"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UDC 621.382.3

USSR

D'YAKONOV, V.P., BOSYY, V.I., KUZNETSOV, YU.A., KOSTRYUKOV, A.S., TSIGANKOV, V.A.

"Avalanche Transistor And Its Use In Circuit Technics"

V sb. Poluprovodn. pribory v tekhn. elektrosvyazi (Semiconductor Devices In The Technics Of Electrical Communication--Collection Of Works), Issue 9, Moscow, "Svyaz'," 1972, pp 159-166 (from RZh:Elektronika i yeye primeneniye, No 5, May 1972, Abstract No 5B187)

Translation: The structure and special features of a Type GT-338 avalanche transistor are described. A number of pulse circuits using avalanche transistors are presented, which provide the possibility of shaping pulses with a rise time less than 1 nanosec and an amplitude up to 10--15 V and higher at a 75-ohm load. Circuits using Type GT-338 avalanche transistors are characterized by high temperature stability. 7 ill. 12 ref. Summary.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UDC 621.382.31546.289

USSR

KUZNETSOV, YU.A., KAMENETSKIY, YU.A., SMUL'SKIY, A.S.

"Type GT-338 Germanium Avalanche Transistor"

Elektron. prom-st'. Nauch.-tekhn. sb. (Electronic Industry. Scientific-Technical Collection), 1971, No 4, pp 40-41 (From RZh:Elektronika i yeye primeneniye, No 5, May 1972, Abstract No 5B190)

Translation: The principles of operation of a Type GT-338 transistor are based on the effect of carrier multiplication in the region of the space charge of the collector. Use of the GT-338 in the circuits of generators of narrow pulses and of pulses with a steep front of the nano- and subnanosecond range makes it possible to simplify circuits substantially and to improve their technical characteristics. Summary.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UDC 519.21

USSR

KUZNETSOV, YU.A.

"Determination Of The Probabilities Of Error Of The First And Second Type During Truncated-Sequential Analysis"

Radiotekhnika, Vol 27, No 4, Apr 1972, pp 12-16

Abstract: In problems of the acquisition of the signals of radar systems, the number of observations n (sample size) is limited from above by the assigned time of acquisition. For acceptance of a solution concerning the application of a truncated-sequential analysis instead of other acquisition criteria it is necessary to know the probability of error of the first α and second β type. A method is proposed for determining the precise magnitudes of such errors during truncated-sequential analysis, for random magnitudes with binary distribution. 2 ill. 5 ref. Received, 1 Dec 69.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UDC 639.2.081.9

USSR

KUZNETSOV, YU. A., Candidate of Technical Sciences, TINRO (Pacific Ocean Scientific Research Institute of Fisheries and Oceanography)

"Some Problems in Commerical Fishing Bioacoustics"

Moscow, Rybnoye Khozyaystvo, No 9, 1971, pp 35-38

Abstract: Since the acoustic method of catching pelagic fish is becoming increasingly more popular, it should be expounded on a more scientific basis to yield better results. The few available recordings of the sounds and noises produced by fishes display an almost infinite number of large differences and small but highly significant nuances in the intervals between individual impulses, their spectral components, and specific modulation of intensity. Reproducing these characteristics by electronic equipment seems impossible. An easier and more precise method is to duplicate original recordings. These must be done on highly sensitive instruments, with simultaneous observation and subsequent verification of the responses they induce. Frequently, quite different sound produce the same reaction. For example, before attacking, anchovies, mackerels, or herrings, dolphins omit intense whistling wounds which cause the smaller fishes to flock together into a compact mass that becomes easy prey for the dolphins. Whispering sounds

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USSR

KUZNETOSOV, YU. A., Rybnoye Khozyaystvo, No 9, 1971, pp 35-38

emitted by herrings in the face of approaching danger also causes all the herrings of the school to flock together into a dense mass. On the other hand, a distant sound occasionally produces a different response than a nearby one. Some replay instruments have a strong vibration of their own which distorts the sound and ruins the effect; all such interference must be eliminated. Frequently, the use of simple mechanical devices is quite successful. For example, air-filled bladders equipped with various reeds or screens at the air opening fairly accurately imitate some sounds emitted by dolphins and other fishes. Similarly, Japanese fishers get good results by showering the fishing ground with "artificial rain" which imitates the splashing of small fishes on the surface of the ocean and lures tuna to the ships.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UDC 621.382.3

USSR

FEDOTOV, Ya. A., MARTIROSOV, I. M., DATIYEV, K. M., and KUZNETSOV, Yu. A.

"Avalanche-Drift Diode With a Heterojunction"

Leningrad, Fizika i tekhnika poluprovodnikov, vol. 5, No. 8, 1971, pp 1671-1672

Abstract: In the course of work on avalanche-drift diodes with heterojunctions of Ge-GaAs, specimens were obtained in which the generation of UHF oscillations was observed. Heterojunctions with a p-n-n+ structure were obtained by growing layers of p-type germanium alloyed with gallium, the layer thickness being 7 microns, with an acceptor impurity of about $1 \cdot 10^{16}/cm^3$, on n-type GaAs epitaxial film, 6 microns thick with a donor impurity concentration of about $6\ 10^{15}/cm^3$, grown on an n substrate with a resistivity of 0.001 ohm cm. The power supplied to the load in the oscillations amounted to 40-120 mw per pulse at a frequency of 11 GHz. The volt-ampere characteristic of an AV-15 diode, belonging to this class of device, is given. The authors are associated with the Moscow Steel and Alloy Institute.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UDC 621.394.625

USSR

ROMANOV, V. V., KUZNETSOV, Yu. A.

"Status and Trend of Growth of Terminal Equipment for Transmission of Discrete Information"

V sb. Radioelektron. v nar. kh-ve SSSR (Radioelectronics in the National Economy of the USSR--Collection of Works), Ch. 2, Kuybyshev, 1970, pp 340-344 (from Rzh--Elektrosvyaz', No 4, Apr 1971, Abstract No 4.64.293)

Translation: Requirements are formulated for contemporary terminal telegraphic equipment. It is shown that many foreign firms have produced a series of electromechanical equipment in which the number of mechanical units is reduced to a minimum. Up to 70 percent of the functions are fulfilled with the aid of electronic circuits. Equipment of this type produced by U.S., French, and Yugoslav firms is briefly described. B. V.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UDC 535.511.082.52

USSR

VANYURIKHIN, A. I., KUZNETSOV, Yu. A., MAYSTRENKO, V. F., TROH'KO, V. D.

