VLASOV N.N.

Acc. Nr.: AN0104123 Ref. Code: UR9003

49

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

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. AL,PEROVICH, V. B. BARSHEVSKIY, A. A. DMITRIYEV, G. I. IOFFE, M. A. KUPFER, L. A. POTASHNIK, N. N. PRIOROV, 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. SHKODO, 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. CHERNOUSKO AND "ULTRA HIGH PRECISION JIG BORING MILLS WITH 1,000 X 1,600 AND 1,400 X 2,240 MM PLATENS", BY A. I. KIRYANOV, 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

1/2 019 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--SYNTHESIS OF THE SODIUM SALT OF THE BETA,D,MONOGLUCURONIDE OF PHENOLPHTHALEIN SUBSTRATE FOR DETERMINING BETA,GLUCURONIDASE ACTIVITY

AUTHOR--VLASOV, N.N.

COUNTRY OF INFO--USSR

SOURCE--LAB. DELO 1970, (4), 244-6

DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--SODIUM, URINE, RABBIT, CHEMICAL SYNTHESIS, ENZYME ACTIVITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3005/0427 STEP NO--UR/9099/70/000/004/0244/0246

CIRC ACCESSION NO--AP0132652

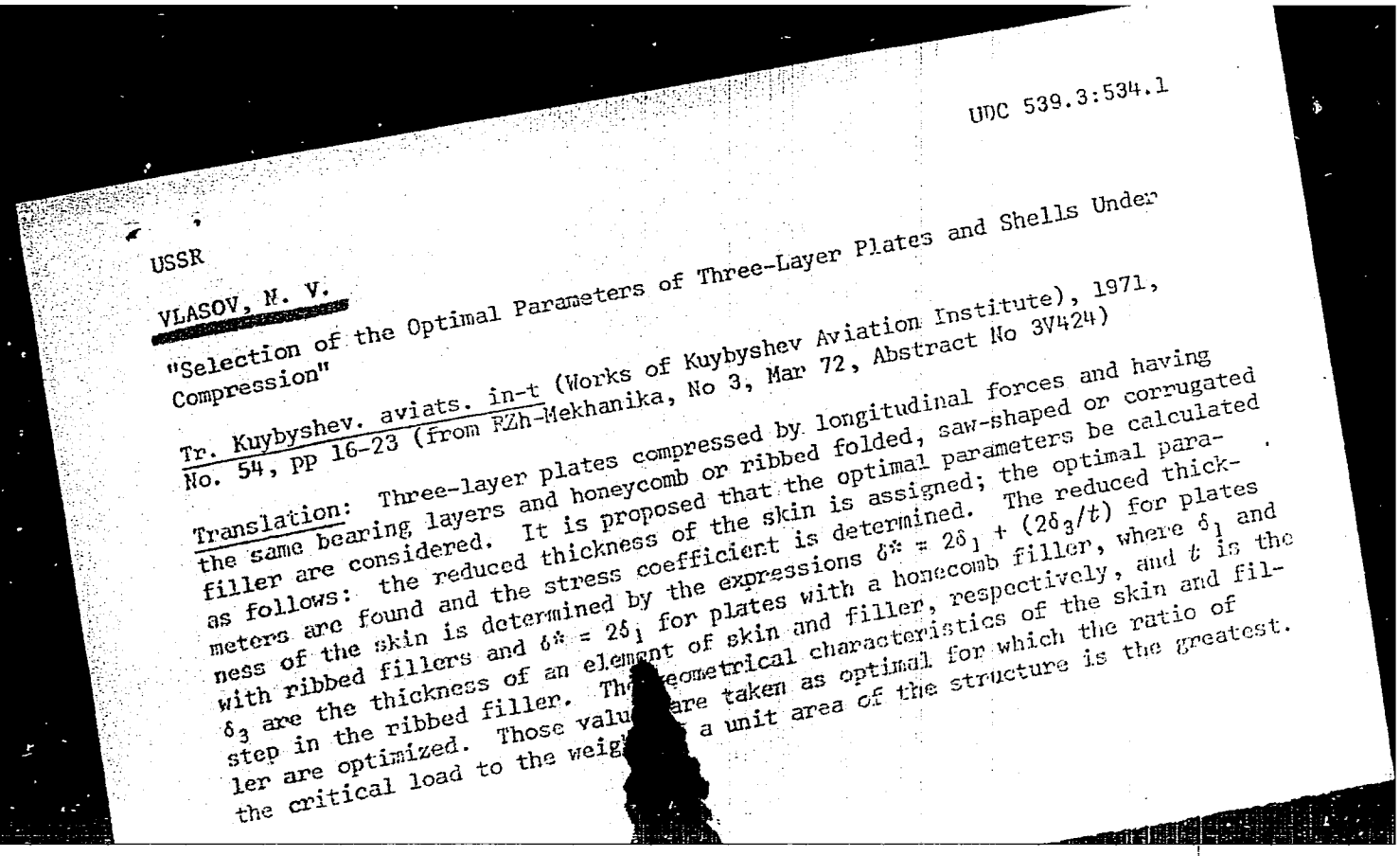
UNCLASSIFIED

2/2 019 UNCLASSIFIED

CIRC ACCESSION NO--AP0132652 PROCESSING DATE--13NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. N,N PRIME-DIBENZYLETHYLENEDIAMINE (I) WAS USED INSTEAD OF CINCHONIDINE TO SEP. PHENOLPHTHALEIN GLUCURONIDE (II) FROM THE URINE OF RABBITS INJECTED WITH PHENOLPHTHALEIN. THE I-II COMPLEX WAS ISOLATED FROM THE URINE AND TREATED WITH BA PRIME2POSITIVE TO SEP. II AS THE BA SALT, BA PRIME2POSITIVE WAS THEN REMOVED WITH CO SUB2, AND NAOH WAS ADDED TO OBTAIN THE FINAL PRODUCT AS THE NA SALT. THE YIELD OF II WAS DETD. BY HYDROLYZING A PORTION OF IT WITH HCL AND MEASURING THE COLOR UPON ADDN. OF NA SUB2 CO SUB3. FACILITY: LAB. KANTSEROGEN. AGENTOV, NAUCH.-ISSLED. INST. ONKOL. IM. PETROVA, LENINGRAD, USSR.

UNCLASSIFIED



UDC 539.3:534.1

USSR

VLASOV, N. V.

"Selection of the Optimal Parameters of Three-Layer Plates and Shells Under Compression"

Tr. Kuybyshev. aviats. in-t (Works of Kuybyshev Aviation Institute), 1971, No. 54, PP 16-23 (from RZh-Mekhanika, No 3, Mar 72, Abstract No 3V424)

Translation: Three-layer plates compressed by longitudinal forces and having the same bearing layers and honeycomb or ribbed folded, saw-shaped or corrugated filler are considered. It is proposed that the optimal parameters be calculated as follows: the reduced thickness of the skin is assigned; the optimal parameters are found and the stress coefficient is determined. The reduced thickness of the skin is determined by the expressions $\delta^* = 2\delta_1 + (2\delta_3/t)$ for plates with ribbed fillers and $\delta^* = 2\delta_1$ for plates with a honecomb filler, where δ_1 and δ_3 are the thickness of an element of skin and filler, respectively, and t is the step in the ribbed filler. The geometrical characteristics of the skin and filler are optimized. Those values are taken as optimal for which the ratio of the critical load to the weight of a unit area of the structure is the greatest.

USSR

VLASOV, N. V., Tr. Kuybyshev. aviats. in-t, 1971, No. 54, pp 16-23

The stress coefficient is defined as the ratio of the critical load to the length of the plate or to the outer radius of the shell. The optimal parameters of an infinitely wide freely supported plate with honeycomb filler compressed by longitudinal forces are calculated. A. V. Ivanov.

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USSR

UDC 629.78.015.4

VLASOV, N. V.

"Selection of Optimal Parameters of 3-layer Plates and Shells in Compression"

Tr. Kuybyshev. Aviats. In-t. [Works of Kuybyshev Aviation Institute], 1971, Vol 54, pp 16-23. (Translated from Referativnyy Zhurnal Raketostroyeniye, No 1, 1972, Abstract No 1.41.169, by T. A. Ye).

Translation: The problem is studied of determining the optimal parameters of 3-layer plates and shells with fillers from the standpoint of the production of structures with minimum weight to operate in compression. An example is studied of determination of the optimal parameters of 3-layer infinitely broad plates with articulated edges, with external layers of identical thickness and honeycomb filler with cells shaped as regular hexagons in longitudinal compression. The calculations indicate that for an optimal, infinitely broad plate with honeycomb filler, operating within the limits of elasticity, the weight of the filler is approximately equal to the weight of the load-bearing layers. The order of calculation involved in determining optimal parameters of a compressed plate, illustrated in the example presented, is retained with other shapes of the compressed plate or shell and for other conditions of fastening of the edges. 3 figs, 6 biblio refs.

1/1

USSR

VORONTSOVA, N. A., VLASOV, O. N., FADEYEVA, M. L., BASKAKOV, YU. A.

"Alkaline Hydrolysis of O-Acyl-N-carbisopropoxy-N-arylhydroxylamines"

V sb. Khim. sredstva zashchity rast. (Chemical Plant Protective Agents -- collection of works), No 2, Moscow, 1972, pp 295-298 (from RZh-Khimiya, No 19, Oct 73, Abstract No 19N552)

Translation: Alkaline hydrolysis of the derivatives of N-carboisopropoxy--N-acylhydroxylamine has been studied in temperature range +25 to -17°. The hydrolysis occurs by the second order reaction. The activation energies have been calculated. It has been shown that in addition to the inductive effect, other factors influence the reaction rate, principally the steric factors. O-Acyl-N-carboisopropoxy-N-acylhydroxylamines exhibit herbicidal properties.

1/1

USSR

VORONTSOVA, N. A., MEL'NIKOV, N. N., VLASOV, O. N., et al.

"Kinetics of the Condensation Reaction of Chloral with Dimethyl Phosphite"

V sb Khim. sredstva zashchity rast. (Chemical Plant Protective Agents), Moscow Vyp 2, 1972, pp 106-109 (from RZh-Khimiya, No 21, Nov 73, Abstract No 21N534)

Translation: The kinetics of the condensation reaction of $(MeO)_2PHO$ (I) with chloral in absence of a solvent at 11° has been studied using different ratios of the starting components. It has been shown that the reaction is a third order reaction, partial order with respect to I is second order.

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USSR UDC 621.369.96.01

VLASOV, O. V., SMOKIN, I. V.

Radiooborudovaniye letatel'nykh apparatov (Radio Equipment of Aircraft and Spacecraft), Moscow, Voyenizdat Press, 1971, 360 pp, ill., 1 r. 23 k. (from RZh-Radiotekhnika, No 10, Oct 71, Abstract No 10G2K)

Translation: All aircraft radio devices are grouped in three classes in the book: means of obtaining information, means of transmitting information and means of controlling aviation combat operations. The last class includes the radio equipment of the intercept systems (the recognition system, the intercept station, the range finders, the air-to-air guided missile equipment, radio detonators), homing and navigational equipment (radio compasses, radar for various purposes, systems using artificial Earth satellites), landing system equipment, aircraft defense systems (including means of radio countermeasures), and reconnaissance system equipment.

Radar

USSR

VASIN, VLADIMIR VASIL'YEVICH, VLASOV, OLEG VALERIANOVICH, GRIGORIN-RYABOV, VIKTOR VALERIANOVICH, DUDNIK, PAVEL IVANOVICH DUDNIK, and STEPANOV, BORIS MIKHAYLOVICH

"Radar Equipment (Theory and Principles of Construction)" [Radiolokatsionnyye Ustroystva (Teoriya i Printsipy Postroyeniya)], Moscow, Izd-vo "Sovetskoye Radio," 1970, 18,500 copies, 680 pages

Abstract: The book presents radar principles, co-ordinate measurement methods, and scanning. Problems of radar signal detection, the accuracy in measuring their parameters, and solutions are examined. The principles for constructing radar equipment of different types are given, as well as their main characteristics are analyzed.

In conclusion, considerations for construction of radar systems, which are intended for solving concrete problems (aerial and marine target detection, radar observation of ground objects, etc.) are presented.

