FOR MOST STRAINS AND NATURE OF THE COMPONENT ACTION, EFFICIENCY OF PYOPEN COMBINATION WITH VERACILLIN AND COMBINATION OF AMPICILLIN WITH VERACILLIN, AS WELL AS A SIGNIFICANT DECREASE IN THE EFFICIENCY OF AMPICILLIN USED IN COMBINATION WITH OXACILLIN WERE SHOWN.

FACILITY: CENTRAL POST GRADUATE MEDICAL INSTITUTE AND INSTITUTE FOR CLINICAL AND EXPERIMENTAL SURGERY OF PUBLIC HEALTH MINISTRY OF THE USSR, MGSCOW.

UNCLASSIFIED

1/2 013 UNCLASSIFIED PROCESSING DATE--16OCT70  
TITLE--ANTIMICROBIAL ACTIVITY OF RIFOCIN AGAINST PATHOGENIC ORGANISMS OF  
SURGICAL INFECTIONS -U-  
AUTHOR--(02)-VASINA, T.A., VEDMINA, YE.A. ✓  
COUNTRY OF INFO--USSR  
SOURCE--ANTIBIOTIKI, 1970, VOL 15, NR 5, PP 418-421  
DATE PUBLISHED-----70  
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES  
TOPIC TAGS--BACTERICIDE, STAPHYLOCOCCUS, ESCHERICHIA COLI, PROTEUS,  
ANTIBIOTIC/(U)RIFOCIN ANTIBIOTIC  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAE--1994/0156 STEP NO--UR/0297/70/015/005/0418/0421  
CIRC ACCESSION NO--AP0114552  
UNCLASSIFIED

2/2 013

UNCLASSIFIED

PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0114552

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. BACTERIOSTATIC AND BACTERICIDAL EFFECT OF RIFOCIN ON PATHOGENIC ORGANISMS OF SURGICAL INFECTIONS, I. E. STAPHYLOCOCCUS, COLI BACTERIA, PROTEUS, BACT. PYOCYANEUM WAS INVESTIGATED. HIGH EFFICACY OF RIFOCIN IN VITRO AGAINST STAPHYLOCOCCI WAS SHOWN. RIFOCIN ALSO INHIBITED THE MOST STRAINS OF PROTEUS, COLI BACTERIA, CERTAIN STRAINS OF BACT. PYOCYANEUM AT CONCENTRATIONS ATTAINED IN THE HOST. STUDIES ON THE DYNAMICS OF THE BACTERIAL POPULATION DEATH UNDER THE EFFECT OF RIFOCIN SHOWED THAT THE STERILIZING EFFECT OF THE ANTIBIOTIC ON STAPHYLOCOCCI AND BACT. PYOCYANEUM WAS MOST RAPID, WHILE THE EFFECT ON PROTEUS AND COLI BACTERIA WAS MOST PROLONG.  
FACILITY: INSTITUTE FOR CLINICAL AND EXPERIMENTAL SURGERY, CENTRAL POST GRADUATE MEDICAL INSTITUTE, MOSCOW.

UNCLASSIFIED

Acc. Nr: AP0034678

Ref. Code: UR 0297

PRIMARY SOURCE: Antibiotiki, 1970, Vol 15, Nr 2, pp 116-120

REGULARITIES OF ABSORPTION AND DISTRIBUTION OF SEMI-SYNTHETIC  
PENICILLINS — METHICILLIN AND OXACILLIN IN PATIENTS WITH CHRONIC  
KIDNEY INSUFFICIENCY

Vasina, T. A.; Ved'mina, Ye. A.; Sagalovich, G. M.;  
Mikheyeva, Ye. V.; Levitskiy, E. R.

Institute for Clinical and Experimental Surgery, Microbiology, Department of Central  
Post-Graduate Medical Institute, Moscow

The dynamics of methicillin and oxacillin distribution in the blood of patients with severe affections of the kidney function and impaired clearance for urea was significantly changed, resulting in very high blood levels of the antibiotics and their prolong circulation in the organism, which was parallel to the degree of the affection of the kidney excretion function. The process of hemodialysis favoured rapid excretion of the antibiotics and provided the dynamics of their levels close to that in patients with normal functions of the kidneys.