"Recording the Oscillation Plane Angle of Linearly Polarized Infrared Radiation"

Leningrad, Optiko-Mekhanicheskaya Promyshlennost', No 8, August 1970, pp 30-33

Abstract: An efficient, compact Faraday modulator has been developed, with a ferrite-garnet magneto-optical element. On the basis of this modulator has been constructed a highly sensitive polarization unit which permits an angle to be recorded with an accuracy of 0.0002 degree. An analysis is made of the relationship of the sensitivity to the parameters of the optical system and the modulator. 3 figures, 9 bibliographic entries.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

Acc. Nr. AP0048787 Abstracting Service: CHEMICAL ABST. Ref. Code 5-70 UR0086

90914q Initiation of the polymerization of some vinyl monomers by aqueous solutions of vinylene carbonate. Kuznetsov, Yu. A.; Golenishcheva, S. A.; Klubikova, L. E.; Kli[illegible] (USSR). *Zh. Prikl. Khim. (Leningrad)* 1970, 43(1), 1[illegible]-4 (Russ). CH_2:CHCONH$_2$ (Ia), MeCH:CHCO$_2$H (Ib), CH_2:CHCN, CH_2:CHOAc (Ic), and PhCH:CH_2 were polymd. at 20-60° in H_2O in the presence of vinylene carbonate (I) and O. The highest yields of polymer (92-5%) were obtained when the monomer and polymer were completely H_2O-sol. (Ia and Ib). Increasing the temp. shortened the induction period due to acceleration of I hydrolysis, but the intrinsic viscosity (η) of the polymer decreased. It was preferable to decrease the induction period by introduction of the initiator (aq. I) after prior treatment at 50-70° for 1-2 hr. This treatment decreased the induction period in the polymn. of Ic at 20° to ≤10-20 min (compared with 4-6 hr), and did not decrease η. A 1% aq. soln. of I preserved its initiating ability for >12 days. Introduction of hydrotropic agents such as

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

AP0048787

EtOH and dioxane, and increasing the vol. of the aq. phase to a I-H_2O ratio >1:5 in the homopolymn. of I did not increase the poly(vinylene carbonate) (II) yield. Hydrolysis products of I, viz., $HOCH_2CHO$ (III) and HCO_2H, accumulated during I polymn. Increasing the amt. of HCO_2H in the starting soln. lowered the yield of II and its η only when substantial amts. were added, apparently due to increased hydrolysis at lower pH. III had no effect on I polymn. The yield of II was ≤40% after 48 hr.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

Acc. Nr. AP0050440 Abstracting Service: CHEMICAL ABST. 5/70 Ref. Code 4/R0051

K

105447r Photoelectric infrared polarimeter. Deryugin, I. A.; Kuznetsov, Yu. A.; Tron'ko, V. D. (USSR). *Opt. Spektrosk.* 1970, 28(2), 415-18 (Russ). The construction of a Faraday cell with $Y_3Fe_5O_{12}$ crystals is described. It made possible obtaining amplitude of polarization plane variation of 45° and higher in magnetic fields 10^2 – 10^3 Oe and with time const. of 10^{-8} – $\sim 10^{-7}$ sec.; operating output was 0.01 – 0.02 W. This modulator was used in photoelec. ir polarimeter. The theoretical anal. of its parameters is given. This type of cell enabled receiving large angles of oscillation at low magnetization fields.

The modulator enabled different ways of a change of oscillation angle of light polarization plane with time. :M. Tichy

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REEL/FRAME
19810419

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR

UDC 62-558

SUBBOTIN, V. M., and KUZNETSOV, YU. I., Perm Polytechnical Institute

"A Differentiating Accelerometer for Linear Acceleration"

Leningrad, Priborostroyeniye, Vol 16, No 5, 1973, pp 95-100

Abstract: The accelerometer consists of a fluid-filled casing, an inertial body connected to the casing by springs, a power transformer with windings on the inertial body, and a movable induction displacement transformer. The fixed portion of this last transformer is attached to the casing. The ends of the inertial body have cylindrical recesses containing the pole pieces and magnets of the force magnetic transformer system. With an external amplifier, the transformers form an electric spring. A channel through the center of the inertial body contains a neutral buoyancy float connected to the casing by springs and carrying the movable part of a displacement induction transformer, the other part of which is connected to the body, and the coil of a force electric spring transformer. Under acceleration, the displacement of the inertial body is proportional to the acceleration, while the pressure difference between the fluid reservoirs ahead and behind the inertial body is proportional to the speed of movement of the inertial body and therefore to the first derivative of the acceleration. The displacement of the float is

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR

SUBBOTIN, V. M., and KUZNETSOV, YU. I., Priborostroyeniye, Vol 16, No 5, 1973, pp 95-100

proportional to the pressure difference and therefore to the first derivative of the acceleration. The article contains a diagram of the device, differential equations which can be used to select parameters in designing such a device, and the specific parameters of an actual device.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UDC 681.327.11

USSR

ARTYUNOV, M. G., and KUZNETSOV, Yu. K.

"Technique for the Multicolor Ferrographic Recording of Information"

USSR Authors' Certificate No 341058, Cl. G 06k 15/14, filed 4 Nov 70, published 5 Jun 72 (from Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 18, 5 Jun 72, p 187)

Abstract: To improve the image quality: information associated with various colors, alternating arbitrarily, is recorded on a magnetic medium by the signals of one level; the color components of the information are isolated by the consecutive development of the latent magnetic image by colored developers; and before each subsequent development the preceding developer is removed from the latent magnetic information image.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR

KUZNETSOV, Yu. D., STRELKOV, G. P., SMOLYANINOV, Yu. M.

"Endurance of Reinforced Concrete Elements with Symmetrical, Low-Frequency Bending"

Raschet. Konstruktsiy Silos. Sooruzh. [Design of Silo Structures -- Collection of Works], Kiev, Budivel'nik Press, 1972, pp 55-66, (Translated from Referativnyy Zhurnal, Mekhanika, No 10, 1972, Abstract No 10 V1026, by the author's).

Translation: The process of rupture of reinforced concrete bent elements under sign-changing loads in a symmetrical cycle is studied with low frequencies (0.015 and 0.020 Hz) and fixed amplitudes of deformations and stresses. A unique form of rupture of these elements is discovered, requiring new theoretical concepts for its explanation. In particular, the creep theory of concrete is required. The dependence of endurance on frequency is established, decreasing with increasing period of oscillations. An experimental installation and methods of performing experiments are described. The analysis of norm documents and literature data presented in the work confirms the necessity of refining a number of coefficients used to design the structures for sign-changing loads. The results of the work can be used to calculate structures subjected to variable loadings at low frequencies, such as the supports of rotating furnaces, silo walls, etc. The work con-

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR

KUZNETSOV, Yu. D., STRELKOV, G. P., SMOLYANINOV, Yu. M., Raschet. Konstruktsiy Silos. Sooruzh., Kiev, Budivel'nik Press, 1972, pp 55-66.

tains recommendations for values of coefficients for reduction of calculated strengths for structures used under these conditions. 16 Biblio. Refs.