The book is intended for students of higher institutes of learning and may serve as a manual for specialists working in the field of radar. The book has two tables, 343 figures, and 69 citations.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203520012-4"

USSR

VASIN, VLADIMIR VASIL'YEVICH, et al., "Radar Equipment (Theory and Principles of Construction)" [Radiolokatsionnyye Ustroystva (Teoriya i Printsipy Postroyeniya)], Moscow, Izd-vo "Sovetskoye Radio," 1970, 18,500 copies, 680 pages

The chapter headings are as follows:

USSR

VASIN, VLADIMIR VASIL'YEVICH, et al., "Radar Equipment (Theory and Principles of Construction)" [Radiolokatsionnyye Ustroystva (Teoriya i Printsipy Postroyeniya)], Moscow, Izd-vo "Sovetskoye Radio," 1970, 18,500 copies, 680 pages

3/4

USSR

VASIN, VLADIMIR VASIL'YEVICH, et al., "Radar Equipment (Theory and Principles of Construction)" [Radiolokatsionnyye Ustroystva (Teoriya i Printsipy Postroyeniya)], Moscow, Izd-vo "Sovetskoye Radio," 1970, 18,500 copies, 680 pages

1/2 016 UNCLASSIFIED PROCESSING DATE--09OCT70

TITLE--SUBSTANTIATION OF THE MAXIMAL PERMISSIBLE CONCENTRATIONS OF AMMONIUM DIURANATE IN THE AIR OF INDUSTRIAL -U-

AUTHOR-(02)-GALIBIN, G.P., VLASOV, P.A.

COUNTRY OF INFO--USSR

SOURCE--GIGIYENA I SANITARIYA, 1970, NR 5, PP 26-32

DATE PUBLISHED--------70

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

TOPIC TAGS--AIR POLLUTION, AMMONIUM COMPOUND, TOXICITY, URANIUM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1992/1645 STEP NO--UR/0240/70/000/005/0026/0032

CIRC ACCESSION NO--AP0112639

UNCLASSIFIED

2/2 016 UNCLASSIFIED PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0112639

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IN A CHRONIC TEST CARRIED OUT ON RATS INHALATION OF AMMONIUM DIURANATE AT A CONCENTRATION OF 8 MG-M PRIME3 FOR FOUR HOURS DAILY FOR A PERIOD OF 4 MONTHS PROVED TO BE DEFINITELY TOXIC. THE CONCENTRATION OF THIS COMPOUND AMOUNTING TO 1 MG-M PRIME3 APPROACHED THE MINIMUM EFFECTIVE LEVEL OBTAINED IN THE CHRONIC INHALATION TEST. THE PAPER PRESENTS DATA OF CLINICAL BIOCHEMICAL AND PATHALOGOANATOMICAL INVESTIGATIONS AND THE AMOUNT OF SUBSTANCE ABSORBED BY SUCH TISSUES AS THE SKELETON, THE LUNGS, THE LIVER AND THE KIDNEYS. ON THE BASIS OF THE EXPERIMENTAL DATA OBTAINED THE MAXIMUM PERMISSIBLE CONCENTRATION OF AMMONIUM DIURANATE IN THE AIR OF INDUSTRIAL PREMISES IS RECOMMENDED TO BE SET AT A LEVEL OF 0.1 MG-M PRIME3 OF URANIUM (7 TIME 10 PRIME NEGATIVE14 CURIE-L FOR NATURAL URANIUM).

UNCLASSIFIED

1/2 027 UNCLASSIFIED PROCESSING DATE--27NOV70

TITLE--METHOD OF DETERMINING BRINELL HARDNESS NUMBERS BY SHOCK LOADING -U-

AUTHOR-(02)-MONOSHKOV, A.N., VLASOV, R.A.

COUNTRY OF INFO--USSR

SOURCE--ZAVOD. LAB., 1970, 36, (2), 225-227

DATE PUBLISHED-------70

SUBJECT AREAS--MATERIALS, METHODS AND EQUIPMENT

TOPIC TAGS--HARDNESS, IMPACT STRESS, METALLURGIC TESTING MACHINE, CARBON STEEL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3003/0304 STEP NO--UR/0032/70/036/002/0225/0227

CIRC ACCESSION NO--AP0129536

UNCLASSIFIED

2/2 027 UNCLASSIFIED PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0129536

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. AN IMPROVED METHOD OF DETERMINING THE BRINELL HARDNESS NUMBERS OF METALS AND OTHER MATERIALS IN A SHOCK LOADING PROCESS IS DESCRIBED. THIS METHOD IS BASED ON THE DROZD TECHNIQUE (NON DESTRUCTIVE DETERMINATION OF THE PROPERTIES OF METALS, 'METALLURGIYA', 1965) AND RELIES ON THE RELATIONSHIP BETWEEN THE DEPTH AND DIA. OF THE IMPRESSION MADE IN THE HARDNESS TESTER. EXAMPLES ARE GIVEN FOR SEVERAL C AND ALLOY STEELS.

UNCLASSIFIED

USSR

UDC 534.232.46-8

GRANAT, Yo. G., RUBANOV, L. A., VIASOV, S. I.

"Device For Impregnation of Piezoceramic Transducer"

USSR Author's Certificate No 270003, filed 13 June 68, published 31 Aug 70 (from RZh--Elektronika i yeye primeneniye, No 3, March 1971, Abstract No 3A417P)

Translation: An improved procedure is proposed for impregnation of a piezoceramic transducer, which differs in the fact that a piezoceramic transducer subject to impregnation is used as an ultrasonic vibrator which produces ultrasonic vibrations in a bath with impregnating material. 1 ill. N.B.

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1/2 010 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--SEPARATE BIAXIAL ORIENTATION OF POLYPROPYLENE FILMS -U-

AUTHOR-(03)-VLASOV, S.V., SAGALAYEV, G.V., GAVRILOV, V.V.

COUNTRY OF INFO--USSR

SOURCE--PLAST. MASSY 1970, (3), 23-4

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--POLYPROPYLENE, PLASTIC FILM, PLASTIC MECHANICAL FILM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/0656 STEP NO--UR/0191/70/000/003/0023/0024

CIRC ACCESSION NO--AP0119564

UNCLASSIFIED

2/2 010 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0119564

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE PRINCIPLES OF CROSSWISE ORIENTATION OF ISOTROPIC POLYPROPYLENE (I) FILMS AT VARIOUS TEMPS. AND THE PROPERTIES OF THE FILMS OBTAINED ARE DISCUSSED. THE OPTIMUM TEMP. OF CROSSWISE ORIENTATION IS 130-150DEGREES. RUPTURE OF I FILMS OCCURS AT 100-10DEGREES; AT 155-70DEGREES, THE FILMS UNDERGO DEORIENTATION. THE STRENGTH OF I FILMS AT 110-50DEGREES IS INDEPENDENT OF THE ORIENTATION TEMP. THE DEGREE OF CROSSWISE AND LENGTHWISE STRETCHING ARE RELATED TO THE ORIENTATION TEMP. AND THE STRENGTH OF THE FILMS OBTAINED.

UNCLASSIFIED

USSR

UDC 669.721.042.6

ALEKSANDROVSKIY, S. V., VLASOV, V. A., LIBERMAN, M. D., POSKANENKOV, V. V.

"Experience in Production of Castings of Magnesium Alloys by Casting Under Pressure for Various Machine-Building Products"

Tr. Vses. N-i. i Proyektn. In-ta. Alyumin., Magn. i Elektrodn. Prom-sti [Works of All-Union Scientific Research and Planning Institute of the Aluminum, Magnesium and Electrode Industry], 1970, No. 72, pp. 155-162. (Translated from Referativnyy Zhurnal Metallurgiya, No. 5, 1971, Abstract No. 5 G194 by the authors).

Translated: A description is presented of the manufacture of various products (hand and portable tools, motorcycles, motor vehicles) with Mg alloy parts. The parts were produced by casting under pressure. The results of testing have shown the possibility of industrial application of Mg alloys in place of aluminum allcys. 5 figs, 1 table.

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USSR

UDC 669.295

SANDLER, R. A., GULYAKIN, A. I., and VLASOV, V. A., Leningrad

"Secondary Structure of Titanium Sponge Produced by Magnesium-Heat Reduction of Lower Chlorides"

Moscow, Izvestiya Akademii Nauk SSSR, Metally, No 1, Jan-Feb 1970, pp 33-[illegible]

Abstract: Data are presented on investigations of the secondary structure of titanium sponge produced by magnesium-heat reduction of concentrated chloride titanium containing fusions. The increased quality of the titanium, produced through magnesium-heat reduction of its lower chlorides, contributes to the production of a less porous structure and to the reduction of the residual content of chlorine after vacuum separation. An increase in the rate of use of magnesium results in the formation of closed pores, specifically, in the sponge of the upper part of the titanium block. An increase in the temperature of the reduction process leads to the production of a higher-density secondary structure of the sponge and to the reduction of the residual content of chlorine.

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Acc. Nr. AP0043724 Abstracting Service: 5/70 Ref. Code: UR0370

INTERNAT. AEROSPACE ABST.

A70-23783 # Secondary structure of titanium sponge obtained by magnesiothermal reduction of lower chlorides (Vtorichnaia struktura titanovoi gubki, poluchennoi magnietermicheskim vosstanovleniem nizshikh khloridov). R. A. Sandler, A. I. Guliakin, and V. A. Vlasov. *Akademiia Nauk SSSR. Izvestiia, Metally*, Jan.-Feb. 1970, p. 33-42. 8 refs. In Russian.

Evaluation of the results of studies of the secondary structure of titanium sponge obtained by magnesiothermal reduction of concentrated titanium-containing chloride melts. It is found that an increase in the quality of the titanium obtained by magnesiothermal reduction of its lower chlorides leads to the development of a more porous structure and to a reduction of the residual concentration of chlorine after vacuum separation. An increase in the overall degree of utilization of magnesium facilitates the formation of closed pores, particularly in the sponge of the upper part of the titanium block. An increase in the temperature of the reduction process leads to the development of a densar secondary sponge structure and to a reduction of the residual chlorine content.

A.B.K.

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REEL/FRAME 19770130

Acs

18

USSR

SADYKOVA, A. A., VLASOV, V. F., MEYKLYAR, P. V. UDC 77

"Luminescence and Photo-emf of Photographic Layers"

V sb. Mezhdunar. kongress po fotogr. nauke, Moskva, 1970, Priroda fotogr. chuvstvitel'nosti (International Congress on Photographic Science, Moscow, 1970, Nature of Photographic Sensitivity -- Collection of Works), no place of publication given, Vneshtorgizdat, no year given, pp 87-90 (from RZh-Fizika, No 12(I), Dec 70, Abstract No 12D1318)

Translation: The behavior of the orange photoluminescence band of AgBr(I) which is caused by the recombination of electrons at impurity centers with free holes is studied. The orange photoluminescence band arises in the emulsion and intensifies during aging, especially in small-grained emulsions; it is only for emulsions with cubic crystals obtained by a double-jet method that there is an intense orange photoluminescence band before aging. The band was observed for powders but it weakens or generally disappears with the growth of the iodine concentration. For large single crystals the band is clear only in the presence of Ag_2S impurities. IR-quenching of the band, identical in spectral characteris-

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USSR

- Priroda fotogr. chuvstvitel'nosti, no place of publication given, Vneshtorgizdat, no year given, pp 87-90

tics, was observed in all objects; the magnitude of the quenching per unit of IR energy was proportional to $(h\nu)^2_{IR}$; i.e., the recombination centers do not form local levels in the forbidden zone (quenching for these is proportion to $h\nu$) but form a subzone lying below the conductivity zone by several tens of electron volts (this is evaluated from the intersection of lines with the abscissa). It is evident from this that the orange photoluminescence band is independent of the presence of S^{2-}, and its centers can only be Ag. The correlation between the intensity of the orange photoluminescence band and the sensitivity of the emulsions occurs rarely; i.e., in the general case the centers of radiative recombination are smaller than the sensitivity centers, especially in highly sensitive emulsions. Measurements of the photo-emf, however, showed the relationship between S^{2-} ions and the latter and the formation of p-type acceptor centers during aging. The combined data on photo-emf and orange photoluminescence bands thus make it possible to follow the effect of different centers on the formation of sensitivity. 10 references. A. L. Kartuzhanskiy.

2/2

USSR

Thorium and Uranium Refining

UDC: 669.822.053.2

VLASOV, V. G., REVEBTSOV, V. V., KISELEV, V. A.

"Carbon-Thermal Reduction of Mixtures of Uranium and Zirconium Dioxides"

Nauch. Tr. N.-I. i Proyekt. In-t Redkomet. Prom-sti [Scientific Works of Scientific Research and Planning Institute for the Rare Metals Industry], 1972, No 42, pp 106-115 (Translated from Referativnyy Zhurnal Metallurgiya, No 8, 1973, Abstract No 8G260, by G. Svodtseva).

