1/2 010 UNCLASSIFIED

TITLE--ON THE VIRASORO MODEL FOR PI N SCATTERING -U-

PROCESSING DATE--13NOV70

AUTHOR--ZHURAVLEV, V.I.

Z

COUNTRY OF INFO--USSR

SOURCE--(JINR-P2-4883), 1970. 13P

DATE PUBLISHED-------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--NUCLEAR MODEL, PION SCATTERING, NUCLEON INTERACTION

CONTROL MARKING--NO RESTRICTIONS

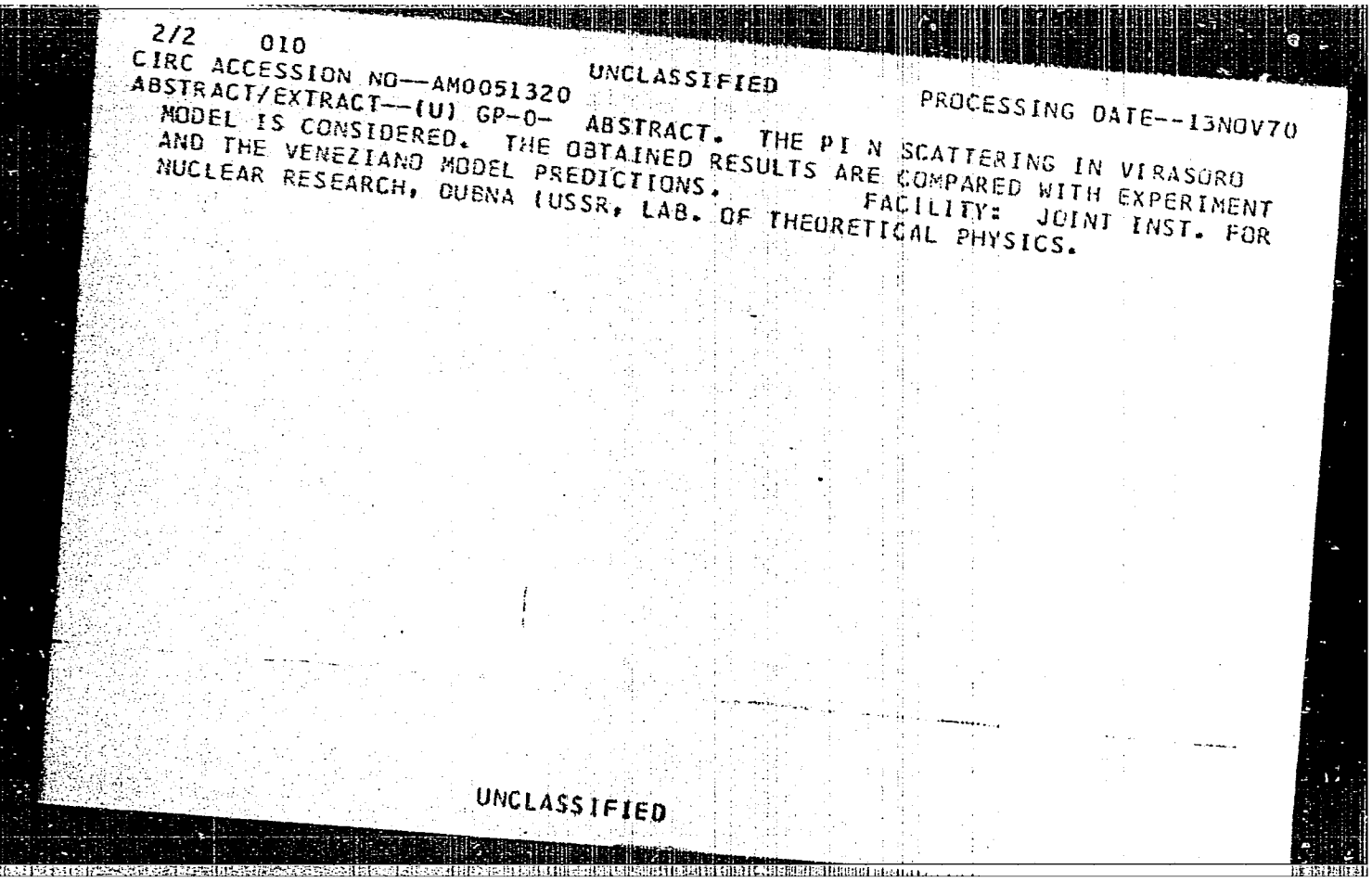
DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1981/1408

STEP NO--UR/0000/70/000/000/0001/0013

CIRC ACCESSION NO--AM0051320

UNCLASSIFIED



2/2 010 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AM0051320

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE PI N SCATTERING IN VIRASORO MODEL IS CONSIDERED. THE OBTAINED RESULTS ARE COMPARED WITH EXPERIMENT AND THE VENEZIANO MODEL PREDICTIONS. FACILITY: JOINT INST. FOR NUCLEAR RESEARCH, DUBNA (USSR, LAB. OF THEORETICAL PHYSICS.

UNCLASSIFIED

USSR

UDC 669.71'295.053.4.094(088.8)

MAZALETSKIY, G. D., KATS, M. SH., ZHURAVLEV, V. M., RYABIN, V. A., BAYTAKOVA, R. S., GOLODOV, S. M.

"Procedure for Processing Slag from Aluminothermal Production of Ferrotitanium"

USSR Author's Certificate No 276122, Filed 27 Mar 65, Published 15 Oct 70 (from RZh-Metallurgiya, No 4, Apr 71, Abstract No 4G147P)

Translation: A procedure is proposed for obtaining Ti concentrate and Al_2O_3 from slag obtained during aluminothermal production of Fe-Ti. The procedure includes sintering of the crushed slag with soda at 1,130-1,150°. The cake is processed in a sodium solution which converts the oxides to solution from which $Al(OH)_3$ is precipitated, and the Ti oxides remain in the slag.

1/2 008 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--PHASE COMPOSITION OF CARBONIFEROUS FERROCHROMIUM SLAGS DURING OPERATIONS USING MAGNESIAN CHROMIUM ORES -U-

AUTHOR-(05)-KATS, M.SH., ZHURAVLEV, V.M., AGANICHEV, P.V., MELNICHENKO, N.V., UMAROV, K.U.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, METAL. 1970, (1), 74-9

DATE PUBLISHED--------70

SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY, CHEMISTRY

TOPIC TAGS--FERROCHROMIUM, METAL ORE, ELECTRIC CONDUCTIVIEY, SPINEL, MAGNESIUM COMPOUND, CHROMIUM COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1984/0157 STEP NO--UR/0370/70/000/001/0074/0079

CIRC ACCESSION NO--AP0054953

UNCLASSIFIED

2/2 008 UNCLASSIFIED PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0054953

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE PHASE COMPN. OF FERROCHROMIUM SLAGS WAS DETD. BY CHEM. AND MINERALOGICAL ANAL. THE CALCN. WAS BASED ON THE FACT THAT MGO DOES NOT TAKE PART IN THE CR SPINEL COMPLEX AND FORMS A PART OF THE ORTHOSILICATES. THE OXIDES OF THE R SUB2 O SUB3 TYPE DO NOT DISSOLVE IN ORTHOSILICATES, AND THEY ARE DISTRIBUTED BETWEEN THE CR SPINEL AND THE GLASS. THE HIGH CONTENT OF PICROCHROMITE IN THE CR ORE AND THE EXCHANGE OF AL SUB2 O SUB3 AND CHROMIC OXIDE IN THE SPINEL PHASE OF CARBONIFEROUS FERROCHROMIUMS NEG. AFFECT THE REDN. THE ELEC. COND. IS IMPROVED BY AN INCREASED VALUE OF THE RATIO MGO:AL SUB2 O SUB3.

UNCLASSIFIED

1/2 014 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--EFFECT OF DECARBURIZATION ON THE RATE OF SULFUR AND PHOSPHORUS REMOVAL FROM IRON AND CARBON MELTS BY SOLID SLAGS -U-

AUTHOR-(03)-TRAVIN, O.V., PEREVALOV, N.N., ZHURAVLEV, V.M.

COUNTRY OF INFO--USSR

SOURCE--ZH. FIZ. KHIM. 1970, 44(1) 204-7

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--CAST IRON, DESULFURIZATION, PHOSPHORUS, SLAG, METAL MELTING, ALUMINA, LIME

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1983/0942 STEP NO--UR/0076/70/044/001/0204/0207

CIRC ACCESSION NO--AP0053866

UNCLASSIFIED

2/2 014 UNCLASSIFIED

CIRC ACCESSION NO--AP0053866 PROCESSING DATE--18SEP70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EFFECT OF OXIDIZING PROCESSES ON THE RATE OF S AND P REMOVAL FROM THE CAST IRON MELTS BY ALUMINA AND FERRO LIME SLAGS IS INVESTIGATED. ADDNS. OF ORES TO THE MELTS IMPEDE DESULFURIZATION, BUT HAVE NO EFFECT ON DEPHOSPHORIZATION PROCESSES.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203810019-5"

USSR

UDC 629.78.015.532.522

ZHURAVLEV, V. N. and KHOLYAVKO, V. I.

"Integral Method of Calculating Semi-Limited Laminar Flow"

Samoletostr. i Tekhn. Vozd. Flota--Sbornik (Aircraft Industry and the Technical Air Force--Collection of Works), No 29, 1972, pp 3-7 (from Referativnyy Zhurnal--Raketostroyeniye, No 8, 1972, Abstract No 3.41.108)

Abstract: An approximate integral method of solving the problem of propagation of a laminar, immersed boundary layer of an incompressible liquid along a hard plane surface was presented. For determining the basic characteristics of the given form of flow, integral relationships of impulses and conservation conditions were employed as well as the universal profile of velocity natural for the jet and boundary portion of the flow. Results are compared with an earlier published precise solution and approximation. Author's view, 3 figures, 4 bibliographical references.

1/1

USSR

ZHURAVLEV, V. N., KHOLYAVKO, V. I.

"Integral Method of Calculating a Semi-Limited Laminar Stream"

Samoletostr. i Tekhn. Vozd. Flota. Resp. Mezhved. Temat. Nauch.-Tekhn. Sb. [Building of Aircraft and Air Force Technology, Republic Interdepartmental Thematic Scientific and Technical Collection], 1972, No 29, pp 3-7, (Translated from Referativnyy Zhurnal, Mekhanika, No 10, 1972, Abstract No 10 B683, by V. M. Kovalenko).

Translation: An approximate integral method is presented for solving the problem of propagation of a laminar submerged stream of an incompressible fluid adhering to a hard, flat surface. The integral relationship of impulses and the condition of conservation, plus the velocity profile suggested by the authors

$$\bar{u} = \eta e^{0.5(1-\eta^2)}$$

suitable for stream and wall sectors of the flow, are used to determine the basic characteristics of the this type of flow; here $\bar{u} = u/u_m$, $\eta = y/y_m$, $u_m(x)$ is the maximum velocity of longitudinal flow in the section in question at distance y_m from the wall. The nature of change of the

USSR

ZHURAVLEV, V. N., KHOLYAVKO, V. I., Samoletostr. i Tekhn. Vozd. Flota, Resp. Mezhved. Temat. Nauch.-Tekhn. Sb., 1972, No 29, pp 3-7.

values of y_m and u_m along the x axis is determined from the condition of self-similarity of the flow. The results of calculations of tangential friction stress on the wall, the flow volume per second and the momentum through an arbitrary section of the boundary layer are quite similar to the corresponding results of the precise solution (Akatnov, N. I., Tr. Leningr. Politekhn. In-ta., 1953, No 5).

2/2

USSR

ZHURAVLEV, V. N.

"Impact of a Flat Jet of Finite Thickness against a Curvilinear Surface"

Samoletostr. i tekhn. vozd. flota. Resp. mezhved. nauchno-tekhn. sb. (Aircraft Construction and Airforce Engineering. Republic Interdepartmental Scientific and Technical Collection), 1970, vyp. 20, pp 25-28 (from RZh-Mekhanika, No 11, Nov 70, Abstract No 11B593)

Translation: The characteristics of flow near the critical point on impact of a flat jet of ideal incompressible liquid against a curvilinear surface are determined. The effect of the thickness of the oncoming jet and the geometry of the curvilinear surface on the flow characteristics is analyzed. The theoretical calculated values are compared with experimental data. Satisfactory agreement of theory with experiment is noted.