32.

11

REEL/FRA  
19711383

02

Acc. Nr: AP0101135

Ref. Code: UR4297

PRIMARY SOURCE: Antibiotiki, 1970, Vol 15, Nr 3, pp 267-271

EFFECT OF ANTIBIOTIC COMBINATIONS ON PATHOGENIC STAPHYLOCOCCI ISOLATED FROM SURGICAL CASES

Ye. M. Frishman, Ye. A. Vedmina, O. A. Fedorova, T. A. Vasina

Microbiology Chair of Central Post-Graduate Medical Institute, Sanitary Epidemiological Station of the Kalinin Region, Moscow

The effect of 15 combinations of penicillin with other antibiotics on 50 strains of pathogenic staphylococci, isolated from surgical cases was studied in vitro. The analysis of the data obtained during the study of the combinations and their components with the use of various criteria, such as ranges of minimum inhibitory concentrations, bacteriostatic concentrations with respect to most strains, nature of the combined effect, showed 3 double combinations of penicillin with monomycin, chlortetracycline or dichlortetracycline, as well as 1 triple combination of penicillin with pasomycin and dichlortetracycline to be favourable with respect to their effect on pathogenic staphylococci. A significant decrease in the efficacy of penicillin used in combination with erythromycin, oleandomycin or ceporin was observed.

4

22h

6

REEL/TRAME  
19850760

USSR

UDC 615.332.015.42:576.851.31

BELIZHENKO, V. D., VED'MINA, YE. A., YERMOL'YEVA, Z. V., and YEFIMTSEVA, YE. P., Chair of Biochemistry, Vitebsk Medical Institute and Chair of Microbiology, Central Institute for Advanced Training of Physicians, Moscow

"Effect of Antibiotics (Neomycin, Monomycin, and Kanamycin) on the Synthesis of Protein and Nucleic Acid in Intact NAG Vibrio Cells"

Moscow, Antibiotiki, No 12, 1971, pp 1085-1088

Abstract: Study of the effect of antibiotics on protein synthesis in intact NAG vibrio (strain 1115) cells showed that neomycin, monomycin, and kanamycin at concentrations of 10, 50, and 500  $\mu$ g/ml inhibit the incorporation of  $1-C^{14}$ -glycine into the protein fraction soluble in phenol, but stimulate its incorporation into the fractions of RNA, DNA, and proteins insoluble in phenol. The degree of inhibition and stimulation varied directly with the dose of antibiotic. The stimulating effect of the antibiotics on the incorporation of labeled glycine into nucleic acids and phenol-insoluble protein fraction is attributed to the competitive relationships resulting from the utilization by the bacterial cells of amino acids to synthesize proteins and nucleic acids. When protein synthesis is inhibited, the free amino acids can be more fully utilized for nucleic acid synthesis. The stimulation of incorporation of  $1-C^{14}$ -glycine into the phenol-insoluble proteins suggest that the synthesis of this protein fraction is not sensitive to neomycin, monomycin, or kanamycin. 1/1

- 26 -

USSR

UDC 669.295.539.292

KOLACHEV, B. A., MAMONOVA, F. S., LYASOTSKAYA, V. S., and VEDNEVA, L. S.,  
Moscow Aviation Technological Institute. Chair of the Science of Metals and  
Hot Working of Metals

"Investigating the Structure and Properties of Annealed Alloys of Ti-Mo System"

Ordzhonikidze, Izvestiya Vysshikh Uchebnykh Zavedeniy, Tsvetnaya Metallurgiya,  
No 3, 1973, pp 120-124

Abstract: A study was made of the rules of changing properties and phase composition of titanium-molybdenum alloys, depending on molybdenum content. The investigated alloys were produced from TG-100 sponge with additions of 0.06% Fe, 0.02% Si, 0.04% O<sub>2</sub>, and 0.03% C. The alloys were annealed by heating to 950°, with subsequent soaking for one hour and cooling to 800° and 750° in air and 700° and 650° in water. The influence of Mo-content on the differently annealed alloys and their mechanical properties is demonstrated. Titanium alloys and their mechanical properties is demonstrated. Titanium alloys with 6.8, 8.6, 11.4, and 13% Mo annealed at 800, 750, 700, and 650° C, respectively, with air cooling have the highest strength. The two-phase Ti+11.4% Mo alloy with very fine ( $\alpha + \beta$ )-structure without  $\omega$ -phase possesses maximum strength