Translation: Carbon-thermal reduction of mixtures of ZrO_2 and UO_2 begins at 1600-1650° K. At 1870° K, reduction is completed in one hour. The rate of the reaction depends on temperature, apparent activation energy with low degrees of reduction amounting to 170-210 kj/mol, at the end of the process 230-250 kj/mol. The probabilities of various mechanisms of the interaction are studied. The leading interaction is that involving the vapor-phase oxide. The combined reduction of U and Zr oxides occurs with the formation of a solid solution of UC and ZrC. 3 figures.

1/1

SADYKOVA

USSR

VLASOV, V. G., and LARIN, A. A. UDC 66.094.1 :546.791

"Effect of Some Factors on the Kinetics of Decomposition of Uranium Oxycarbides "

Leningrad, Zhurnal Prikladnoy Khimii, Vol 46, No 4, Apr 73, pp 705-708

Abstract : Studying the effect of various factors on the kinetics of decomposition of uranium oxycarbides, it was shown that with rising temperature the rate of the decomposition is increased, leading to the formation of metallic uranium and carbon monoxide. On the other hand, increased compression of the sample, higher degree of the dispersion and pressure of the gas phase in the reaction space, as well as enlarged layers of the starting material cause a drop in the rate of the dissociation of uranium oxycarbides. This evidently is due to poorer conditions for the removal of carbon oxide. The apparent energy of activation has been found to fluctuate in the range of 31 to 41 Kcal/mole. It was established that the smaller the content of oxygen in the oxycarbide -- the more stable it is. This is probably due to the ordering of the solid solution of uranium oxycarbide.

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USSR

VLASOV, V. G., PIS'MENKO, V. T., ULYASHEV, S. P., SHALAGINOV, V. N., and BEKETOV, A. R.

UDC 66.094.1:546.791

"Electroconductivity of Uranium β-Dioxide Modified With Admixtures of MgO, SrO, and Nb_2O_5"

Leningrad, Zhurnal Prikladnoy Khimii, Vol 46, No 1, Jan 73, pp 36-40

Abstract: Specific electroconductivity expressed as a function of temperature for the pure uranium β-dioxide as well as one with admixtures of MgO, SrO, and Nb_2O_5 show three discrete segments: low temperature straight line segment of contaminated conductivity, the middle segment of proper conductivity and a high temperature segment with probably complete conductivity. Presence of impurities alters not only the absolute values of electroconductivity of uranium β-dioxide, but also the transition temperatures of the above three segments. This is due to concentration changes and mobility of basic current carriers. The experimentally established functions of electroconductivity are explained by the defects generated by the admixtures when they are dissolved in the lattice of U_4O_9.

1/1

USSR

UDC 621.762.2

KUKOZ, F. I., VOLOSYUK, YU. M., CHERNOV, G. K., and VLASOV, V. G.

"On the Question of Electrolysis of Ultrafine Ferromagnetic Powders"

Tr. Novocherk. politekhn. in-ta (Works of the Novocherkassk Polytechnical Institute), 1970, 208, pp 70-73 (from RZh-Metallurgiya, No 11, Nov 70, Abstract No 11G332)

Translation: A study is made of the possibility of obtaining powder with maximum drawn out single-dome-shaped particles (ESD particles) under transient modes of electrolysis in a two-layer electrolyzer on a rotating cylindrical cathode. The study is carried out on a unit with pulsed electrolysis regime. It is assumed that such a regime ensures conditions of growth of filament particles. Preliminary data indicates a change in the structure of particles and an almost complete disappearance of dentriteness. Further investigation of the process of electrolysis of powders, particularly at very short pulses, is necessary. 3 ill., 8 bibl. entries.

V. Chelnokov

1/1

USSR

LARIN, A. A., and [redacted], V. G., Ural'sk Polytechnic Institute imeni S. M. Kirov

UDC 66.094.1:546.791

"The Electrical Properties of Uranium Oxycarbides"

Moscow, Zhurnal Neorganicheskoy Khimii, Vol 17, No 2, Feb 72, pp 291-294

Abstract: The resistivity of the uranium oxycarbides $UC_{0.94}O_{0.06}$, $UC_{0.89}O_{0.11}$; $UC_{0.81}O_{0.19}$, $UC_{0.74}O_{0.26}$, and $UC_{0.66}O_{0.34}$ at 80-1200°K was determined. It was found to increase with higher temperatures and with an increasing O content. The relations that were established could be explained by the combined effect of metal-metal Coulomb interaction and metal-nonmetal interaction. In the oxycarbides studied, the concentration of lattice defects, as indicated by a correlation of data obtained by X-ray diffraction and pycnometric density determinations, increased with an increasing O content. Interaction between the 5f and 6f orbitals of U atoms with participation of 2p atoms of the nonmetals, which exhibited pi-bond symmetry, could be assumed. With higher temperatures, the distance between U atoms increased, with the result that overlapping of the 5f and 6f orbitals decreased. This reduced the amount of nonlocalized electrons acting as current carriers. The relative share of ionic bonding increased with an increasing O content, so that the amount of nonlocalized

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USSR

LARIN, A. A. and VLASOV, V. G., Zhurnal Neorganicheskoy Khimii, Vol 17, No 2, Feb 72, pp 291-294

electrons acting as current carriers decreased. The participation of pi-bonds increased with an increasing O content, while the number of lattice vacancies became greater. Excess electrons occupied these vacancies, acting as dispersion centers that reduced the mobility of conduction electrons.

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USSR

VLASOV, V. G., ZHUKOVSKIY, V. M., SEMAVIN, Yu. N., REVEBTSOV, V. V.

UDC: 669.822.053.2

"Some Singularities in the Reduction of Uranium Oxides"

V sb. Mekhanizm i kinetika vosstanovl. met. (Mechanism and Kinetics of Metal Reduction--collection of works), Moscow, "Nauka", 1970, pp 125-131 (from RZh-Metallurgiya, No 10, Oct 70, Abstract No 10 G187)

Translation: An investigation is made into the kinetic singularities of reduction of uranium oxides (UO_3 in various modifications, U_3O_8, U_4O_9, and UO_2) by the gases CO, H_2, NH_3, H_2+N_2, CH_4 and also by C. The adsorption-catalytic theory is taken as a basis for a detailed examination of the mechanism of interaction of oxides with gaseous reducing agents. The mechanism of high-temperature interaction of UO with C is discussed. One illustration, bibliography of nine titles. Authors' abstract.

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USSR

Radiation Chemistry

UDC 546.791'883.261

KISELEV, V. A., VLASOV, V. G., and BUKIN, V. YE.

"Formation of Mixed Uranium and Tantalum Monocarbides During Concurrent Reduction of Their Oxides With Carbon"

Leningrad, Zhurnal Prikladnoy Khimii, Vol 45, No 8, Aug 72, pp 1657-1660

Abstract: It was established that the apparent activation energy of the thermal carbon reduction of a mixture of oxides increases with the development of the process from 120 to 390 kjoule per mole. The following intermediate products have been identified by x-ray phase analysis: uranium dioxide, tantalum pentaoxide, uranium carbide and tantalum carbide. By means of x-ray structural analysis it was shown that up to $\alpha = 0.35$ individual UC and TaC phases are formed. Next, concurrently with the reduction process, formation of solid solutions takes place. Homogenization of solid solutions could be achieved after 4 hrs at 2070°K or after 1.5 hrs at 2270°K. Formation of a continuous series of solid solution in the system UC--TaC was established. An assumption was made that the reactions pass through a stage of formation of vaporized oxides.

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USSR

Stress Analysis and Stability Studies

VLASOV, V. I. and DREYMANIS, D. A. (Moscow-Riga) UDC 539.621

"Determination of the Service Life of Friction Materials Under Conditions of Unsteady Dry Friction"

Moscow, Mashinovedeniye, No 3, May 1973, pp 102-108

Abstract: General principles are worked out for evaluating the wear of a friction material under conditions of work with variable pressures, temperatures, and rates of slipping at the frictional contact. For each friction material the linear intensity of wear depends upon the pressure at the frictional contact, which in its turn changes in the process of engagement of the frictional assembly. To account for the change of these parameters, a series of experiments was conducted to determine the coefficient of friction and the linear intensity of wear in relation to the pressure developed at the frictional contact. Four typical cases of the loading of quick-response frictional assemblies with a different time ratio of relative slippage and engagement, i.e., the time of pressure increase, are considered as an example.

The proposed calculation relationships are convenient for calculations on electronic digital computers, with the aim of working out nomograms for practical use in specific conditions. The practical value of the proposed method consists in the fact that on the basis of bench-test data, the wear resistance

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USSR

VLASOV, V. I. and DREYMANIS, D. A., Mashinovedeniye, No 3, May 1973, pp 102-108

of friction materials can be quantitatively evaluated under actual load conditions, and the optimal regimes of work can be determined in relation to the properties of the friction material. 5 figures. 7 references.

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USSR

VLASOV, V. I. and BERMAN, Ya. I.

UDC: 621.396.967.029.5.001.2

Proyektirovaniye Vysokochastotnykh Ustroystv Radiolokatsionnykh Stantsiy (Design of High-Frequency Radar Station Devices) 1972, Leningrad, Izd-vo "Sudostroyeniye," 368 pp, p 2

Translation: This book offers a method for computing and constructing antenna-feeder strips for shipboard radar stations (SRS). The theme is important because the technical and tactical characteristics of SRS as a whole depend on these strips.

The authors have considered the theoretical bases of the operation of all the high-frequency SRS devices (antennas, shields, waveguide elements), given the derivations of design formulas, described a method of engineering computation, examined methods of measurement and control of the parameters of these devices, and listed recommendations for their placement and operation on board ship.

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USSR

VLASOV, V. I. and BERMAN, Ya. I., Proyektirovaniye Vysokochastotnykh Ustroystv Radiolokatsionnykh Stantsiy, 1972, Izd-vo "Sudostroyeniye," 368 pp, p 2

Especial attention is given to the prospects of antenna-waveguide devices -- phased antenna gratings permitting broad control of electrical parameters -- which make them especially valuable for solving some navigating problems.

The book is aimed at engineer-technician personnel engaged in the design of high-frequency shipboard radar strips; it may be useful as a textbook for the advanced and middle educational institutions.

It contains 26 tables, 274 illustrations, and a bibliography of 68 titles.

Reviewers: Candidate of Technical Sciences K. K. Lyapin, Engineer B. N. Astashov, and Engineer S. P. Shamolin.

Scientific Editor: Candidate of Technical Sciences K. L. Varshavchik.

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USSR

VLASOV, V. I. and BERMAN, Ya. I.

UDC: 621.396.967.029.5.001.2

Proyektirovaniye Vysokochastotnykh Ustroystv Radiolokatsionnykh Stantsiy (Design of High-Frequency Radar Station Devices) 1972, Leningrad, Izd-vo "Sudostroyeniye," 368 pp, pp 367-368

Translation:

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USSR

VLASOV, V. I. and ERMAN, Ya. I., Proyektirovaniye Vysokochastotnykh Ustroystv Radiolokatsionnykh Stantsiy, 1972, Izd-vo "Sudostroyeniye," 368 pp, pp 367-368