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APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

1/2 007 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--VOLUME CHANGES IN A PERICLASE FERRUGINOUS SPINEL SYSTEM -U-

AUTHOR-(03)-KUZNETSOV, YU.D., KLYUCHAROV, YA.V., SUVOROV, S.A.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, NEORG. MATER. 1970, 6(1), 86-90

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--SPINEL, SOLID SOLUTION, IRON OXIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1996/0848 STEP NO--UR/0363/70/006/001/0086/0090

CIRC ACCESSION NO--AP0118024

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

2/2 007 UNCLASSIFIED PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0118024

ABSTRACT/EXTRACT--(U) GP-0- ABSTRRACT. VOL. CHANGES ARE INSIGNIFICANT IN THER PERICLASE FERRUGINOUS SPINEL SYSTEM ACCOMPANYING THE FORMATION AND DECOMPN. OF SOLID SOLNS. OF A GIVEN SYSTEM WITHOUT CHANGING THE VALENCY STATE OF FE. THE REDN. OF FE OXIDES IN THE GIVEN SYSTEM IS ACCOMPANIED BY A DECREASE IN THE VOL. OF THE PHASES FORMING, WHEREAS OXION. IS ACCOMPAINED BY AN INCREASE IN THE SAME. FACILITY: LENINGRAD. TEKHNOL. INST. IM. LENSOVETA, LENINGRAD, USSR.

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APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

1/2 021 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--SELECTIVE DISSOLUTION OF CHROMIUM SPINEL COMPONENTS IN PERICLASE
-U-

AUTHOR-(03)-KLYUCHAROV, YA.V., KUZNETSOV, YU.D., SUVOROV, S.A.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, NEORG. MATER. 1970, 6(4), 809-13

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--SPINEL, CHROMIUM, MAGNESIUM OXIDE, MAGNESIUM, HIGH TEMPERATURE HEAT TREATMENT, IRON OXIDE, ALUMINA, SOLID SOLUTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3005/0017 STEP NO--UR/0363/70/006/004/0809/0813

CIRC ACCESSION NO--AP0132317
UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

2/2 021 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0132317

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE PHASE TRANSFORMATIONS TAKING PLACE DURING THE INTERACTION BETWEEN PERICLASE AND CR SPINEL ARE EXAMD. FOR COMPNS. OF MGO NO (AL SUB1, X,Y CR SUBX FE SUBY) TYPE (X EQUALS 0.16, 0.46, 0.61; Y EQUALS 0.20, 0.22, 0.23). DURING FIRING OF THESE COMPNS. THE DISSOLN. OF INDIVIDUAL COMPONENTS OF THE SPINEL IN THE PERICLASE IS NOT THE SAME: UP TO 1400DEGREES, PREDOMINANT DIFFUSION OF FEO INTO THE PERICLASE IS OBSERVED, WHILE AT HIGHER TEMPS. (1600-1750DEGREES) THE DISSOLN. IN THE PERICLASE OF TRIVALENT CATIONS DEVELOPS SIGNIFICANTLY. IN THE COMPN. OF THE SPINEL, WHICH DISSOLVES IN THE PERICLASE, THE CONTENT OF THE FE OXIDES PRESENT IS HIGHER IN THE CASE OF THE PERICLASE COMPNS. WITH HIGH ALUMINA RATHER THAN HIGH CHROMIUM SPINELS. THE PERICLASE COMPNS. WITH HIGH ALUMINA RATHER THAN HIGH CHROMIUM SPINELS. THE COMPN. OF THE SPINEL PPTG. FROM THE SOLID SOLN. WITH THE PERICLASE AND THE AMT. OF FE OXIDES WHICH REMAIN IN IT ARE DETD. BY THE DECOMPN. RATE OF THE SOLID SOLNS. WHICH, IN TURN, DEPENDS ON THE DEGREE OF SUPERSATN. OF THE LATTER BY THE SPINEL. DURING THE COOLING PROCESS FROM HIGH TEMPS. (1600-1750DEGREES), A MORE COMPLETE DECOMPN. OF THE SPINEL PERICLASE SOLID SOLNS. TAKES PLACE. THE DISTRIBUTION OF THE FE OXIDES BETWEEN THE PERICLASE AND THE SPINEL IS DETD. BY THE COMPN. OF THE LATTER. IN CASE OF HIGH ALUMINA SPINELS, A CONSIDERABLE PORTION OF THE FE OXIDES IS PRESENT IN THE SOLID SOLN. WITH THE PERICLASE, WHERE THEY ARE REPRESENTED PRIMARILY BY THE FEO. FACILITY: LENINGRAD. TEKHNOL. INST. IM. LENSOVETA, LENINGRAD, USSR.

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Measuring, Testing, Calibrating

UDC: 681.2.083.3.531.768

USSR

SUBBOTIN, V. M., KUZNETSOV, Yu. I., BLAGOVESHCHENSKIY, M. N., Perm' Polytechnical Institute

"A Compensation Accelerometer"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 21, Jul 72, Author's Certificate No 344357, Division G, filed 16 Oct 70, published 7 Jul 72, p 182

Translation: This Author's Certificate introduces a compensation accelerometer which contains a housing, a liquid-filled chamber, an inertial body with force pickup winding and two cylindrical depressions on the ends, a force pickup magnetic circuit located in the depressions of the inertial body, a displacement pickup and an amplifier. As a distinguishing feature of the patent, the device is designed for obtaining the signal of the derivative of the measured acceleration. The accelerometer is equipped with a float and a pickup for displacement of the float relative to the inertial body. An axial channel is made in the inertial body, and the float is connected by an elastic element to the inertial body and is accommodated in the axial channel.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

1/2 014 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--KINETIC MODEL OF THE DEHYDRATION OF ALPHA HYDROXYISOBUTYRIC ACID TO METHACRYLIC ACID -U-

AUTHOR-(05)-VYTNOV, G.F., MATROS, YU.SH., SLINKO, M.G., LEONTYEV, YA.A., KUZNETSOV, YU.I.

COUNTRY OF INFO--USSR

SOURCE--KHIM. PROM. (MOSCOW) 1970, 46(3), 167-9

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--DEHYDRATION, BUTYRIC ACID, HYDROXYL RADICAL, INTEGRAL EQUATION, MATHEMATIC MODEL, CATALYST, METHACRYLIC ACID

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/0815 STEP NO--UR/0064/70/046/003/0167/0169

CIRC ACCESSION NO--AP0124482

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

2/2 014 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0124482

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A KINETIC MODEL, WHICH AEQUATELY DESCRIBED THE DEHYDRATION OF ME SUB2 C(OH)CO SUB2 H TO CH SUB2:CMECO SUB2 H OVER A CA SUB3(PO SUB4)SUB2 CATALYST, IS DEVELOPED BY TREATING EXPTL. DATA ANAL. THE MODEL IS DESCRIBED IN TERMS OF 3 INTEGRAL EQUATIONS AND ACCOUNTS WELL FOR THE DECREASE IS CATLYST REACTIVITY AS A FUNCTION OF TIME.

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SO: JPRS 59940
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Accelerometers

Kuznetsov, Yu. I.

Pulkovskaya

UDC 62-358

A DIFFERENTIATING LINEAR ACCELEROMETER

[Article by V. M. Sobolin and Yu. I. Kuznetsov, Perm Polytechnical Institute; Leningrad; Izvestiya vuzov Priborostroyeniye, Russian, No 5, 1973, recommended by the Chair of Gyroscopic and Navigation Instruments, submitted 26 November 1972, pp 95-100]

In this article a diagram of an accelerometer is considered, which makes it possible to obtain the first derivative of the linear acceleration by direct measurement. The operating principle of the instrument is demonstrated. Differential equations of motion and transfer functions of the instrument are obtained, which may be used in the selection of its parameters.