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USSR

ZHURAVLEV, V. P.

UDC 620.179.14

"Electroinductive Testing of Piston Pins of High-Speed Engines During the Repair Work"

Defektoskopiya, 1972, No 1, pp 139-141 (from Referativnyy Zhurnal, No 4, Apr 72, 32. Metrologiya i Izmeritel'naya Tekhnika. Single Issue. Abstract No 4.32.245, Author's abstract)

Translation: The described device was developed for testing piston pins by the electroinductive method during the repair process of marine engines M-50. The main block of the device are the electroinductive defectoscope DNM-15, a recording unit of the H-340 type, and the mechanical part. The surface control of the detail is performed by a helical line. The rating of the control results is realized according to the recording on the diagram sheet. Laboratory test results of the device with real details are presented. Three illustr., two biblio. refs.

1/1

USSR

UDC 666.764:532.696.1

NAYDICH, YU. V. and ZHURAVLEV, V. S., Institute of Problems of Material Science, Academy of Sciences UkrSSR

"Adhesion, Wetability and Interaction of Titanium-Containing Melts with Refractory Oxides"

Moscow, Ogneupory, No 1, 1974, pp 50-55

Abstract: This article describes the study of the capillary properties and contact reactions of the titanium-containing melts Cu-Ti, Au-Ti, Sn-Ti and Ni-Mo-Ti to refractory oxides: Al_2O_3 single crystals with the crystallographic planes (0001), $(11\bar{2}0)$, $(10\bar{1}0)$, A-995 ceramic, MgO -- (001) single crystal, and quartz glass. Titanium is a strong interphase active element in all of the systems studied, but its activity depends on the second component of the melt (Cu, Au, etc.). An improvement in wetability was observed with decreasing free energy of formation of the oxide wet. Roughness of the substrate worsens wetting, with the exception of the area of extremely low values of contact angles. A

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USSR

NAYDICH, YU. V., and ZHURAVLEV, V. S., Ogneupory, No 1, 1974 pp 50-55

method is suggested for preparation of specimens for determination of the phase composition of the transition layers by X-ray phase analysis. In all the systems studied, the transition layer consisted of the oxides of titanium TiO or Ti_2O_3. In systems in which a lower oxide of titanium TiO was formed, with "metallic" properties, the work of adhesion and wetability were significantly higher than in systems forming les: "metallic" Ti_2O_3 in the interphase zone.

2/2

Electronic Materials

USSR

UDC 621.317.39:531.7

SHNEYDER, A. YU., ZHURAVLEV, V. S., Candidates of Technical Sciences, VOLKINSHTEYN, YE. M., KOLESNIKOVA, I. N., Engineers

"Pressure-Sensitive Sensors made of Electrically Conducting Polymers"

Moscow, Pribory i Sistemy Upravleniya, No 2, 1972, pp 40-41

Abstract: The design and operating characteristics are presented for a pressure-sensitive sensor built at the Central Scientific Research Institute of Prosthetics and Orthopedic Appliances. The sensor is made of porous polymer material (sponge rubber, porolon, and so on) impregnated with various electrically conducting compounds (resins, enamels, and so on). The operating principle of the element is compared with the operating principle of sensors with carbon columns. The dispersion zone of the load characteristics of a series of 10 sensors is plotted, and oscillograms are presented analysis of which shows that the characteristics of the developed sensor repeat the shape of the characteristics of a strain gage. The sensor permits recording of processes taking place with frequencies to 6-8 hertz. Both the static and dynamic characteristics of the sensors are presented. A study of the static characteristics showed that on variation of the pressure from zero to 0.8 kilogram-force/cm^2, its resistance varies within the range of 100-2 kilohms.

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ZHURAVLEV, V. V.

JPRS 56030
18 May 72

UDC 617-001.16-07:616.12-008.1-072.7

CARDIAC ACTIVITY CHANGES IN DOGS DURING ACUTE OVERHEATING AND THE PROGNOSTIC IMPORTANCE OF ELECTROCARDIOGRAPHIC DATA

[Article by B. M. Petrov, E. A. Kasinov, V. V. Zhuravlev and V. P. Krotov; Moscow, Kosmicheskaya Biologiya i Meditsina, Russian, Vol 6, No 2, March-April 1972, pp 32-38, submitted for publication 5 February 1971]

Abstract: Anesthesized dogs were exposed to acute overheating and their cardiovascular changes were examined in comparison with respiratory variations. The prognostic significance of the ECG ventricular spikes was noted during the period preceding the development of heat-induced collapse. The changes in the voltage of the ECG waves during acute overheating were shown to be associated with several factors, the most important of which were adrenergic effects during early heating and hypoxia during late heating periods. The paper describes the periods of overheating and the cardiac arrhythmias and discusses the cardiovascular disturbances accompanying hyperthermia.

During space flights acute overheating can arise in different situations, especially during emergency descents of biological satellites carrying experimental animals inseparable or independently leaving the ship's cabin immediately after landing.

Man is subjected to overheating when working in hot shops, in closed cabins in the case of malfunctioning of heat-regulating systems, and also when performing considerable physical work in insulating suits and spacesuits.

The experimental investigation of overheating in human subjects yielded valuable information on tolerance to heat stresses and on the influence of hyperthermia on man's performance (M. Ye. Marshak and N. D. Nozenbaum; D. A. Chevelyukhin; A. A. Borodnitsina and Ye. Ya. Shepelev; Ye. Ya. Shepelev; S. M. Gerasimenko, et al., and others). However, man's overheating in an experiment usually is stopped when he reaches the point of swooning; this limits

1/2 018 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--PHASE DIAGRAM OF A P,NITROPHENOL M AMINOPHENOL BETA NAPHTHYLAMINE TERNARY SYSTEM -U-

AUTHOR-(02)-SHARSHAKOVA, L.N., ZHURAVLEV, YE.F.

COUNTRY OF INFO--USSR

SOURCE--ZH. OBSHCH. KHIM. 1970, 40(4), 727-30

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--PHASE DIAGRAM, ORGANIC NITRO COMPOUND, PHENOL, AMINE, ORGANIC COMPLEX COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3006/0864

STEP NO--UR/0079/70/040/004/0727/0730

CIRC ACCESSION NO--AP0134593

UNCLASSIFIED

2/2 018 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0134593

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. PHASE DIAGRAMS ARE PRESENTED FOR SECTIONS OF THE TERNARY SYSTEM. THE FOLLOWING INVARIANT POINTS ARE REPORTED (TEMP., PERCENT 2 C SUB10 H SUB7 NH SUB2, AND PERCENT N H SUB2 NC SUB6 H SUB4 OH GIVEN): (1) 60DEGREES, 56.5, 24; 51DEGREES, 45, 21; 58DEGREES, 37, 32.5; 54DEGREES, 20, 37; 45DEGREES, 21.5, 21; AND 48DEGREES, 26PERCENT 16.5PERCENT. A TERNARY 1:1:1 COMPLEX EXIST IN THE SYSTEM.

FACILITY: VORONEZH. POLITEKH. INFT., VORONEZH, USSR.

UNCLASSIFIED

1/2 017 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--SOLUBILITY IN THE LA, NO SUB3, SUB3-C SUB6 H SUB5 NH SUB2. HNO SUB3 H SUB2 O SYSTEM -U-

AUTHOR-(02)-ZHURAVLEV, YE.F., GORSHUNOVA, V.P.

COUNTRY OF INFO--USSR

SOURCE--ZH. NEORG. KHIM. 1970, 15(5), 1422-4

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--SOLUBILITY, LATHANUM COMPOUND, PHASE DIAGRAM, AMINE, NITRIC ACID

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3008/0954 STEP NO--UR/0078/70/015/005/1422/1424

CIRC ACCESSION NO--AP0137982

UNCLASSIFIED

2/2 017 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0137982

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. AT 25 AND 50DEGREES, THE TITLE SYSTEM SHOWS EUTONIC (ISOTHERMAL INVARIANT) TYPE OF BEHAVIOR. MOST OF THE PHASE DIAGRAM IN OCCUPIED BY THE C SUB6 H SUB5 NH SUB2. HNO SUB3 CRYSTN. FIELD. THE FIELD OF A LA(NO SUB3) SUB3. 6H SUB2 O IS QUITE SMALL. LA(NO SUB3) SUB3 HAS A SALTING OUT EFFECT ON C SUB6 H SUB5 NH SUB2. HNO SUB3. FACILITY: VORONEZH. POLITEKH. INST., VORONEZH, USSR.

UNCLASSIFIED

1/2 015 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--PHASE DIAGRAMS OF TERNARY LIQUID SYSTEMS CONTAINING TWO BINARY LIQUID PHASE SEPARATION REGIONS WITH UPPER CRITICAL SOLUTION

AUTHOR-(02)-ZHURAVLEV, YE.F., VELICHKO, V.T.

COUNTRY OF INFO--USSR

SOURCE--ZH. OBSHCH. KHIM. 1970, 40(3), 516-20

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

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--PHASE DIAGRAM, SOLUBILITY, ACETONE, DIOXANE, GLYCEROL, ISOTHERM, LOW TEMPERATURE EFFECT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3002/1132 STEP NO--UR/0079/70/040/003/0516/0520

CIRC ACCESSION NO--AP0128959

UNCLASSIFIED

2/2 015 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0128559

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. PHASE DIAGRAM DATA ARE PRESENTED FOR THE TITLE SYSTEM AND A DIAGRAM OF COMPN. VS. N IS GIVEN FOR THE HOMOGENEOUS EQUIL. PHASES AT ISOCONCNS. OF GLYCEROL. THE 25DEGREES ISOTHERM IN THE TERNARY SYSTEM REVEALED THAT THE SURFACE OF THE REGION OF THE 2 PHASE LIQ. STATE HAS A SADDLE LIKE CHARACTER. CRYOSCOPY IN C SUB6 H SUB6 WAS USED TO DET. THE MOL. WT. IN SOLN. OF DIOXANE, ME SUB2 CO, AND THEIR MIXTS. IN THIS BINARY SYSTEM FORMULA WEIGHTS AGREE WITH STANDARD MOL. WTS. ONLY AT INFINITE DILN. OWING TO ASSOCN. AMONG THESE MOLS. THE HOMOGENEOUS BOUNDARY SYSTEM OF DIOXANE ME SUB2 CO WAS INSUFFICIENT FOR RESOLVING THE GEOMETRIC FORM OF THE PHASE DIAGRAM OF THE TERNARY SYSTEM. FACILITY: VORONEZH. POLITEKH. INST., VORONEZH, USSR.

UNCLASSIFIED

1/2 011 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--PHASE DIAGRAM OF THE UREA HYDROQUINONE TRICHLORO ACETIC ACID SYSTEM -U-

AUTHOR-(02)-SHARSHAKOVA, L.N., ZHURAVLEV, YE.F.

COUNTRY OF INFO--USSR

SOURCE--Zh. OBSHCH. KHIM. 197C, 40(3), 515-16

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--PHASE DIAGRAM, UREA, HYDROQUINONE, ACETIC ACID, CHLORINATED ORGANIC COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3002/1118 STEP NO--UR/0079/70/040/003/0515/0516

CIRC ACCESSION NO--AP0128545

UNCLASSIFIED

2/2 011 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0128545

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE PHASE DIAGRAM OF THIS SYSTEM CONTAINS REGIONS OF FOLLOWING COMPDS.: OC(NH SUB2) SUB2.CCL SUB3, CO SUB2 H, OC(NH SUB2) SUB2.2CCL SUB3 CO SUB2 H, AND OC(NH SUB2) SUB2.P.C SUB6 H SUB4(OH) SUB2 WHICH MEET AT 4 INVARIANT POINTS: (1) AT 12.5PERCENT UREA AND 8PERCENT HYDROQUINONE, M. 30DEGREES; (2) 17PERCENT UREA AND 12.5PERCENT HYDROQUINONE, M. 47DEGREES; (3) 25PERCENT UREA AND 14.5PERCENT HYDROQUINONE, M. 62DEGREES; AND (4) 36PERCENT UREA AND 10PERCENT HYDROQUINONE, M. 55DEGREES. NO TERNARY COMPLEX WAS OBSERVED.

FACILITY: VORONEZH. POLITEKH. INST., VORONEZH, USSR.

UNCLASSIFIED

UDC: 8.74

USSR

ZHURAVLEV, Yu. I., KAMILOV, M. M., and TULYAGANOV, Sh. Ye.