1/2



USSR

KOLACHEV, B. A., et al., Izvestiya Vysshikh Uchebnykh Zavedeniy, Tsvetnaya Metallurgiya, No 3, 1973, pp 120-124

characteristics when water cooled after annealing at 700-650° C. In Ti-Mo alloys, the  $\omega$ -phase does not develop with air-cooling after annealing at temperatures  $< 650^{\circ}\text{C}$  and with water-cooling after annealing at temperatures  $< 700^{\circ}\text{C}$ . five figures, three bibliographic references.

2/2

- 52 -

1/2 016 UNCLASSIFIED PROCESSING DATE--23OCT71  
TITLE--EXPERIMENTAL STUDY OF SOME MANIFESTATIONS CONSEQUENT TO BIOLOGICAL  
ACTION OF THE VITAMIN A -U-  
AUTHOR-(03)-VEDROVA, I.N., ANISOVA, A.A., OSETROVA, S.YA.  
COUNTRY OF INFO--USSR ✓  
SOURCE--VOPROSY PITANIYA, 1970, NR 3, PP 37-40  
DATE PUBLISHED-----70  
  
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES  
TOPIC TAGS--VITAMIN DEFICIENCY, SKIN PHYSIOLOGY, HISTOLOGY, DIET  
  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAE--1997/2052 STEP NO--UR/0244/70/000/003/0037/0040  
CIRC ACCESSION NO--AP0120695

UNCLASSIFIED

2/2 016

UNCLASSIFIED

PROCESSING DATE--23OCT7

CIRC ACCESSION NO--AP0120695  
ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. THE EFFECT OF DIFFERENT VITAMIN A DOSES ON THE STRUCTURE OF THE EPITHELIAL TISSUE ELEMENTS BY COMPARISON WITH THE DYNAMICS OF THE VITAMIN I CONTENT IN THE LIVER AND BLOOD WAS STUDIED IN TESTS SET UP ON YOUNG RATS DIVIDED INTO 4 GROUPS KEPT ON A VITAMIN A DEFICIENT DIET WITH DAILY ADDITION OF VITAMIN A IN AMOUNTS OF 20, 40 AND 80 MUG TO DIFFERENT GROUPS OF ANIMALS. IN THE AUTHORS' INVESTIGATIONS 20 MUG OF VITAM A PROVED TO BE THE MINIMAL DIURNAL DOSAGE ENSURING NORMAL HISTOLOGICAL STRUCTURE OF THE SKIN AND OF THE ORGANS UNDER STUDY. THE DOSE OF 80 MUG WAS FOUND TO PRODUCE CHANGES IN THE STRUCTURE OF THE EPIDERMIS FINDING THEIR EXPRESSION IN THE INHIBITION OF HORNIFICATION PROCESSES, WITHOUT BEING ATTENDED BY ANY EXTERNAL SIGNS TYPICAL OF A HYPERVITAMINOSIS. FACILITY: KLINIKA KOZHNYKH I VENERICHESKIKH BOLEZNEY II MOSKOVSKOGO MEDITSINSKOGO INSTITUTA IM. N. I PIROGOVA AND LABORATORIYA PROFILAKTICHESKOGO DEYSTVIYA VITAMINOV N-I INSTITUTA VITAMINOLOGII MINISTERSTVA ZDRAVDOKHRANENIYA SSSR.

UNCLASSIFIED

1/3 042 UNCLASSIFIED PROCESSING DATE--30OCT70  
TITLE--TWO QUANTUM ANTI STOKES PROCESSES DURING THE EXCITATION OF DYES -U-  
AUTHOR--(04)-VEDUTA, A.P., GALANIN, M.D., KIRSANOV, B.P., CHIZHIKOVA, Z.A.  
COUNTRY OF INFO--USSR  
SOURCE--PIS'MA ZH. EKSP. TEOR. FIZ. 1970, 11(3), 157-62  
DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS, PHYSICS