In a number of cases in stabilization and control systems, and also in dynamic investigations of the behavior of an object, an instrument transmitting a signal that is proportional to the first derivative of the linear acceleration is needed. In particular, a need for such an instrument arises in the formation of controlling signals in gyrocompasses with electromagnetic control [1]. The instrument under consideration [1], aside from transmitting an acceleration signal, also transmits the signal of the first derivative of linear acceleration.

The accelerometer (Figure 1) contains a casing 1 filled with a fluid. The inertial body 2, in which are located the windings 3 of the power magnetoelectric converter and the moving part 9 of the inductive transfer converter are placed, is connected with the casing 1 by elastic elements 8. The fixed part 10 of the inductive transfer converter is fastened in the casing of the instrument. At the end of the inertial body 2 cylindrical recesses are made, in which the pole ends 4 are placed and also the magnets 5 of the magnetic system of the power magnetoelectric converter.

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USSR UDC 533.92:621.039.61

VASIL'YEV, M. P., KUZNETSOV, Yu. K., PAVLICHENKO, O. S., STARIKOV, V. N.

"Effect of the Degree of Homogeneity of a Magnetic Field on the Radiation From a Plasma of Harmonics of Electron Cyclotron Frequency"

Fiz. plazmy i probl. upravl. termoyader. sinteza. Resp. mezhved. sb. (Plasma Physics and Problems of the Controlled Thermonuclear Fusion. Republic Interdepartmental Collection), 1972, No 3, pp 53-66 (from RZh-Fizika, No 11, Nov 72, Abstract No 11G283)

Translation: The results of a study of the spectrum and intensity of the radiation, in the harmonics of an electron cyclotron frequency, from a negative discharge plasma column are presented. It was observed that intense radiation of the cyclotron harmonics, the spectrum of which consists of several narrow lines, arises upon achieving a very high degree of magnetic field homogeneity.

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SPRS 5906

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XIV-7. EFFECT OF SUBSTRATE DEFECTS ON THE STRUCTURE OF EPITAXIAL LAYERS OF GALLIUM ARSENIDE OBTAINED BY VARIOUS METHODS

[Article by T. I. Markova, Yu. N. Ruzmetov, F. S. Khachikov, Novosibirsk, III Simposium po Protsessam Rosta i Sintezu Poluprovodnikovykh Kristallov i Plenok, Russian, 12-17 June 1972, p 199]

The methods of optical, infrared and electron microscopy were used to study the interrelation of the defects in the substrate and the epitaxial layers of gallium arsenide obtained by the methods of chloride and liquid epitaxy. Defects (scratches, chips and dislocations with density greater than 10^{4} cm^{-2}) were introduced into the initial substrates intentionally, and the effect of the defects introduced into the substrates on the structural perfection of the epitaxial layers was traced. It was demonstrated that in the epitaxial layers obtained by the method of chloride epitaxy, high density of the growth defects was detected (10^{7}/cm^{2}) and high density of the packing defects was obtained (10^{3}/cm^{-1}); in individual sections the defect density was so high that the epitaxial layer became polycrystalline. The method of transmission electron microscopy was used to determine the type of packing defects, and it was demonstrated that the "subtraction" packing defects are observed.

In the epitaxial layers obtained by liquid epitaxy, microseparations were observed (greater than 10 microns) which apparently are regions absorbed by gallium. In these structures no increased defect density caused by the introduced defects in the substrate are observed. The absence of defects probably arises from the fact that at the initial point in epitaxial growth, solution of the substrate material by the liquid gallium takes place to a depth exceeding the depth of the disturbed layer.

Under analogous conditions, the growth of epitaxial layers was carried out on the surface of substrates with which the chemical polishing did not remove the defects caused by machining. In this case, in the layers obtained by chloride method, no increased growth defect density or packing density was observed. In the structures obtained by the method of liquid epitaxy, the regions enriched in gallium are retained.

KUZNETSOV, Yu. N.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

AA0044781

UR 0482

Soviet Inventions Illustrated, Section II Electrical, Derwent,

2/70

243229 AUTOMATIC HARDNESS TESTER was put forward in No. 191864 for the automatic rejection of parts according to the size of the impression representing hardness. The proposed device presents complete automation of the system, including electrical tracking drive to the photo-sensors measuring the size of the impression, and associated operations such as applying and removing the load. The diagram shows the optical screen on to which a sharp image of the indentation made by the probe is projected and magnified. Over the screen travel two

AUTHORS: Kuznetsov, Yu. N.; Vorob'yev, B. A.

Spetsial'noye Konstruktorskoye Byuro po Razrabotke Avtomaticheskikh Sredstv Izmereniya Mass i Priborov Ispytatel'noy Tekhniki

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19771590

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AA0044781

photo-resistor sensors 10, sliding in mutually perpendicular guideways and propelled by electric motor drive. The sensor design is such that it will deliver the required stop signal on reaching the edge of the impression. Its travel is recorded by distance sensor 9. These travelling elements are made to move over the circular

impression from one rim to the other and record, with suitable electric circuitry, its diameter. 29.6.67 as 1168127/25-28 Add to 191864. TU.N. KUZNETSOV & B.A.VOROB'EV. MEASURING & TESTING DEVELOPMENT BUREAU. (23.9.69) Bul 16/5.5.69. Class 42k. Int.Cl. G 01n.

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19771591

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

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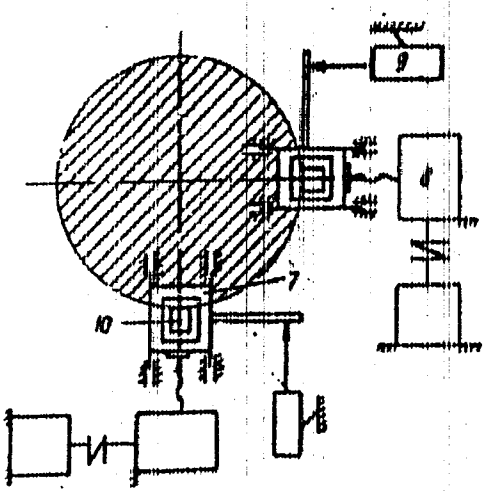

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR UDC: 681.333

KUZNETSOV, Yu. P., KOZYULIN, E. S., Moscow "Order of Lenin" Power Engineering Institute, and the All-Union State Design and Planning Scientific Research Institute "Energoset'proyekt"

"A Device for Modeling Electric Systems"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obrazcy, Tovarnyye Znaki, No 5, Feb 73, Author's Certificate No 364949, Division G, filed 31 May 71, published 28 Dec 72, p 143

Translation: This Author's Certificate introduces a device for modeling electric systems which contains a single-phase model of an AC network, a filter for the fundamental harmonic and tracking current source-amplifier, a converter which changes single-phase voltage to symmetric three-phase voltage, whose outputs are connected to a three-phase model of a rectifier (inverter) transformer and, through a controlled diode model, to a model of a DC line. As a distinguishing feature of the patent, the class of problems which can be solved is extended and experimental accuracy is improved by connecting the model of the rectifier (inverter) transformer to the input of the filter for the fundamental harmonic, whose output is connected to the

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR

KUZNETSOV, Yu. P., KOZYULIN, E. S., USSR Author's Certificate No 364949

input of the tracking current source-amplifier, which is connected by its output to the single-phase model of an AC network and to the converter which changes single-phase voltage to symmetric three-phase voltage.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR UDC: 621.396.946

KUZNETSOV, Yu. P.