"Calculation Procedures for Determining the Informational Weight of a Symbol by Selection"

Tashkent, V sb. Vopr. kibernetiki (Cybernetic Problems--collection of works) No 45, 1971, pp 120-125 (from RZh--Matematika, No 7, 1972, Abstract No 7V649)

Translation: The following problem is solved: Suppose we are given a table T_{nml} of objects for recognition, where n is the number of symbol-columns, m is the number of object-lines, and l is the number of classes. We are required to determine the informational weight (the measure of importance) of the symbols in such a table. A sequence of stages is described for determining the informational weight of a symbol by selection algorithms, and the complexity of the calculation procedures then realized is evaluated, from the point of view of the number of operations. Evaluation of the time for solving the problem on the "M-220" and the "BESM-6" electronic computers are given. V. Mikheyev

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USSR

UDC 8.74

ZHURAVLEV, YU. I., KAMILOV, M. M., TULYAGANOV, SH. YE.

"Computation Procedures for Determining the Information Weight of an Attribute by Voting Algorithms"

V sb. Vopr. kibernetiki (Problems of Cybernetics -- collection of works), Vyp. 45, Tashkent, 1971, pp 120-125 (from RZh-Kibernetika, No 7, Jul 72, Abstract No 7V649)

Translation: The following problem is solved. Let a table of patterns for recognition T_{nml} be given (n is the number of column attributes, m is the number of object rows, ℓ is the number of classes). It is necessary to determine the information weight (the measure of importance) of the attributes of this table. The series of steps for determining the information weight of the attribute by voting algorithms is described, and the complexity of the computation procedures from the point of view of the number of operations is estimated. Estimates are presented for the solution time of the problem on the M-220 and BESM-6 computers.

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USSR

ZHURAVLEV, Yu. I.

"Extreme Problems Arising in Determination of Heuristic Procedures"

Probl. Prikl. Mat. i Mekh. [Problems of Applied Mathematics and Mechanics -- Collection of Works], Moscow, Nauka Press, 1971, pp 67-74, (Translated from Referativnyy Zhurnal, Kibernetika, No 3, 1972, Abstract No 3 V581 by the author).

Translation: An approach is studied to development of heuristic algorithms by solution of special extreme problems. The set of test problems is defined and the functional evaluating the quality of the algorithm on the basis of the results of solution of the test problems is determined. A description is presented of a class of possible algorithms for solution of problems of a certain class and special approaches are indicated, using which the determination of the algorithm of the best quality is reduced to determination of the extremes of a special type of functions of many variables. This approach is used for special classes of heuristic procedures.

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USSR

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203810019-5"

USSR

ZHURAVLEV, Yu. I., KAMILOV, M. M., TULYAGANOV, Sh. Ye.

"Formulas for Calculation of Measures of Importance of a Characteristic"

Vopr. Kibernetiki [Problems of Cybernetics -- Collection of Works], No 44, Tashkent, 1971, pp 15-20, (Translated from Referativnyy Zhurnal, Kibernetika, No 3, 1972, Abstract No 3 V577 by V. Mikheyev).

Translation: Formulas are studied for calculation of the measure of importance of an individual characteristic (P_i) for tables of objects of recognition T_{nml} (n is the number of characteristic columns, m is the number of object rows, l is the number of classes). Analysis shows that the primary difficulty in the determination of P_i from the standpoint of the number of computations is related to calculation of the number of votes. It is demonstrated using a number of theorems that in the class of voting algorithms, an effective and simple apparatus can be constructed for calculation of the number of votes and, correspondingly, for the production of P_i. This apparatus is constructed not only for binary tables but for tables of objects fixed by characteristics from a certain arbitrary numerical alphabet.

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USSR

Surgery

UDC 616.12-089-059:616.12-008.315-021.6

USSR

KROKHALEV, Yu. S., ZORIN, A. B., and ZHURAVLEV, Yu. N., Surgical Clinic for Advanced Training of Physicians imeni P. A. Kuprianov, and Chair of Anesthesiology and Reanimation, Military Medical Academy imeni S. M. Kirov

"Exclusion of the Circulation Five Times in an Open Heart Operation Performed Under Conditions of Hypothermia"

Moscow, Grudnaya Khirurgiya, No 4, 1970, pp 105-106

Abstract: The authors operated on a 22-year-old male for an interatrial septal defect with anomalous drainage of the pulmonary veins. The patient was chilled to 32°C just before surgery. Cardiac arrest occurred five times, once after the oxygen supply temporarily creased, and four times after the defect was repaired. When the circulation was restored after the defect was sutured, the orifices of both venae cavae dropped part way into the left atrium. The circulation was halted four times to eliminate the complication and ensuring metabolic disturbances. The blood loss was replenished with transfusions of the patient's own blood (from the chambers of the heart) and bank blood. Despite postoperative cerebral edema and other complications, the patient made good progress and was discharged in satisfactory condition 28 days after the operation, without any neurologic disorders. Follow-up examination 5 months later revealed no adverse

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203810019-5"

USSR

KROKHALEV, Yu. S., et al, Grudnaya Khirurgiya, No 4, 1970, pp 105--106

developments. The patient was leading a normal life, including participation in sports.

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1/2 026 UNCLASSIFIED PROCESSING DATE--09OCT70

TITLE--ON BIOLOGICAL ADEQUACY OF BLOOD USED FOR REINFUSION -U-

AUTHOR-(02)-ZHURAVLEV, YU.N., STAVINSKAYA, L.I.

COUNTRY OF INFO--USSR

SOURCE--VESTNIK KHIRURGII IMENI I. I. GREKOVA, 1970, VOL 104, NR 5, PP 110-113

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--STORED BLOOD, BLOOD TRANSFUSION, ERYTHROCYTE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1990/0578 STEP NO--UR/0589/70/104/005/0110/0113

CIRC ACCESSION NO--AP0103793

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203810019-5"

2/2 026 UNCLASSIFIED PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0108793

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. USING A RADIOACTIVE METHOD THE AUTHORS HAVE STUDIED THE POSTTRANSFUSION INTAKE AND DURATION OF SEMIPERIOD OF ERYTHROCYTES LIFE IN AUTOBLOOD TAKEN FROM THE OPERATIVE WOUND AND WASHED ERYTHROCYTES IN DRAINAGE BLOOD. THE CONCLUSION IS DRAWN ON HIGH BIOLOGICAL ADEQUACY OF BLOOD TAKEN FROM THE OPERATIVE WOUND AND WASHED ERYTHROCYTES OF DRAINAGE BLOOD IN ITS PROMTP ENTERING A RESERVOIR. STORAGE OF THE COLLECTED DRAINAGE BLOOD IN A REFRIGERATOR DOES NOT EFFECT THE DURATION OF ERYTHROCYTES LIFE. FACILITY: KHIRURGICHESKOY KLINIKI USOVERSHENSTVOVANIYA VRACHEY IM. P. A. KUPRIYANOVA AND N I LABORATORII, TSENTRA KROVI I TKANEY VOYENNO MEDITSINSKOY ORDENA LENINA KRASNOZNAMENNOY AKADEMII IM. S. M. KIROVA.

UNCLASSIFIED

1/2 017 UNCLASSIFIED PROCESSING DATE--09OCT70

TITLE--AMINES IN VOLATILE SUBSTANCES OF RUSSIAN CHEESE -U-

AUTHOR-(04)-GOLUVNYA, R.V., ZHURAVLEVA, I.L., MIRONOV, G.A., ABDULLINA, R.M.

COUNTRY OF INFO--USSR

SOURCE--MOLOCH. PROM. 1970, 31(2), 8-11

DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--PROCESSED ANIMAL PRODUCT, FOOD ANALYSIS, AMINE, CHROMATOGRAPHY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1993/0519 STEP NO--UR/0333/70/031/002/0008/0011

CIRC ACCESSION NO--AP0113410

UNCLASSIFIED

2/2 017 UNCLASSIFIED

CIRC ACCESSION NO--AP0113410 PROCESSING DATE--09OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE AMINE CONTENT OF VOLATILE SUBSTANCES OF 4 AND 10 MONTH OLD RUSSIAN CHEESE, STORED AT NEGATIVE 3DEGREES AND 85-7PERCENT HUMIDITY, WAS ANALYZED BY GAS LIQ. CHROMATOG. THE TOTAL AMT. OF AMINE CHLOROHYDRATES IN 500 G CHEESE INCREASED FROM 23 TO 29.4 MG. THE QUAL. COMPN. OF THE 21 IDENTIFIED AMINES DID NOT CHANGE SIGNIFICANTLY BUT THE AMTS. OF PIPERIDINE (I) AND ALPHA PICOLINE (II) INCREASED FROM 0.4 TO 15.4 AND FROM 7.5 TO 52.4PERCENT, RESP., AND THAT OF PRIMARY, SECONDARY, AND TERTIARY AMINES DECREASED. THE CONTENTS OF I, II, PYRIDINE AND ET SUB3 N WERE DETD. FACILITY: -INST. ELEMENTOORG. SOEDIN., MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC: 538.383

ZHURAVLEVA, E. A., Moscow Higher Technical Academy imeni N. E. Bauman

"Concerning a Nonlinear Effect in Gyroscopes"

Leningrad, Izvestiya VUZov: Priborostroyeniye, Vol 16, No 2, 1973, pp 73-75

Abstract: Let a force P be applied to the center of gravity of a gyromotor rotor perpendicular to its axis. The author considers in detail the action of this force on the bearings, and the resultant deformations, assuming that the gyromotor is symmetric in construction with a given axial tension on the bearings. Formulas are derived for calculating the change in axial preloading on the bearings, and the change in axial rigicity of the gyromotor. It is shown that the analysis can be readily extended to the case where the force P is not necessarily perpendicular to the axis. The results show that the applied force causes displacement of the center of gravity along the axis of the gyromotor. An experiment was conducted which gave satisfactory confirmation of the theoretical analysis.

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ZHURAVLEVA, E. A.

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JPRS 59053

17 May 1973

GYROSCOPES AND GYROMOTORS

Translations of selected articles by A. N. Balyasnikova et al. from the Russian-language journal Izvestiya VUZ. Priborostroyeniye, No 2, 1973, Leningrad.

CONTENTS

USSR

ZHURAVLEVA, G. A.

"SOL Modeling Language and Certain Principles of its Realization"

Prikl. Mat. i Programmir. [Applied Mathematics and Programming -- Collection of Works], No 8, Kishinev, Shtiintsa Press, 1972, pp 62-72 (Translated from Referativnyy Zhurnal Kibernetika, No 4, 1973, Abstract No 4V638, by the author).

Translation: The SOL modeling language is described. An analysis is presented of certain principle of the realization of characteristic features of the language, used in the construction of the START translating system, developed by the computer software laboratory of the Institute of Mathematics, together with the computer center of the Academy of Sciences, MSSR. The language itself is not presented in the work, but the primary concepts of the language, utilized in the presentation of the principles of its realization, are given.

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USSR

UDC 541.11:543.422.25:541.49:547.551:547.822.3:547.1'118

GOLOVNYA, R. V., ZHURAVLEVA, I. L., ZENIN, S. V., POLYAKOV, V. A., SERGEYEV, G. B.

"Determining the Thermodynamic Characteristics of the Complex Formation of Amines with Alkyl and Aryl Phosphates by the Nuclear Magnetic Resonance Method"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, No 11, 1973, pp 2595-2597

Abstract: The equilibrium constants, enthalpy variation, entropy variation and chemical shifts were obtained for complex formation of analine with triethyl phosphate and tri-p-tolyl phosphate and piperidine with tri-o,p-xylenyl phosphate. The complex formation of pyridine with triphenyl phosphate was detected. The complex formation of phosphates with amines takes place both by the path of formation of the hydrogen bond NH...O=P and $N^{\delta-}...P^{\delta+}$ bond. A method is proposed for determining the complex formation constants from the nuclear magnetic resonance data for comparable concentrations of the components. The process of complex formation in the given systems follows from the fact that on the addition of phosphates to the amine solution, the signals from the protons of the NH groups shift in the direction of the weak field.