TOPIC TAGS--RUBY LASER, NEODYMIUM LASER, LIGHT SCATTERING, EXCITED STATE,  
DYE, SPECTRUM, EXCITATION ENERGY, LUMINESCENCE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAME--2000/2090

STEP NO--UR/0386/70/011/003/0157/0162

CIRC ACCESSION NO--AP0125677

UNCLASSIFIED

2/3 - 042

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125677

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A SOLN. OF DYE WAS EXPOSED FOR 20 NSEC TO IMPULSES FROM RUBY AND ND LASERS WITH A PEAK POWER OF 50 MW, AND THE SPECTRA OF THE LATERALLY SCATTERED LIGHT MEASURED. CHARACTERISTIC ELECTRONIC VIBRATION BANDS ARE SHOWN: (1) ABSORPTION OF QUANTUM OF RADIATION, (2) RELAXATION TO LOWER STATE, (3) ONE QUANTUM LUMINESCENCE, (4) ABSORPTION WITH TRANSFER TO VIRTUAL LEVEL, (5) RELAXATION, (6) NONRADIATIVE RELAXATION TO 1ST EXCITED STATE, (7) LUMINESCENCE FROM 1ST EXCITED STATE, AND (8) ANTI STOKES COMBINATION DEGRADATION. ALL SPECTRA SHOWED THAT THE MAX. CORRESPONDING TO PROCESS (8) LIE ON THE SHORT WAVELENGTH SLOPE OF THE MAX. CORRESPONDING TO PROCESS (7). THE POSITION OF THE MAX. COINCIDE WITH THE SUM OF THE ENERGIES OF THE PROCESSES (3) AND (4). EXCITATION OF POLYMETHINE DYES WITH 2ND HARMONIC RADIATION OF WAVELENGTH 530 NM DOES NOT PRODUCE A MAX. FOR PROCESS (8), BUT A MAX. IS SEEN FOR PROCESS (7). PROCESS (8) IS APPROX. LINEAR WITH EXCITATION ENERGY EXCEPT AT LOW ENERGIES WHEN 2,PHOTON EXCITATION BECOMES IMPORTANT. PROCESS (7) IS LINEAR WITH EXCITATION ENERGY. THE POLARIZATION OF VARIOUS MAX. WAS MEASURED BY OBSERVATION OF CROSS SECTION IN RELATION TO EXCITING BEAM DIRECTION. EXPTL. VALUES OF POLARIZATION RATIO (I PERPENDICULAR TO- I PARALLEL TO) WERE (A) 0.74 PLUS OR MINUS 0.12 WITH UNPOLARIZED RADIATION AT MAX. 570 NM, AND (B) 0.63 PLUS OR MINUS 0.05 AND 0.50 PLUS OR MINUS 0.06 WITH POLARIZED RADIATION AT MAX. 380 AND 450 NM, RESP. THE CROSS SECTION OF PROCESS (8) WAS 10 PRIME NEGATIVE28 10 PRIME NEGATIVE27 CM PRIME2.

UNCLASSIFIED

3/3 042

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125677

ABSTRACT/EXTRACT--THEORY GIVAS A VALUE OF 10 PRIME NEGATIVE29-10 PRIME  
NEGATIVE26 CM PRIME2, AND EXPTS. WITH 2,PHOTON ABSORPTION GIVE A VALUE  
OF 10 PRIME NEGATIVE27 CM PRIME2. ALL MAX. FOR PROCESS (8) ARE BROADER  
THAN EXPECTED FOR ONE QUANTUM ABSORPTION AND IN SOME CASES ARE SHIFTED  
TO THE SHORTWAVE REGION. THIS MAY BE BECAUSE PROCESS (2) IS INCOMPLETE  
OWING TO THE CHARACTERISTIC LIFETIMES OF THE PROCESSES (10 PRIME  
NEGATIVE13-10 PRIME NEGATIVE11 SEC). FACILITY: FIZ. INST. IM.  
LEBEDEVA, MGSOW, USSR.