"On Signals of Extraterrestrial Civilizations"

Tr. Mosk. in-ta radiotekhn. elektron. i avtomatiki (Works of the Moscow Institute of Radio Engineering, Electronics and Automation), 1970, vyp. 40, pp 85-95 (from RZh-Radiotekhnika, No 1, Jan 71, Abstract No 1A213)

Translation: Hypotheses are presented on the nature of the possible signals from extraterrestrial civilizations. Since the correspondent cannot know the parameters of the signal being received, the signal structure must ensure adequate ease for establishing an artificial origin and for signal decoding. From the viewpoint of signal decoding and understanding messages, it is preferable to transmit visual images with scanning by signal parameters. Use of the radio band is most probable; therefore the possibility of signal reception from extraterrestrial civilizations should be taken into account when developing radio astronomical equipment. Existing facilities do not allow for such reception. Two illustrations. Bibliography of five titles. N. S.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UDC: 66.074.7:546.432:541.46

USSR

[redacted], YELIZAROVA, A. N., LISITSYN, A. P., FAYZULLIN, F. Z.

"Concerning the Part Played by Ion Exchange in Precipitation of Radium From Sea Water"

Leningrad, Radiokhimiya, Vol 14, No 3, 1972, pp 441-446

Abstract: An investigation was undertaken to determine the extent to which ion exchange is responsible for the accumulation of ^{226}Ra in sediment. Simultaneous direct determinations were made of the absolute concentrations of ^{226}Ra in samples of bottom sediments taken from the Southern and Central sections of the Indian Ocean and from the equatorial section of the Pacific Ocean. The cation-exchange capacity of the same specimens was determined by two independant methods. Analysis of the results shows a direct relationship between cation-exchange capacity of ocean sediments and the ^{226}Ra concentration in these sediments.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR

UDC 621.317.341

KUZNETSOV, YU. V.

"Measuring the Load Voltage Standing Wave Ratio in a Broad Frequency Range by the Frequency Variation Method"

Tr. Leningr. in-ta tochnoy mekh. i optiki (Works of the Leningrad Institute of Precision Mechanics and Optics), 1970, vyp. 69, pp 108-111 (from RZh-Radiotekhnika, No 4, Apr 71, Abstract No 4A308)

Translation: The deficiencies of the measuring line method used for experimental study of wide-band loads are noted. The frequency variation method presents the possibility of creating a device permitting visual observation of the matching characteristics in the entire operating frequency band. The essence of this method consists in the fact that when measuring the voltage standing wave ratio the phase of the field under the measuring probe is varied by smooth rocking of the oscillator frequency which is equivalent to smooth variation of the electric length of the line with constant physical length of it. The procedure for measuring the voltage standing wave ratio is described, and the experimental results regarding errors are presented.

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AP0015402 CHEMICAL ABST. 1-70 URC 115

13312q Measurement of the permittivity of films. Kuznetsov, Yu. V. (USSR). *Izmer. Tekh.* 1969, (8), 56-8 (Russ). This paper was developed for detg. permittivity (ε) of thin polymeric films. The proposed method consists of positioning the film surface in the direction parallel to the direction of the applied electromagnetic sinusoidal field. Thus only the length and not the thickness of the sample limit the detn. accuracy. First the wavelength of a stationary electromagnetic field in the absence of a sample is detd. with an oscillograph. Second a film is inserted and the wavelength detd. again. From the values of these wavelengths ε is calcd. Exptl. detn. of ε values of polyethylene, poly(Me methacrylate), or Getinaks (insulation, paper dipped in phenol-aldehyde resin and cured by compression) by the method gave good agreement with other methods. CPJR

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR UDC 546.776'21'131:04+546.786'21'131.04

PODZOLKO, Yu. G., KUZNETSOVA, A. A., YANKINA, L. F., and KUSLAYEV, Yu. A., Institute of General and Inorganic Chemistry imeni N. S. Kurnakov, Academy of Sciences USSR

"Interaction of the Oxochlorides of Molybdenum (VI) and Tungsten (VI) with Methylphosphonic Acid"

Moscow, Zhurnal Neorganicheskoy Khimii, Vol 18, No 5, May 73, pp 1255-1259

Abstract: By the interaction of MoO_2Cl_2 and WO_2Cl_2 with methylphosphonic acid $MeP(O)(OH)_2$, compounds with the composition $MO_2ClOP(O)(Me)OH$ (I), $MO_2/OP(O)(Me)OH/_2$ (II), and $MO_2O_2P(O)(Me)$ (III) were prepared, where M = Mo, W. Pyrolysis of the acidic salts II at 200° led to the pyrosalts $MO_2/OP(O)(Me)/_2O$ (IV). IR spectroscopy indicated that II and III were polymers with .... MOMOM .... linkages, similarly to the initial oxochlorides, while IV contained isolated MO groups and also POP groups that were absent in II and III. III and IV apparently contained phosphonate links. Structural formulas for II, III, and IV are proposed (figure).

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

Inorganic Compounds

UDC 546.776-386.03

USSR

LARIN, G. M., KUZNETSOVA, A. A., YANKINA, L. F., and BUSLAYEV, YU. A., Institute of General and Inorganic Chemistry imeni N. S. Kurnakov, Academy of Sciences USSR

"Structural Studies of the Oxomolybdenum (V) Phosphinate Complexes by the EPR Method"

Moscow, Zhurnal Neorganicheskoy Khimii, Vol 18, No 7, Jul 73, pp 1819-1823

Abstract: The structures of oxomolybdenum (V) phosphinate complexes $MoO(DPP)_3$, $MoOCl(DPP)_2$ and $MoCl_2DPP$, where DPP = $Ph_2 \cdot P(O)O^-$ were studied in benzene, chloroform and methylene chloride solutions. The g-factors were determined for these complexes. It has been shown that these complexes have a very labile equilibrium. Addition of HCl to the solution of $MoO(DPP)_3$ shifts the equilibrium towards the formation of chlorine containing complexes, all the way to the formation of $MoOCl_4^-$. Dissolving the complex $MoOCl(DPP)_2$ in chloroform is accompanied by the formation of several complexes due to redistribution of the ligands, among which the $MoO(DPP)_3$ and $MoOCl_2DPP$ are the most stable ones.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR

UDC [illegible]

BUSLAYEV, Yu. A., [illegible], A. A., [illegible], L. P., and [illegible], I. A., Institute of General and Inorganic Chemistry imeni N. S. Kurnakov, Academy of Sciences USSR

"Polyphosphinates of Oxomolybdenum (V)"

Moscow, Zhurnal Neorganicheskoy Khimii, Vol 17, No 2, Feb 72, pp [illegible]

Abstract: Upon reaction of MoOCl, with dipenylphosphinic acid [illegible], polyphosphinates of oxomolybdenum with the composition $MoOCl_3$. [illegible] and $MoOCl(PO_3Ph_2)_2$ (II) formed, which had the structure of polymers with phosphinate bridges and isolated molybdenum-oxygen bonds. On reaction with [illegible], I and II were converted into the dimeomolybdenum phosphinate $MoO_2(PO_3Ph_2)$(III). I reacted with EtOH more readily than II. With an increasing degree of replacement of phosphinate groups with Cl atoms (I vs. II) and of Cl with O atoms (III vs. I), the degree of polymerization of the phosphinate in $HCCl_3$ solutions increased.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

1/2 009 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--POLYSILOXANES -U-

AUTHOR-(05)-SOBOLEVSKIY, M.V., NAZAROVA, D.V., VORONAYEVA, G.V., KUZNETSOVA, A.A., GALASHINA, M.L.

