2/2 035 UNCLASSIFIED PROCESSING DATE--27NOV70
CIRC ACCESSION NO--AP0126084
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ON THE BASIS OF AN ANAL. OF VECTORS OF SIMULTANEOUSLY ACTING FORCES, IT IS CONCLUDED THAT THEY DO NOT MATERIALLY AFFECT THE CORROSION AGING RESISTANCE OF STEEL 50.
FACILITY: TUL. POLITEKH. INST., TULA, USSR.

UNCLASSIFIED

USSR UDC 531.1.

KHARITONOV, A. P.

"The Dynamics of an Apparatus, Oriented on a Luminary by Two Power Gyroscopes With 'Conical' Suspension"

Moscow, Mekhanika Tverdogo Tela, No 1, Jan-Feb 72, pp 14-24

Abstract: The paper deals with the dynamics of orientation with respect to the direction of a luminary, of an apparatus with linear laws of control of the position of two power gyroscopes. Gyroscopes G-1 and G-2 are mounted in a "concial" suspension, as described in Jacot, A. D. Liska, D. J., Control Moment Cyros in Attitude Control (Journal of Spacecraft and Rockets, Vol 3, No 9, p 1313; Russian translation in Voprosy Raketnoy Tekhniki, No 2, 1967), and are kinematically intercoupled by a belt transmission. An investigation is made of critical cases of stability with one and two zeroth roots of the determining equation, which originate in the absence of an external damping moment. It is shown that depending upon the coefficients in the law of control and the character of the nonlinear terms, the undisturbed position of the apparatus may be unstable, asymptotically stable, or it may possess special cases of stability with various forms of stabilized regimes. Two figures, 5 references.

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USSR

KHARITONOV, A. P. (Kiev)

"The Stability of a Craft in a Circular Orbit in the Case of Stabilization by a Power Gyrounit with 'Conical' Suspension"

Moscow, Mekhanika Tverdogo Tela, No 4, Jul-Aug 70, pp 64-71

Abstract: The conditions of the asymptotic stability of a craft in circular orbit, with attitude control by two gyroscopes with "conical" suspension, is determined. The stability of the craft in the critical case of one zero root is investigated. An inequality is found, in the case of which, under the influence of small constant perturbing moments, the craft assumes a new fixed attitude with respect to the orbital system of coordinates. Reference is made to a source of information with regard to the use of such devices for space craft orientation. 4 figures, 6 bibliographic entries.

1/1

USSR UDC 669.046.5

KHARITONOV, A. S., ZGUR'EV, I. I., MASLOVA, Yu. N., BUKINA, A. F., and BARANOVA, V. G.

"Out-of-Furnace Liquid Steel Degassing by Powder-Like Materials"

Moscow, V sb. Sovremennyye problemy kachestva stali" (MISiS) (Collection of Works, Modern Problems of Steel Quality) (Moscow Institute of Steel and Alloys), Izd-vo "Metallurgiya," No 61, 1970, pp 266-267

Translation of Abstract: Data are presented on liquid steel treatment by solid powder-like materials whose boiling temperature is lower than that of steel. Characteristics of the degassing agent (sodium chloride), of the treated 20L steel, melted in a basic 5-ton arc furnace, and of the pre-dried gas carrier (carbon dioxide) are presented. The degree of degassing (47%) with a 1.5 kg/ton sodium chloride consumption is indicated. Consideration is given to the reduction of nonmetallic inclusions and to the improvement of plastic properties in metal refining by sodium chloride. 4 tables.

1/1

USSR

UDC 620.179.16

NIKOFOROV, L. A., and KHARITONOV, A. V., Leningrad Electrotechnical Institute imeni V. I. Ul'yanov (Lenin)

"Surface Wave Stimulation by an Ultrasonic Beam on the Liquid-Solid Medium Interface"

Sverdlovsk, Defektoskopiya, No 3, 1973, pp 45-53

Abstract: This article was devoted to solution of the two-dimensional problem on surface wave stimulation with an ultrasonic beam in the case of a liquid wedge (immersion variant, local bath, overflow detector, etc.). Formulation of the problem in two dimensions does not make it possible to consider the diffraction separation of the stimulated wave but it does yield the possibility to concentrate attention on the characteristics features of the beam conversion process in the surface wave. 2 figures, 3 bibliographic references.

1/1

USSR

YELYUTIN, V. P., KOSTIKOV, V. I., and KHARITONOV, A. V., Moscow Institute of Steel and Alloys

"The Effect of Surface Active Media on Free Surface Energy of Pyrographite"

Moscow, Doklady Akademii Nauk SSSR, Vol 202, No 1, Jan-Feb 72, pp 106-108

AbstractL Surface active media lower free surface energy of solid bodies resulting in a decrease of their strength. This study was aimed to give experimental proof that the lowering of this strength is of the adsorptive nature and that the strength of a solid body is directly connected to the surface energy. The pyrographite studied was obtained at a temperature of 2100° and calcined at 3000°C for one hour. The surface active medium consisted of ethanol-water mixture. Preliminarily it was shown that water has no effect on the of the pyrographite, probably because it is incapable of wetting its surface. T On the other hand, addition of alcohol to water lowered the free surface energy of pyrographite. The adsorption isotherm G was calculated from Gibbs equation and was found to reach a maximum at 4.2 mole/l of ethanol concentration. To find the relationship between the free surface energy and strength, a sample of pyrographite was split in air, a 0.1 mm slit was marked on its surface, and the specimen immersed in water and in ethanol-water mixture. Again no effect

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USSR

YELYUTIN, V. P., et al., Doklady Akademii Nauk SSSR, Vol 202, No 1, Jan-Feb 72, pp 106-108

was noted after water immersion, but the slit widened immediately in the aqueous ethanol medium, Thus the adsorption nature of the lowering of pyrographites's surface energy under the influence of aqueous alcohol has been shown experimentally.

2/2

USSR

KHARITONOV, B. S., SHEPEL'KOVA, L. V., SUKHANOV, G. B.

"Combinatorial Problems in Computer Technology"

Kombinatornyye Zadachi v Vychislitel'noy Tekhnike [English version above], Frunze, Ilim Press, 1973, 51 pp (Translated from Referativnyy Zhurnal Kibernetika, No 10, 1973, Abstract No 10V320K)

Translation: Elements of the theory of mathematical models of complete and normalized n-groups are presented. The models of complete and normalized groups of numbers allow clear representation of processes of performance of arithmetic operations in electronic computers.

Three different algorithms for the performance of the operation of multiplication in electronic computers are studied, and evaluations are given of the application of these methods using the theory of a full n-group of numbers. An analyzer is designed for accelerated multiplication. The effectiveness of the analyzer is estimated as a function of the properties of the numbers with which the machine operates.

1/1

USSR

KHARITONOV, B. S. and SHEPEL'KOVA, L. V.

"Calculation of the Mean Number of Addition-Subtraction Cycles Using the Theory of the Full n-Group of Numbers"

Raschet Srednego Kolichestva Taktov Slozheniy-Vychitaniy s Ispol'zovaniyem Teorii Polnoy n-Gruppy Chisel. [English Version Above], Frunze, 1973, 6 pp (Translated from Referativnyy Zhurnal Kibernetika, No 9, 1973, Abstract No 9V631 Dep).

Translation: Using the theory of the full n-group of numbers, a method is developed for calculation of the mean number of addition-subtraction cycles involved in the performance of multiplication operations in electronic computers. The calculation is performed for three different multiplication algorithms: with analysis of each digit of a factor, with analysis of two digits and using sequences of zeros and ones. The data produced are compared with the results of similar calculations performed by M. A. Kartsev, Yu. V. Gavrilov and A. N. Puchko using a different method.

Authors' view

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Glass and Ceramics

UDC 666.018.83

USSR

BUDNIKOV, P. P., and KHARITONOV, F. Ya.

Keramicheskiye Materialy Dlya Agressivnykh Sred (Ceramic Materials for Aggressive Media), Moscow, "Izdatel'stvo Literatury po Stroitel'stvu," 1971, 272 pages

Translation of Annotation: This book propounds the theory of corrosion of ceramic materials, generalizes and systematizes bibliographical data, and presents a description of the properties and resistance of the most widespread ceramic materials in aggressive media. It describes the nature of the corrosive effect of the media on materials, as well as the methods and results of corrosion tests in acids, alkalis, metal melts and vapor, and other media.

This book is intended for engineering-technical and scientific personnel connected with the development and utilization of installations with aggressive media, as well as for specialists in the ceramic and chemical industry, chemical machine building, and other industrial sectors dealing with the development and application of new ceramic materials resistant to the effect of aggressive media.

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USSR

BUDNIKOV, P. P., and KHARITONOV, F. Ya., "Izdatel'stvo Literatury po Stroitel'stvu," 1971, 272 pp

Table of Contents:



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BUDNIKOV, P. P., and KHARITONOV, F. Ya., "Izdatel'stvo Literatury po Stroitel'stvu," 1971, 272 pp

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BUDNIKOV, P. P., and KHARITONOV, F. Ya., "Izdatel'stvo Literatury po Stroitel'stvu," 1971, 272 pp



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USSR

BUDNIKOV, P. P., and KHARITONOV, F. Ya., "Izdatel'stvo Literatury po Stroitel'stvu," 1971, 272 pp

USSR

BUDNIKOV, P. P., and KHARITONOV, F. Ya., "Izdatel'stvo Literatury po Stroitel'stvu," 1971, 272 pp



6/6

USSR UDC 534.1:62-251

PLOTNIKOV, A. M. and KHARITONOV, L. A.

"Some Features of Rotor Vibrations in Elastically Suspended Housings"

Moscow, Dinamika Gibk. Rotorov--Sbornik (The Dynamics of Flexible Rotors--Collection of Articles), Nauka, 1972, pp 61-64 (from Referativnyy Zhurnal--Aviatsionnyye i Raketnyye Dvigateli, No 1, 1973, Abstract No 1.34.27. Resume)

Translation: Some constructions, in particular aircraft engines, are essentially distinguished by the fact that the elastically suspended engine housing possesses considerable inertia; in this case the housing is connected to the rotor only partially, i.e., the intrinsic rotation of the housing (under the influence of the propeller moment) is absent. Differential equations of the vibrations of such a system are compiled and solved, with account taken of the indicated design feature, and the critical state of the shaft ducts is investigated. Due to the absence of the intrinsic rotation of the housing about the longitudinal axis, its moment of inertia about this axis does not enter into the linear differential equations of the vibrations of the part. The relationships of the critical state of the shaft ducts to the relations of the inertial characteristics of the system were obtained by electronic computer.

1/1

USSR UDC 531.781.2.088

KHARITONOV, G. M., KHITROVA, O. M.