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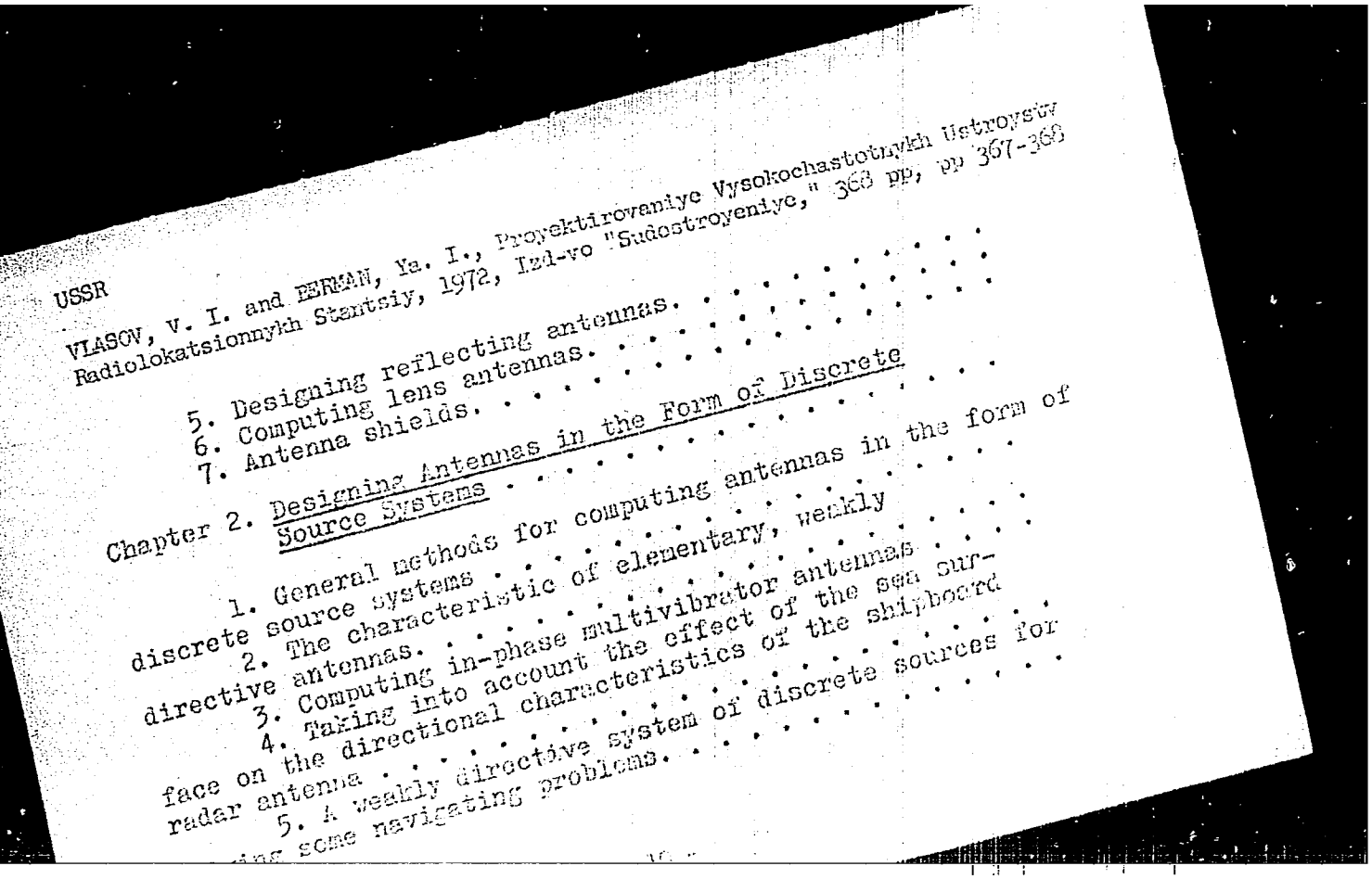

USSR

VLASOV, V. I. and PERMAN, Ya. I., Proyektirovaniye Vysokochastotnykh Ustroystv Radiolokatsionnykh Stantsiy, 1972, Izd-vo "Sudostroyeniye," 368 pp, pp 367-368

USSR

VLASOV, V. I. and BERTAN, Ya. I., Proyektirovaniye Vysokochastotnykh Ustroystv Radiolokatsionnykh Stantsiy, 1972, Izd-vo "Sudostroyeniye," 368 pp, pp 367-368

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USSR

VLASOV, V. I. and BERMAN, Ya. I., Proyektirovaniye Vysokochastotnykh Ustroystv Radiolokatsionnykh Stantsiy, 1972, Izd-vo "Sudostroyeniye," 368 pp, pp 367-368

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USSR

VLASOV, V. I. and BERMAN, Ya. I., Proyektirovaniye Vysokochastotnykh Ustroystv Radiolokatsionnykh Stantsiy, 1972, Izd-vo "Sudostroyeniye," 368 pp, pp 367-368

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USSR

VLASOV, V. I. and BERMAN, Ya. I., Proyektirovaniye Vysokochastotnykh Ustroystv Radiolokatsionnykh Stantsiy, 1972, Izd-vo "Sudostroyeniye," 368 pp, pp 367-368

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USSR

VLASOV, V. I. and ERMAN, Ya. I., Proyektirovaniye Vysokochastotnykh Ustroystv Radiolokatsionnykh Stantsiy, 1972, Izd-vo "Sudostroyeniye," 368 pp, pp 367-368

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USSR

UDC: 620.193.01:669.295

TOMASHOV, N. D., RUSKOL, Yu. S., VLASOV, V. I., Institute of Physical Chemistry, Academy of Sciences of the USSR

"Oscillographic Study of the Self-Passivation of Titanium After Surface Dressing in NaCl Solutions"

Moscow, Zashchita Metallov, Vol 9, No 3, May/Jun 73, pp 250-255

Abstract: The authors studied oscillographic curves for the potential drop of a titanium electrode after its surface had been cleaned under a sodium chloride solution. The experiments were done on specimens of iodide titanium (TsMTU 05-18-67, HB 66.5) which was remelted in an arc furnace with consumable electrode in a helium atmosphere, forged and annealed in a vacuum (10^{-4} mm Hg) at 650°C for 40 minutes. Specimens 6 mm in diameter were pressed into Teflon holders so that only one end surface was exposed. Before the experiments, the specimens were cleaned with M-28 abrasive paper, degreased with acetone and rinsed with distilled water. The installation used for cleaning the surface under sodium chloride was described in a previous paper (N. D. Tomashov, R. M. Al'tovskiy, G. P. Chernova, "A Device for Electrochemical Study of Metals During Surface Cleaning Under a Solu-

USSR

TOMASHOV, N. D. et al., Zashchita Metallov, Vol 9, No 3, May/Jun 73, pp 250-253

tion", Moscow, VINITI, theme No 13, No M-58-94/7, 1958). The rate of rotation of the Corundum disc was 1320 rpm (linear velocity of grinding with respect to the center of the specimen 3.11 m/s), and the speed of reciprocating motion of the disc was 2.15 mm/hr (600 nm/s), corundum grain size was 57-76 µm. After 15 minutes of surface dressing, the wheel was removed from the specimen and the change in potential of the specimen with time was measured. For the first five seconds the measurements were made on the S1-19A CRT oscilloscope, after which an N-39 chart-recording millivoltmeter was used in some cases. The LPU-01 pH meter was used as a high-impedance amplifier. Cathode polarization curves were plotted at a rate of 1.2 V/hr using the P-5827 potentiostat in a three-electrode cell. A saturated calomel comparison electrode was used. It was found that the self-passivation of titanium is slowed down considerably in neutral solutions by increasing the concentration of chlorine anions and reducing the concentration of dissolved oxygen. In dilute aerated sodium chloride solutions, titanium is covered to a considerable extent by a chemosorption layer of oxygen even with continuous mechanical surface cleaning under solution.

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USSR

UDC 534.222.2

VLASOV, V. I.

"Calculation of the Aerodynamic Characteristics of a Plane Plate of Infinite Span in a Hypersonic Flow of Rarefied Gas"

Uch. zap. Tsentr. aero-gidrodinam. in-ta (Scientific Notes of the Central Aerohydrodynamic Institute), 1971, Vol. 2, No. 6, pp 116-118 (from RZh-Mekhanika, No 6, Jun 72, Abstract No 6B250)

Translation: Flow over a plane plate at an angle of attack of the gas flow at various Knudsen numbers and at Mach number M = 10 is discussed. The Monte Carlo method is used with numerical modeling of the motion of a sample molecule on a background of field molecules. The plate is surrounded by a certain finite rectangular region, at the boundary of which the distribution function of test molecules entering into it is considered the same as in the unperturbed flow. An iteration process is used to define data on the density field and other quantities. The results are compared with experimental data. Unfortunately, the extreme laconic quality of the article makes it impossible to obtain a complete picture of the calculation method, its advantages and disadvantages. V. P. Shidlovskiy.

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USSR

UDC 629.78.015:533.6.011.55

VLASOV, V. I.

"Calculation of Aerodynamic Characteristics of a Flat Plate of Infinite Span in a Hypersonic Flow of a Rarefied Gas"

Uch. zap. Tsentr. Aero-gidrodinam. In-ta [Scientific Writings of Central Aero-Hydrodynamics Institute], Vol 2, No 6, 1971, pp 116-118, (Translated from Referativnyy Zhurnal, Raketostroyeniye, No 4, 1972, Abstract No 4.41.141 from the Resume).

Translation: The aerodynamic characteristics of a plate are calculated in the transition flow mode from continuous to free-molecular flow at $\alpha = 5°$ and 15° and M = 10, by the Monte-Carlo method. The data produced are compared with experimental results, as well as calculation by the theory of first collisions and the theory of strong interaction between the external flow and the boundary layer. 4 Figures; 3 Biblio. Refs.

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USSR

UDC: 621.396.6:629.12

BERMAN, Ya. I., VLASOV, V. I., KOGAN, N. L. et al.

"Shipboard Radar Installations and Their Use. (Handbook). Vol. 2"

Sudovyye radiolokatsionnyye stantsii i ikh primeneniye. (Spravochnoye Rukovodstvo). T. 2 (cf. English above), Leningrad, "Sudostroyeniye", 1970, 567 pp, ill. 1 r. 90 k. (from RZh-Radiotekhnika, No 11, Nov 70, Abstract No 11G65 K)

Translation: The second volume of this three-volume handbook deals with principles of design and methods of computation of the basic elements of radar installations; transmitting, receiving, waveguide-antenna and display units are considered. Materials are given on automatic tracking of targets and on taking their coordinates on a circular scanning field. The handbook is designed for an extensive range of specialists involved in radar technology. It may also be used as a classroom reference by teachers and students in the appropriate areas.

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USSR UDC 541.138

MUCHNIK, G. F., RUBASHOV, I. B., VLASOV, V. M., GANIN, YE. A., KARICHEV, Z. R., and POSTANOGOV, V. P., Moscow

"Study of the Leakage of Fuel Gases Into Electrolyte Chambers of Fuel Cells"

Moscow, Elektrokhimiya, Vol 8, No 5, May 72, pp 690-694

Abstract: It was shown that the average rate of leakage of a gas into an electrolyte is affected to a great degree by such factors as current charge, temperature of the elements, battery, pressure drop between the gasseous and electrolytic sides of the electrolytes, and the concentration of the electrolyte. The type of the functional curves obtained experimentally agree sufficiently well with those obtained from theoretical calculations of diffusion leakage, however, under experimental conditions this effect is much stronger, especially in case of temperature. The leaking gas consists almost exclusively of hydrogen. It was shown that gas mobility does not affect the rate of leakage if water vapor tension is kept constant. An increased rate of the leakage observed with a higher rate of moisture removal from the surface of the electrolyte is evidently due to a shift in the equilibrium in the pores in presence of secondary meniscuses.

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USSR UDC 541.136

BARANOV, V. I., VDOVICHENKO, N. V., VIASOV, V. M., IVANOV, A. M., MUCHNIK, G. F., RUBASHOV, I. B., and TABAKMAN, L. S., Moscow

"Fuel Cells With ion Exchange Membranes. Development and Investigation"

Moscow, Elektrokhimiya, Vol 8, No 5, May 72, pp 694-698

Abstract: Fuel cells are described based on cation exchange resin membranes washed free of unbound acid. The use of solid electrolyte imparts certain specific properties to all physical processes occuring in the fuel cells, such as localization of elementary physical acts responsible for current generation. Current generation on the surface of the membrane could not possibly produce the total generated power, so that the electrode inside the membrane must have been contributing substantially to current generation. Several assumptions are made concerning this problem, and a conclusion is reached that current is generated by a thin layer of a catalyst inside the membrane partially filled with water. Two methods are used for water removal from the electrode surface -- thermal and hydraulic -- to assure proper performance of the unit. Thermal method is more versatile but requires a more

USSR

BARANOV, V. I., et al, Elektrokhimiya, Vol 8, No 5, May 72, pp 694-698

complex equipment. The principal problem in this system concerns uniformity of the removal of water. Both types of current generators are described, pointing out the areas where development is still needed, mainly in synthesis of new materials for membranes.

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1/2 017 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--AROMATIC FLUORO DERIVATIVES. XL. EFFECT OF A PENTAFLUOROPHENYL RING ON THE STRENGTH OF CH ACIDS -U-

AUTHOR-(03)-VLASOV, V.M., KRIVOUSOVA, YE.D., YAKOBSON, G.G.