COUNTRY OF INFO--USSR

SOURCE--U.S.S.R. 265,445

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

DATE PUBLISHED--09MAR70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--POLYSILOXANE, CHEMICAL PATENT, ORGANIC SULFUR COMPOUND, ORGANIC SILANE, ORGANIC SYNTHESIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3002/1418 STEP NO--UR/0482/70/000/000/0000/0000

CIRC ACCESSION NO--AA0128817

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

2/2 009 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AA0128817

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. POLYSILOXANES WITH BOTH THIENYL AND ALKOXY GROUPS ARE PREPD. BY HYDROLYSIS OF ORGANOCHLOROSILANES OF FORMULA RSICL SUB3, WHERE R EQUALS THIENYL, HALOTHIENYL, METHYLTHIENYL, OR ITS MIXT. WITH DI OR TRIFUNCTIONAL CHLOROSILANES, WITH A MIXT. OF H SUB2 O AND ETOH IN THE PRESENCE OF AN ORG. SOLVENT.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

1/2 026 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--REACTION OF MOLYBDENUM (V) OXOTRICHLORIDE WITH SOME ALIPHATIC AMINES -U-

AUTHOR-(03)-KUZNETSOVA, A.A., GORYACHOVA, L.F., BUSLAYEV, YU.A.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, SER. KHIM. 1970, (3), 509-13

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--MOLYBDENUM COMPOUND, CHLORIDE, ALIPHATIC AMINE, COMPLEX COMPOUND, SOLVENT ACTION, POLYMER, PYROLYSIS, THERMAL DECOMPOSITION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1999/1976 STEP NO--UR/0062/70/000/003/0509/0513

CIRC ACCESSION NO--AP0123757

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

2/2 026 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0123757

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. REACTION OF MOOCL SUB3 WITH R SUB3 N, WHERE R IS H, ME, OR ET, INVOLVES, IN THE CASE OF PRIMARY AND SECONDARY AMINES, A SOLVOLYSIS REACTION AT THE MO-CL BOND, WHILE TERTIARY AMINES GAVE 1:1 COMPLEXES. THE IR SPECTRA OF THE REACTION PRODUCTS WITH RNH SUB2 AND R SUB2 NH SHOWED THESE TO BE POLYMERIC WITH MOOMOO CHAINS. PYROLYSIS OF ALL THE PRODUCTS AT 500-600DEGREES GAVE MOO SUB2 IN VACUO OR UNDER INERT ATM. THE FOLLOWING WERE ISOLATED: MOOCL SUB2 NHET, BLACK SOLID; MEOCL SUB2 NME SUB2, A SOLID; MOOCL(NET SUB2) SUB2, A SOLID; MOOCL SUB3.NME SUB3, YELLOW SOLID; MOOCL SUB3.ET SUB3 N, YELLOW. IN AIR ALL THESE COMPDS. DECOMPD. AT 300-400DEGREES TO MO OXIDE. FACILITY: INST. OBSHCH. NEORG. KHIM. IM. KURNAKOVA, MOSCOW, USSR.

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APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

1/3 027 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--TUNGSTEN ANALOG OF PHOSPHONITRILE CHLORIDE AND SOME OF ITS PROPERTIES -U-

AUTHOR-(04)-KUZNETSOVA, A.A., BUSLAYEV, YU.A., GORVACHOVA, L.F., PODIOLKO, YU.G.

COUNTRY OF INFO--USSR

SOURCE--IZ. AKAD. NAUK SSSR, SER. KHIM. 1970, (2), 463-5

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--TUNGSTEN, CHLORIDE, IR SPECTRUM, PHOSPHONITRILE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/1500 STEP NO--UR/0062/70/000/002/0463/0465

CIRC ACCESSION NO--AP0120284

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

2/3 027 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0120284

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A 1:3 MIXT. OF WCL SUB5 AND NH SUB4 CL IN A QUARTZ TUBE CONNECTED TO AN ABSORBER WITH METHYL RED SOLN. FOR DETECTION OF HCL AND KI SOLN. FOR DETECTION OF ANY CL, WAS COVERED WITH EXCESS NH SUB4 CL AND THE MIXT. UNDER AR ATM. WAS SLOWLY HEATED TO 180DEGREES, WHEN HCL FORMATION BEGAN. WHEN THE MIXT. BECAME DARK BROWN, IT WAS HEATED TO 250DEGREES TO EXPEL NH SUB4 CL, LEAVING BEHIND WNCL SUB2, BROWN SOLID, INSOL. IN ALL ORG. SOLVENTS. IT GAVE AN IR BAND AT 500-1000 CM PRIME NEGATIVE1 CAUSED BY W-N VIBRATIONS IN A NWNW CHAIN. HEATED IN AIR IT DECOMPD. AT 340DEGREES WITH SUBSEQUENT OXIDN. TO WO SUB3. PYROLYSIS IN AR ATM. BEGAN AT 450DEGREES. THE THERMAL STABILITY OF WNCL SUB2 WAS SIMILAR TO ITS NB ANALOG. TREATED WITH H SUB2 O THE SUBSTANCE IN POWD. FORM HYDROLYZED EVEN AT ROOM TEMP. AT W-CL BONDS AND GAVE WN(OH) SUB2.2H SUB2 O. NO NOTICEABLE REACTION WITH ETOH TOOK PLACE AT ROOM TEMP. BUT ON HEATING A GREY BLUE COLOR DEVELOPED AS A RESULT OF FORMATION OF WN(OE) SUB2. LIQ. NH SUB3 USED IN CONTINUOUS EXTN. OF WNCL SUB2 FOR 1 HR GAVE WN(NH SUB2) CL.NH SUB3, BROWN SOLID, INSOL. IN USUAL SOLVENTS, AND WITH IR SPECTRUM CONTG. BANDS AT 1289 CM PRIME NEGATIVE1 AND 1600 CM PRIME NEGATIVE1 FROM DEFORMATION OF COMPLEXED HN SUB3, AS WELL AS 500-1000 CM PRIME NEGATIVE1 BAND OF THE W-N BOND VIBRATIONS. WNCL SUB2 AND ET SUB2 NH IN CHCL SUB3 REACTED READILY AND GAVE WN(NET SUB2) CL, ALSO INSOL. AND WITH A WIDE BAND IN 500-1000 CM PRIME NEGATIVE1 REGION IN ITS IR SPECTRUM.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