"Error in the Measurement of Static Deformations, Caused by Unsteadiness of the Thermal Regime, by Means of Conductor-Type Tensoresistors"

Kiev, Teplovyye Napryazh. v Elementakh Konstruktsiy -- Sbornik (Thermal Stresses in Structural Elements -- Collection of Works), Nauk, Dumka, No 11, 1971, pp 204-208 (from Referativnyy Zhurnal, Metrologiya i Izmeritel'naya Tekhnika, No 12, Dec 71, Abstract No 12.32.557)

Translation: The article deals with error in the measurement of static deformations under conditions of the rapid heating (cooling) of a structure, which originates as a consequence of a temperature difference between the tensoresistor element and the surface of the structure under the tensoresistor, as well as due to distortions of the temperature field of the structure by the tensoresistor. 3 references.

1/1

1/2 011 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--DESTRUCTIVE HYDROGENATION OF TRIALKYLACYLOXYSILANES -U-

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

COUNTRY OF INFO--USSR

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

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

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

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3002/1161 STEP NO--UR/0079/70/040/004/0823/0827

CIRC ACCESSION NO--AP0123583

UNCLASSIFIED

2/2 011 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0128583

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

UNCLASSIFIED

AA0043426 Kharitonov, N. P. UR 0482

1-70

Soviet Inventions Illustrated, Section I Chemical, Derwent,

232080 POLYMER-CEMENT SUSPENSION suitable for the formation of protective coatings on metals, ceramic article or glass, or for glueing, consists of (in parts by wt); portland cement 10-50, polymethylphenylsiloxane resin 10-80, organic solvent for the resin 5-75, water 5-25 and optionally, a filler (mica, asbestos, oxides of chromium or zinc, etc). Suitable organic solvents include lower alcohols (methanol, ethanol etc), acetone, dioxane, or the like. A thorough mixing of the components results in the formation of a suspension of hydrated cement in a soln. of the resin in the organic solvent. To form a continuous coating, the suspension is applied onto the article to be protected, and subjected to thermal treatment at 80-250°C for 3-24 hrs. The water-absorption of the coating after 24 hrs. is

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19761741

AA0043426

11.5%; the absorption of benzene 4-7%; maximum weight loss at 200°C not more than 20%; dielectric constant 2-4; dielectric loss 0.03-0.003; electric resistance $3\text{-}10^{12}$ ohm. cm; breakthrough voltage 13 kv/mm. 1.4.67. as 1144785/29-33, LYUTYI, V.P. et al. I.V. Grebenshchikov Silicate Chemistry Inst. (19.8.69) Bul. 36/28.11.68. Class 80b, Int. Cl. C 04b.

2/3

19761742

AA0043426

AUTHORS: Lyutyy, V. P.; Rumyantsev, P. F.; Kharitonov, N. P.; Lyutaya, O. N.; Vasil'yeva, I. B.

Institut Khimii Silikatov imeni I. V. Grebenshchikova

19761743

1/2 010 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--REACTION OF SILANOILS WITH SILICATES -U-

AUTHOR--KHARITONOV, N.P., GLUSHKOVA, N.E., ZHUKOVA, A.S.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, NEORG. MATER. 1970, 6(1), 59-62

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ORGANOSILICON COMPOUND, SILICATE, HYDROXYL RADICAL, ASBESTOS, TALC, CONDENSATION REACTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1987/1660 STEP NO--UR/0363/70/006/001/0059/0062

CIRC ACCESSION NO--AP0104882
UNCLASSIFIED

2/2 010 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0104882

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE REACTION OF SILANOLS (ET SUB3 SIOH, PH SUB3 SIOH, PH SUB2 SIMEOH, PH SUB2 SI(OH)SUB2) WITH MUSCOVITE, CHRYSOTILE ASBESTOS, AND TALC IN BOILING XYLENE (150DEGREES) WAS STUDIED. IN THE MAJORITY OF CASES, CONDENSATION TAKES PLACE BETWEEN THE SURFACE HYDROXY GROUPS OF THE SILICATE AND THE HYDROXY GROUPS OF THE SILANOL.

UNCLASSIFIED

Adsorption

USSR

UDC: 621.9-496:532.546:546.284

KROTIKOV, V. A., TIKHOMOLOVA, K. P., KHARITONOV, N. P., and DENISOVA, N. A., Institute of Chemistry of Silicates imeni I. V. Grebenshchikov, Leningrad, Academy of Sciences USSR, and Leningrad State University imeni A. A. Zhdanov, Leningrad, Ministry of Higher and Secondary Specialized Education RSFSR

"Preparation of Rigid, Chemically Resistant Porous Bodies on the Basis of the System Polyorganosiloxane-Quartz"

Leningrad, Zhurnal Prikladnoy Khimii, Vol 43, No 6, Jun 70, pp 1229-1234

Abstract: Rigid, chemically inert diaphragms are essential for the study of phenomena involving liquid flow through fine pores. The material of the diaphragms must be rigid to preclude displacement of parts of the diaphragm under the effect of liquid flow. Cylidrical diaphragms that fulfill this condition were prepared from quartz powder and organosilicon lacquer KO-815 (GOST 11066-64). Quartz powder with particle diameters of 16-44, 44-52, or 52-75 μ was combined with the polyorganosiloxane in a ratio of 9:1 by weight, using a toluene solution of the polymer. On evaporation of the toluene, the mixture was subjected to cold pressing in a mold (2000 kg/cm$^2$ for 10 min for a cylinder with a diameter of 30 mm and height of 90-120 mm). The diaphragm was then kept at 280° for 3 hrs and calcined at 550° for



APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201310007-5"

USSR

KROTIKOV, V. A., et al, Zhurnal Prikladnoy Khimii, Vol 43, No 6, Jun 70, pp 1229-1234

24-72 hrs. KO-815 (polyphenylsiloxane with a branched structure) decomposed during the thermal treatment, forming $SiO_2$ that cemented together the quartz. The total porosity of the diaphragms was 20-30%. The mean pore radius, which increased with the quartz particle size and with the length of the time of calcination, ranged from 2.7 μ (quartz particle size 16-44 μ, 48 hrs at 550°) to 6.1 μ (quartz particle size 52-75 μ, 72 hrs at 550°). The diaphragms were chemically stable to prolonged boiling in 0.01 N solutions of KCl and HCl. Comparison of the electrokinetic characteristics (zeta potential and the coefficient of effectiveness α in KCl solutions) of the diaphragms and powdered quartz showed that $SiO_2$ derived from KO-815 covered the quartz particles in the form of a dense layer and that the surface of this layer had a structure different from that of quartz.

2/2

1/2 029 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--THERMAL HARDENING OF COMPOSITIONS CONTAINING POLY(METHYLPHONYISILOXANE) AND FINELY DISPERSED LAMINATED SILICATES -U-

AUTHOR-(05)-DENISOVA, N.A., KROTIKOV, V.A., KHARITONOV, N.P., FILINA, L.V., NEFEDOV, V.D.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, NEORG. MATER. 1970, 6(2), 362-7

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--HARDNESS, SILOXANE, LAMINATED PLASTIC, TALC, ASBESTOS, ALCOHOL, POLYMER CROSSLINKING, THERMAL EFFECT, BUTANOL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/0623 STEP NO--UR/0363/70/006/002/0362/0367

CIRC ACCESSION NO--AP0119535

UNCLASSIFIED

2/2 029 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0119535

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ORG. SILICATE COMPNS. CONTG. POLY(METHYLPHENYLSILOXANE) (I) WERE HARDENED IN THE PRESENCE OF FINELY DIVIDED MUSCOVITE, TALC, ASBESTOS, AND MONTMORILLONITE (WHICH HAD BEEN TREATED WITH BOILING BUOH, OCTANOL, OR DECANOL AT 180-300DEGREES). DTA INDICATED THAT THE HYDROXIYLATED SURFACE OF THE LAMINATED SILICATES REACTED WITH ALCS. ONLY AT LARGER THAN OR EQUAL TO 200-300EGREES. THUS, THE SIOH GROUPS PARTICIPATED IN CONDENSATIONS OCCURRING DURING THE HARDENING OF I. THERMAL HARDENING OF I WITHOUT LAMINATED SILICATES PROCEEDED WELL ONLY AT LARGER THAN OR EQUALS TO 200-300DEGREES. THE THERMAL HARDENING OF I WAS ACCONPANIED BY EVOLUTION OF GASEOUS PHME, C SUB6 H SUB6, AND CO SUB2. A CROSSLINKING MECHANISM FOR THE HARDENING OF I WAS PROPOSED. FACILITY: INST. KHIN. SILIKAT. IM. GREBENSHCHIKOVA, LENINGRAD, USSR.

UNCLASSIFIED

1/2 015 UNCLASSIFIED PROCESSING DATE--11SEP70
TITLE--THE TREATMENT OF OPEN ASSOCIATED INJURIES OF THE HAND AND FINGERS -U-
AUTHOR--YERETSKAYA, M.F., KHARITONOV, R.D., YURYEV, P.V.

COUNTRY OF INFO--USSR

SOURCE--VESTNIK KHIRURGII IMENI I. I. GREKOVA, 1970, VOL 104, NR 3, PP 63-68
DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--PLASTIC SURGERY, ORTHOPEDIC SURGERY, MEDICAL CAST, PLASTER, PLASTIC

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1986/0636 STEP NO--UR/0589/70/104/003/0063/0068

CIRC ACCESSION NO--AP0102622
UNCLASSIFIED

2/2 015 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0102622

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IN THE PAPER THE STAGES OF TREATMENT, FREQUENCY OF COMPLICATIONS AND RESTORATION OF A PATIENT'S CAPACITY FOR WORK IN 125 PATIENTS WITH OPEN ASSOCIATED HAND INJURIES ARE ANALYSED. THE FREQUENCY OF COMPLICATIONS AFTER PRIMARY TREATMENT OF SUCH INJURIES MADE 46.4PERCENT. THE RESULTS OF TREATMENT WERE STUDIED IN 55 PATIENTS. THE CONCLUSION IS DRAWN ON THE NECESSITY OF REVEALING PATIENTS THAT NEED RECONSTRUCTIVE SURGERY ON THE HAND IN DUE COURSE. IN DESCRIBING THE TECHNIC AND OPTIMUM TERMS OF PHYSICAL THERAPY IN ASSOCIATED HAND INJURIES THE IDEA OF RATIONALITY TO SUBSTITUTE AT CERTAIN STAGES OF TREATMENT BULKY PLASTER SPLINTS IN SUCH PATIENTS BY SMALL PLASTIC SPLINTS IS EMPHASIZED. ALSO GREAT NECESSITY OF PHYSICAL LABOUR THERAPY IS STRESSED THAT RENDERS IT POSSIBLE TO RESTORE PROFESSIONAL SKILL WITH MAXIMUM USE OF ALL THE PRESERVED SEGMENTS OF THE INJURED HAND.