COUNTRY OF INFO--USSR

SOURCE--ZH. ORG. KHIM. 1970, 6(4), 758-67

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--FLUORINATED ORGANIC COMPOUND, DICARBOXYLIC ACID, SODIUM COMPOUND, NITRILE, NMR SPECTRUM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/1957 STEP NO--UR/0366/70/006/004/0758/0767

CIRC ACCESSION NO--AP0125546

UNCLASSIFIED

2/2 017 UNCLASSIFIED PROCESSING DATE--13NOV70
CIRC ACCESSION NO--AP0125546
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE ACTION OF NAH ON C SUB6 F SUB5 CH SUB2 CN IN MEOCH SUB2 CH SUB2 OME (I) SOLN. GIVES P,NCCH SUB2 C SUB6 F SUB4 CH (CN) C SUB6 F SUB5 (II) WHICH AT MINUS 10DEGREES TO 25DEGREES FORMS WITH THE EXCESS NAH COLORED CARBANION P,NCCH SUB2 C SUB6 F SUB4 C PRIME NEGATIVE (NA PRIME POSITIVE)(CN)C SUB6 F SUB5 (III). THE EXISTENCE OF III WAS ESTABLISHED BY IR AND NMR SPECTROSCOPY. THE HYDROLYSIS OF II GAVE THE CORRESPONDING DICARBOXYLIC ACID. SIMILARLY, C SUB6 F SUB5 CH (CO SUB2 ET) SUB2 IN I SOLN. GAVE STABLE C SUB6 F SUB5 C PRIME NEGATIVE (NA PRIME POSITIVE), (CO SUB2 ET) SUB2 (IV). THE COMPARISON OF IV NMR SPECTRA IN I AND PO(NME SUB2) SUB3 (HIGHLY POLAR SOLVENT) WITH THE SPECTRA OF RC PRIME NEGATIVE (NA PRIME POSITIVE), (CO SUB2 ET) SUB2 (V) (R IS P,HC SUB6 F SUB4, 2,4,(O SUB2 N) SUB2 C SUB6 H SUB3; OMICRON, O SUB2 NC SUB6 H SUB4, P,O SUB2 H, C SUB6 H SUB4, OR PH) SHOWS THAT THE IONIZATION OF IV IS OF THE SAME ORDER AS THAT OF V (R EQUALS OMICRON, O SUB2 NC SUB6 H SUB4 OR P,O SUB2 NC SUB6 H SUB4). THE POSITION OF EQUIL. WAS ESTABLISHED IN RCH(CO SUB2 ET) SUB2 PLUS IV IN EQULIBRIUM V PLUS C SUB6 F SUB5 CH, (CO SUB2 ET) SUB2 SYSTEMS. THE RELATIVE REACTIVITY OF IV AND V TOWARD N;CHLOROMETHYLPHTHALIMIDE WAS DETD. FACILITY: NOVOSIBIRSK, INST. ORG. KHIM., NOVOSIBIRSK, USSR.

UNCLASSIFIED

1/2 008 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--ALKALINE SPLITTING OF BETA ACETYLENIC ALCOHOLS -U-

AUTHOR-(04)-VLASOV, V.P., MEDVEDEVA, A.S., CHICHKAREVA, G.G., SAFRONOVA, L.P.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, SER. KHIM. 1970, (4), 944-5

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ALCOHOL, CHEMICAL DECOMPOSITION, ACETYLENE, DEHYDRATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3006/1306 STEP NO--UR/0062/70/000/004/0944/0945

CIRC ACCESSION NO--AP0134980

UNCLASSIFIED

2/2 008 UNCLASSIFIED PROCESSING DATE--20NOV70
CIRC ACCESSION NO--AP0134980
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. HEATING 15 G 1,PENTYN,4,OL WITH 25 G KOH UNDER ET SUB2 O RESULTED IN INTENSIVE EVOLUTION OF GAS AT 55-60DEGREES, CONTG. C SUB2 H SUB2 AND MECTRIPLE BOND CH; AT 9508DEGREES THE GAS CONSISTED OF MEC TRIPLE BOND CH PREDOMINANTLY. 1,BUTYN, 4,OL AND KOH HEATED TO 75-90DEGREES GAVE C SUB2 H SUB2, BUT AT 100-15DEGREES GAVE MAINLY MEC TRIPLE BOND CH. THE LATTER ALC. DECOMPD. LESS READILY THAN DID THE FORMER. EVIDENTLY THE DECOMPN. INTO C SUB2 H SUB2 AND ALKYLENE OXIDE AT THE LOWER TEMP. IS ALTERED BY HIGHER TEMP. INTO FORMATION OF UNSATD. ALC., WHICH UNDERGOES ALLENIC REARRANGEMENT AND DEHYDRATION TO FORM MEC TRIPLE BOND CH AND RCHO. THE REACTION WAS FOLLOWED BY CONVERSION OF THE GASEOUS PRODUCTS INTO CU SALTS AND THEIR IDENTIFICATION. FACILITY: IRKUTSK. INST. ORG. KHIM., IRKUTSK, USSR.

UNCLASSIFIED

USSR

UDC 621.391:519.2

VLASOV, V. N.

"Signal System with Discrete FM"

Tr. Mosk. Elektrotekhn. in-ta svyazi (Works of Moscow Electrotechnical Communications Institute), 1970, vyp. 1, pp 9-13 (from RZh-Radiotekhnika, No 9, Sep 70, Abstract No 9A42)

Translation: This article contains an investigation of methods of constructing a complex signal system with discrete FM with respect to the allowable level of side lobes of the mutual correlation function. The conditions necessary for constructing the given signal system are derived. The bibliography has one entry.

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1/2 026 UNCLASSIFIED PROCESSING DATE--16OCT70
TITLE--ELECTRICAL RELIEF OF THE SURFACE OF CRYSTAL SUBSTRATES AS A DETERMINING FACTOR IN NUCLEATION AND GROWTH PROCESSES -U-
AUTHOR-(03)-VLASOV, V.P., GERASIMOV, YU.M., DISTELER, G.I.

COUNTRY OF INFO--USSR

SOURCE--KRISTALLOGRAFIYA 1970, 15(2), 346-52

DATE PUBLISHED-------70

SUBJECT AREAS--MATERIALS, PHYSICS

TOPIC TAGS--CORUNDUM, SINGLE CRYSTAL, SILVER, GOLD, BROMIDE, NUCLEATION, METAL FILM, CRYSTALLIZATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1995/0926 STEP NO--UR/0070/70/015/002/0346/0352

CIRC ACCESSION NO--AP0116436
UNCLASSIFIED

2/2 026 UNCLASSIFIED PROCESSING DATE--16OCT70
CIRC ACCESSION NO--AP0116436
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CRYSTAL FILMS OF AG, AU, PBTE, CDS, SNSE, AGCL, AGI, AGBR, AND NACL ON THE (010) PLANE OF TRIGLYCINE SULFATE AND AG AND AU FILMS ON THE (11BAR26) PLANE OF CORUNDUM SINGLE CRYSTALS AND ON KBR WERE STUDIED. THE SUBSTRATES WERE AT 20DEGREES, AND THE AV. THICKNESS OF THE FILMS WAS 80-120 ANGSTROM. ON NEG. DOMAINS OF TRIGLYCINE SULFATE, WELL ORIENTED SINGLE CRYSTAL FILMS OF AGCL FORMED, WHEREAS ON THE POS. DOMAINS ONLY PARTIALLY ORIENTED FILMS FORMED. AT A SPECIFIC THICKNESS, AGCL, AGI, AND AGBR FILMS WERE SINGLE CRYSTAL ON BOTH SURFACES. NACL FILMS ON POS. DOMAINS WERE UNIFORMLY SINGLE CRYSTAL, WHEREAS ON NEG. DOMAINS THEY WERE POLYCRYST. THIS EFFECT IS LESS PRONOUNCED IN THE CRYSTN. OF SEMICONDUCTORS. CRYSTN. OF AG AND AU ON KBR AND CORUNDUM CONFIRMED THE EFFECT OF THE ELEC. RELIEF OF THE SURFACE ON FILM CRYSTN. FACILITY: INST. KRISTALLOGR., MOSCOW, USSR.

UNCLASSIFIED

USSR UDC 533.92.621.039.61

FARENIK, V. I., VLASOV, V. V., ROZHKOV, A. M., STEPANOV, K. N., SUPRUNENKO, V. A., and YAKIMCHUK, Yu. V.

"Study of the Radial Structures in the Oscillations of a Plasma Column in Crossed Fields With Cyclotron Resonance Instabilities"

Kiev, Ukrainskiy Fizicheskiy zhurnal, No 3, 1973, pp 394-396

Abstract: Experimental results are given for the investigation of cyclotron resonance instabilities in a collisionless rotating plasma in a uniform, longitudinal magnetic field. The basic experimental equipment is the same as that described in an earlier article (A. M. Rozhkov, et al, UFZh, 14, 1969, p 1856) except that this earlier equipment used crossed electric and magnetic fields. Experiments with the equipment of the present paper were conducted at a gas pressure of 10^{-5} mm Hg. The curve plotted for the amplitude of the ionic cyclotron oscillations as a function of the uniform magnetic field intensity differs essentially from that for the nonuniform field. It was also found that oscillations of various frequencies were localized in different radial layers, and that the oscillation intensity was of a resonance nature. The authors thank V. L. Sizonenko and V. T. Tolok for their comments.

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USSR

UDC 539.385

VLASOV, V. V., (Kiev), Institute of Mechanics, Ukrainian SSR

"Investigation of the Stability of Cylindical Shells with a Hollow Filler During Axial Compression"

Kiev, Prikladnaya Mekhanika, Vol 7, No 8, 1971, pp 24-29

Abstract: The article deals with the problem of the stability of a thin-walled isotropic cylindrical shell, rigidly fastened with ahollow elastic transversally isotropic reinforcing layer, with axial compression, the axial forces acting upon the shell and upon the reinforcing layer which may be within and outside the shell. Used as the filler are 3-dimensional linearized equations of elastic stability with small subcritical deformations. Characteristic equations are obtained for axially nonsymmetrical and axially symmetrical bulging. In the case of an istropic filler, an investigation is made of the influence of its thickness upon the critical load with various geometrical and rigid parameters, and a comparison is made with simplified methods of calculation. Two figures, six references.

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USSR

UDC 539.3

VLASOV, V. V.

"Determination of Thermal Stresses in Rectangular Plates by the Initial Function Method"

Moscow, Prochnost' i Ustoychivost' Tonkostennykh Aviatsionnykh Konstruktsiy, 1971, pp 44-60

Abstract: The basic equations (1) give the relations between stresses, displacements and temperatures. These differential equations are expanded in Maclaurin series and put in the form (8) and (9).

The case of a plate subject to nonuniform pressure and temperature is covered by the system of equations (19) and (20).

The case of an infinitely long plate fixed on one edge and subject to nonuniform temperature field is covered by equation (25).

For the same plate subject to nonuniform pressure and temperature the deflections and bending moments are given by equations (36).

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USSR

UDC 615.31:547.718.1].012.1

KOCHERGIN, P. M., KOMISSAROV, I. V., TKACHENKO, A. A., and VLASOV, V. V., All Union Scientific Chemical-Pharmaceutical Research Institute imeni S. Ordzhonikidze, Moscow, Zaporozhe Medical Institute, Donets Medical Institute

"Studies in the Imidazole Series. LII. Synthesis and Pharmacological Properties of the Derivatives of Imidazolino(1,2-f)xanthene"

Moscow, Khimiko-Farmatsevticheskiy Zhurnal, Vol 4, No 12, Dec 70, pp 14-18

Abstract: Starting from 8-bromo-, 8-amino-, and 8-methylmercaptotheophyllines a series of imidozolino(1,2-f)xanthene derivatives was synthesized. Their pharmacological action was investigated. The products exhibited a positive inotropic action on frog's heart, comparable to that of theophylline; they lowered the blood pressure and affected directly smooth vascular muscles. They shortened the latent period of conditional reflexes slowing down their extinction; they increased the 'spontaneous' motor activity, but counteracted the stimulating effect of theophylline on the motor activity of animals. The compounds showed no effect on the convulsive activity of corasol, hexenal, or chloral hydrate. Several among them stimulated breathing, but were not capable of counteracting the breathing inhibitory action of morphine or hexenal.
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1/2 017 UNCLASSIFIED PROCESSING DATE--18SEP70
TITLE--CALCULATION OF ZERO MOMENT CONICAL SHELLS BY THE METHOD OF INITIAL FUNCTIONS -U-
AUTHOR--VLASOV, V.V.