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Nitrogen Compounds

USSR

UDC 543.544.25:547.233

GOLOVNYA, R. V., and ZHURAVLEVA, I. L., Institute of Hetero-Organic Compounds, Academy of Sciences USSR

"The Substitution of Trisodium Phosphate for Alkali in Gas Chromatographic Analysis of Aliphatic Amines"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, No 2, 1973, p 482

Abstract: The substitution of Na_3PO_4 for alkali in the treatment of chromatographic carriers in gas chromatography of aliphatic amines was found to give greater column stability, reproducibility, and the resolution of the amines. A column with PEG-1000 and Na_3PO_4, for example, functioned satisfactorily for over 10 months. The superior results are apparently due to the formation of hydrogen bonds between the $-NH_2$ and -NH groups and the oxygen of the -P=O group, and $N^{\delta-} \ldots P^{\delta+}$ bonds.

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1/2 021 UNCLASSIFIED PROCESSING DATE--20NOV70
TITLE--THERMAL STABILITY OF POLY,3,METHYLENEPHTHALIDE -U-

AUTHOR-(05)-RODE, V.V., ZHURAVLEVA, I.V., GAMZAZADE, A.I., SALAZKIN, S.N., CHELIDZE, G.SH.
COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, SER. KHIM. 1970, (4), 926-8

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--THERMAL STABILITY, ACTIVATION ENERGY, FREE RADICAL, BENZENE DERIVATIVE, HETEROCYCLIC OXYGEN COMPOUND, LACTONE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3006/1312 STEP NO--UR/0062/70/000/004/0926/0928

CIAL ACCESSION NO--AP0134986

UNCLASSIFIED

2/2 021 UNCLASSIFIED PROCESSING DATE--20NOV7C

CIRC ACCESSION NO--AP0134946

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE TITLE POLYMER (I) (S. B. VINOGRADOVA, ET AL., 1970) WAS HEATED IN A VACUO OR AR ATMOSPHERE AT 275-400DEGREES. THE MAIN DECOMPN. PRODUCT IS LESS THAN OR EQUAL TO 375DEGREES WAS 3,METHYLENEPHTHALIDE. ONLY ABOVE 375DEGREES TRACES OF CO SUB2, CO, AND H SUB2 WERE DETECTED. DTA CURVES AND WT. LOSS VS. TIME CURVES SHOWED THAT THE DECOMPN. OF I WAS A FREE RADICAL INITIATED DEPOLYMN. ASSOCD. WITH 39.5 KCAL-MOLE ACTIVATION ENERGY.

FACILITY: INST. ELEMENTOORG. SOEDIN., MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC 681.3.001-518.5

ZHURAVLEVA, L.A.

"A Programming Procedure"

V sb. Nekotor. vopr. avtomatiz. programmir. (Some Problems of Programming Automation -- Collection of Works), Novosibirsk, Nauka Press, 1970, pp 125-138 (from RZh-Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, No 2, Feb 71, Abstract No 2B65)

Translation: A procedure permitting automation of programming of restoring and readdressing operators and all control transfer instructions is investigated. The condition sufficient for use of the proposed procedure is the presence of calculation operators with a small number of instructions repeated multiply in different loops in the program flow chart. The basis for the procedure is a specialized programming routine.

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USSR UDC 51:621.391

ZHURAVLEVA, L. A.

"Certain Algorithms for Construction of a Reduced D. N. F. for Logical Algebra Functions of Invariables"

Nekotor. Vopr. Avtomatiz. Programir. [Some Problems of Automation of Programming -- Collection of Works], Novosibirsk, Nauka Press, 1970, pp 109-124 (Translated from Referativnyy Zhurnal Kibernetika, No 3, 1971, Abstract No 3 V352 by A. Kobozev).

Translation: Four algorithms are studied for construction of the reduced D. N. F. for logical algebra functions of invariables. These algorithms are based on operations performed on a table which is referred to as normal. This table is constructed as follows. The set of all possible Boolean collections of length n is ordered according to decreasing numbers 2^n-j, $j=1,2,\ldots,2^n$. The set produced is referred to as set $M_1=\{V_{j0}\}(j=1,2,\ldots,2^n)$. A set $M_2=\{V_{0k}\}$, $K=1,2,\ldots,2^n-1$ is formed, according to the following rule. First, all collections in which one place is occupied by a 1 are subtracted from M_1, then all collections are subtracted in which two places are occupied by ones, etc. The last will be the collection in which n places are occupied by ones. Collection $Y(y_1,\ldots,y_n)$ is the product of collections $Y_1(y_1',\ldots,y_n')$, and $Y_2(y_1'',\ldots,y_n'')$, if $y_i=y_i' \cdot y_i''$, $i=1,2,\ldots,n$. The normal table refers to the table $U=\{Y_{jk}\}$ of

USSR UDC 51:621.391

ZHURAVLEVA, L. A., Nekotor. Vopr. Avtomatiz. Programir., Novosibirsk, Nauka Press, 1970, pp 109-124.

collections of length n, where $Y_{jk}=Y_{j0} \cdot Y_{0k}$, $j=1, 2, \ldots, 2^n$, $k=1, 2$, up to 2^n-1. The logical algebra function for which the reduced D. N. F. is constructed is fixed by a tabular method. The algorithms analyzed in the article allow convenient computer realization.

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USSR UDC: 53.07/.08+53.001.5

ZHURAVLEVA, L. I., TOPTYGINA, N. A., ZVEREV, L. P.

"An Interference Method of Checking the Thickness of Epitaxial Films"

Uch. zap. Ural'sk. un-ta (Scientific Notes of Ural University), 1971, No 118, pp 27-35 (from RZh-Fizika, No 4, Apr 72, Abstract No 4A737)

Translation: A spectrophotometric method is proposed for determining the thickness of epitaxial films on silicon and gallium arsenide. The method is based on measuring bands of equal chromatic order. The investigated specimens were high-resistance epitaxial layers grown on a doped substrate of the same material. If the epitaxial layer is transparent and has a dielectric constant different from that of the substrate, then the radiation incident on the crystal will be reflected not only from the surface of the layer but also from the layer-substrate interface where the dopant concentration changes abruptly. These two beams will interfere. The position of the maxima on the interference pattern is determined not only by the thickness of the film but also by the phase shift at the boundaries which may be determined with regard to the dispersion of optical constants. The layer to be measured should be at least 1.5 μ

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ZHURAVLEVA, L. I. et al., Uch. zap. Ural'sk. un-ta, 1971, No 118, pp 27-35

thick, and the free carrier concentration ratio at the layer-substrate interface should be at least 0.2. The method requires that the film be plane-parallel. Measurement accuracy is 3-5%. L. Shelyakin.

USSR UDC 632.951

ZIL'BERMINTS, I. V., FADEYEV, YU. N., ZHURAVLEVA, L. M., All-Union Scientific Research Institute of Phytopathology

"Effect of Specific Acaricides Against Susceptible and Resistant Red Spider Populations"

Moscow, Khimiya v Sel'skom Khozyaystve, Vol 8, No 10 (84), Oct 70, pp 34-38

Abstract: Experiments were conducted to determine the suitability of some acaricides for killing resistant forms of mites. A susceptible population of Tetranychus urticae Koch taken from Moscow greenhouses was studied as well as three resistant populations produced in the laboratory by keltane, mercaptophos and aramite selection. The acaricides tested were acar, acrex, aramite, binapacryl, eradex, halecron, keltane, mesurol, micazine, milbex, and morestan. The results of these studies show that any resistant red spider population can be destroyed by proper selection of three of four specific acaricides. In the case where mites develop a resistance to organochlorine compounds, substitution or alternate application of acaricides from the keltane-acar-milbex-micazine group is not recommended.
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USSR

ZIL'BERMINTS, I. V., et al., Khimiya v Sel'skom Khozyaystve, Vol 8, No 10 (84), Oct 70, pp 34-38

Substitution and alternate application of acrex, aramite, binapacryl and morestan may be used as well as combination of these chemicals with any from the first group (keltane, acar, milbex and micazine). All compounds tested with the exception of mesurol can be used to combat mites which are resistant to thiophos, mercaptophos, rogor and other similar organophosphorus compounds. Mesurol should not be used simultaneously with organophosphorus compounds to avoid development of resistance to this entire group of pesticides.

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USSR

UDC 546.183

ZHURAVLEVA, L. P., and Z'OLA, M. I.

"On the Mechanism of Phosphorus Diiodide Alkylation with Benzyl Chloride"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), No 3, Mar 72, pp 526-531

Abstract: The release of phosphorus trichloride when benzyl chloride reacts with phosphorus diiodide indicates that benzyl chloride splits the P-P bond of phosphorus diiodide to form benzyldiiodophosphine and phosphorus diiodomonochloride (1) which undergoes disproportionation into phosphorus trichloride and triiodide (2). The benzyldiiodophosphine formed in the first stage is then alkylated by benzyl chloride to dibenzylmonochlorodiodophosphorus (3), and then to tribenzylphosphine dichloride diiodide (4). This reaction scheme explains the formation of benzylphosphonic and dibenzylphosphinic acids which could be formed during hydrolysis of intermediate products of alkylation. Since it has been proved previously that phosphorus triiodide is converted to phosphorus diiodide with the application of heat (5), and that red phosphorus also forms phosphorus diiodide with iodine (6), it may be assumed that the reaction of benzyl chloride with phosphorus and iodine goes through the following stages:

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ZHURAVLEVA, L. P., and Z'OLA, M. I., Zhurnal Obshchey Khimii, Vol 42(104), No 3, Mar 72, pp 526-531

(1) $I_2P—PI_2 + BzCl \longrightarrow BzPI_2 + PClI_2$
(2) $3PClI_2 \longrightarrow PCl_3 + 2PI_3$
(3) $BzPI_2 + BzCl \longrightarrow Bz_2PClI_2$
(4) $Bz_2PClI_2 + BzCl \longrightarrow Bz_3PCl_2I_2$
(5) $2PI_3 \longrightarrow P_2I_4 + I_2$
(6) $2I_2 + 2P \longrightarrow P_2I_4$

The resultant equation for the reaction thus becomes

$$4P + 6I + 9BzCl \longrightarrow 3Bz_3PCl_2I_2 + PCl_3.$$

The proposed scheme is verified experimentally. It is further confirmed by data in the literature on the chemical properties of the intermediate compounds.

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USSR

UDC 541.8+532.77

MOLCHANOVA, N. R., DULOVA, V. I., ZHURAVLEVA, L. P., and PAVLIN, A. T., Dnepropetrovsk Chemical-Technological Institute imeni F. E. Dzerzhinskiy and the Institute of Organic Chemistry, Ukrainian Academy of Sciences

"The Strength of Phosphonic Acids in Certain Nonaqueous Solvents"

Leningrad, Zhurnal Obshchey Khimii, Vol XL, No 12, Dec 70, pp 2631-2634

Abstract: In inert solvents phosphonic acids are dimerized, or may yield more complex aggregates; in solvents capable of forming hydrogen bonds, there is decomposition of these associates with subsequent dissociation of the acid molecules.

The present research was aimed at determining the strength of phosphonic acids and β-naphthylphosphozic acid in alcohols, ketones and ether. The bufferless indicator method was used, with a photocolorimeter, at 25 ± 3°.

Constants σ_ϕ were determined for 12 substituents, from the dissociation of the acids. In agreement with the Hammett equation the indexes of the dissociation constants of phosphonic acids correlate linearly with the constants σ_ϕ.

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USSR

UDC 547.241

ZHURAVLEVA, L. P., SULEYMANOVA, M. G., MARCHENKO, A. P., Z'OLA, M. I., KOVALYUKH, N. N., and KIRSANOV, A. V., Institute of Organic Chemistry, Academy of Sciences Ukrainian SSR

"Hydrogenation of Organophosphorus Compounds. Part V"

Leningrad, Zhurnal Obshchey Khimii, Sep 71, Vol 41, No 9, pp 1944-1950

Abstract: This paper is one of a series of investigations on the hydrogenation of organophosphorus compounds containing aromatic radicals. It is shown that mixed oxides of tertiary phosphines, phosphinic and phosphonic acids as well as phosphoric acid amides with phenyl and benzyl radicals will be hydrogenated in the presence of a platinum catalyst to form corresponding compounds with cyclohexyl and cyclohexylmethyl radicals; the phosphoric acid amides will be hydrogenated at a higher rate (at room temperature) than oxides and acids. Unlike the initial compounds, all hydrogenated products featured lower melting points and higher solubilities in ordinary organic solvents. When treated with phosphorus pentachloride, bis(cyclohexylmethyl) phosphinic acids form their acid chlorides -- readily mobile liquids, distillable under vacuum. When treated with propylmagnesium iodide, bis(cyclohexylmethyl)phosphinic acids form an oxide of propylbis(cyclohexylmethyl)phosphine which is identical to the hydrogenation product of

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ZHURAVLEVA, L. P., et al., Zhurnal Obshchey Khimii, Sep 71, Vol 41, No 9, pp 1944-1950

propyldibenzylphosphine oxide. The experimental section of this paper is presented in great detail and includes tables citing yields, melting points, solvents for crystallization, formulas, solubilities and other indicators for phosphoric acid trialylamides $(RNH)_3PO$, phosphoric acid tris(cyclohexyl)amides $(RNH)_3PO^a$ and other related compounds.