UNCLASSIFIED

USSR

TARASENKO, V. V. and KHARITONOV, V. D., Institute of Radio Engineering and Electronics, USSR Academy of Sciences

"Surface Magnetostatic Waves in Uniaxial Ferromagnetic Materials"

Moscow, Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, Vol 60, No 6, Jun 71, pp 2321-2330

Abstract: The authors find the spectrum of surface magnetostatic waves in semi-bounded uniaxial antiferromagnetic materials. They also find the regions of existence of these waves in magnetic fields perpendicular and parallel to the crystal surface for antiferromagnetic materials with magnetic anisotropy of easy magnetization, axis and plane type. The authors give four schematics depicting the regions of existence for surface and body waves in antiferromagnetic materials. Figures 1-3 show the "easy axis" type; and Figure 4, the "easy plane" type. Detailed discussions are given for the frequencies of surface waves in antiferromagnetic materials with magnetic anisotropy for both "easy axis" and "easy plane" types. These discussions are graphically presented by the above 4 figures. Finally, the authors discuss in detail the frequencies of surface waves in antiferromagnetic materials with weak ferromagnetism. The article contains 4 figures and a bibliography of 7 titles.

1/1

1/2 040 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--EFFECT OF POINT DEFECTS ON THE ENERGY SPECTRUM OF FERROELECTRICS WITH A HYDROGEN BOND -U-

AUTHOR-(02)-TARASENKO, V.V., KHARITONOV, V.D.

COUNTRY OF INFO--USSR

SOURCE--LENINGRAD, SOLID STATE PHYSICS, FEBRUARY 1970, PP 333-342

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--ATOMIC DEFECT, IMPURITY CENTER, ENERGY SPECTRUM, CRYSTAL POLARIZATION, FERROELECTRIC MATERIAL, HYDROGEN BONDING, HYDROGEN ION, OSCILLATION, HIGH FREQUENCY, DIELECTRIC SUSCEPTIBILITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3001/0856 STEP NO--UR/0181/70/000/000/0333/0342

CIRC ACCESSION NO--AP0126527

UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--04DEC70

2/2 040

CIRC ACCESSION NO--AP0126527

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE ARTICLE CONCERNS THE EFFECT OF POINT DEFECTS (IMPURITIES) ON THE ENERGY SPECTRUM OF POLARIZATION WAVES IN FERROELECTRICS WITH A HYDROGEN BOND, IN WHICH THE FERROELECTRIC PHASE IS DETERMINED BY AN ORDERED ARRANGEMENT OF HYDROGEN IONS. IT IS SHOWN THAT LOCAL AND QUASI LOCAL LEVELS OF POLARIZATION OSCILLATIONS OCCUR IN SUCH CRYSTALS. THE HIGH FREQUENCY DIELECTRIC SUSCEPTIBILITY IS CALCULATED. THE AUTHORS EXPRESS THEIR THANKS TO V. G. BAR'YAKHTAR FOR HIS DISCUSSION OF THE WORK. THE ARTICLE INCLUDES 61 EQUATIONS AND 6 FIGURES. THERE ARE 17 REFERENCES. FACILITY: INSTITUTE OF RADIO ENGINEERING AND ELECTRONICS, USSR ACADEMY OF SCIENCES, MOSCOW.

UNCLASSIFIED

1/2 021 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--EFFECT OF POINT DEFECTS ON THE ENERGY SPECTRUM OF FERROELECTRICS WITH HYDROGEN BONDS -U-

AUTHOR-(02)-KHARITONOV, V.D., TARASENKO, V.V.

COUNTRY OF INFO--USSR

SOURCE--FIZ. TVERD. TELA 1970, 12(2) 333-42

DATE PUBLISHED-------70

SUBJECT AREAS--ELECTRONICS AND ELECTRICAL ENGR.

TOPIC TAGS--ENERGY SPECTRUM, HYDROGEN BONDING, CRYSTAL POLARIZATION, ELECTRIC POLARIZATION, FERROELECTRIC CRYSTAL, DIELECTRIC SUSCEPTIBILITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1984/0065 STEP NO--UR/0181/70/012/002/0333/0342

CIRC ACCESSION NO--AP0054863

UNCLASSIFIED

2/2 021 UNCLASSIFIED PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0054863

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EFFECT WAS CONSIDERED OF POINT DEFECTS (IMPURITIES) ON THE ENERGY SPECTRUM OF POLARIZATION WAVES IN FERROELECS. WITH H BONDING, WHERE THE FERROELEC. PHASE IS DETD. BY ORDERED DISTRIBUTION OF H IONS. IN SUCH CRYSTALS, LOCAL AND QUASI LOCAL LEVELS OF POLARIZATION OSCILLATIONS ARE FORMED. THE HIGH FREQUENCY DIELEC. SUSCEPTIBILITY WAS CALCD.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201310007-5"

Electricity & Magnetism

USSR

TARASENKO, V. V., KHARITONOV, V. D. (Institute of Radio Engineering and Electronics, USSR Academy of Sciences, Moscow)

"Effect of Point Defects on the Energy Spectrum of Ferroelectrics with a Hydrogen Bond"

Leningrad, Solid State Physics, February 1970, pp 333-342

Abstract: The article concerns the effect of point defects (impurities) on the energy spectrum of polarization waves in ferroelectrics with a hydrogen bond, in which the forroelectric phase is determined by an ordered arrangement of hydrogen ions. It is shown that local and quasi-local levels of polarization oscillations occur in such crystals. The high-frequency dielectric susceptibility is calculated.

The authors express their thanks to V. G. Bar'yakhtar for his discussion of the work.

The article includes 61 equations and 6 figures. There are 17 references.

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1/2 011 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--STABILIZATION OF POLYCAPROLACTAM -U-

AUTHOR-(05)-SMIRNOV, L.N., KHARITONOV, V.M., KLYUYEV, V.N., SNEGIREVA, F.P., KRAVCHENKO, M.P.

COUNTRY OF INFO--USSR

SOURCE--U.S.S.R. 263,136

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

DATE PUBLISHED--04FEB70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHEMICAL STABILIZER, CAPROLACTAM, CHEMICAL PATENT, POLYNUCLEAR HYDROCARBON, HETEROCYCLIC NITROGEN COMPOUND, HETEROCYCLIC SULFUR COMPOUND, ORGANOMETALLIC COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3004/1844 STEP NO--UR/0482/70/000/000/0000/0000

CIRC ACCESSION NO--AA0132109

UNCLASSIFIED

2/2 011 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AA0132109

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. EPSILON CAPROLACTAM IS POLYMD. IN THE PRESENCE OF 0.001-1 WT. PERCENT STABILIZER, SUCH AS A MACROCYCLIC COMPD. OF THE FORMULA I OR II, WHERE M IS A GROUP II OR III METAL OF VARIABLE VALENCE TO GIVE STABLE POLYCAPROLACTAMS. THESE MACROCYCLIC COMPDS. ARE MIXED WITH METAL HALIDES.

UNCLASSIFIED

USSR

KHARITONOV, Yu. A.; KUZ'MIN, E. A.; BELOV, N. V. (Institute of Crystallography, USSR Academy of Sciences; Gor'kiy Physics-Engineering Research Institute)

"Determination of the Crystalline Structure of Sodium Bichromate $Na_2Cr_2O_7 \cdot 2H_2O$"

Moscow, Kristallografiya; September-October, 1970; pp 942-8

ABSTRACT: The authors determined the monoclinic cell and the space group of aqueous sodium bichromate: a = 6.21; b = 10.90; c = 12.94 Å; $\beta = 95°$.

Heavy atoms of chromium were found from an analysis of the three-dimensional Patterson function. Light atoms of sodium and oxygen were localized in a series of three-dimensional syntheses of the electron density. The structure is characterized by 77 independent position parameters. A crystallochemical description of the structure consisting of chains of sodium octahedrons connected in the framework by diortho groups of $Cr_2O_7$ is given.

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UDC 548.736

USSR

KHARITONOV, YU. A., KUZ'MIN, E. A., and BELOV, N. V., Academician, Institute of Crystallography, Academy of Sciences USSR

"Crystal Structure of Sodium Dichromate $Na_2Cr_2O_7 \cdot 2H_2O$"

Moscow, Doklady Akademii Nauk SSSR, Vol 186, No 1, 1969, pp 96-98

Abstract: The article describes the results of an X-ray study of sodium dichromate crystals grown from an aqueous solution with the following unit cell parameters: $a = 6.21$, $b = 10.90$, $c = 12.94$ Å; $B = 95^\circ$; $a : b : c = 0.569 : 1 : 1.186$.

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USSR

UDC 549.76

GOLOBACHEV, V. P., KUZ'MIN, E. A., KHARITONOV, Yu. A., and BELOV, N. V., Academician, Gor'kiy Research Physicotechnical Institute at Gor'kiy State University imeni N. I. Lobachevskiy, Institute of Crystallography of the Academy of Sciences USSR, Moscow

"Crystalline Structure of Potassium Tetrachromate $K_2Cr_4O_{13}$"

Moscow, Doklady Akademii Nauk SSSR, Vol. 192, No. 6, 21 Jun 70, pp 1272-1274

Abstract: $K_2Cr_4O_{13}$ crystals were grown from an aqueous solution, and two samples 0.1 × 0.2 × 0.2 $mm^3$ and 0.2 × 0.2 × 0.4 $mm^3$ covered with a protective celluloid film gave a good diffraction pattern. The parameters of an elementary cell were: $a$ = 8.71, $b$ = 7.75, and $c$ = 9.37 Å; β = 93°. The coordinates of the basal atoms, 55 independent position parameters, are given in a table. The temperature correction for all atoms was 1.3 $Å^{-2}$.

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USSR

GOLOBACHEV, V. P., et al, Doklady Akademii Nauk SSSR, Vol 192, No 6, 21 Jun 70, pp 1272-1274

$K_2Cr_4O_{13}$. Coordinates of Basal Atoms

| Atom | x/a | y/b | z/c | Atom | x/a | y/b | z/c |
|---|---|---|---|---|---|---|---|
| $Cr_1$ | 0,441 | 0,439 | 0,335 | $O_5$ | 0,059 | 0,562 | 0,332 |
| $Cr_2$ | 0,434 | 0,105 | 0,102 | $O_6$ | 0,263 | 0,568 | 0,323 |
| $Cr_3$ | 0,759 | 0,930 | 0,829 | $O_7$ | 0,070 | 0,244 | 0,268 |
| $Cr_4$ | 0,095 | 0,429 | 0,383 | $O_8$ | 0,119 | 0,633 | 0,050 |
| $K_1$ | 0,796 | 0,405 | 0,104 | $O_9$ | 0,447 | 0,349 | 0,166 |
| $K_2$ | 0,079 | 0,892 | 0,246 | $O_{10}$ | 0,448 | 0,311 | 0,466 |
| $O_1$ | 0,906 | 0,064 | 0,802 | $O_{11}$ | 0,425 | 0,970 | 0,238 |
| $O_2$ | 0,588 | 0,069 | 0,001 | $O_{12}$ | 0,750 | 0,128 | 0,309 |
| $O_3$ | 0,282 | 0,103 | 0,997 | $O_{13}$ | 0,707 | 0,779 | 0,093 |
| $O_4$ | 0,578 | 0,563 | 0,345 | | | | |

Six bridge distances were identified among the Cr-O distances:

$$Cr_4 - O_6 = 1{,}91, \quad Cr_1 - O_6 = 1{,}83, \quad Cr_1 - O_9 = 1{,}75,$$
$$Cr_2 - O_9 = 1{,}96, \quad Cr_2 - O_2 = 1{,}70, \quad Cr_3 - O_2 = 1{,}84 \text{ Å}.$$

1/2 009 UNCLASSIFIED PROCESSING DATE--27NOV70
TITLE--SOME GENERAL PROPERTIES OF THREE AND MORE PARTICLE STATES WITH LARGE SPIN -U-
AUTHOR-(03)-KHARITONOV, YU.I., PEKER, L.K., SLIV, L.A.