COUNTRY OF INFO--USSR

SOURCE--AKADEMIIA NAUK SSSR, IZVESTIIA, MEKHANIKA TVERDOGO TELA, JAN.-FEB. 1970 P 150-154
DATE PUBLISHED-------70

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

TOPIC TAGS--CONIC SHELL STRUCTURE, REINFORCED SHELL STRUCTURE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1994/0173 STEP NO--UR/0484/70/000/000/0150/0154

CIRC ACCESSION NO--AP0054969
UNCLASSIFIED

2/2 017 UNCLASSIFIED PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0054969

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. STUDY OF CONICAL SHELLS OF RECTANGULAR CROSS SECTION WITH TWO SYMMETRY AXES, REINFORCED ALONG THE RIBS BY IDENTICAL BELTS THE AREAS OF WHICH VARY IN PROPORTION TO A RADIAL COORDINATE. THE SHELL WALLS ARE IN A PLANE STRESSED STATE, AND THE BELTS ARE FUNCTIONING UNDER TENSION COMPRESSION CONDITIONS. A GENERAL METHOD OF CALCULATING THE SHELLS IS PROPOSED, WHICH REDUCES TO INTEGRATION OF THE CORRESPONDING ORDINARY DIFFERENTIAL EQUATIONS OF INFINITELY HIGH ORDER WITH CONSTANT COEFFICIENTS AND, IN GENERAL, MAKES IT POSSIBLE TO SATISFY ARBITRARY FUNCTIONAL BOUNDARY CONDITIONS IN THE SHELL CROSS SECTION. SIMPLE SOLUTION FOR AN UNBOUNDED SHELL UNDER VARIOUS TYPES OF LOADS ARE CONSIDERED.

UNCLASSIFIED

1/2 033 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--SELECTIVITY OF CONTROL SEARCH SYSTEMS FOR SURFACE CRACKS IN ELECTROINDUCTIVE CONTROL OF STEEL PRODUCTS; STUDY OF SENSOR REACTION TO

AUTHOR-(02)-VLASOV, V.V., KOMAROV, V.A.

COUNTRY OF INFO--USSR

SOURCE--SVERDLOVSK, DEFEKTOSKOPIYA, NO. 1, 1970, PP 101-107

DATE PUBLISHED--------70

SUBJECT AREAS--METHODS AND EQUIPMENT, MATERIALS

TOPIC TAGS--NONDESTRUCTIVE TEST, SURFACE PROPERTY, STEEL, SURFACE PROPERTY, METAL CRACKING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1985/0118 STEP NO--UR/0381/70/000/001/0101/0107

CIRC ACCESSION NO--AP0100657

UNCLASSIFIED

2/2 033 UNCLASSIFIED PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0100657

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THIS ARTICLE IS THE SEQUEL TO THAT PUBLISHED BY THE SAME AUTHORS IN THE SAME ISSUE OF THE JOURNAL NAMED ABOVE. THE PRESENT ARTICLE DEALS WITH THE REACTION OF THE SENSOR IN THE EXPERIMENTAL EQUIPMENT OF THE PRECEDING ARTICLE TO FALSE SURFACE DEFECTS IN STEEL SPECIMENS. THE AUTHORS EXAMINE THE POSSIBLE PHYSICAL EFFECTS GENERATED BY DECARBONIZED SECTIONS AND RIVETS WHICH MAY ASSIST IN IMPROVING THE SELECTIVITY OF THE SENSOR SO THAT IT WILL NOT RESPOND TO THESE FALSE DEFECTS. AS PART OF THIS EXAMINATION, THEY OBTAINED A NUMBER OF CURVES SHOWING THE VARIATION OF THE EMF INDUCED IN THE CONTROL SYSTEM SENSOR AS A FUNCTION OF THE ANGLE OF ROTATION OF A STEEL SPECIMEN. IT IS FOUND THAT THE DECARBONIZED SURFACE PARTS CAUSE AND INCREASE IN THE INDUCED VOLTAGE WHILE THE PHASE SHIFTS IN THE INDUCED VOLTAGE CAUSED BY THESE PARTS ARE COMPARATIVELY SMALL. THE AUTHORS ALSO CONCLUDE THAT THE CHANGES IN THE EFFECTIVE INDUCED VOLTAGE AND IN THE PHASE SHIFTS OF THAT VOLTAGE CAUSED BY GENUINE DEFECTS AND THE FALSE DEFECTS ARE IDENTICAL IN DIRECTION. CONSEQUENTLY, THIS INFORMATION CANNOT BE USED AS RELIABLE INFORMATION FOR DISTINGUISHING BETWEEN THE TWO.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203520012-4"

1/2 034 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--SELECTIVITY OF CONTROL SEARCH SYSTEMS FOR SURFACE CRACKS IN ELECTROINDUCTIVE CONTROL OF STEEL PRODUCTS; ANALYZING THE PHYSICAL BASES

AUTHOR-(02)-VLASOV, V.V., KOMAROV, V.A.

COUNTRY OF INFO--USSR

SOURCE--SVERDLOVSK, DEFEKTOSKOPIYA, NO. 1, 1970, PP 96-101

DATE PUBLISHED--------70

SUBJECT AREAS--METHODS AND EQUIPMENT, MATERIALS

TOPIC TAGS--NONDESTRUCTIVE TEST, SURFACE PROPERTY, METAL CRACKING, STEEL, EDDY CURRENT FLAW DETECTION, RIVET/(U)SHKH15 STEEL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1985/0116 STEP NO--UR/0381/70/000/001/0096/0101

CIRC ACCESSION NO--AP0100656

UNCLASSIFIED

2/2 034 UNCLASSIFIED PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0100656

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE DIFFICULTY INVOLVED IN THE USE OF EDDY CURRENTS FOR DETECTING SURFACE CRACKS IN CARBONIZED OR ALLOYED STEEL ROLLED PRODUCTS IS THAT SUCH DEFECTS PERMIT FALSE SIGNALS CAUSED BY SUCH FACTORS AS SECTIONS OF DECARBONIZED SURFACES AND RIVETS. THE CAUSES OF THIS PHENOMENON AND POSSIBLE CURES ARE DISCUSSED. THE AUTHORS DESCRIBE EXPERIMENTS THEY PERFORMED RELATING TO THIS PHENOMENON, WARNING THAT THEIR EXPERIMENTS WERE NOT SO MUCH DIRECTED TOWARD DEVELOPING A PRACTICAL VARIANT OF THE CONTROL EQUIPMENT AS EXAMINING THE POSSIBILITIES OF THE DETECTION OF SURFACE CRACKS IN STEEL PRODUCTS WITH EQUIPMENT SELECTIVE ENOUGH TO ELIMINATE THE FALSE SIGNALS CAUSED BY DECARBONIZED SURFACES AND RIVETING. FOR THEIR RESEARCHES, THEY CHOSE 100 SPECIMENS, 150-200 MM IN LENGTH, MADE OF TYPE SHKH15 STEEL WHICH HAVE PASSED THROUGH THE PLANT RECRYSTALLIZATION ANNEALING AND STRAIGHTENING PROCESSES. THE DEFECT SEARCH SYSTEM, ILLUSTRATED IN THE DIAGRAM ACCOMPANYING THE TEXT, CONSISTS OF AN INDUCTOR FOR EXCITING EDDY CURRENTS IN THE SPECIMENS, AND A SENSOR. THE INDUCTOR IS MADE UP OF A COIL CARRYING ALTERNATING CURRENT, AND A PAIR OF PI SHAPED CORES. THE SENSOR IS A FERRITE RING WITH A GAP OF 0.2 MM, WITH A COIL OF WIRE WOUND AROUND IT. THE AUTHORS DESCRIBE A POSSIBLE VARIANT OF THE CONTROL SYSTM WHICH WOULD REACT TO THE TANGENTIAL COMPONENT OF THE DEFECT EDDY CURRENT FIELD. THEY CONCLUDE BY EXPRESSING THEIR GRATITUDE TO P. A. KHALILEYEV FOR HIS COMMENTS AND RECOMMENDATIONS.

UNCLASSIFIED

1/2 035 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--SELECTIVITY OF CONTROL SEARCH SYSTEMS FOR SURFACE CRACKS IN ELECTROINDUCTUVE CONTROL OF STEEL PRODUCTS: STUDY OF SENSOR REACTION TO

AUTHOR-(02)-VLASOV, V.V., KOMAROV, V.A.

COUNTRY OF INFO--USSR

SOURCE--SVERDLOVSK, DEFEKTOSKOPIYA, NR 1, 1970, PP 107-113

DATE PUBLISHED--------70

SUBJECT AREAS--METHODS AND EQUIPMENT, MATERIALS

TOPIC TAGS--NONDESTRUCTIVE TEST, EDDY CURRENT FLAW DETECTION, METAL ROLLING, METAL CRACKING, STEEL, SURFACE PROPERTY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1985/0120 STEP NO--UR/0381/70/000/001/0107/0113

CIRC ACCESSION NO--AP0100658

UNCLASSIFIED

2/2 035 UNCLASSIFIED PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0100658

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE FINAL INSTALLMENT IN THE SERIES PUBLISHED BY THESE AUTHORS IN THE SAME NUMBER OF THE JOURNAL NAMED ABOVE. THIS DESCRIBES EXPERIMENTS PERFORMED BY THE AUTHORS WHICH SHOW THAT IT IS POSSIBLE TO DETECT SURFACE CRACKS IN ROLLED STEEL PRODUCTS BY EDDY CURRENTS AND ELIMINATE FALSE DEFECT INDICATIONS GIVEN BY DECARBONIZED SECTIONS AND RIVETS. THE EQUIPMENT THEY USED FOR THE EXPERIMENTATION PERMITTED DETECTION OF DEFECTS IN THE STEEL TO A DEPTH OF AT LEAST 0.4 MM WITH ACCURACY. THE DATA OBTAINED PERMITTED THEM TO CONSTRUCT A DIAGRAM OF THE DETECTIBILITY OF FALSE AND TRUE DEFECTS. THEY OFFER THE QUALIFICATION, HOWEVER, THAT THIS DIAGRAM, REPRODUCED IN THE ARTICLE, IS NOT SUFFICIENTLY PERFECTED AND REQUIRES FURTHER IMPROVEMENT.

UNCLASSIFIED

Acc. Nr: AP0044690 Ref. Code: UR 0463

PRIMARY SOURCE: Molekulyarnaya Biologiya, 1970, Vol 4, Nr 1, pp 30-36

THE INTERACTION OF TRANSFER RNA WITH ACETALS OF 4-(N-2-CHLOROETHYL-N-METHYLAMINO)-BENZALDEHYDES— DERIVATIVES OF URIDINE AND URIDINE-5'-METHYLPHOSPHATE

Belikova, A. M.; Vakhrusheva, T. Ye.; Vlasov, V. V.; Grineva, N. I.; Zarytova, V. F.; Knorre, D. G.; Teplova, N. M.

Institute of Organic Chemistry, Siberian Branch of the Academy of Sciences, USSR, Novosibirsk

It has been shown that the acetals of 4-(N-2-chloroethyl-N-methylamino)-benzaldehyde (RCl) — derivatives of uridine (URCl) and uridine-5'-methylphosphate (mepURCl) do alkylate tRNA. The efficiencies of the reagents are determined as a ratio of the velocity of tRNA modification to the velocity of all by-processes. The efficiencies of URCl and

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REEL/FRAME 19771423

02

AP0044690

RCI are of the same order of magnitude and two orders greater, respectively, as compared with that of mepURCI. In the presence of *tris* the efficiency of URCI decreases significantly and that of mepURCI is altered only slightly. The efficiency of URCI decreases in the presence of mepU due to the interaction of an intermediate cation with primary phosphates of mepU. It suggests that the efficeincy of mepURCI is low due to the presence of primary phosphate in its molecule. The quantitative analysis of the data obtained makes it possible to conclude that the interaction of mepUR+ with phosphate is an intramolecular process.

19771424

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USSR UDC 533.916

ROZHKOV, A. M., STEPANOV, K. N., SUPRUNENKO, V. A., FARENIK, V. I., VLASOV, V. V.

"Resonance Cyclotron Instability in a Rotating Plasma"

Fiz. plazmy i probl. upravl. termoyader. sinteza. Resp. mezhved. sb. (Plasma Physics and Problems of the Controlled Thermonuclear Fusion. Republic Interdepartmental Collection), 1972, No. 3, pp 193-202 (from RZh-Fizika, No 11, Nov 72, Abstract No 11G178)

Translation: Resonance excitation of ion-cyclotron oscillations in a plasma in crossed electric and magnetic fields was investigated experimentally. It was shown that if the frequency of the drift rotation of a plasma cloud in crossed fields is a multiple of the gyrofrequency of the ions, a resonance cyclotron instability develops in the discharge which is accompanied by continuous generation of ion-cyclotron oscillations of high amplitude, due to the energy of the external source of direct current. The increment of this instability is on the order of the gyrofrequency of the ions.

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USSR UDC: 681.2.087.92-932

VYZHELEVSKIY, B. V., POMYKAYEV, I. I., VLASOV, Ye. N., UVAKIN, V. F., GOL'DENBERG, F. M., KARCHEVSKIY, A. A., ZELENKOV, S. V.