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USSR

UDC 547.241

ZHURAVLEVA, L. P., SULEYMANOVA, M. G., KOVALYUKH, N. N., and KIRSANOV, A. V., Institute of Organic Chemistry, Academy of Sciences Ukrainian SSR

"Dibenzylphosphinic Acid Derivatives"

Leningrad, Zhurnal Obshchey Khimii, Sep 71, Vol 41, No 9, pp 1950-1953

Abstract: A discussion is presented of a method suitable for obtaining oxides of tribenzylphosphines which, in turn, may be used to obtain a series of dibenzylphosphinic acids in good yields. When treated with phosphorus pentachloride or thionyl chloride, dibenzylphosphinic acids form acid chlorides which, when treated with ammonia and amines, form amides; when these acid chlorides are treated with alcohols and phenols (phenoxides), they form appropriate esters. The reaction of dibenzylphosphinic acid chloride with Grignard's reagents produces alkyldibenzylphosphine oxides or aryldibenzylphosphines. The fusion of alkyldibenzylphosphine oxides with alkalies yields alkylbenzylphosphinic acids -- crystalline compounds which may be titrated with phenolphthalein for monobasic acids. Tables are provided citing radicals, yields, melting points, formulas and other indicators for dibenzylphosphinic acid chlorides $(RC_6H_4CH_2)_2P(O)Cl$, dibenzylphosphinic acid amides $(RC_6H_4CH_2)_2P(O)NHR'$ and oxides of alkyldibenzylphosphines and aryldibenzylphosphines $(C_6H_5CH_2)_2P(O)R^a$.

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USSR UDC 547.24'

ZIOLA, M. I., ZHURAVLEVA, L. P., KIRSANOV, A. V.

"Reactions of Tertiary Phosphine Oxides With Phosphorus Pentachloride"

Leningrad, Zhurnal Obshchey Khimii, Vol 40, No 9, Sep 70, pp 1937-1942

Abstract: Reaction of stoichiometric amounts or of a double excess of phosphorus pentachloride with trisarylmethylphosphines in benzene or carbon tetrachloride solution yields only trisarylmethylphosphine dichlorides without any hexachlorophosphorates. Phosphorus pentachloride reacts with triscyclohexylmethylphosphine yielding the corresponding dichloride and hexachlorophosphorate of triscyclohexylmethylphosphonium chloride, which forms a crystal solvate with carbon tetrachloride. The dichlorides obtained can be converted to thiooxides by treatment with hydrogen sulfide and to the corresponding phosphazo compounds by the reaction with sulfoacid-N-dichloroamides. Thermal decomposition of tribenzylphosphine dichloride yields dibenzylchlorophosphine, which gives addition products with alkyl halides. These addition products can be hydrolyzed 1/1 to the alkyldibenzylphosphine oxides.

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USSR

UDC 638.632

PUCHKOVA, I. A., NININ, V. K., SHORYGINA, N. V., GEFTER, Ye. L., and ZHURAVLEVA, L. S.

"A Method of Making Polymers Which Contain Phosphorus"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 36, 1971, Author's Certificate No 322347, Division C, filed 24 Jul 70, published 30 Nov 71, p 55

Translation: This Author's Certificate introduces: 1. A method of making polymers which contain phosphorus and are based on phenol, formaldehyde and an organophosphorus compound. Synthesis is done by two-stage polycondensation of phenol with the phosphorus-containing compound in the presence of heat with subsequent treatment of the resultant product in formaldehyde at a temperature of up to 100°C. As a distinguishing feature of the patent, the fire resistance of the resins is improved by using di-ββ'-chloroethyl ether of vinylphosphonic acid (vinifos) as the phosphorus-containing compound, and carrying out the first stage of the reaction in an acid medium at 130-200°C for 3-7 hours. 2. A modification of this method distinguished by the fact that phenol and vinifos are taken in ratios from 1:2 to 1:4. 3. A modification of this method distinguished by the fact that the formaldehyde is taken in a ratio of 0.7-0.9 mole per mole of phenol.

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1/2 030 UNCLASSIFIED PROCESSING DATE--02OCT70

TITLE--ALUMINUM ALLOYS FOR NITRIC ACID TANKS -U-

AUTHOR-(02)-ZHURAVLEVA, L.V., REBRUNOV, V.P.

COUNTRY OF INFO--USSR

SOURCE--ZASHCH. METAL. 1970, 6(2), 224-7

DATE PUBLISHED-------70

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

TOPIC TAGS--ALUMINUM ALLOY, NITRIC ACID, MAGNESIUM ALLOY, ALLOY DESIGNATION, WELDABILITY, CORROSION RESISTANT/(U)AL AI ALUMINUM ALLOY, (U)AMG3 ALUMINUM MAGNESIUM ALLOY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1992/0748 STEP NO--UR/0365/70/006/002/0224/0227

CIRC ACCESSION NO--AP0111941

UNCLASSIFIED

2/2 030 UNCLASSIFIED PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0111941

ABSTRACT/EXTRACT--(U) CP-0- ABSTRACT. THE ALLOY AMG PRIME3 CONTG. MG 3.65, MN 0.47, SI 0.77, FE 0.25, CU 0.4, ZN 0.066PERCENT IS NO LESS EFFICIENT WITH RESPECT TO ITS RESISTANCE TO CONCD. HNO SUB3 SOLNS. AND VAPORS THAN AL AL CONTG. SI 0.3, FE 0.14, CU 0.006PERCENT. AMG3 IS CHARACTERIZED BY A GOOD WELDABILITY, IS EASILY MACHINED, AND IS 2-2.5 TIMES MORE RESISTANT THAN AL AL. BY APPLYING AMG3 ALLOY INSTEAD OF AL AL USED UP TO NOW FOR THE MANUF. OF NITRIC ACID TANKS, IT WILL BE POSSIBLE TO LOWER AL CONSUMPTION BY 25-35PERCENT, TO REDUCE THE WT. OF THE TANK AND INCREASE ITS LOAD CAPACITY.

UNCLASSIFIED

ZHURAVLEVA, M. V.

MEDICINE

So: JPRS 54539
23 Nov 71

UDC: 616.33+616.342]-002.44-07:616.36-07

THE SIGNIFICANCE OF FUNCTIONAL AND MORPHOHISTOCHEMICAL EXAMINATION OF THE LIVER IN EVALUATING ITS CONDITION IN THE PRESENCE OF PEPTIC ULCER

[Article by M.V. Zhuravleva, A.S. Yermolov, A.A. Martino, Institute of Human Morphology, USSR Academy of Medical Sciences, Moscow, and Second Moscow Medical Institute imeni N.I. Pirogov; Moscow, Vestnik Akademii Meditsinskikh Nauk SSSR, No 10, 1971, pp 67-70]

Many clinicians are concerned with the condition of the liver in the presence of peptic ulcers.

This is justified by the anatomical and physiological similarity between the stomach and the liver, their common vascular supply and innervation. Indeed, biochemical and functional studies of the liver (N.M. Hvilyak; I.A. Ageyenko and A.N. Bakheyeva; A.I. Venner; K.M. Solodova; Picco and Fernando; Valle et al.) indicate that it does change. However, the degree of involvement of the liver in the process of peptic ulcer has not been investigated sufficiently, in spite of the special studies pursued in this direction. The shifts in biochemical analyses on such patients are inconsistent (R.I. Lapidus).

Works dealing with the morphology of the liver with chronic gastric and peptic ulcer are few in number, they involve few case histories and, in essence, do not make use of histoenzymological methods (Z.A. Bondar' et al.; O.Ya. Kartashova et al.; G.A. Dzhagiyan; Ye.M. Tareyev; L.I. Aruin et al.). In the last few years histochemical investigation is gaining increasing importance in the study of the pathomorphology of various diseases. The histochemical method holds some promise with regard to investigation of the functional state of organs and systems on the cellular level; it permits demonstration of their participation in intermediate [intermediate?] metabolism.

In order to determine the correlation between functional and morphological changes in the liver associated with peptic ulcer and the localization, duration, and intensity of the process and nature of complications, we conducted a complex clinicomorphological survey of patients with peptic ulcers using histoenzymological methods. In all

USSR

UDC: 620.193.2:669.717

MIKHAYLOVSKIY, Yu. N., KLARK, G. B., SHUVAKHINA, L. A., AGAFONOV, V. V., ZHURAVLEVA, N. I., Institute of Physical Chemistry, Academy of Sciences of the USSR

"Calculating the Rate of Atmospheric Corrosion of Aluminum and its Alloys in Different Climatic Zones With Respect to Meteorological Parameters"

Moscow, Zashchita Metallov, Vol 9, No 3, May/Jun 73, pp 264-269

Abstract: The purpose of the paper was to study the influence of meteorological parameters (humidity and air temperature, time of saturation of the metal surface by phase layers of moisture, chemical composition of the atmosphere) on the rate of corrosion of aluminum and its alloys under natural conditions, and to develop engineering methods of calculating the corrosion effects to be expected on these materials in any climatic zone. The research procedure is described in a previous paper (Yu. N. Mikhaylovskiy et al., Zashchita Metallov, 1971, Vol 7, p 154). The specimens were aluminum and alloys D16T, AMG-6 and 01915. The studies were done in rural and industrial regions in the central zone, and in the coastal regions of the North and South. The results of previous tests in tropical zones with

USSR

MIKHAYLOVSKIY, Yu. N. et al., Zashchita Metallov, Vol 9, No 3, May/Jun 73, pp 264-269

known meteorological characteristics were also used. The specimens and instrumentation were exposed in an open area and in a louvered enclosure where phase layers of moisture settled on the metal surface due to precipitation, dew, and drop condensation. In the open atmosphere, the specimens and sensors were exposed on stands turned toward the south at an angle of 45° to the horizontal. In the louvered booths, the specimens were held vertically. An analysis of the results of the corrosion sensors shows that in spite of the complex influence of temperature, aluminum corrosion can be calculated with respect to averaged quantities, yielding satisfactory agreement with natural tests. The average rate of aluminum corrosion under "clean" atmospheric conditions is nearly independent of the nature of the moisture film, which is typical of metals which retain their passive state under atmospheric conditions. Corrosion parameters were determined which are necessary for calculating the rate of corrosion of aluminum and its alloys in any climatic zone from meteorological data.

2/2

USSR

ZHURAVLEVA, Ye. B., KAGAN, R. L., POLYAK, I. I.

"Calculation of Autocorrelation and Mutual Correlation Functions on the Basis of Several Realizations of a Random Process"

Tr. Gl. Geofiz. Observ. [Works of Main Geophysical Observatory], No 289, 1971, pp 20-28, (Translated from Referativnyy Zhurnal, Kibernetika, No 3, 1972, Abstract No 3 V567 by the author's).

Translation: An algorithm and program (in TA-1M translator input language) are presented for calculation of the autocorrelation (covariation) and mutual correlation (covariation) functions.

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USSR

UDC 541.13:(546.791+546.799.4)

SAMARTSEVA, A. G., and ZHURAVLEVA, Z. A.

"Separation of Uranium and Plutonium by an Electrochemical Method"

Leningrad, Radiokhimiya, Vol 14, No 1, 1972, pp 94-99

Abstract: A high negative potential for the reduction reaction $Me^{3+} + 3e^- \rightarrow Me$ is characteristic for the transuranium elements in aqueous solutions. During their electrolysis in aqueous solutions, they are precipitated either in the form of slightly soluble hydroxides or as oxides. The analyses for U^{233} and Pu^{239} were made by measuring the α activity with about a 1% precision. A number of samples were checked on a multichannel amplitude α-spectrometer [multichannel analyzer]. The pH was measured to ±0.02 units with a glass electrode pH meter. The separation was made from formic, citric and ascorbic acids and plotted as a function of the Ph vs. the current density. A study of the kinetics for the separation of U from Pu was made in formic acid. The three figures summarize the data obtained.