COUNTRY OF INFO--USSR

SOURCE--PHYS. LETTERS (NETHERLANDS), VOL. 31B, NO. 5, P. 277-9 (2 MARCH 1970)
DATE PUBLISHED----MAR70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--PARTICLE PHYSICS, NUCLEAR SPIN

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1992/0658 STEP NO--NE/0000/70/000/005/0277/0279

CIRC ACCESSION NO--AP0111751
UNCLASSIFIED

2/2 009 UNCLASSIFIED PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0111751

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE PROPERTIES ARE CONSIDERED OF THE LEVELS ARISING FROM SPLITTING OF THE CONFIGURATION (J PRIME3) CAUSED BY RESIDUAL INTERACTIONS. THE DOUBLET SPLITTING OF THE (J PRIMEN SJ, J EQUALS ONE HALF) CONFIGURATION IS SHOWN TO DEPEND ON THE STRENGTH OF SINGLET FORCES AND TO BE PROPORTIONAL TO (2J PLUS 1). FACILITY: ACAD. SCI. USSR. LENINGRAD.

UNCLASSIFIED

1/2 010 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--GENERAL PROPERTIES OF THREE AND MORE PARTICLE STATES WITH LARGE SPIN -U-
AUTHOR-(03)-KHARITONOV, YU.I., PEKER, L.K., SLIV, L.A.

COUNTRY OF INFO--USSR

SOURCE--PHYS. LETT. B 1970, 31(5), 277-9

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--NUCLEAR ENERGY LEVEL, SPIN SYSTEM, MULTIPLET SPLITTING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--2000/1052 STEP NO--NE/0000/70/031/005/0277/0279

CIRC ACCESSION NO--AP0124710
UNCLASSIFIED

2/2 010 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0124710

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CONFIGURATIONS OF THE (J PRIME3) TYPE ARE SPLIT BY RESIDUAL FORCES FORMING MULTIPLETS OF LEVELS WITH SPINS J RANGING FROM J SUBMIN. EQUALS THREE HALVES TO J SUBMAX. EQUALS 3J-3. THE DOUBLET SPLITTING OF THE (JNSJ, J SUBI EQUALS ONE HALF) CONFIGURATION DEPENDS ON THE STRENGTH OF SINGLET FORCES AND IS PROPORTIONAL TO (2J PLUS 1). FACILITY: A. F. IOFFE PHYS. TECH. INST., LENINGRAD, USSR.

UNCLASSIFIED

1/2 016 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--BARKHAUSEN EFFECT IN FERROELECTRICS DURING CONTINUOUS X RAY IRRADIATION -U-

AUTHOR-(02)-KOMLYAKOVA, N.S., KHARITONOV, YU.N.

COUNTRY OF INFO--USSR

SOURCE--IZV. VYSSH. UCHEB. ZAVED., FIZ. 1970, 13(2), 158-60

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY, PHYSICS

TOPIC TAGS--X RAY IRRADIATION, FERROELECTRIC PROPERTY, FERROELECTRIC EFFECT, SULFATE, GLYCINE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/1405 STEP NO--UR/0139/70/013/002/0158/0160

CIRC ACCESSION NO--AT0120198

UNCLASSIFIED

2/2 016 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AT0120198

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EFFECT OF THE DOSE OF CONTINUOUS IRRADIATION OF SEIGNETTE'S SALT AND TRIGLYCINE SULFATE ON THE TOTAL NO. OF JUMPS WAS STUDIED. THE MECHANISM OF THE MODIFICATION OF THE DOMAIN STRUCTURE IS DISCUSSED. THE ROLE OF MICRODEFECTS IS EMPHASIZED. FACILITY: ABAKAN. PEDINST., ABAKAN, USSR.

UNCLASSIFIED

1/2 020 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--CORRELATION BETWEEN THE FIELD AT THE START OF BARKHAUSEN DISCONTINUITIES AND THE CRITICAL FIELD OF POLARIZATION AND

AUTHOR-(02)-KHARITONOV, YU.N., KOMLYAKOVA, N.S.

COUNTRY OF INFO--USSR

SOURCE--IZV. VYSSH. UCHEB. ZAVED., FIZ. 1970, 13(3), 130-1

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--ELECTRIC POLARIZATION, FERROELECTRIC CRYSTAL, ELECTRIC FIELD, BARIUM TITANATE, GLYCINE, SULFATE, SINGLE CRYSTAL PROPERTY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/1214 STEP NO--UR/0139/70/013/003/0130/0131

CIRC ACCESSION NO--AP0124868

UNCLASSIFIED

2/2 020 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0124868

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE DEPENDENCES OF THE FIELD, E SUBST, OF THE START OF BARKHUSEN DISCONTINUITIES ON THE CRIT. FIELD, E SUBCR, OF POLARIZATION AND REPOLARIZATION WAS STUDIED WITH SINGLE CRYSTALS OF ROCHELLE SALT, TRIGLYCINE SULFATE, AND PA TITANATE. FOR ROCHELLE SALT, E SUBCR INCREASED LINEARLY WITH E SUBST IN BOTH POLARIZATION AND REPOLARIZATION. FACILITY: ABAKAN. GOSPEDINST., ABAKAN, USSR.

UNCLASSIFIED

KHARITONOV, Yu. P.

transuranium elements

JPRS 58011

18 Aug 73

transuranium elements

IN THE COMMITTEE FOR INVENTIONS AND DISCOVERIES
UNDER THE COUNCIL OF MINISTERS USSR

[Announcement; Moscow, Vestnik Akademii Nauk SSSR, Russian, Vol 42, No 11, November 1972, pp 132-133]

The Committee has registered the following scientific discoveries:

G. N. FLEROV, YU. TS. OGANESYAN, YU. V. LOBANOV, YU. A. LAZAREV, Czechoslovak citizen J. ZVARA, V. Z. BELOV, V. A. DRUIN, K. G. DENIS, AND YU. P. KHARITONOV.

"ELEMENT NO. 105 OF MENDELEYEV'S PERIODIC SYSTEM"

Formulation of the discovery: Experimentally established was the previously unknown phenomenon of formation of a chemical element with the ordinal number 105. An isotope of that element with a half-life $T_{1/2} \approx 2$ seconds was obtained during the irradiation of americium with neon nuclei.

Priority of discovery -- 18 February 1970.

Certificate No. 114. Application No. OT-7896.

The data obtained by the authors of the discovery are of great scientific importance, as they show a divergence of the experimentally determined radioactive properties of element No. 105 from the previously predicted properties of element No. 105 from the previously predicted theoretically on the basis of known semi-empirical laws and require revision of the latter. The new experimental data relating to the synthesis of element No. 105 indicate a real possibility of the detection of heavier chemical elements in nuclear reactions, for example, No. 106, and permit much more confidently predicting the properties of those elements.

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USSR

UDC 539.192/.194+535.33/.34.01

SARUKHANOV, M. A., KHARITONOV, YU. YA.

"Normal Vibrations of Thionylomide Molecules"

V sb. Kolebatel'n. spektry v neorgan. khimii (Vibrational Spectra in Inorganic Chemistry -- Collection of Works), Moscow, "Nauka," 1971, pp 310-313 (from RZh-Fizika, No 5, May 71, Abstract No 5D137)

Translation: The normal vibrations of thionylomide OSNH and deuterothionylomide OSND molecules are analyzed. The force field and the shape of the vibrations is calculated and their characteristic nature is investigated.

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/2 025 UNCLASSIFIED PROCESSING DATE--090CT70

TLE--PREPARATION AND SOME PROPERTIES OF ZINC CYANAMIDE -U-

THOR-(05)-GALOCHKINA, G.M., GORYUNOVA, N.A., SEYFER, G.B., VAYPOLIN, A.A., KHARITONOV, YU.YA.

UNTRY OF INFO--USSR

URCE--IZV. AKAD. NAUK SSSR, NEORG. MATER. 1970, 6(3), 486-92

TE PUBLISHED--------70

BJECT AREAS--CHEMISTRY

PIC TAGS--PHYSICAL CHEMISTRY PROPERTY, IR SPECTRUM, ABSORPTION SPECTRUM, THERMAL DECOMPOSITION, CYANAMIDE, ZINC COMPOUND

NTROL MARKING--NO RESTRICTIONS

OCUMENT CLASS--UNCLASSIFIED
ROXY REEL/FRAME--1994/1901 STEP NO--UR/0363/70/006/003/0486/0492

RC ACCESSION NO--AP0115720

UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--090CT70

2/2 025

IRC ACCESSION NO--AP0115720

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DURING INVESTIGATION OF THE ZN(OAC) SUB2 H SUB2 NCN SUB2 H SUB2 O NH SUB4 OH SYSTEM BY PHYS. CHEM. ANAL. METHODS, THE FORMATION OF ZNCN SUB2 AND BASIC (ZN(OH)) SUB2 CN SUB2 WAS ESTABLISHED. IN THE ABSENCE OF A CONST. GAS EXCHANGE THE THERMAL DECOMPN. OF ZNCN SUB2 PROCEEDS AT GREATER THAN 824DEGREES WITH THE EVOLUTION OF N AND THE FORMATION OF METALLIC ZN AND FREE C. THE D. OF NORMAL ZNCN SUB2 WAS DETD. TO BE 2.825 G-CM PRIME3 AND THE WIDTH OF THE FORBIDDEN BAND WAS SIMILIAR TO 3.1 EV. THE IR ABSORPTION SPECTRA OF NORMAL CYANAMIDES OF ZN AND CD WERE STUDIED, ATTESTING TO THE SYM. STRUCTURE OF THE CYANAMIDE GROUP IN BOTH COMPDS. FACILITY: FIZ. TEKH. INST. IM. IOFFE, LENINGRAD, USSR.

UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--17JUL70

TITLE--INFRARED ABSORPTION SPECTRA OF TRITHIOCYANATE COMPLEXES OF ZINC -U-

AUTHOR--KHARITONOV, YU.YA., TSINTSADZE, G.V., TSIVADZE, A.YU.