3/3 027 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0120284

ABSTRACT/EXTRACT--WN-(NH SUB2) CL.NH SUB3 AND WN(NET SUB2) CL WERE RATHER STABLE IN TERMS OF HYDROLYSIS IN CONTACT WITH AIR BUT IN H SUB2 O THEY HYDROLYZED RAPIDLY TO WN(OH) SUB2.4 SUB2 O; ETOH SIMILARLY GAVE WN(OET) SUB2. FACILITY: INST. OBSCH. NEORG. KHIM. IM. KURNAKOVA, MOSCOW, USSR.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR UDC 546.78 + 546.131

KUZNETSOVA, ~~A.~~ A., BUSLAYEV, YU. A., GORYACHOVA, L. F., and PODZOLKO, YU. G., Institute of General and Inorganic Chemistry imeni N. S. Kurnakov, Academy of Sciences USSR

"Tungsten Analog of Phosphonitrile Chloride and Some of Its Properties"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, No 2, Feb 70, pp 463-465

Abstract: The authors undertook to synthesize the tungsten analog of phosphonitrile chloride and to study reactions of this compound with diethylamine, liquid ammonia, water and ethanol. The procedure used for the synthesis of tungsten nitrile chloride was similar to that used previously for the preparation of $NbNCl_2$ and $TaNCl_2$. The resultant tungsten analog was of the composition $WNCl_2$. The IR spectrum of $WNCl_2$ reveals a wide absorption band in the 1000-500 cm^{-1} region, indicating the presence of "endless" chains -WNWNWN- in the compound. A

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR

KUZNETSOVA, A. A., et al., Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, No 2, Feb 70, pp 463-465

study of the pyrolysis of $WNCl_2$ showed that the compound is stable to 340° in air and to 450° in an argon atmosphere. A study of reactions of $WNCl_2$ with liquid ammonia, diethylamine, ethanol and water showed that, like phosphonitrile chloride, the compound readily undergoes solvolysis with displacement of the chlorine atom by various groups. There are no changes in the tungsten-nitrogen bridge bonds.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

1/2 012 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--SYNTHESIS OF 1,5,DIALKOXY,1,3,5,TRIMETHYL,1,3,5,TRIPHENYLTRISILOXANES -U-

AUTHOR-(03)-KUZNETSOVA, A.G., IVANOV, V.I., GOLUBTSOV, S.A.

COUNTRY OF INFO--USSR

K

SOURCE--ZH. OBSHCH. KHIM. 1970, 40(3), 706

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--SILOXANE, ORGANIC SYNTHESIS, AZEOTROPE, CATALYST, BENZENE DERIVATIVE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/0867 STEP NO--UR/0079/70/040/003/0706/0706

CIRC ACCESSION NO--AP0124530

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

2/2 012 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0124530

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CYCLO,(MEPHSIO) SUB3 (I) IS CONVERTED VERY RAPIDLY IN ALC. INTO A 1:1 ADDUCT OF TYPE RO(MEPHSIO) SUB3 R AND H SUB2 O; CLEAVAGE OF THIS ADDUCT WITH 2 MOLES ROH TO A DISPERSED MIXT. OF RO(MEPHSIO) SUB2 R AND ITS ANALOGS TAKES PLACE MANY HUNDREDS OF TIMES MORE SLOWLY. THIS MADE POSSIBLE A DIRECT SYNTHESIS OF THE FORMER PRODUCTS AS LONG AS H SUB2 O IS DIRECTLY REMOVED FROM THE SITE, BEST AS AN AZEOTROPE WITH ROH OR ROH AND C SUB6 H SUB6. THUS, 40.9 G I AND 35 ML ABS. ETOH HEATED WITH 25 ML C SUB6 H SUB6 AND 0.01-02 ML CONCD. HCLO SUB4 CATALYST (HCL OR ALUMINOSILICATE MAY BE USED ALSO) SO AS TO EFFECT CONTINUOUS DISTN. OF THE AZEOTROPE CONTG. H SUB2 O GAVE 60-75PERCENT ETO(MEPHSIO) SUB3 ET, B SUB1. 179-80DEGREES, D PRIME20 1.0583, N PRIME20 SUBD 1.5150; SIMILARLY WERE PREPD.: 75-86PERCENT PRO(MEPHSIO) SUB3 PR, B SUB1-2 191-6DEGREES, 1.0430, 1.5121; 75-85PERCENT ISO-PRO(MEPHSIO) SUB3 CHME SUB2, B SUB1 179-80DEGREES, 1.0384, 1.5089; 75-85PERCENT BUO(MEPHSIO) SUB3 BU, B SUB1 206-8DEGREES, 1.0294, 1.5080; 75-85PERCENT ISO-BUO(MEPHSIO) SUB3 CH SUB2 CHME SUB2, B SUB1-2 192-4DEGREES, 1.0237, 1.5079; AND 80-90PERCENT MEETCHO(MEPHSIO) SUB3 CHMEET, B SUB1-2 188-94DEGREES, 1.0287, 1.5080.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

Burn Studies

USSR UDC 617-001.17-06:616-008.939.6-085.355:577.196.014

DOLGINA, M. I., PANOVA, Yu. M., ZAYETS, T. L., and KUZNETSOVA, A. N., Institute of Surgery im. A. V. Vishnevskiy, Academy of Medical Sciences USSR, Moscow

"Ways of Slowing Protein Catabolism in Burns"

Moscow, Sovetskaya Meditsina, No 1, 1973, pp 33-36

Abstract: Contrical, an East German drug known to inhibit trypsin, chymotrypsin, plasmin, and kallidinogenase, was administered to 28 patients with extensive thermal burns, all of whom were suffering from hypoproteinemia, hypoalbuminemia, and elevated globulin levels at the initiation of contrical treatment. The drug prevented the continued decrease in serum proteins, especially albumins, characteristic of the early period of burns. Two to 3 days after the burn the activity of the proteolytic enzymes increased markedly along with the development of hypo- and dysprotinemia. Contrical was suspended after 7 days but proteolytic activity began to decrease and continued to do so for 7 more days. At this time the patients exhibited a tendency toward hyperexcretion of nitrogen (urea nitrogen) and sharp increase in excretion of creatine. Thus, contrical would seem to be efficacious in inhibiting the breakdown of tissue and serum proteins that normally occurs in burns.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR UDC 669.28'295:620.17

VITORSKIY, Ya. M., GAL'CHINSKIY, F. K., KAVERINA, S. N., KIZIMESOVA, A. S., MAT'YASH, V. A., SOGRISHIN, Yu. P., and TKACHENKO, V. G., Institute of Metal Physics, Academy of Sciences UKr SSR

"Effects of the Rate and Temperature of Straining on the Structure and Properties of the Alloy Mo-0.5% Ti"