UNCLASSIFIED

1/2 025 UNCLASSIFIED PROCESSING DATE--27NOV70  
TITLE--TWO QUANTUM ANTI STOKES PROCESSES IN THE EXCITATION OF DYES -U-  
AUTHOR--(04)-VEDUTA, A.P., GALANIN, M.O., KIRSANOV, B.P., CHIZHIKOVA, Z.A.  
COUNTRY OF INFO--USSR  
SOURCE--JETP LETTERS (USA), VOL. 11, NO. 3, P. 157-62, FEB. 1970  
DATE PUBLISHED-----70  
SUBJECT AREAS--MATERIALS, PHYSICS  
TOPIC TAGS--DYE, RAMAN SCATTERING, LUMINESCENCE, EXCITED STATE  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRA--3006/1854 STEP NO--US/0000/70/011/003/0157/0162  
CIRC ACCESSION NO--AP0135419  
UNCLASSIFIED

2/2 025

CIRC ACCESSION NO--AP0135419

UNCLASSIFIED

PROCESSING DATE--27NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. REPORTS AN EXPERIMENTAL  
OBSERVATION OF ANTI STOKES RAMAN SCATTERING BY THE ELECTRONIC STATE OF  
MOLECULES AND LUMINESCENCE FROM THE SECOND EXCITED ELECTRONIC STATES IN  
ORGANIC DYES. FACILITY: USSR ACAD. SCIS.

UNCLASSIFIED



USSR

VEDUTA, N. I., ZHURAVLEV, V. A.

"Optimization of the Structure of a Consumer Product by Distribution of Expenditures in Proportion to Equilibrium Prices"

*Ekonomika i mat. metody* [Economics and Mathematical Methods], 1973, 9, No 2, pp 298-309 (Translated from Referativnyy Zhurnal - Kibernetika, No 8, 1973, Abstract No 8 V533 from the introduction)

Translation: A dynamic model is constructed of the production of consumer products when equilibrium prices are available. The problem of conversion of increasing volume of production of consumer products to a structure optimal in some sense is solved. The asymptotic result produced for the model studied can be related to main-line theorems, except that the dependence of the output of consumer products is constructed in this case using differential equations. These equations contain control vector  $k(t)$ , free for selection at each moment in time, which has the sense of the vector of capital investments per unit of product produced at time  $t$ . Furthermore, the model includes the vector of cost of a unit of production  $c(t)$ , changing

1/2

USSR

VEDUTA, N. I., ZHURAVLEV, V. A., *Ekonomika i mat. metody*, 1973, 9, No 2,  
pp 298-309

as a function of capital investments. It is proven that if capital investments are selected as a function of equilibrium prices of the product and its cost so that the summary expenditures for each product making up a set are at all times proportional to the equilibrium prices, the structure of the products produced and the optimal structure of consumption will converge.

2/2

- 74 -

USSR

UDC 617-001.17-092.90-7:616.831-83 008.1.07

VEDYAYEV, F. P. and VOLOSHIN, P. V., Department of Normal Physiology (Chief, Prof. F. P. Vedyayev) and Department of Nervous Diseases (Chief, Prof. Ye. G. Dubenko), Khar'kov Medical Institute

"Characteristics of Functional Shifts in the Limbic-Reticular System During Action by a Thermal Stress Factor"

Moscow, Patologicheskaya Fiziologicheskaya i Eksperimental'naya Terapiya, No 4, Jul/Aug 73, pp 11-16

Abstract: In experiments on rabbits subjected to the action of thermal trauma (dosed burn with respect to area and with respect to depth of muscle heating), the following was investigated: bioelectrical activity of the cortical and subcortical structures of the brain, the state of cerebral hemodynamics (rheography), the condition of the cardiac and respiratory systems (EKG, pneumography), as well as thermotopography of the brain structures and the muscles, and polarography of various portions of the brain and of the muscles. Thermal action is shown to have produced a characteristic stress reaction accompanied by profound disturbances of the systems under study. A sequence was revealed in the development of functional shifts -- disturbances in the limbic-reticular system take place  
1/2

- 49 -

USSR

VEDYAYEV, F. P. and VOLOSHIN, P. V., Patologicheskaya Fiziologicheskaya i Eksperimental'naya Terapiya, No 4, Jul/Aug 73, pp 11-16

in the initial stages after the burn, with subsequent involvement of the cardiovascular and respiratory systems; later (according to thermographic and polarographic data), a change occurred in the level of the redox processes. 3 figures. 14 references.

2/2