COUNTRY OF INFO--USSR

SOURCE--ZH. NEORG. KHIM. 1970, 15(2), 390-4

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--IR SPECTRUM, THIOCYANATE, ZINC, ZINC COMPLEX, SODIUM COMPOUND, POTASSIUM COMPOUND, SELENIUM COMPOUND, MERCURY COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1984/1269 STEP NO--UR/0078/70/015/002/0390/0394

CIRC ACCESSION NO--AP0055940

UNCLASSIFIED

Acc. Nr: AP0055940 Abstracting Service: CHEMICAL ABST. 6-70 Ref. Code: UR0038

116336e Infrared absorption spectra of trithiocyanate complexes of zinc. Kharitonov, Yu. Ya.; Tsintsadze, G. V.; Tsivadze, A. Yu. (Inst. Obshch. Neorg. Khim. im. Kurnakova, Moscow, USSR). *Zh. Neorg. Khim.* 1970, 15(2), 380–4 (Russ). Ir spectra of $M[Zn(NCS)_3].xH_2O$ (M = Na, K, Cs, $NH_4$, guanidinium, or 1/2 Ba and x = 1–3) and $M'(NCX)_2.nH_2O$ (I) (M' = Zn, Cd, Hg and X = S or Se) are given. An anal. of their absorption bands is tabulated. The tris(thiocyanate) complexes have bridged as well as monodentate (coordinated via N) NCS groups. In I compds., NCX groups are bridged with the exception of $Hg(SCN)_2$ where they are monodentate. Bridging NCS groups were not cosd. in aq. solns. HMJR

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REEL/FRAME
19841269

Acc. Nr: AP0055528 Abstracting Service: CHEMICAL ABST. 6-70 Ref. Code: US0000

116316y Infrared spectra of zinc hexathiocyanates. Khuriatonov, Yu. Ya.; Tsintsadze, G. V.; Tsivadze, A. Yu. N. S. Kurnakov Inst. Gen. Inorg. Chem., Moscow, USSR). *Inorg. Nucl. Chem. Lett.* 1970, 6(2), 197–200 (Eng). $M_4[Zn(NCS)_6]\cdot nH_2O$, $M_2M^1[Zn(NCS)_6]\cdot nH_2O$, and $M_2M^1{}_2[Zn(NCS)_6]\cdot nH_2O$ (M and $M^1$ = Na, K, Cs, $NH_4^+$, $C(NH_2)_3^+$, and 0.5 Ba; $n$ = 0–4) were characterized by ir spectra. The position and intensity of the $\delta$(NCS) and $2\delta$(NCS) bands suggest that isothiocyanate groups, ZnNCS, are present in all the complexes investigated. According to their distorting effect on $[Zn(NCS)_6]^{4-}$ anions in the crystn. state, the following sequence of cations is tentatively proposed. $NH_4^+ < Na^+ < K^+ < C(NH_2)_3^+ < Cs^+$. In aq. solns., $[Zn(NCS)_6]^{4-}$ is predominately present in the nondissocd. state. CJJN

pc

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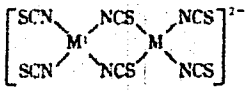
REEL/FRAME
19840826

7

Acc. Nr: AP0055527 Abstracting Service: CHEMICAL ABST. 6-70 Ref. Code: US 0000

116340b Infrared spectra of some zinc and nickel trithiocyanate complexes. Kharitonov, Yu. Ya.; Tsintsadze, G. V.; Tsivadze, A. Yu. (N. S. Kurnakov Inst. Gen. Inorg. Chem., Moscow, USSR). *Inorg. Nucl. Chem. Lett.* 1970, (2), 201–3 (Eng). The ir spectra of $MM^1(NCS)_3.n\ H_2O$ (M = Na, K, Cs, $NH_4^+$, $C(NH_2)_3^+$, and 0.5 Ba; $M^1$ = Zn, Ni; $n$ = 0–4), and $Zn(NCS)_2.2H_2O$ were investigated in the cryst. state and in aq. solns. The intense high frequency $\nu$(CN) components at 2150–70 $cm^{-1}$ were found for all the complexes studied, suggesting the existence of NCS bridges. Strong broad bands at 280–2100 and 2100–20 $cm^{-1}$ were obsd. for the Zn and Ni complexes, resp., indicating terminal NCS groups which are N-bonded. The complexes studied probably have dimeric-tetrahedral structures (I) in the cryst. state. The high frequency $\nu$(CN) component in




(I)

the spectra of aq. solns. of the complexes was not obsd. indicating that the thiocyanate bridges are broken in soln. CJJN

pc

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REEL/FRAME
19840825

7

1/2 012 UNCLASSIFIED PROCESSING DATE--02OCT70

TITLE--INFRARED ABSORPTION SPECTRA OF ALKALINE EARTH METAL TETRATHIOCYANATOZINCATES AND TETRATHIOCYANATOCADMATES -U-

AUTHOR-(03)-KHARITONOV, YU.YA., TSINTADZE, G.V., TSIVADZE, A.YU.

COUNTRY OF INFO--USSR

SOURCE--ZH. NEORG. KHIM. 1970, 15(3), 710-14

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ALKALINE EARTH METAL, CRYSTAL, COMPLEX COMPOUND, CYANATE, THICYANATE, IR ABSORPTION SPECTRUM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1993/0556 STEP NO--UR/0078/70/015/003/0710/0714

CIRC ACCESSION NO--AP0113447

UNCLASSIFIED

2/2 012 UNCLASSIFIED PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0113447

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE IR SPECTRA OF SR(NCS) SUB2 .3H SUB2 O AND M PARENTHESIS Z(NCS) SUB4 PARENTHESIS .NH SUB2 O (I) (M EQUAL MG, CA, SR, OR BA; Z EQUAL ZN OR CD, AND N EQUAL 1-4) WERE DETD. AND THEIR ABSORPTION MAX. ARE TABULATED. THE TETRATHIOCYANATES OF ZN ARE COORDINATED VIA N AND THOSE OF CD VIA S ATOMS. IN THE CRYST. STATE, I (M EQUAL MG; Z EQUAL NZ) AND ALL CD COMPLEXES HAD BRIDGING NCS GROUPS. BRIDGING WAS NOT OBSD. IN SOLNS. SR(NCS) SUB2.3H SUB2 O HAD IONIC NCS GROUPS IN THE SOLID STATE AS WELL AS IN SOLN.

UNCLASSIFIED

1/2 022 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--VALENCE VIBRATION FREQUENCIES AND DISTRIBUTION OF ELECTRON DENSITY IN COMPLEX IRON CYANIDES -U-

AUTHOR-(03)-NEKRASOV, B.V., SEYFER, G.B., KHARITONOV, YU.YA.

COUNTRY OF INFO--USSR

SOURCE--IAV. AKAD. NAUK SSSR, SER. KHIM. 1970, (2), 266-71

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--IRON COMPOUND, CYANIDE, FERROCYANIDE, ELECTRON DENSITY, CHEMICAL VALENCE, VIBRATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/1509 STEP NO--UR/0062/70/000/002/0266/0271

CIRC ACCESSION NO--AP0120290

UNCLASSIFIED

2/2 022 UNCLASSIFIED PROCESSING DATE--23OCT70
CIRC ACCESSION NO--AP0120290
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. TABLES ARE GIVEN FOR BOND POLARITIES, ELECTRON AFFINITIES AND EFFECTIVE AT. CHARGES IN METAL FERROCYANIDES OF THE COMMON METALS AND METAL FERRICYANIDES OF THE SAME METALS. WITH INCREASING ELECTRON AFFINITY IN THE INNER SPHERE CATION, THE C TRIPLE BOND N BOND ENERGY INCREASES ALMOST LINEARLY, THUS EXPLAINING THE NEARLY LINEAR INCREASE OF IR BAND FREQUENCY OF THIS BOND. A SIMILAR VARIATION WAS FOUND FOR THE FE-C BOND, BUT THE EFFECT WAS LESS PRONOUNCED. FACILITY: INST. OBSHCH. NEORG. KHIM. IM. KURNAKOVA, MOSCOW, USSR.

UNCLASSIFIED

1/2 032 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--INFRARED ABSORPTION SPECTRA AND STRUCTURE OF THE CLO PRIME2 POSITIVE CATION -U-

AUTHOR-(04)-KARELIN, A.I., NIKITINA, Z.K., KHARITONOV, YU.YA., ROSOLOVSKIY, V.YA.

COUNTRY OF INFO--USSR

SOURCE--ZH. NEORG. KHIM. 1970, 15(4), 941-8

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--IR ABSORPTION, CHLORINE COMPOUND, FLUORIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1999/1229 STEP NO--UR/0078/70/015/004/0941/0948

CIRC ACCESSION NO--AP0123193

UNCLASSIFIED

2/2 032 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0123193

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE IR SPECTRA OF CLO SUB2 BF SUB4, CLO SUB2 S8F SUB6, AND CLO SUB2 S8 SUB3 F SUB16 ARE GIVEN THE ASSIGNMENT OF MAX. IS TABULATED. THE STUDY REVEALS THAT CLO SUB2 PRIME POSITIVE HAS OCLO SIMILAR TO 119DEGREES. ANAL OF NORMAL MODES OF VIBRATION OF CLO SUB2 PRIME NEGATIVE, CLO SUB2 PRIME POSITIVE, AND CLO SUB2 IS GIVEN AND THE RESULTS ARE COMPARED WITH EXPTL. DATA ON CLO SUB3 PRIME NEGATIVE, CLO SUB4 PRIME NEGATIVE, AND CLO PRIME NEGATIVE. THE CALCD. DELTAH DEGREES OF FORMATION (FROM AT. SPECIES) OF CLO SUB2 PRIME NEGATIVE, CLO SUB2, AND CLO SUB2 PRIME POSITIVE IS 114.5, 123, AND 167 KCAL-MOLE, RESP.

UNCLASSIFIED

1/2 029 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--LOW FREQUENCY VIBRATIONS OF RHODIUM FORMATE AND ACETATE -U-

AUTHOR-(03)-KHARITONOV, YU.YA., MAZO, G.YA., KNYAZEVA, N.A.