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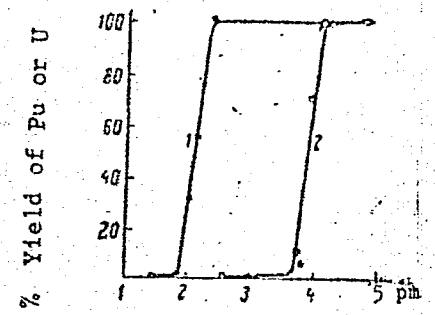
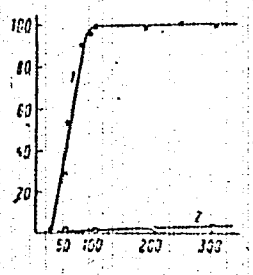
USSR

SMARTSEVA, A. G., and ZHURAVLEVA, Z. A., Radiokhimiya, Vol 14, No 1, 1972, pp 94-99



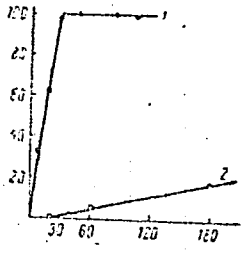
pH

Fig 1



Current density - ma/cm^2

Fig 2



Time-minutes

Fig 3

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USSR

SAMARTSEVA, A. G., and ZHURAVLEVA, Z. A., Radiokhimiya, Vol 14, No 1, 1972, pp 94-99

Figure 1. Electrochemical separation of $Pu^{(IV)}$ from $U^{(VI)}$ as a function of the pH of the electrolyte: 1 - separation of $Pu^{(IV)}$ at a current density of 100 ma/cm^2; 2- separation of $U^{(VI)}$ (electrolysis time was 1 hour). Figure 2. The electrochemical separation of $U^{(VI)}$ and $Pu^{(IV)}$ as a function of the current density at pH = 2.9 and electrolysis time of 1 hour. Figure 3. Kinetics of the electrochemical separation of $Pu^{(IV)}$ in formic acid at a pH = 2.9 and a current density of 100 ma/cm^2; 1 - separation of $Pu^{(IV)}$; 2 - separation of $U^{(VI)}$. The organic acid used for figure 1 was formic acid. For citric acid the $Pu^{(IV)}$ curve (1) is shifted about 0.5 pH units to the right and for ascorbic acid the curve is shifted about 1.3 pH units to the right. Values are not given for the separation of $U^{(VI)}$ from citric and ascorbic acid. Optimum conditions for the separation are a 25-30 minute electrolysis in formic acid solution (pH = 2.9) with a current density of 100 ma/cm^2. After the second separation the recovery of both U and Pu was greater than 99% with less than 1% contamination by the other element, e.g. by Pu in U, or vice versa.

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USSR

UDC 541.13: (546.791 + 546.799.4)

SAMARTSEVA, A. G., and ZHURAVLEVA, Z. A.

"Separation of Uranium and Plutonium by an Electrochemical Method"

Leningrad, Radiokhimiya, Vol 14, No 1, 1972, pp 94-99

Abstract: A high negative potential for the reduction reaction $Me^{3+} + 3e^- \rightarrow Me$ is characteristic for the transuranium elements in aqueous solutions. During their electrolysis in aqueous solutions, they are precipitated either in the form of slighly soluble hydroxides or as oxides. The analyses for U^{233} and Pu^{239} were made by measuring the α activity with about a 1% precision. A number of samples were checked on a multichannel amplitude α-spectrometer [multichannel analyzer]. The pH was measured to $\pm$0.02 units with a glass electrode pH meter. The separation was made from formic, citric and ascorbic acids and plotted as a function of the pH vs. the current density. A study of the kinetics for the separation of U from Pu was made in formic acid. The three figures summarize the data obtained.

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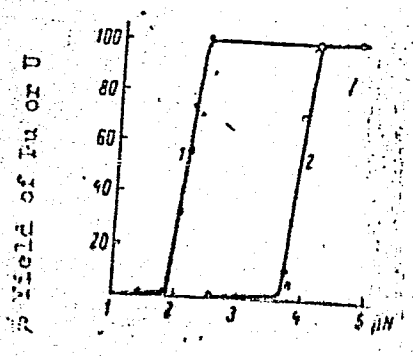
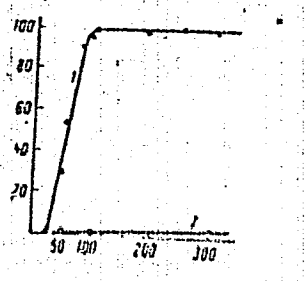
USSR

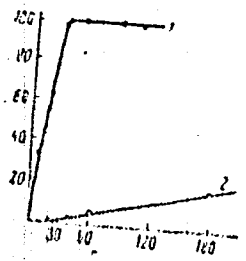
SAMARTSEVA, A. G., and ZHURAVLEVA, Z. A., Radiokhimiya, Vol 14, No 1, 1972, pp 94-99



pH
Fig. 1



Current density - ma/cm^2
Fig. 2



Time - minutes
Fig. 3

Figure 1. Electrochemical separation of $Pu^{(IV)}$ from $U^{(VI)}$ as a function of the pH of the electrolyte: 1 - separation of $Pu^{(IV)}$ at a current density of 100 ma/cm^2; 2 - separation of $U^{(VI)}$ (electrolysis time was 1 hour)

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USSR

SAMARTSEVA, A. G., and ZHURAVLEVA, Z. A., Radiokhimiya, Vol 14, No 1, 1972, pp 94-99

Figure 2. The electrochemical separation of $U^{(VI)}$ and $Pu^{(IV)}$ as a function of the current density at pH = 2.9 and electrolysis time of 1 hour. Figure 3. Kinetics of the electrochemical separation of $Pu^{(IV)}$ in formic acid at a pH = 2.9 and a current density of 100 ma/cm^2: 1 - separation of $Pu^{(IV)}$; 2- separation of $U^{(VI)}$.

The organic acid used for figure 1 was formic acid. For citric acid the $Pu^{(IV)}$ curve (1) is shifted about 0.5 pH units to the right and for ascorbic acid the curve is shifted about 1.3 pH units to the right. Values are not given for the separation of $U^{(VI)}$ from citric and ascorbic acid. Optimum conditions for the separation are a 25-30 minute electrolysis in formic acid solution (pH = 2.9) with a current density of 100 ma/cm^2. After the second separation the recovery of both U and Pu was greater than 99% with less than 1% contamination by the other element, e.g., by Pu in U, or vice versa.

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USSR

UDC 541.183.5:(546.799.3+546.799.4):546.92

SAMARTSEVA, A. G., ZHURAVLEVA, Z. A.,

"Separation of Neptunium and Plutonium by an Adsorption Method on the Surface of Polished Platinum"

Leningrad, Radiokhimiya, Vol 13, No 6, 1971, pp 857-860

Abstract: A novel method was developed for separation of plutonium from neptunium based on the adsorption of plutonium on the surface of polished platinum. $Pu^{(IV)}$ is adsorbed to the extent of 99.9±0.1% in a wide range of pH values: pH 1.7 to pH 9.8. Tetra- and hexavalent neptunium may be adsorbed on the surface of polished platinum to the extent of 70%, while the pentavalent neptunium is not adsorbed at all. The procedure for the separation of $Pu^{(IV)}$ and $Np^{(V)}$ consisted of two adsorption cycles, after which the mother liquor was transferred to another platinum dish and subjected to electrolysis at pH 2.5 liberating neptunium quantitatively.

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Acc. Nr: AP0034715 Ref. Code: UR 0241

PRIMARY SOURCE: Meditsinskaya Radiologiya, 1970, Vol 15, Nr 2, pp 73-76

ROENTGENOTHERAPY OF INFLAMMATORY DISEASES

A. I. Zhuravok

Summary

Roentgenotherapy was applied to 201 patients suffering from certain inflammatory diseases. In 91 cases it was used as an independent method and in 110 others — in conjunction with surgical intervention and antibiotics. Single dose of the order of 10—15 r were chiefly used, and only in some instances these were increased up to 30—40 r. Summary doses did not exceed 160 r. In 193 (96.1%) of patients the results of the treatment were good and in 8(3.9%) — unsatisfactory. After roentgenotherapy no complications were recorded.

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REEL/FRAME
19711421

02

USSR

UDC 547.435.2+632.954

BASKAKOV, YU. A., FADDEYEVA, V. K., ZHURAVSKAYA, T. S., and SVIRSKAYA, P. I., All Union Scientific Research Institute for Chemical Means of Plant Protection, Moscow, State Committee for Chemistry USSR

"Herbicidal Derivatives of Hydroxylamines
XXX. O-Substituted N-halophenoxyacyl-N-alkyl(aryl)hydroxylamines"

Moscow, Zhurnal Organicheskoy Khimii, Vol 6, No 2, Feb 70, pp 281-285

Abstract: O-Acylhydroxylamines were obtained by reacting hydroxylamines with anhydrides of alkylcarboxylic acids in presence of acid catalysts (phosphoric acid or a mixture of phosphoric acid and carboxylic acid anhydrides). The N-methylhydroxylamines react under slightly more drastic reaction conditions than corresponding N-phenyl derivatives. Reaction rate drops with higher molecular weight of the anhydride. O-Carboethoxy-N-haloaryloxyacyl-N-phenyl(methyl)hydroxylamines could be obtained from the reaction of ethylchlorocarbonate and hydroxylamine in an inert solvent at 0 to 20° and in presence of organic bases (pyridine, triethylamine). At room temperature hydroxylamines react with isocyanates to yield O-carbamoyl-N-haloaryloxyacyl-

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USSR

BASKAKOV, YU. A., et al, Zhurnal Organicheskoy Khimii, Vol 6, No 2, Feb 70, pp 281-285

N-phenyl(methyl)hydroxylamines. Most of the compounds proved to be quite stable.

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USSR

UDC 621.357:621.79.027

MYZDRIKOV, A. M., AMIRKHANOVA, N. A., ZHURAVSKIY, A. K.

"Selection of Electrolytes for Electrochemical Machining"

V sb. Novoye v elektrofiz. i elektrokhim. obrabotke materialov (What's New in Electrophysical and Electrochemical Treatment of Materials -- collection of works), Leningrad, Mashinostroyeniye Press, 1972, pp 21-23 (from RZh-Khimiya, No 12, Jun 72, Abstract No 12L300)

Translation: The potentiostatic method of studying the anode behavior of EI-961 alloy in solutions of different composition is used to select the optimal composition of the electrolyte for electrochemical dimensional machining. This is an aqueous solution of 15% NaCl and 5% $NaNO_3$.

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USSR

AMIRKHANOVA, N.A., ZHURAVSKIY, A.K. and USKOVA, N.G., Ufa

"Anodic Dissolution of Nickel-Base Heat-Resisting Alloys in Salt Solutions as Applied to EKhRO (Electrochemical Dimensional Finishing of Metals)"

Kishinev, Electronnaya Obrabotka Materialov, Applied Physics Institute, Academy of Sciences, Moldavian SSR, No 6, 1972, pp 19-23

Abstract: The electrochemical metal finishing is achieved by anodic dissolution of metal in the electrolyte. 12 electrolytes of different chemical composition were tested with four nickel-base heat-resisting alloys. The specimens were cylindrical, 5 mm diameter, rotating at 800 rpm. Graphs show the dissolution speed as a function of applied voltage. Tests showed that electrolytes having a NaCl base are the most productive. With electrolytes having a $NaNO_3$ base the anodic dissolution is preceded by oxidation, which causes a non-uniform anodic dissolution and resulting rough surface finish.

1/1

USSR

UDC: 621.395.385

ZHURAVSKIY, B. F.

"A Discrete Information Receiver"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 22, 1970, Soviet Patent No 275154, Class 21, filed 9 Aug 68, pp 37-38

Abstract: This Author's Certificate introduces a discrete information receiver for parallel data transmission equipment. The device contains a signal level normalizer with threshold voltage shaper, and groups of channels connected to a logic circuit. A narrow-band channel filter, a detector and a subtracter connected to the logic circuit are connected in series in each of the channels. As a distinguishing feature of the patent, the receiver is simplified by making the signal level normalizer in the form of a threshold voltage shaper control module with the outputs of the detectors in all channels for a given group connected to the inputs of the control module.