"A Sine-Cosine Converter"

USSR Author's Certificate No 316110, filed 24 Apr 70, published 9 Nov 71 (from RZh-Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, No 7, Jul 72, Abstract No 7A111 P)

Translation: A patent has been granted for a sine-cosine converter distinguished by the fact that one end of each output winding of the rotor is connected to the input of an auxiliary phase-sensitive rectifier, while the other end is connected through a resistor to the input and output of the same rectifier. Laid around the perimeter of the back edge of the rotor is an excitation winding which is connected to a source of alternating current. The device acts as a vector plotter and coordinate transformer with DC and AC input signals. Either DC or AC output signals may be obtained as desired. The device can serve two servosystems simultaneously, one working on AC and the other on DC. Two illustrations.
O. S.

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USSR

UDC 621.165.018.001.24

VLASOV, Ye. N. and MOLDAVSKIY, N. L.

"Selection of the Optimal Parameters in a Low-Power Supersonic Steam Turbine"

Tr. Un-ta Druzhby Narodov im. Patrisa Lumumby (Works of the University of Peoples' Friendship imeni Patrice Lumumba), No 61, 1972, pp 68-81 (from Referativnyy Zhurnal--Turbostroyeniye, No 2, 1973, Abstract No 2.49.22)

Translation: In calculations of low-power supersonic steam turbines, account should be taken of the relationship of the velocity coefficient ϕ to the angle of nozzle inclination α_1; this requires the accumulation of experimental material. At small values of flow rates G 1000 kg/h, the optimal nozzle angle is α_1 = 12 -- 10°. For a steam flow rate of 5000 -- 1000 kg/h, $(\alpha_1)_{opt}$ = 16--14. The low nozzle height of 10 -- 11 mm, usually employed in low-power turbines, should be considered satisfactory for a steam flow rate of 1 -- 2 t/h, overstated at smaller flow rates and understated at larger flow rates. 12 figures. 2 tables. 14 references.

1/1

VLASOV, Yu. A.

MEDICINE

COLEEN

30 Jun 71 109 FPD:CYBERNETICS

SO: FOREIGN PRESS DIGEST
30 JUNE 1971

116. USSR / Medicine

VLASOV, Yu. A., KOLOTOV, A. T. (Novosibirsk)

"On Controlling the Rhythm of Heart Contractions"

Moscow, Problemy Kibernetiki, Vyp 23, "Nauka" Publishing House, 1970. pp 275-279

Abstract: This work attempts a model analysis of the effectiveness of controlling influences in the problem of exercising the rhythm of spontaneous heart contractions. One method of changing the rhythm of heart contractions is by electrical stimulation. The problem of how to lower the frequency of output signals of the T network where input signals are of unchanging frequency is resolved.

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USSR UDC 51:155.001.57:612.82

VLASOV, Yu. A., KOLOTOV, A. T.

"Control of the Rhythm of Cardiac Contraction"

Probl. Kibernetiki [Problems of Cybernetics -- Collection of Works], No 23, Moscow, Nauka Press, 1970, pp 275-279, (Translated from Referativnyy Zhurnal, Kibernetika, No 6, 1971, Abstract No 6 V680 by the authors).

Translation: An attempt is made at model analysis of the effectiveness of the control actions in the problem of the spontaneous contractile rhythm of the heart. One method of changing the rhythm of cardiac contraction is studied (by electrical stimulation). The following problem is solved: how can the frequency of output signals of network T be reduced with unchanged frequency of input signals?

USSR

UDC 62-135-253.5:534.1

VLASOV, YU. A.

"On the Problem of Calculating a Turbine Blade for Vibrations Considering the Pliability of the Seal"

Tr. Mosk. vyssh. tekhn. uch-shcha im. N. E. Baumana (Works of Moscow Higher Technical School imeni N. E. Bauman), 1970, No. 139, pp 231-234 (from RZh-Turbostroyeniye, No 8, Aug 71, Abstract No 8.49.28)

Translation: The pliability of a seal has a certain effect on the shape of the elastic line of feather of a blade which can be of interest in calculating the distribution of the relative stresses in the feather of the blade under vibrations. In calculating the natural frequencies and shapes considering the pliability of the seal of the blades with a tree-type retainer by this method, the center of rotation should be selected at the center of gravity of the foot of the retainer and the calculation then agrees well with experiment.

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Acc. Nr: AP0034098 Abstracting Service: CHEMICAL ABST. 4-70 Ref. Code: UR 0078

71203r Strontium nitrate-alkali metal nitrate-water systems. Yakimov, M. A.; Zalkind, E. V.; Vlasenko, P. P. (USSR). *Zh. Neorg. Khim.* 1970, 15(1), 201–4 (Russ). Solubilities in $Sr(NO_3)_2$–$NaNO_3$–H_2O (system I) at 25° and in $Sr(NO_3)_2$–KNO_3–H_2O and $Sr(NO_3)_2$–$CsNO_3$–H_2O systems (systems II and III, resp.) at 25 and 35° are given. System I has three soly. isotherms, corresponding to $Sr(NO_3)_2.4H_2O$, $Sr(NO_3)_2$, and $NaNO_3$. In systems II and III, only $Sr(NO_3)_2.4H_2O$ forms at 25° and only $Sr(NO_3)_2$ forms at 35°. In these systems the soly. of ith component increased with increasing concn. of the *k*th component. This proves complex-formation in systems II and III and its absence in system I. HMJR

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REEL/FRAME 19710741

USSR

UDC 677.494.72

SLATINA, S. D., KIRILENKO, Yu. K., VOL'F, L. A., MEOS, A. I., KLIMENKO, I. B., GRACHEV, V. I., VISHNYAKOVA, T. P., and VLASOVA, I. D., Leningrad Institute of the Textile and Light Industries imeni S. M. Kirov, and Moscow Institute of the Petrochemical and Gas Industries imeni I. M. Gubkin

"Polyvinyl Fabrics Modified With Ferrocene-Containing Compounds"

Leningrad, Zhurnal Prikladnoy Khimii, Vol XLV, No 2, Feb 1972, pp 446-447

Abstract: Heteroorganic compounds are already widely used as modifiers of chemical fibers, and specific methods are known for imparting desired properties to fibers by the use of silicon- and boron-containing compounds. However, the use of ferrocene-containing compounds in this way has not been described, although these compounds impart a number of valuable properties to polymers, notably resistance to heat and radiation. Ferrocene-containing compounds are of further interest in having possible biological effects, including an effect on blood-formation. Polyvinyl alcohol (PVA) fiber was treated with 1,1-diacetylferrocene-formaldehyde (DAFF) resin, obtained by condensation polymerization with formaldehyde in the presence of Na_2CO_3 in ethanol. The freshly formed fiber was submerged for 1-5 minutes in 5-20% solutions of the resin, then heated at 140-180° for 10-20 minutes.
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SR

SLATINA, S. D., Zhurnal Prikladnoy Khimii, Vol XLV, No 2, Feb 1972, pp 446-447

The fiber became resistant to the effect of hot water. Apparently, in the fiber-resin reaction there was condensation of the PVA hydroxyl groups with the resin methyl groups, so that simple ester bonds were formed between the two polymers; this was confirmed by comparison of the number of hydroxyl groups in the initial fiber, the resin-processed fiber, and the heated resin, and also by infrared data. Graphic data accompany the paper.

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USSR

UDC 677.4:54-171:539.16.04

STARKOVA, A. N., KIRILENKO, YU. K., SHAPIRO, YE. I., YEOS, A. I., VOL'F, L. A., VISHNYAKOVA, T. P., VLASOVA, I. D., PANCHENKOV, G. M., and KAUCHANSKIY, D. A.

"Radiation Resistant Polyamide Fiber"

Leningrad, Radiokhimiya, Vol 13, No 5, 1971, pp 785-786

Abstract: An attempt was made to increase the resistance of polyamide fiber towards γ-radiation by treating it with ferrocene containing compounds. Caprone cord fiber was treated with ferrocenealdehyde (FCA) under following conditions: FCA - 3%; catalyst - 6.5% H_3PO_4; temperature - 75°C; duration - 2 hrs; solvent - ethanol. The fiber obtained was more resistant to thermo-oxidative destruction than the starting material: after heating for 2 hrs at 200°, the modified fiber retained 60-70% of the initial strength, while the starting material dropped down to 25%. The modified fiber was found to posses high adhesiveness towards the resin; it can be used in production of hoses, conveyor belts, driving belts, etc, performing under radiation.

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USSR UDC 677.4:54-171:539.16.04

SLATINA, S. D., KIRILENKO, YU. K., VOL'F, L. A., MEOS, A. I., SHAPIRO, YE. I., VISHNYAKOVA, T. P., PANCHENKOV, G. M., VLASOVA, I. D., KAUCHANSKIY, D. A., and MARNAUSOV, V. A.

"Radiation Resistant Polyvinylalcohol Fibers Containing Ferrocene"

Leningrad, Radiokhimiya, Vol 13, No 5, 1971, pp 786-787

Abstract: Polyvinylalcohol fibers containing ferrocene were obtained by impregnating a freshly formed or thermostabilized PVA-fibers with 5-18% solution of 1,1'-diacetylferrocenylformaldehyde resin [1,1'-DAFF] in acetone. After the impregnation the material was heated to 140-160°C for 10-20 min, resulting in formation of chemical bonds between the hydroxyl groups of the PVA-fiber and the methylal group of 1,1'-DAFF resin (14-18% of chenically bound 1,1'-DAFF resin). The 1,1'-DAFF resin was obtained by polycondensation of diacetylferrocene with formaldehyde in ethanol at 50°C and in presence of sodium carbonate. The modified fiber was subjected to γ-radiation in presence of air oxygen. The strength and the elastic indicators of the ferrocene containing material were superior in comparison to the starting material.
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USSR

UDC 678.675:678.06-419.8:677.521

CHUDINA, L. I., TANUNINA, P. M., LITOVCHENKO, S. I., CHERVINSKAYA, M. A., CHERDASOV, M. V., VOROB'YEV, V. D., VLASOVA, K. N., KISELEV, B. A., and DAVYDOVA, I. F.

"Polyimides and Polybenzimidazols for Plexiglasses and Cements"

Moscow, Plasticheskiye Massy, No 4, 1973, pp 15-17

Abstract: The physical and chemical properties were determined for a number of thermoplastics -- such as the polyimides (PI), polyamidoimides (PAI), and polybenzximidazols (PBI) -- forming 15-68% solutions with different solvents. The PAI and PBI plus three of the PI resins formed linear structures; two of the PI resins formed a three-dimensional structure. The linear resins have a greater strength than the crosslinked below temperatures of about 300°C. The data are given in several tables and graphs.

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USSR UDC 621.357.7.035.4:669.738.7(088.8)

AZHOGIN, F. F., LOGACHEVA, Z. V., PRIBYLOVA, L. I., VIASOVA, L. P., and AGEYEVA, N. I.

"An Electrolyte for Cadmium Plating"

Author's Certificate No 346390, filed 10 Sep 70, published 22 Aug 72 (from Referativnyy Zhurnal -- Khimiya, No 8(II), 1973, Abstract No 8L307P)

Translation: An ammonium chloride electrolyte is patented for cadmium plating. It is improved in that in order to prevent the hydrogenation of the base metal, ethylene glycol is added, resulting in the following composition, in g/liter: $CdCl_2$,40-50; NH_4Cl,230-280; ethylene glycol,30-40, carpenter's glue,1-2; an optimum pH of the electrolyte of 2.5-3.5; D_K less than 2 amps/decimeter^2, and a theoretical yield of 100%. For example, samples from the steel EI-643 having a notch r=0.1 mm is plated with cadmium in our electrolyte having the following composition, in g/liter: $CdSO_4$,50; NH_4Cl,250; ethylene glycol, 30; carpenters glue, 2; at pH of 3.0 and a D_K 2 amps/decimeter^2 for a thickness of 10 microns. Without subsequent heating at a tension equal to 90% of the strength of the notched sample (the Stress equals 216 kg/m^2), the plated sample did not fracture after 200 hours.

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USSR UDC 678.049.91

VLASOVA, L. A., and KUZNETSOV, YE. V.

"Bis-(tri-β, β', β''-chloromethyl)-ethyl Ester of Methylphosphonic Acid -- a New Additive for Obtaining Fireproof Polymers"

Moscow, Plasticheskiye Massy, No 11, 1971, pp 26-27

Abstract: The authors synthesized bis-(tri-β, β', β''-chloromethyl)-ethyl ester of methylphosphonic acid, which contains a hydrolysis- and oxidation-resistant P-C bond, by the interaction of methylphosphonic acid dichloride with 3,3-di-(chloromethyl)-oxacyclobutane during heating. The resultant compound can be used as an additive for making polymeric materials fireproof.