COUNTRY OF INFO--USSR

SOURCE--ZH. NEORG. KHIM. 1970, 15(5), 1440-1

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--RHODIUM COMPOUND, FORMIC ACID, ACETATE, IR SPECTRUM, RAMAN SPECTRUM, VIBRATION FREQUENCY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3008/0953 STEP NO--UR/0078/70/015/005/1440/1441

CIRC ACCESSION NO--AP0137981

UNCLASSIFIED

2/2 029 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0137981

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. LOW FREQUENCY IR ABSORPTION MAX. OF RH SUB2 (HCO SUB2) SUB4 .2H SUB2 O, RH(DCO SUB2) SUB4 .2H SUB2 O, RH SUB2 (HCO SUB2) SUB4 .2D SUB2 O, RH(ACO) SUB4 .2H SUB2 O, AND RH SUB2 (CD SUB3 CO SUB2) SUB4 .2H SUB2 O ARE GIVEN. RAMAN VIBRATIONAL FREQUENCIES OF RH-RH BONDS, NOT PRESENT IN IR SPECTRA, ARE AT 168 AND 155 CM PRIME NEGATIVE1. FACILITY: INST. OBSHCH. NEORG. KHIM. IM. KURNAKOVA, MOSCOW, USSR.

UNCLASSIFIED

1/2 017 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--ANALYSIS OF VALENCE VIBRATION FREQUENCIES OF THE URANYL GROUP IN UO SUB2 X SUB5 AND UO SUB2 X SUB6 TYPE COMPLEXES -U-

AUTHOR-(02)-KHARITONOV, YU.YA., KNYAZEVA, N.A.

COUNTRY OF INFO--USSR

SOURCE--ZH. FIZ. KHIM. 1970, 44(3), 577-81

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--URANIUM COMPOUND, COMPLEX COMPOUND, VIBRATION FREQUENCY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/1619 STEP NO--UR/0076/70/044/003/0577/0581

CIRC ACCESSION NO--AP0125241

UNCLASSIFIED

2/2 017 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125241

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EFFECT OF DIFFERENT PARAMETERS, E.G. MASS OF LIGAND AND BOND LENGTH OF THE U,LIGAND BOND ON VIBRATIONAL FREQUENCIES OF THE UO SUB2 PRIME2 POSITIVE GROUP WAS STUDIED. FOR THESE COMPLEXES, AS FOR THE UO SUB2 H SUB4 TYPE, WHERE X EQUALS LIGAND, THE FORCE CONST. OF THE UL SUB2 PRIME2 POSITIVE GROUP CAN BE CALCD. APPROX. BY CONSIDERING THE ISOLATED UO SUB2 PRIME2 POSITIVE GROUP. IT V SUBS (UO SUB2) IS UNKNOWN, THEN THE V SUBAS (UO SUB2) FREQUENCY FOR UO SUB2 PRIME2 POSITIVE COMPLEXES, N EQUALS 5 OR 6, CAN BE USED FOR COMPARATIVE EXAMN. OF THE U,O BOND. FACILITY: INST. OBSHCH. NEORG. KHIM. IM. KURNAKOVA, MOSCOW, USSR.

UNCLASSIFIED

2/2 018 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0123079

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE IR SPECTRA OF SOLID AND AQ. SOLNS. OF MCD(SCN) SUB3 .XH SUB2 O (WHERE M EQUALS NA, K, CS, NH SUB4, C(NH SUB2) SUB3, AND ONE HALF BA AND WHERE X EQUALS 0-4) ARE GIVEN AND THE ASSIGNMENT OF THEIR BANDS IS TABULATED. WITH THE EXCEPTION OF SPECTRA OF CS SALTS WHICH SHOWED TERMINAL SCN ONLY, ALL THE REMAINING SPECTRA OF SOLID SALTS PROVED THE PRESENCE OF BRIDGED ALONG WITH TERMINAL SCN GROUPS. IN SOLNS. THE BRIDGE IS HYDROLYZED.

FACILITY: INST. OBSHCH. NEORG. KHIM. IM, KURNAKOVA, MOSCOW, USSR.

UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--13NOV7[illegible]

1/2 028

TITLE--ELECTROOPTICAL PROPERTIES OF CUBIC ZINC SULFIDE CRYSTALS GROWN BY A HYDROTHERMAL METHOD -U-

AUTHOR-(05)-SHAMBUROV, V.A., KUZNETSOV, V.A., LOBACHEV, A.N., KHARITONOVA, I.V., SOSHNIKOV, V.G.

COUNTRY OF INFO--USSR

SOURCE--KRISTALLOGRAFIYA 1970, 15(2), 302-7

DATE PUBLISHED-------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--ELECTROOPTIC EFFECT, CRYSTALLIZATION, ZINC SULFIDE, CRYSTAL GROWING, LIGHT TRANSMISSION, CRYSTAL ORIENTATION, LIGHT MODULATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED STEP NO--UR/0070/70/015/002/0302/0307

PROXY REEL/FRAME--1996/1478

[illegible]

UNCLASSIFIED PROCESSING DATE--13NOV70

2/2 028
CIRC ACCESSION NO--AP0118467
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CRYSTN. OF CUBIC ZNS BY THE HYDROTHERMAL METHOD WAS STUDIED UNDER THE CONDITIONS USED BY R. LAUDISE, ET AL. (1965), AND THE SPECTRAL DEPENDENCE WAS STUDIED FOR THE LIGHT TRANSMISSION, THE HALF WAVE POTENTIAL, AND ELECTROOPTICAL COEFFS. OF THE CRYSTALS. THE DEVIATIONS WERE DETD. FROM OPTICAL ISOTROPY. CRYSTALS PREPD. IN THIS WAY CAN BE ORIENTED AS REQUIRED IN THE FORM OF RECTANGULAR PARALLELPIPEDS OF SUFFICIENT SIZE TO CARRY OUT ELECTROOPTICAL STUDIES. THE CRYSTALS THAT WERE OBTAINED ARE SUITABLE FOR PRACTICAL USE IN LIGHT MODULATION OVER THE RANGE OF WAVELENGTHS OF 0.4-13 MU. FACILITY: INST. KRISTALLOGR., MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC 621.791.001.5:533.5:669.14+669.295

LAYNER, D. I., Doctor of Technical Sciences, KHARITONOVA, L. D., Candidate of Technical Sciences, and MASLOVSKIY, V. A., Engineer

"Investigation of Bonding Layer Strength in Titanium-Steel Bimetal Produced by Vacuum Condensation of Titanium"

Moscow, Svarochnoye Proizvodstvo, No 9, 1973, pp 26-27

Abstract: The change of bonding strength of titanium and steel in relation to the nature of surface purity of the steel base and the temperature of its heating at the time of titanium condensation was examined and results from structural studies of the titanium contact regions are presented. Steel 08kp, 0.1 mm thick, was used as the base metal which was washed in organic solvents prior to placement in a UNV-2M-1 vacuum unit. The titanium was vaporized with the aid of an electron-beam vaporizer from water-cooled copper crucible. Bonding strength was determined by the method of normal tear. Bonding strengths were found to be, for an unannealed base metal, 0.1 kgf/mm$^2$ with the base metal temperature at 50 and 90°C, 1.4, 1.6, 2.1, and 2.3 kgf/mm$^2$ at base metal temperatures of 120, 200, 300, and 370°C respectively, and greater than 18 kgf/mm$^2$ in the 400-800°C interval. In all cases in the 400-800°C interval, tear occurred

USSR

LAYNER, D. I., et al., Svarochnoye Proizvodstvo, No 9, 1973, pp 26-27

along the braze joint at stresses higher than 18 kgf/mm$^2$ which shows that the bonding strength of titanium depends on the temperature at which the titanium was applied. TiCl and FeTi are formed in the intermediate layer as a result of reactive diffusion. 2 tables, 5 bibliographic references.

USSR

LAYNER, D. I., KHARITONOVA, L. D., and MASLOVSKIY, V. A., State Scientific Research and Planning Institute for Processing Non-Ferrous Metals

"ON the Method of Determining the Adhesion of Titanium Coatings to Steel"

Moscow, Zavodskaya Laboratoriya, Vol 39, No 2, 1973, pp 188-189

Abstract: The usual break-off method used for determining the force required to separate a metal coating from a metal base is not applicable for the determination of the bonding strength of titanium coatings with the base because the oxide film inhibits the soldering of titanium with the investigation pins. This is avoided in the described method by applying an additional 1-2 $\mu$ thick layer of copper on the titanium coatings. The process of titanium and copper condensation in a vacuum of $1 \cdot 10^{-5}$-$5 \cdot 10^{-8}$ mm Hg on 10 x 10 mm bimetal samples is discussed. Characteristics of solders and strength properties of soldered joints are presented. One figure, one table.

USSR

UDC 620.193.27

FREYMAN, L. I., KHARITONOVA, L. YA., and KOLOTYRKIN, YA. M., Scientific Research Physicochemical Insitute imeni L. Ya. Karpov

"Simulation of Pitting Corrosion by Ultraviolet Light"

Moscow, Zashchita Metallov, Vol 7, No 5, 1971, pp 594-599

Abstract: In evaluating current concept of the spatial distribution of the interphase potential difference ($\Delta\varphi_{1,3}$) in the system metal (1) -- passivating layer (2) -- solution (3), and also the location in the system of the barrier layer largely responsible for impeding the dissolution, the effect of ultraviolet light on pitting corrosion is of direct interest. Experiments were conducted in a quartz cell at 20° with 1Kh18N10T steel in 0.05 N NaCl solution ("extremely high purity"), and the stnosphere was purified nitrogen. Electrodes cut from foil ($\delta$ = 0.1 mm) with a 1.4 $cm^2$ working surface were ground, degreased with ethyl alcohol, and washed with twice-distilled water. Using mercury lamps, the light flux intensity on each of the two working electrode planes was 1.4 $cal/cm^2$. sec. Ultraviolet illumination does not affect the pitting-formation potential ($\varphi_{pit\text{-}form}$) for polished electrodes if stabilization is carried out at a potential of 0.2 v during a period of 5 or 40 minutes. Stabilization at a level of 0.5 v for 6 hours increased

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USSR

FREYMAN, L. I., et al., Zashchita Metallov, Vol 7, No 5, 1971, pp 594-599

$\varphi_{\text{pit-form}}$ by a quantity $\pm$ 350 mv. A comparison was made between dark ($\varphi_{\text{pit-form-dark}}$) and illumintated ($\varphi_{\text{pit-form-il}}$) potentials of pitting-formation for 1Kh18N10T steel in the 0.05 N NaCl solution.