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1/2 029 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--ON ENHANCEMENT OF VASCULARIZATION OF THE MYOCARDIUM -U-

AUTHOR--ZHURAVSKIY, L.S.

COUNTRY OF INFO--USSR

SOURCE--VESTNIK, KHIRURGII IMENI I. I. GREKOVA, 1970, VOL 104, NR 2, PP 37-39

DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--MYOCARDIUM, TISSUE TRANSPLANT, IESUNUM, HEART DISEASE, ADHESION, VASCULAR INJURY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1985/1720 STEP NO--UR/0589/70/104/002/0037/0039

CIRC ACCESSION NO--AP0101773

UNCLASSIFIED

2/2 029 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0101773

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IN THE ARTICLE THE RESULTS OF EXPERIMENTAL STUDIES ON CREATION OF A VASCULAR GRAFT SUPPLYING THE HEART FROM THE JEJUNUM IN CHRONIC CORONARY INSUFFICIENCY ARE DESCRIBED AS WELL AS OUR INITIAL CLINICAL EXPERIENCE WITH THE USE OF JEJUNOCARDIOPLASTY. THE EXPERIMENTS HAVE DEMONSTRATED THE RATIONALITY OF CONSTRUCTING INTERORGANIC ADHESIONS BETWEEN THE JEJUNAL WALL AND HEART FOR ADDITIONAL MYOCARDIAL BLOOD SUPPLY. CLINICAL OBSERVATIONS HAVE EVIDENCED A PROGRESSIVT IMPROVEMENT OF THE OPERATED PATIENT'S CONDITION WITH THE LAPSE OF TIME.

UNCLASSIFIED

USSR

UDC 621.371.25

GINZBURG, E. I., ZHURAVSKIY, O. G., Institute of Geology and Geophysics of the Siberian Department of the USSR Academy of Sciences

"Statistical Fading Model of Shortwave Radio Signals Obliquely Reflected from the Ionosphere"

Gor'kiy, Izvestiya vysshikh uchevnykh zavedeniy, Radiofizika, Vol XV, No 1, 1972, pp 5-10

Abstract: Experimental data are presented as a basis for the following proposition: the distribution function of the shortwave signal levels is determined by a large number of model parameters the relative effect of each of which is small. Rapid fading of shortwave signals is simulated by a Poisson pulse train. The distribution laws of the pulse amplitudes and durations are determined, and the autocorrelation and distribution functions of the signal levels are calculated. A comparison is made with the experimental data.

Significant divergence of the experimental and theoretical curves in the probability range less than 0.2 is explained as follows. When deriving the distribution function it was assumed that the distribution laws of the "positive" and "negative" amplitudes coincide. However, the negative amplitude distribution breaks away sharply in the $a \leq \bar{\xi}$ region (a is the amplitude of an

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USSR

GINZBURG, E. I., et al., Izvestiya vysshikh uchevnykh zavedeniy, Radiofizika, Vol XV, No 1, 1972, pp 5-10

pulse, ξ is the maximum signal level in the interval), which must lead to a rapid decrease in the theoretical curve in the range of large negative levels.

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USSR

UDC 577.4

ZHURAVSKIY, YU. I., ZHIGULIN, L. F.

"Possibility of Block Synchronization with Respect to Request Combinations in Systems with Blocking"

V sb. Peredacha diskret. soobshch. po kanalam s gruppiruyushchimisya oshibkami (Transmission of Digital Messages over Channels with Group Errors -- collection of works), Moscow, Nauka Press, 1972, pp 68-74 (from RZh-Kibernetika, No 7, Jul 72, Abstract No 7V458)

Translation: An algorithm is presented for the operation of a system with blocking in the synchronization mode. It is proposed that synchronization be realized with respect to request combination in the blocking zone of the master station receiver. A study was also made of the choice of the request combination, in particular, the requirements imposed on the autocorrelation function of the request combination.

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1/2 035 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--SELECTION OF THE CHEMICAL COMPOSITION OF TITANIUM ALLOYS WITH A LOW SUSCEPTIBILITY TO HYDROGEN INDUCED BRITTLENESS --U-

AUTHOR-(03)-KOLACHEV, B.A., LIVANOV, V.A., ZHURAVLEV, L.N.

COUNTRY OF INFO--USSR

SOURCE--AKADEMIIA NAUK SSSR. IZVESTIIA METALLY, MAY-JUNE 1970, P 158-164

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--HYDROGEN EMBRITTLEMENT, BIBLIOGRAPHY, TITANIUM ALLOY, HYDRIDE, BETA PHASE, METAL HEAT TREATMENT, CHEMICAL COMPOSITION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY FICHE NO----FD70/605011/E11 STEP NO--UR/0370/70/000/000/0158/0164

CIRC ACCESSION NO--AP0140218

UNCLASSIFIED

2/2 035 UNCLASSIFIED

CIRC ACCESSION NO--AP0140218 PROCESSING DATE--04DEC70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. REVIEW OF THE POSSIBLE CAUSES OF HYDROGEN INDUCED BRITTLENESS OF TITANIUM ALLOYS AND METHODS OF ITS PREVENTION. IT IS STATED THAT SUSCEPTIBILITY OF THESE ALLOYS TO HYDROGEN INDUCED BRITTLENESS CAN BE DECREASED BY INCREASING THE ALUMINUM CONTENT WHICH ENHANCES THE SOLUBILITY OF HYDRIDES IN THE BETA PHASE. SUSCEPTIBILITY OF ALPHA PLUS BETA ALLOYS TO HYDROGEN INDUCED BRITTLENESS CAN BE DECREASED BY THE FOLLOWING METHODS: (1) INCREASING THE AMOUNT OF THE BETA PHASE. (2) INCREASING THE CRITICAL CONCENTRATION OF HYDROGEN IN THE BETA PHASE (ABOVE WHICH THISE PHASE BEGINS TO BE BRITTLE). (3) DECREASING THE CONCENTRATION RATIO OF HYORDGEN IN THE ALPHA AND BETA PHASES. THIS CAN BE ACHIEVED BY SUITABLE SELECTION OF THE CHEMICAL COMPOSITION OF ALPHA PLUS BETA ALLOYS, OR BY SUBJECTING THESE ALLOYS TO HEAT TREATMENT UNDER SPECIALIZED CONDITIONS.

UNCLASSIFIED

USSR

UDC 616.21-057:797.22

SHAPARENKO, B. A., GULER, S. A., ZHURBA, A. N., and URKIN, A. A., Chair of Otorhinolaryngology, Donetsk Medical Institute, and Donetsk Department, Central Experimental Design Bureau for Special Equipment

"Functional State of the Otorhinolaryngological Organs in Aquanauts and Scuba Divers During the 'Ikhtiandr 68' Underwater Experiment"

Moscow, Vestnik Otorinolaringologii, No 6, Nov/Dec 70, p 93

Translation: Examination of the condition of the ear, nose, and throat of four aquanauts (group 1) and 13 scuba divers (group 2) who remained under water at a depth of 13 to 15 m for a long time under conditions of high pressure (2.2 atm), high humidity (92 to 96%), and decreases in temperature revealed that during the first 24 hours the first group of subjects had a "full and stuffy" feeling in the ears. No objective changes were noted in the otorhinolaryngological organs. On the next day they developed swelling and hyperemia of the mucosa of the upper respiratory tract, retraction and cloudiness of the tympanic membranes, and lowering of the barofunction of the middle ear to the second degree. On the 3rd day they exhibited signs of infiltration of the mucosa and lymphoid tissue of the respiratory tract, hyperemia of the tympanic membranes, hoarseness, and closure of the vocal

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203810019-5"

USSR

SHAPARENKO, B. A., et al, Vestnik Otorinolaringologii, No 6, Nov/Dec 70, p 93

chords. On the 4th day all members of the underwater laboratory showed inflammatory changes in the mucosa and lymphoid tissue of the upper respiratory tract, infiltration of Gerlach's tonsils, and early indications of eustachitis.

During their stay under water, the 13 scuba divers (group 2) experienced the same changes in the otorhinolaryngological organs as those in group 1. The changes were indistinct, and their condition returned to normal within 2 days after the men left the water. Increased time under water resulted in the development of incipient signs of catarrhal inflammation of the organs studied.

USSR

UDC 626.024:616.21-008

SHAPARENKO, B. A., GULYAR, S. A., ZHURBA, A. N., and UTKIN, A. A., Otorhinolaryngology Department, Donetsk Medical Institute, and Medical Physiology Division, Donetsk Department, Central Experimental Design Bureau for Special Equipment

"Dynamics of Functional Shifts in the Otorhinolaryngological Organs of Scuba Divers"

Kiev, Zhurnal Ushnykh, Nosovykh, i Gorlovykh Bolezney, No 4, Jul/Aug 70, pp 79-82

Abstract: Thirteen scuba divers working at a depth of 13 to 15 meters (water temperature 17 to 21°C) were examined at 30-min intervals for 3 hours. The data obtained revealed functional shifts in the ear, nose, and throat which varied according to certain external factors. A lowering of the ambient temperature caused temporary constriction and then dilatation of the blood vessels in the nasal mucosa and lymphoid tissue of the nasopharynx. Increased secretion of the mucous glands and impaired nasal breathing resulted in obstruction of the eustachian tubes and deterioration of hearing. These shifts were less pronounced in a control group of eight scuba divers who wore a "Sadko" water suit made of thin rubber with a wool lining.

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USSR

UDC 62-72

ZHURBA, A. S., SMOL'NIK, YU. YE., KATRUSH, R. V., SABIROVA, G. V., and USUPOVA, L. G., All Union Scientific Research Institute of Petrochemical Processing

"The Influence of the Depth of Hydropurification of the Fractions of Jet Fuel on Their Low Temperature Properties"

Kiev, Khimicheskaya Tekhnologiya, No 3,(63), May-Jun 72, pp 17-19

Abstract: The effect of the depth of hydrofining being used as the first stage of the hydrogenation process of jet fuels with increased content of aromatic hydrocarbons has been investigated in regard to the low temperature properties of the hydrofined fuel. It has been noted that after deep hydrofining the temperature of the initial crystallization is raised and a turbidity is observed proceeding the crystallization by some 12-14°C. It has been determined that this turbidity is caused by accumulation of poorly branched paraffin hydrocarbons of high molecular weight.

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USSR

UDC 665.658.2.661.725.7

SMOL'NIK, YU. YE., ZHUKOV, A. S., USUPOVA, L. G., and KOVERDA, R. V.
All Union Scientific Research Institute of Petrochemical Processing

"Hydrogenation of Aromatic Hydrocarbons of Narrow Fractions of Aviation Kerosene"

Moscow, Neftepererabotka i Neftekhimiya, No 2, 1972, pp 1-3

Abstract: Hydrogenation of aromatic hydrocarbons, fractions 150-180 and 180-240°C, on an industrial aluminum-platinum catalyst AP-56 was studied. The optimal conditions for this process are: pressure -- 30 atms, temperature -- 275-325°C. Under such conditions and at a 1.5 hr^{-1} volume rate of addition of starting material, the hydrogenation of both fractions exceeds 85%. The yield of the product is approximately 97 weight-%. The catalyst used is quite stable even after 200 hrs.

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USSR

UDC 665.52

ZHURBA, A. S., SMOL'NIK, Yu. Ye. (deceased), BRYANSKAYA, E. K., and MARTYNYUK, A. D., All Union Scientific Research Institute of Petrochemistry

"Production of Jet Fuel With Improved Qualitative Properties"

Kiev, Neftyanaya i Gazovaya Promyshlennost'", No 4, 1973, pp 36-38

Abstract: Hydrogenation conditions for kerosene fractions 130-180, 130-240 and 180-240°C over aluminum-platinum catalyst AP-56 were investigated. It was established that at 40 atm and 300°C the degree of conversion of mono and bicyclic aromatic hydrocarbons is 90%. The hydrogenation product should be used as the low aromatic component for the production of commercial reactive fuel by mixing it with straight distillate.

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1/2 023 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--PHYSICOCHEMICAL AND TECHNOLOGICAL PROPERTIES OF PRILUKI AND RYBAL'SKII PETROLEUMS -U-

AUTHOR-(03)-CHEREDNICHENKO, G.I., ZHURBA, A.S., USUPOVA, L.G.