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1/2 012 UNCLASSIFIED PROCESSING DATE--27NOV70

TITLE--STRUCTURE OF COMPLEXES OF DELTA PRIME2,1,2,4,TRIAZOLINE,5,THIONES WITH AMINES -U-

AUTHOR-(03)-VLASOVA, L.A., MINKIN, V.I., POSTOVSKIY, I.YA.

COUNTRY OF INFO--USSR

SOURCE--ZH. OBSHCH. KHIM. 1970, 40(2), 372-5

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--HETEROCYCLIC NITROGEN COMPOUND, HETEROCYCLIC SULFUR COMPOUND, COMPLEX COMPOUND, MOLECULAR STRUCTURE, DIPOLE MOMENT, MORPHOLINE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3006/1504 STEP NO--UR/0079/70/040/002/0372/0375

CIRC ACCESSION NO--AP0135165

UNCLASSIFIED

2/2 012 UNCLASSIFIED PROCESSING DATE--27NOV70
CIRC ACCESSION NO--AP0135165
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE COMPLEXES FORMEB BY 4,PHENYL,1,2,4,TRIAZOLINE,2,THIONE (I) AND DELTA PRIME2,1,2,4,TRIAZOLINE,5,THIONE (II) WITH AMINES EVIDENTLY HAVE STRUCTURE III, ON THE BASIS OF THEIR DIPOLE MOMENT VALUES, WHICH RANGE ONLY FROM 3.5 TO 4.07 D IN DIOXANE OR C SUB6 H SUB6. COMPLEXES OF I WITH MORPHOLINE, PIPERIDINE AND ET SUB2 NH HAD BEEN REPORTED EARLIER; THOSE OF II WITH MORPHOLINE M. 130DEGREES; WITH PIPERIDINE M. 132DEGREES. FACILITY: URA. POLITEKH. INST., SVERDLOVSK, USSR.

UNCLASSIFIED

1/2 018 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--ISOTOPIC COMPOSITION OF HYDROGEN IN THE WATERS AND PETROLEUMS OF THE APSHERON OIL AND GAS BEARING REGION -U-

AUTHOR-(05)-MEKHTIYEV, SH.F., BREZGUNOV, V.S., VLASOVA, L.S., RACHINSKIY, M.Z., SOYFER, V.N.

COUNTRY OF INFO--USSR

SOURCE--IZV. VYSSH. UCHEB. ZAVED., NEFT. GAZ 1970, 13(1), 3-6

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY, MATERIALS, EARTH SCIENCES AND OCEANOGRAPHY

TOPIC TAGS--ISOTOPE, HYDROGEN, PETROLEUM DEPOSIT, CRUDE OIL, NATURAL GAS, GROUND WATER, HYDROCARBON, DEUTERIUM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1996/1640 STEP NO--IR/0152/70/013/001/0003/0006

CIRC ACCESSION NO--AT0118619

UNCLASSIFIED

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ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE AV. ISOTOPIC COMPN. OF H IN WATERS OF VARIOUS FORMATIONS VARIED FROM 1.04 TO 1.065 RELATIVE UNITS, BUT DID NOT DEPEND ON THEIR TYPE AND MINERALIZATION. THE RATHER HIGH CONTENT OF D IN THE WATERS OF ALL HORIZONS SHOWED THE STAGNANT CONDITIONS OF THE BASINS IN THE PRODUCTIVE STRATA, THE COMPN. BEING CLOSE TO THAT OF THE SEDIMENTATION WATERS. THE CONCN. OF D IN PETROLEUMS VARIED 0.86-1.01 (AV. 0.93) UNITS AND DID NOT DEPEND ON THEIR SP. GR., HYDROCARBON COMPN., AND OCCURRENCE DEPTH; THEREFORE, THE CAUSES OF THE VARIATION COULD NOT BE DETD. THE AV. D CONTENT OF CONDENSATES WAS 0.90 UNITS. FACILITY: AZERB. INST. NEFTI KHIM. IM. AZIZVEKOVA, BAKU, USSR.

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ANAN'YEV, V. M., VLASOVA, N. I., NAZAROV, V. A., SOBOLEVA, K. V., STEFASHKIN, Yu. P.

"Mutual Correlation Coefficients of the Electroencephalograms of Irradiated Rabbits"

Moscow, Byulleten' Eksperimental'noy Biologii i Meditsiny, No 3, 1972, pp 51-53

Abstract: A study was made of means of dynamic characterization of the system of mutual relationships in the cortical electrical activity of rabbits by mutual correlation coefficients of the EEG. The experiments were performed on seven rabbits using the procedure described previously [V. M. Anan'yev, et al., Byull. eksper. biol., No 1, 91, 1966]. The nature of the variations of the mutual correlation coefficients of the EEG for background recordings lasting 28 seconds was studied. The dynamics of the variation of the mutual correlation coefficients averaged with respect to the entire cerebral cortex of rabbits irradiated by gamma-radiation in a superlethal dose of 1,500 roentgens are illustrated in graph form. The presented data indicate the effect of gamma-radiation on the cerebral cortex of the animals as a whole without space detailing. The mutual correlation coefficient of the EEG combined with the

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ANAN'YEV, V. M., et al., Byulleten' Eksperimental'noy Biologii i Meditsiny, No 3, 1972, pp 51-53

frequency and area indexes of the EEG is a sensitive indicator of the variations of the functional state of the cortex, and to a different extent it reflects the nature of the system of mutual relationships of the electrical activity of the cortex in its basic zones. It is expedient to use the generalized correlation index to characterize the reaction of the cortex to irradiation (to estimate the severity of damage to the cortex and the degree of restoration of the initial state).

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TITLE--A NEW METHOD OF STUDYING ADHESION OF FILLINGS -U-

AUTHOR--KARALNIK, C.N., VLASOVA, N.K.

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D. M. Karalnik, N. K. Vlasova

A NEW METHOD OF STUDYING ADHESION OF FILLINGS

Summary. A study of the character and value of binding between fillings and dental tissues is one of the pressing problems in therapeutic stomatology. The authors propose a simple method of determining the adhesion of fillings to dental tissues. The referred to method enables to obtain a distinct comparative characteristics for different materials and to shorten the gap between tests and actual conditions of using dental fillings.

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Acc. Nr: AP0053421 Abstracting Service: CHEMICAL ABST. 5/90 Ref. Code: UR0079

111557t Vinyl ethers of organosilicon alkylthio alkanols. Shostakovskii, M. F.; Mikhailov, Z. I.; Komarov, N. V.; Vlasova, N. N. (Irkutsk. Inst. Org. Khim., Irkutsk, USSR). *Zh. Obshch. Khim.* 1970, 40(1), 84–90 (Russ). Heating 5.9 g $Et_3SiCH_2CH_2SH$ with 1.5 g NaOH and 2.6 g $ClCH_2CH_2OH$ in aq. EtOH gave 75% $Et_3SiCH_2CH_2SCH_2CH_2OH$, b_1 120°, d^{20} 0.9508, n_D^{20} 1.4920. Similarly were prepd. 35–80% $R_3Si(CH_2)_nS(CH_2)_m$-OH (R_3, *m*, and *n* shown): Me_3, *2,1*, b_{10} 116°, 0.9038, 1.4725; $MeEt_2$, *2,1*, b_4 110°, 0.9466, 1.4805; $MeEt_2$, *2,2*, b_3 120°, 0.9480, 1.4872; Me_3, *2,2*, b_{10} 121°, 0.9398, 1.4795; Me_3, *3,3*, b_5 113°, 0.9356, 1.4800; Et_3, *2,3*, b_4 123°, 0.9480, 1.4890; $MeEt_2$, *3,1*, b_1 115°, 0.9273, 1.4810; $MeEt_2$, *3,3*, b_4 131°, 0.9395, 1.4860; Et_3, *3,2*, b_1 120°, 0.9455, 1.4900; Me_3, *3,2*, b_1 107°, 0.9400, 1.4805; Me_3, *3,3*, b_1 102°, 0.9315, 1.4762; Et_3, *3,3*, b_1 134°, 0.9374, 1.4860; Pr_3, *3,2*, b_{10} 150°, 0.8951, 1.4705. Irradn. with uv light of a mixt. of 2.9 g $Et_3SiCH_2CH_2SH$ and 0.9 g allyl alc. 10 hr gave 47% $Et_3SiCH_2CH_2SCH_2CH_2CH_2OH$, b_1 120°, 0.9455, 1.4900, providing an alternate route to the compds. above with $m = 3$. Heating the above alcs. in dioxane with a catalytic amt. K salt of the alc. under 15–18 atm (initial) C_2H_2 1.5 hr at 130–40° gave 40–70% $R_3Si(CH_2)_nS(CH_2)_mOCH{:}CH_2$: ($R_3$, *m*, and *n* shown): Me_3, *2,1*, b_2 62°, 0.9141, 1.4700; $MeEt_2$, *2,1*, b_1 78°, 0.9126, 1.4750; $MeEt_2$, *2,2*, b_1 93°, 0.9211, 1.4810; Et_3, *2,3*, b_3 121°, 0.9197, 1.4840; Me_3, *2,2*, b_6 103°, 0.9140, 1.4335; Me_3, *2,3*, b_2

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85°, 0.9066, 1.4712; Et_3, *2,3*, b_2 123°, 0.9184, 1.4820; $MeEt_2$, *3,1*, b_{12} 69°, 0.8577, 1.4410; Me_3, *3,2*, b_1 84°, 0.9092, 1.4755; $MeEt_2$, *3,2*, b_2 105°, 0.9196, 1.4830; Et_3, *3,2*, b_1 137°, 0.9150, 1.4860; Me_3, *3,3*, b_2 114°, 0.9033, 1.4740; Et_3, *3,3*, b_2 143°, 0.9172, 1.4840. Alternatively, $R_3Si(CH_2)_3SH$ and $ClCH_2CH_2O$-$CH{:}CH_2$ emulsified in aq. NaOH at 90° gave the vinyl ether described above in 70% yield. Heating the vinyl ethers with AcOH 30 hr at 60° gave $R_3Si(CH_2)_nS(CH_2)_mOCHMeOAc$ (R_3, *m*, and *n*, shown): Me_3, *2,1*, b_1 92°, 0.9824, 1.4590; Et_3, *2,2*, b_2 142°, 0.9752, 1.4720; Et_3, *3,2*, b_2 152°, 0.9695, 1.4718; Me_3, *2,3*, b_2 125°, 0.9674, 1.4610; Et_3, *2,3*, b_2 149°, 0.9655, 1.4720; Me_3, *3,3*, b_2 128°, 0.9616, 1.4620; Et_3, *3,3*, b_2 165°, 0.9640, 1.4718. Heating the vinyl ethers with PhSH in the presence of $(Me_2CO)_2$ catalyst 10 hr at 130–40° or reaction of the vinyl ethers with BuSH in uv light gave 52–92% $R_3Si(CH_2)_nS(CH_2)_mOCH_2$-$CH_2SR^1$ (R, R^1, *m*, and *n* shown): Me, Bu, *2,1*, b_4 160°, 0.9513, 1.4875; Et, Ph, *2,2*, b_2 170°, 1.0092, 1.5310; Et, Bu, *2,2*, b_3 195°, 0.9506, 1.4978; Et, Ph, *3,2*, b_1 198°, 1.0211, 1.5435; Et, Bu, *3,2*, b_2 168°, 0.9451, 1.4940; Me, Ph, *3,3*, b_2 175°, 1.0307, 1.5490; Me, Bu, *3,3*, b_2 192°, 0.9380, 1.4860; Et, Ph, *3,3*, b_2 200°, 0.9968, 1.5230; Et, Bu, *3,3*, b_3 200° 0.9409, 1.4925. $Et_3SiCH_2CH_2SCH_2CH_2OCH{:}CH_2$, BuOH, and a trace concd. HCl gave, after 0.5 hr at 50°, 57% $Et_3SiCH_2CH_2SCH_2CH_2OCH$-MeOBu, b_2 140°, 0.9342, 1.4740; also prepd. from $Et_3SiCH_2CH_2$-SCH_2CH_2OH and $BuOCH{:}CH_2$ with HCl catalyst. The vinyl ethers described above added HCl to form extremely unstable $R_3Si(CH_2)_nS(CH_2)_mOCHClMe$, and polymd. with Lewis acids to viscous oils, but were unaffected by peroxidic initiators.

G. M. Kosolapoff

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