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USSR

UDC 599.32:619

LEONOV, Yu. A., KHARITONOVA, N. N., and SAPEGINA, V. F., Biological Institute Siberian Department Academy of Sciences USSR, Novosibirsk

"The Red Cheeked Suslik and Its Significance in the Epizootiology of Omsk Hemorrhagic Fever"

Novosibirsk, Izvestiya Sibirskogo Otdeleniya Akademii Nauk, SSSR, Seriya Biologicheskikh Nauk, Vol 10, No 2, Aug 70, pp 126-129

Abstract: A study was made of the habitat and distribution of the red-cheeked suslik in Western Siberia and its role in the epizootiology of Omsk (epidemic) hemorrhagic fever. Studies begun in 1966 established a high population density of these rodents in Karasukskiy Rayon of Novosibirskaya Oblast, where the oblast borders on Kazakhstan and Altay Kray, an area long known as a natural focus of epidemic hemorrhagic fever. The suslik usually nests in virgin steppe lands, near watersheds, and on the periphery of birch-aspen groves. Serological studies of susliks captured in this area showed the presence of antibodies to the virus of Omsk hemorrhagic fever, which indicates the circulation of the virus in the rodent population. The communicable character of the disease is

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USSR

LEONOV, Yu. A., et al., Izvestiya Sibirskogo Otdeleniya Akademii Nauk, SSSR, Seriya Biologicheskikh Nauk, Vol 10, No 2, Aug 70, pp 126-129

established. Ectoparasites (mainly Gamasidae) which live on susliks and infest suslik nests in mass numbers were gathered on the assumption that some species of these parasites may serve as carriers of the virus of Omsk hemorrhagic fever. The investigations have as yet failed to establish a definite connection between the epizootology of the disease and the presence of the suslik and its ecto-parasities. Nevertheless, the large concentration of red-cheeked suslik in the area, the considerable immunity of these rodents to the virus of Omsk hemorrhagic fever, and the abundance of ectoparasites which may be assumed to be virus carriers indicate that the suslik may play an important role in the epizootiology of this disease.

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USSR

UDC 577.4:616.988.26(571.13)+576.858

VOROB'YEVA, N. N., KHARITONOVA, N. N., and KHADZHIYEVA, T. M. Biological Institute, Siberian Branch of the Academy of Sciences USSR, Novosibirsk

"Ecological Relationships of the Virus of Omsk Hemorrhagic Fever with Animals in a Natural Focus"

Novosibirsk, Izvestiya Sibirskogo Otdeleniya Akademii Nauk SSSR, Seriya Biologicheskikh Nauk, Vol 1, No 5, Apr 70, pp 98-102

Abstract: Circulation of hemorrhagic fever virus among various types of animals -- inhabitants of a natural focus -- the emergence of ecological links between virus and animals, and elucidation of a possible nontransmitting mechanism for transfer of the infection in the natural focus were the aim of this study. A total of 890 small mammals of 13 species from seven regions in the Novosibirsk area were examined. The blood of 705 small mammals of 13 species and the serum of 1199 domestic animals were tested in the hemagglutination inhibition test with antigen from regional strains of Omsk hemorrhagic fever virus. Brain, blood, urine, and internal organs of the animals were examined. The virus was isolated on chick embryo fibroblasts, with subsequent intracerebral infection of white mice.

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USSR

VOROB'YEVA, N. N., et al, Izvestiya Sibirskogo Otdeleniya Akademii Nauk SSSR, Seriya Biologicheskikh Nauk, Vol 1, No 5, Apr 70, pp 98-102

To elucidate the possibilities of a nontransmitting mechanism for transfer of the infection, 56 muskrats were infected with the virus in different ways. Sixteen virus strains were isolated from muskrat brains, which indicates that the disease is of viral etiology also in the Novosibirsk region. Serological evidence established the presence of specific antibodies against hemorrhagic fever virus in the blood of domestic animals and in 10 species of small mammals. Ecological relationships exist between the virus and both wild and domestic animals in natural foci. Tests involving infection of muskrats and water rats with different doses of the virus, administered by the alimentary and inhalation moates, showed that the muskrat is very sensitive to the virus, and that water rats have a low sensitivity. Muskrats may contaminate their environment with the virus by excretion.

USSR UDC 615.285.7.015.154

KOSHKINA, I. V., and KHARITONOVA, S. I., Institute of Medical Parasitology and Tropical Medicine imeni Ye. I. Martsinovskiy, Ministry of Health USSR

"Ethyl Cellulose as an Agent to Prolong the Action of Repellents. II"

Moscow, Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, No 2, 1970, pp 224-227

Abstract: The polymer ethyl cellulose was tested in the field as a means of extending the effective time of diethyl toluamide and five other repellents against various mosquitoes, including Aedes vexans and Aedes hyrcanus. The results showed that the addition of ethyl cellulose in 1-5% concentrations failed to prolong the action of any of the repellents when applied to human skin or cloth. In fact, when added in higher concentrations (3-5%) to diethyl toluamide, the polymer actually reduced its effectiveness, and resulted in larger mosquito bites on arms treated with diethyl toluamide alone.
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1/2 009 UNCLASSIFIED PROCESSING DATE--02OCT70

TITLE--ON ETHYLCELLULOSE AS A PROLONGATOR OF REPELLENTS. COMMUNICATION II
-U-

AUTHOR-(02)-KUSHKINA, I.V., KHARITONOVA, S.I.

K

COUNTRY OF INFO--USSR

SOURCE--MEDITSINSKAYA PARAZITOLOGIYA I PARAZITARNYYE BOLEZNI, 1970, VOL 39, NR 2, PP 224-227
DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--INSECT REPELLENT, MOSQUITO

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1990/1437 STEP NO--UR/0358/70/039/002/0224/0227

CIRC ACCESSION NO--AP0109497

UNCLASSIFIED

2/2 009 UNCLASSIFIED PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0109497

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. NEW COMPOSITIONS OF REPELLENTS: DETA (40PERCENT), DMF (50PERCENT), R162 (50PERCENT), R-2R (30PERCENT), R-228 (10PERCENT WITH 1-5PERCENT CONCENTRATION OF ETHYLCELLULOSE WERE TESTED IN ORDER TO FIND OUT THE PROLONGING EFFECT OF THE LATTER. PRIMARY FIELD TRIALS WERE CARRIED OUT IN THE TERRITORY OF THE ASTRAKHAN RESERVE AGAINST MOSQUITOES AEDES VEXANS AND ANOPHELES HYRCANUS. THE RESULTS INDICATED THAT 1-5PERCENT ETHYCELLULOSE IN COMBINATION WITH THE ABOVE MENTIONED REPELLENTS DID NOT PROLONG THEIR PROTECTIVE EFFECT WHEN PUT ON THE SKIN AND CLOTH. THE COMPOUND CONTAINING DETA (40PERCENT) AND 3-5PERCENT OF THIS INGREDIENT HAD LOWER PROTECTIVE TIME THAN THE PURE REPELLENT. ETHYLCELLULOSE IN REPELLINE-ALPHA HAD NO INFLUENCE ON THE DURATION OF ITS PROTECTIVE EFFECT. FACILITY: INSTITUT MEDITSINSKOY PARAZITOLOGII I TROPICHESKOY MEDITSINY IM. YE. I. MARTSINOVSKOGO MINISTERSTVA ZDRAVOOKHRANENIYA SSSR, MOSCOW.

UNCLASSIFIED

1/2 025 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--HARDNESS OF STEEL G13 AFTER MECHANICOTHERMAL TREATMENT -U-

AUTHOR-(04)-KRIVOSPITSKIY, V.M., NIKONENKO, A.S., KHARITONOVA, V.F., KIBETS, V.L.

COUNTRY OF INFO--USSR

SOURCE--METALLOVED. TERM. OBRAB. METAL. 1970, (3), 47-8

DATE PUBLISHED--------70

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

TOPIC TAGS--THERMOMECHANICAL TREATMENT, HIGH MANGANESE STEEL, METAL HARDNESS, ALLOY DESIGNATION, ALLOY COMPOSITION, METAL DEFORMATION, MATERIAL FRACTURE/(U)G13 HIGH MANAGANESE STEEL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1996/1704 STEP NO--UR/0129/70/000/003/0047/0048

CIRC ACCESSION NO--AP0118682

UNCLASSIFIED

2/2 025 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0118682

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SPECIMENS FROM STEEL G13 (C 1.18, MN 13.5, SI 0.62, P 0.083, AND S 0.06 WT. PRECENT), SIZE 8 TIMES 8 TIMES 10 MM WERE HEATED IN ACTIVIATED CARBON AT 1050DEGREES FOR 20 MIN AND THEN COOLED IN WATER. DEFORMATION BY COMPRESSION FOLLOWED AT THE RATE 1 MM-MIN AND ANNEALING IN A SALT BATH AT 100-800DEGREES. AFTERWARDS SPECIMENS WERE POLISHED MECH. AND ELECTROCHEM. AND HARDNESS WAS DETD. WITH INCREASED DEFORMATION DEGREE UP TO 50PERCENT, THE HARDNESS STARTED TO DECREASE AT 300DEGREES AND THE DECREASE WAS COMPLETED AT 800DEGREES. THE COMPRESSION DEFORMATION INCREASED HARDNESS. HARDNESS OF QUENCHED SPECIMENS INCREASED NEARLY IN LINEAR FASHION WITH INCREASED DEFORMATION DEGREE, WHILE THAT OF HEAT TREATED SPECIMENS INCREASED INTENSELY ONLY AT SMALL DEFORMATION DEGREES. INCREASED TEMP. AND TIME OF ANNEALING CAUSED AN INCREASED BRITTLENESS OF QUENCHED AND TEMPERED STEEL. E.G. AFTER ANNEALING FOR 2 HR AT 450DEGREES THE FRACTURE OCCURRED AT 40PERCENT REDN. DEGREE, WHILE AFTER ANNEALING AT 550DEGREES THIS BREAKDOWN OCCURED AT 20PERCENT REDN. DEGREE. FACILITY: KRIVOROZH. GORNORUD. INST., KRIVOI ROG, USSR.

UNCLASSIFIED

Thermomechanical Treatment

USSR

UDC 620.178:669.15'74.194

KRIVOSPITSKIY, V. M., NIKONENKO, A. S., KHARITONOVA, V. F., and KIBETS, V. L.
(Krivoy Rog Mining Institute)

"Strength of G13 Steel After Mechanical-Heat Treatment"

Moscow, Metallovedeniye i termicheskaya obrabotka metallov, No 3, 1970, pp 47-48

Abstract: Results are presented of the investigation on the effect of mechanical and heat treatment on the hardness and compression strength of G13 steel. The experimental procedure and technique for production of samples are described. The results show that the nature of hardness variation of samples after heat or mechanical heat treatment is the same. The strength increases as the result of compression. A microscopic nature of plastic deformation was observed at austenite steel compression. At small deformations, straight lines passing through the whole grain were observed, while the grain number with lines increases with deformation. At high degrees of deformation, the deformation lines become undulating, then lines appear along which the destruction develops. Upon deformation of steel, annealed at 500-600°C, lines of deformation were observed at short annealing holding times, while at prolonged annealing times and high degrees of deformation lines were absent. 2 figures, 13 references.

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1/2 021 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--OSCILLATOR STRENGTHS FOR THE EXCITED STATES OF HELIUM LIKE SYSTEMS -U-

AUTHOR-(03)-SAFRONOVA, U.I., IVANOVA, A.N., KHARITONOVA, V.N.