COUNTRY OF INFO--USSR

SOURCE--NEFTEPERERAB. NEFTE KHIM. (MOSCOW) 1970, (3), 47

DATE PUBLISHED--------70

SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY, MATERIALS, PROPULSION AND FUELS

TOPIC TAGS--KEROSINE, GASOLINE, JET FUEL, PETROLEUM DEPOSIT, GEOGRAPHIC LOCATION, PETROLEUM REFINING, PHYSICAL CHEMISTRY PROPERTY, CATALYTIC REFORMING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3001/2081 STEP NO--UR/0318/70/000/003/0047/0047

CIRC ACCESSION NO--AP0127454

UNCLASSIFIED

2/2 023 UNCLASSIFIED

CIRC ACCESSION NO--AP0127454 PROCESSING DATE--23OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. PRILUKI (15-27PERCENT NAPHTHENES AND 70PERCENT PARAFFINS) AND RYBAL'SKII LOW S PETROLEUMS FROM THE DNIEPER DONETS BASIN YIELDED 55.7 AND 67.0PERCENT OF LIGHT FRACTIONS, RESP., AND EQUIV. REFORMING CATALYZATES. IN THE RYBAL'SKII PETROLEUM, AROMATIC HYDROCARBON CONTENT IN THE 105-40DEGREES AND 140-240DEGREES FRACTIONS WAS 36.4 AND 28PERCENT, RESP., BUT PARAFFINIC HYDROCARBON CONTENT (26.8PERCENT IN THE 105-40DEGREES FRACTION) AND THE ISO NORMAL PARAFFIN RATIO WERE SO LOW (0.3-0.4 FOR THE 60-105 AND 120-40DEGREES FRACTIONS) THAT THE OCTANE NO. WAS 13-16 POINTS LOWER THAN THAT OF THE PRILUKI GASOLINE. RYBAL'SKII CRUDES YIELDED KEROSINE JET FUELS HAVING POOR LOW TEMP. AND FLAME CHARACTERISTICS AND ONLY LOW GRADE MAZUT BOILER FUEL. THUS, SEP. REFINING OF THE 2 PETROLEUMS WAS NECESSARY.

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YEL'CHINOVA, YE. A., and ZHUBBA, M. D., State Control Institute of Medical Biological Preparations imeni L. A. Tarasevich

"The Leukocytolysis Reaction as an Indicator of Bacterial Allergy in Experimental Animals Infected With Crucella"

Moscow, Laboratornoye Delo, No 11, 1971, pp 685-687

Abstract: The possibility of using the leukocytolysis reaction to evaluate bacterial allergies in brucellosis was studied. Methods were chosen to indicate specifically an allergy in experimental animals (rabbits and guinea pigs) infected with brucellosis. Methods used were: skin test (Burnet reaction), temperature reaction to internal introduction of a specific antigen, and the leukocytolysis reaction. The guinea pigs and rabbits were simultaneously given 2 to a 4 billon cells of a 2-hr culture of Br. abortus M-104. On the 30th day blood was drawn from the animals, a skin test was done, and the temperature reaction to internal introduction of 35 millioncells of killed therapeutic brucellosis vaccine (10 million cells in 0.2 ml) was studied. The leukocytolysis reaction was conducted with blood taken from the animals infected with brucellae and citrated. The leukocytolysis reaction was conducted with the same antigens and the blood of the noninfected control animals. After careful mixing, the
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YEL'CHINOVA, YE. A., and ZHURBA, M. D., Laboratornoye Delo, No 11, 1971, pp 685-687

reaction was incubated for 2 hours at 37° C. The quantity of leukocytes in the mixture was calculated before and after incubation. In the blood of infected animals the average percent of leukocytolysis for 90% of the rabbits was 40.7% to 43.8% and for 100 percent of guinea pigs, 36.2% to 39.7%. Nonspecific lysis with physuological saline was observed in 4% - 10% of the animals. In controls, a positive reaction after contact with the antigen was observed in only 26% of the cases and the leukocytolysis was 4% - 23%. Results of skin allergy tests, temperature reactions, and the leukosytolysis reaction agreed in most cases. The leukocytolysis reaction is distinguished by its safety and simplificity and is a sufficiently reliable index of infectious allergy. The leukocytolysis reaction is recommended for further study in clinical conditions with various forms of human brucellosis.

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YEL'CHINOVA, Ye. A., and ZHURBA, M. D., State Control Institute for Medical and Biological Preparations imeni L. A. Tarasevich, Moscow

"Immunological Shifts in Brucella-Infected Animals After Application of Vaccine Therapy"

Moscow, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, Vol 48, No 2, Feb 71, pp 75-80

Abstract: Stimulation of antibody formation in rabbits infected with Brucella and treated with corpuscular therapeutic vaccine (a suspension of Brucella cells killed by heating) or one of four soluble antigenic preparations (White antigen, "cellophane" antigen, brucellin, or purified brucellosis allergen) was studied. As far as stimulation of immunity in infected animals was concerned, the soluble antigens were no less effective than corpuscular therapeutic vaccine. The immunological response of infected animals to therapy depended not so much on the nature of the preparation used as on the readiness of the organism for

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YEL'CHINOVA, Ye. A. and ZHURBA, M. D., Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, Vol 48, No 2, Feb 71, pp 75-80

antibody formation (the "immunological memory"). The soluble antigens had a lower allergenic effect than corpuscular vaccine. Therapy with the preparations studied, besides stimulating the formation of antibodies, increased the phagocytic activity of the serum. Rabbit immune sera had a bacteriostatic effect with respect to Br. abortus M-104, which was used to infect the animals in the experiments conducted. Normal rabbit sera also exhibited this effect. The bactericidal effect of immune sera with respect to Brucella was low -- lower than that of normal rabbit serum. Apparently infection with Brucella lowered the defensive potential of the organism as far as bactericidal properties of the serum were concerned.

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71247h Reaction of cobalt(II) chloride with aromatic amines in nonaqueous solutions. Zburba, T. V.; Dulova, V. I. (Dnepropetrovsk. Khim.-Tekhnol. Inst. im. Dzerzhinskogo, Dnepropetrovsk, USSR). *Zh. Neorg. Khim.* 1970, 15(1), 269-71 (Russ). Equil. complexing of $CoCl_2$ with $PhNH_2$ and its derivs. (*o*-toluidine, Me_2NPh, Et_2NPh, *o*-anisidine, *p*-anisidine, *p*-phenetidine, and 2,6-xylidine) was studied spectrophotometrically. Instability consts. of $CoCl_2$-aromatic amine complexes in Me_2CO, cyclohexanone (I), and BuOH are tabulated. Stability of the complexes in Me_2CO and I is approx. the same and it is lower in BuOH. This is attributed to higher basicity of BuOH than that of Me_2CO or I. In general, expt. results show that interaction of Co(II) with aromatic amines is not limited to the formation of donor-acceptor bonds. HMJR

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UDC: 621.396.677(088.8)

AYZENBERG, G. Z., ZHURBENKO, E. M., KLIGER, G. A., LYALIKOV, V. V.

"A Long-Wave Impedance Antenna"

USSR Author's Certificate No 247362, filed 20 May 68, published 11 May 70 (from RZh-Radiotekhnika, No 11, Nov 70, Abstract No 11B61 P)

Translation: The proposed antenna system consists of an antenna tower, and log-periodic zig-zag arrays hung on rails which are fastened to the antenna tower. A switch is used to connect the transmitter either to the antenna tower or to one of the zig-zag elements. When the transmitter is connected to the antenna tower, the antenna system is an impedance antenna with undirected radiation pattern in the horizontal palne; in this case, the zig-zag log-periodic arrays are passive elements which act as guides. In the case where one of the log-periodic arrays is fed, the antenna system is a directional frequency-independent average-wave antenna. The direction of maximum radiation depends on which log-periodic array the transmitter is connected to. In case it is necessary to serve several sectors with maximum radiation in the direction of the vertex of the log-periodic structures, a transmitter is connected to each of them. One illustration. A. K.

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UDC: 621.396.677.75

AYZENBERG, G. Z., ZHURBENKO, E. M., KLIGER, G. A., and LYALIKOV, V. V.

"Impedance Antenna With Delay Structure Consisting of Zigzag Wire Lines"

Moscow, Radiotekhnika, Vol. 25, No. 11, 1970, pp 39-48

Abstract: Impedance antennas contain two elements, exciters and directors, the latter being an impedance surface which is usually a ribbed metallic surface. The purpose of this article is to analyze antennas of this type and to show how their present form, which is complex and difficult to produce especially at increased wavelengths, can be imitated by replacing the solid metal surface with ribbons or wires bent in rectangle-toothed fashion. In their analysis, the authors limit themselves to considering an asymmetrical vibrator and impedance structure in the form of a grating of radial zigzag lines with vertical and horizontal elements of varying length. They conclude by asserting that such antennas are promising for medium and high-frequency use, and recommend that further investigations into film and wire impedance structures be made. Theoretically and experimentally determined directional diagrams in the vertical and horizontal planes are shown.

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1/2 007 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--PREPARATION OF SAMPLES FOR DETERMINING CARBON 14 IN TISSUE PROTEINS -U-

AUTHOR--ZHURBIN, G.I.

COUNTRY OF INFO--USSR

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CIRC ACCESSION NO--AP0119203

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE PREPN. OF SAMPLES FOR DETG. PRIME14 C IN TISSUE PROTEINS BY DISSOLUTION IN CONCD. FORMIC ACID WAS DESCRIBED. PROTEINS WERE PPTD. BY CL SUB3 CCO SUB2 H, WASHED, AND DRIED. THE SAMPLE OF DRIED PROTEINS WAS HEATED IN A KNOWN AMT. OF CONCD. FORMIC ACID ON A BOILING WATER BATH AND WAS DISSOLVED WITHIN 7-15 MIN. THE SOLN. OF PROTEINS WAS APPLIED TO PLATES AND FORMIC ACID WAS EVAPD. FACILITY: OTD. BIOSIN. BIOL. SVOISTV BELKA, INST. BIOKHIM., KIEV, USSR.

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2/2 027 UNCLASSIFIED PROCESSING DATE--11DEC70
CIRC ACCESSION NO--AP0142903
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EFFECT OF SODIUM BICARBONATE AND MA PRIME2 POSITIVE, MN PRIME2 POSITIVE AND ZN PRIME2 POSITIVE IONS ACTIVATING THE PROCESSES OF CO SUB2 FIXATION IN THE ANIMAL TISSUES ON THE C PRIME14 INCORPORATION INTO PROTEINS AND LIPIDS OF KIDNEYS AND SPLEEN WAS STUDIED IN THE DYNAMICS OF LIVER REGENERATION AFTER 80PERCENT HEPATECTOMY 24, 72 AND 168 HRS AFTER THE OPERATION. AN HOUR BEFORE KILLING 21.5 MU C PER 1 KG OF LIVE WEIGHT OF 2,C PRIME14 SODIUM ACETATE WERE ADMINISTERED INTRAVENOUSLY TO THE ANIMALS AND SPECIFIC RADIOACTIVITY OF KIDNEY AND SPLEEN PROTEINS AND LIPIDS WAS DETERMINED. IT IS SHOWN, THAT 10 DAY FEEDING OF THE MENTIONED SALT MIXTURE (SODIUM BICARBONATE, 25 PARTS, MAGNESIUM, 5 PARTS, MANGANESE AND ZINC, 0.1 PART; 604 MG OF THE MIXTURE PER 1 KG OF LIVE WEIGHT) TO RABBITS CONSIDERABLE INCREASES THE C PRIME14 INCORPORATION INTO KIDNEY PROTEINS 24 AND 74 HRS AFTER PARTIAL HEPATECTOMY AND INTO SPLEEN PROTEINS, IN ALL THE TERMS OF THE INVESTIGATION. THE INCREASE OF THE INTENSITY OF TEH LABEL INCORPORATION INTO THE KIDNEY AND SPLEEN LIPIDS IS NOTED ONLY ON THE THIRD DAY AFTER THE LIVER REGENERATION BEGINNING. TRUSTWORTHY DIFFERENCES BETWEEN THE VALUES OF SPECIFIC RADIOACTIVITY OF PROTEINS AND LIPIDS OF RABBIT KIDNEYS AND SPLEEN WITH REGENERATING LIVER, WHICH DID NOT GET SALT MIXTURE, AND SHAMLY OPERATED ANIMALS WERE NOT ESTABLISHED.
FACILITY: INSTITUTE OF BIOCHEMISTRY, ACADEMY OF SCIENCES, UKRAINIAN SSR, KIEV.

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