COUNTRY OF INFO--USSR

SOURCE--OPT. SPEKTROSK. 1970, 28(3), 585-8

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY, PHYSICS

TOPIC TAGS--HELIUM, OSCILLATION, MATRIX ELEMENT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1998/0922 STEP NO--UR/0051/70/028/003/0585/0588

CIRC ACCESSION NO--AP0121524

UNCLASSIFIED

2/2 021 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0121524

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE ZERO AND 1ST ORDER PERTURBATION CALCN. OF THE DIPOLE MOMENT MATRIX ELEMENT AND OSCILLATOR STRENGTHS OF EXCITED HE LIKE SYSTEMS ARE DESCRIBED. THE 1S PRIME2 1SNP AND 1SN SUB1 S 1SN SUB2 P TRANSITIONS WERE CONSIDERED.

UNCLASSIFIED

USSR UDC: 622.243.144.4

SACHKOV, V. V., KHARIV, I. Yu., TITARENKO, N. Kh., FESENKO, N. N., YAREMENKO, V. A., Poltava Division of Ukrainian Scientific Research Institute for Geological Prospecting

"Ultrasonic Treatment of Drilling Solution in Order to Restore its Structural and Mechanical Properties"

Moscow, Bureniye, No 7, 1973, pp 18-21.

Abstract: A method is studied for restoration of the structural and mechanical properties of solutions by ultrasonic treatment, allowing the restoration of lost properties to be accelerated, while reducing the consumption of materials and expenditures of labor, particularly manual labor, related to the preparation of chemical reagents and treatment of the solution with the reagents. Results are presented from restoration and improvement of these properties during ultrasonic processing directly at drilling sites. The mechanism of action of the ultrasound on natural and artificial solutions is described. The Institute has developed several designs of hydrodynamic vortex-type radiators for production ultrasonic treatment of solutions. These radiators are simple in design and reliable in operation. They can be driven by either centrifugal or piston-type pumps. The mechanism of action of the ultrasound consists in effective

USSR

Sachkov, V. V., Kahriv, I. Yu., Titarenko, N. Kh., Fesenko, N. N., Yaremenko, V. A., Moscow, Bureniye, No 7, 1972, pp 18-21.

dispersion of particles of clay materials, increasing their number per unit volume and thus increasing the surface of the active solid phase and forming a better developed, stronger coagulation structure in the solutions.

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1/2 030 UNCLASSIFIED PROCESSING DATE--27NOV70

TITLE--THE EFFECT OF ARC DISCHARGE PARAMETERS UPON THE FORM OF PLASMA CLOUD IN A D.C. ARC WITH NON-UNIFORM MAGNETIC FIELD -U-

AUTHOR-(02)-KHARIZANOV, YU., ZADGORSKA, Z.

COUNTRY OF INFO--USSR

SOURCE--ZH. PRIKLAD. SPEKTROSK (USSR), VOL. 12, NO. 4, P. 610-14 (APRIL 1970)

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--ARC DISCHARGE, ELECTROMAGNET, PARAMETER, PLASMA PHYSICS, SPECTRAL LINE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3007/1116 STEP NO--UR/0368/70/012/004/0610/0614

CIRC ACCESSION NO--AP0136536

UNCLASSIFIED

2/2 030 UNCLASSIFIED PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0136536

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EXPERIMENTS WERE CARRIED OUT BY PLACING THE ELECTROMAGNET UNDERNEATH THE LOWER ELECTRODE, AND VARYING THE FIELD INTENSITY. AT THE SAME TIME, THE DIAMETER OF THE TIP OF THE LATTER ELECTRODE WAS ALSO CHANGED FROM 3 TO 14MM, THE LARGER SIZES INCLUDING A SPHERICAL CAVITY. THE SUPERIMPOSITION OF THE MAGNETIC FIELD RESULTS IN TWIST OF THE ARC LINE WITH NO CHANGES IN CASE OF ALTERATION OF THE ARC CURRENT. THE TWIST OF THE ARC LINE IS ACCENTUATED BY SHORTENING THE INTERELECTRODE DISTANCE, WHEREAS DECREASE OF CATHODE DIAMETER AND INCREASE OF ANODE DIAMETER PROMOTE THE FORMATION OF PLASMA CLOUD. AS A RESULT, HIGHER INTENSITY OF LINES IS ACHIEVED. THE COMPARISON OF DATA ALLOWS THE SYMMETRICAL CLOUD AS AN OPTIMUM FOR THE INTENSIFICATION OF SPECTRAL LINES TO BE RECOMMENDED.

UNCLASSIFIED

Acc. Nr: AP0044156 Ref. Code: UR 0244

PRIMARY SOURCE: Voprosy Pitaniya, 1970, Vol 29, Nr 1, pp 20-23

# CHANGES IN THE ACTIVITY OF SOME CARBOHYDRATE METABOLISM ENZYMES IN SCORBUTIC GUINEA PIGS

*I. P. Mitev, M. S. Kharizanova, A. M. Angelov, A. M. Kryshkova,*
(Plovdiv, Bulgaria)

Summary

The activity of the aldolase, glucose-6-phosphate-dehydrogenase, lactate-dehydrogenase, sorbitol-dehydrogenase and aspartate-aminotransferase enzymes were investigated in the liver and kidneys of scorbutic guinea pigs. A tendency towards reduced activity of nearly all enzymes was observed, except for that of sorbito-dehydrogenase which was rising. The author associates these changes with diminished glucose cleavage in the course of glycolysis and pentose cycle, this being compensated for by the scorbutic organism by means of the glucose conversion into fructose through the sorbitol-dehydrogenase reaction.

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REEL/FRAME
19770637

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AA0044794 KHARIZOMENOV G.I.

UR 0482

Soviet Inventions Illustrated, Section II Electrical, Derwent,

2/70

243237 ULTRASONIC LENGTH AND DISPLACEMENT GAUGE

based on the propagation of ultrasonic waves down a waveguide and the exact measurement of the standing wave antinode positions, is improved in accuracy by the additional use of a second ultrasonic transmitter-receiver set up perpendicular to the waveguide and detecting the precise position of the antinode. The second unit is fixed to the length or displacement measuring device and moves with it. The diagram shows the elongated body 1 forming the master waveguide, on the end of which is the primary ultrasonic transmitter 2 energized from generator 3. The position of the antinodes in the standing waves propagated by 2 is the basis on which the length or displacement is measured, converted by instrument 5 from a measure of the time of passage of the waves along 1. Connected with 5 is the secondary ultrasonic set 4, which acts as a fine position indicator of the wave phase 22.3.67 as 1147486/25-28. YU.P.PANTELEEV & G.I. KHARIZOMENOV. MACHINE TOOL INST.,MOSCOW.(24.9.69) Bul 16/5.5.69. Class 42k, 42b. Int.Cl.G 01n,G 01b

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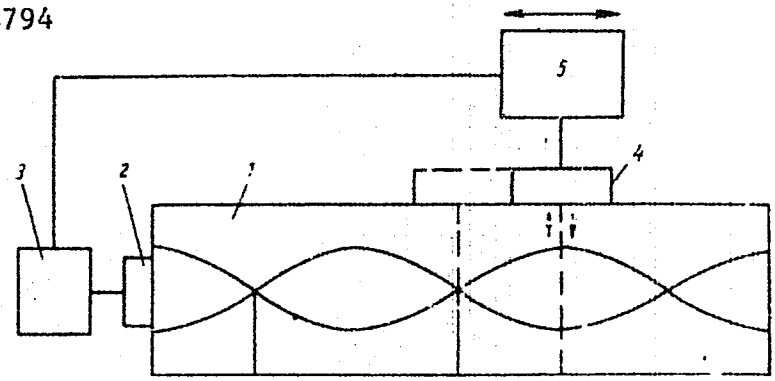


AUTHORS: Panteleyev, Yu. P.; Kharizomenov, G. I.

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1/2 012 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--SYNTHESIS OF PYRROLO,1,2,ALPHA,PYRIMIDINE DERIVATIVES -U-

AUTHOR-(04)-SHVEDOV, V.I., KHARIZOMENOVA, I.A., ALTUKHOVA, L.B., GRINEV, A.N.

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ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DERIVS. OF 2 AMINOPYRROLE (I) WERE CONDENSED WITH 1,3,DICARBONYL,ERIVS. IN REFLUXING C SUB5 H SUB5 N OR ACOH OR HEATED WITHOUT SOLVENT AT 150-60DEGREES TO YIELD THE FOLLOWING II (R, R PRIME1, R PRIME2, R PRIME3, M.P., AND PERCENT YIELD GIVEN): SHOWN ON MICROFICHE. FACILITY: VES. NAUCH.-ISSLED. KHIM.-FARM. INST. IM. ORDZHONIKIDZE, MOSCOW, USSR.

UNCLASSIFIED

1/2 014 UNCLASSIFIED PROCESSING DATE--09OCT70

TITLE--THEORY OF HOMOGENEOUS REACTIONS INVOLVING PROTON TRANSFER -U-

AUTHOR-(05)-LEVICH, V.G., DOGONADZE, R.R., GERMAN, E.D., KUZNETSOV, A.M., KHARKATS, YU.I.

COUNTRY OF INFO--USSR

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TOPIC TAGS--PROTON, QUANTUM MECHANICS, CHEMICAL REACTION

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2/2 014

CIRC ACCESSION NO--AP0112833

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A QUANTUM MECH. THEORY FOR PROTON TRANSFER PROCESSES IN SOLNS. IS GIVEN. THE BRONSTED RULE AND ISOTOPE EFFECT FOR THESE PROCESSES ARE ALSO DISCUSSED. FACILITY: INST. ELECTROCHEM., MOSCOW, USSR.

89

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DIANE

(2)

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bib. electronics/switching

THE SIXTH INTERNATIONAL SYMPOSIUM ON SWITCHING

[Article by Candidate of Technical Sciences V. I. Neyman and Doctor of Technical Sciences A. D. Kharkevich; Moscow, Vestnik Akademii Nauk SSSR, Russian, Vol 43, No 1, January 1973, pp 119-120]

The Sixth International Symposium on Switching was held on 6-9 June in Cambridge, Massachusetts (USA). About 700 specialists from 22 countries participated in its work.

The main purpose of such symposia is the exchange of knowledge and experience in the area of scientific investigations, developments, the planning of production and the operation of switching equipment for electrical communications. In addition, at them there are discussions of promising directions in the development of switching equipment and its mathematical substantiation (it is a matter of modern systems controlled by computers).

In recent years there has been a trend toward a shift of interests of some investigators studying problems in the transmission and distribution of information in the direction of information distribution and switching networks. This is explained by the fact that the growing requirements for telephone communications, and especially for data transmission, require finding effective means of distributing flows of information.

For these reasons the symposium in Cambridge attracted the attention of many specialists, although its program was devoted to a considerable degree to problems of telephone switching. Over 80 reports were heard and discussed at its sessions. Reports of the heads of departments of communications of Japan, England, France, West Germany and Sweden, read in the section "Survey of the latest achievements and plans for the future," were heard with interest. The work of the other sections was devoted to specific scientific and technical problems.