Moscow, Metallovedeniye, No 6, 1971, pp 50-53

Abstract: Effects of the rate and temperature of straining on the structure and properties of the molybdenum alloy Mo-0.5% Ti were investigated on specimens strained at speeds of 0.2,5.0, and 20 m/sec on the K862B hot stamping press (630 tons), the M211 exhaust stamping hammer, and the IM-39 high-frequency unit, respectively. The investigation results demonstrate a high plasticity of the alloy Mo-0.5% Ti both in the recrystallized and strained conditions. A high-rate straining significantly increases the plasticity in the working process. Macrostructures of specimens upset at 600-1200°C at high and low speeds show deadlocks. Sectional hardness changes of specimens upset with 70% of strain by 900°C were by 0.2 m/sec strain rate HV 195-266 and by 20 m/sec strain rate HV 212-333. For an optimum strength and plasticity correlation, a cellular structure must be produced in the ingot with not less than 70% of strain at a temperature which is lower than the recrystallization temperature under conditions excluding a heat effect. Six figures, one table, six bibliographic references.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

Acc. Nr: AP0047159 Ref. Code: UR 0246

PRIMARY SOURCE: Zhurnal Nevropatologii i Psikhiatrii, 1970, Vol 70, Nr 2, pp 195-199

THE DIAGNOSTIC SIGNIFICANCE OF THE DEFECT IN THE VISUAL FIELD IN HEMORRHAGES INTO THE SUBARACHNOID SPACE

A. S. Kuznetsova

Among the 630 patients with hemorrhages into the subarachnoid space 14 patients displayed stable changes in the visual field, which constituted 2.2% of the cases. In 11 of the 14 cases there was homonymous hemianopsia which developed in hemorrhages from different vascular areas. A more certain localization of the source of hemorrhages in such cases must be established with the consideration of the focal symptomatology in each individual case. It is the authores experience that a combination of homonymous hemianopsia with paresis of the oculomotor nerve is characteristic for hemorrhages from the supraclinoid aneurysm of the internal carotid artery. In combinations with aphathic disorders it may be assumed that the hemorrhage occurred from the radicle branches of middle cerebral artery. In an isolated hemianopsia without affections of the cranial nerve innervation and hemiparesis, or combinations with cerebellar changes, the foci of hemorrhages are located in the area of the posterior cerebral artery. A full loss of sight in the acute period of the disease is unfavorable in relation to restitution of sight and most likely is conditioned by hemorrhages from the anterior connective artery.

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REEL/FRAME
19790653

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

1/2 016 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--DETERMINATION OF OXYGEN IN OXIDES OF PERIOD IV METALS -U-

AUTHOR-(02)-KUZNETSOVA, A.S., MALAKHOV, V.V.

K

COUNTRY OF INFO--USSR

SOURCE--ZAVOD. LAB. 1970, 36(1), 11-12

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--METAL OXIDE, OXYGEN, CHEMICAL ANALYSIS, TIN COMPOUND, LEAD COMPOUND, COBALT COMPOUND, CADMIUM COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1993/0303 STEP NO--UR/0032/70/036/001/0011/0012

CIRC ACCESSION NO--AP0113233

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

2/2 016 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0113233

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A RAPID SULFIDATION REACTION IN A S MELT IS DESCRIBED FOR DETN. OF O IN OXIDES OF PERIOD IV METALS. SAMPLE SIZE IS 100-150 MG, REACTION TERMINATES AFTER 30-40 MIN AT 300-600DEGREES WITH AR FLOW AT 0.5 1.-MIN. O IS DETD. IODIMETRICALLY. THE METHOD WAS USED TO DET. PERIOD IV METAL OXIDES IN SN, PB, CO, AND CD OXIDES, NI AND FE MOLYBDATES, AND FE ANTIMONATE WITH 0.5-1.0PERCENT RELATIVE ERROR.

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APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

Epidemiology

USSR

PISKAREVA, N. A., KUZNETSOVA, E. Ye., POPOVA, R. P., and PRATUSEVICH, R. M.,
Leningrad Scientific Research Institute of Childrens Infections

"Acute Febrile Diseases in Children Caused by Mixed Enterovirus and Adenovirus Infection"

Moscow, Voprosy Virusologii, No 5, 1971, pp 624-625

Abstract: Hospitalized children convalescing from dysentery (Sh. sonnei) developed a disease of focal character. Virological and serological studies revealed the participation of two viral agents -- adenovirus and ECHO-1 virus. The clinical picture included the syndrome of serous meningitis in some cases and symptoms of respiratory infection in others. In some children, it was impossible to tell from the clinical symptoms which pathogen was more significant. In a few cases, the viral infection exacerbated the dysentery. Thus, an isolated group of children recovering from dysentery (Sh. sonnei) experienced an outbreak of diseases with heterogeneous clinical symptoms caused by ECHO-1 virus and adenovirus type 3.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR

PISKAREVA, N. A., KUZNETSOVA, E. Ye., POPOVA, R. P., BRODOVA, M. D., TRUSHINSKAYA, E. P., and YAKIMANSKAYA, K. I., Leningrad Scientific Research Institute of Childrens Infections

"Virological, Clinical and Immunological Characterization of Hong Kong A2 Influenza in Children"

Moscow, Voprosy Virusologii, No 4, Jul/Aug 71, p 492

Translation: The 1969 influenza outbreak in Leningrad was caused by a new antigenic strain of influenza virus of sero type A2 (Hong Kong). During the outbreak, tests were performed on chick embryos infected with materials collected from 53 patients with sporadic forms of the disease, with eight samples collected from foci, and with 10 samples collected from children who had died of influenza. Twenty-three hemagglutinating agents were isolated and identified as A2 Hong Kong influenza viruses. All strains were sensitive to inhibitors. Serological investigation of paired sera of 388 persons revealed that specific immunological shifts took place in children fairly early. Positive shifts occurred in 40.2% of children aged up to 1 year, which considerably exceeded analogous shifts in a similar group of children in previous years. The express method of immunofluorescent analysis of nose and throat smears yielded positive

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR

PISKAREVA, N. A., et al, Voprosy Virusologii, No 4, Jul/Aug 71, p 492

results in 104 out of 165 ill children (63%). Combined positive results by the express method and by the serological method were obtained in about 83% of the total number of individuals examined during the influenza outbreak.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR

UDC: 536.24

RUBTSOV, N. A., KUZNETSOVA, E. A., Novosibirsk

"Radiative-Conductive Heat Exchange in a Plane Layer of a Selectively Absorbing Medium"

Moscow, Izv. AN SSSR: Energetika i Transport, No 3, May/Jun 72, pp 161-164

Abstract: An approach is considered for formulating problems of one-dimensional radiative-conductive heat exchange in a selectively absorbing medium. It is shown that the Newton method can be used for computer solution of heat-transfer problems of this type over a wide range of layer thicknesses and Stark numbers. Numerical data are presented for such problems in carbon dioxide and methyl methacrylate. It is found that the temperature field in a layer of carbon dioxide (a medium with a broad transmission spectrum) is qualitatively similar to that in a gray medium. When the transmission region is spectrally localized (as in methyl methacrylate), the temperature distribution in the layer is appreciably dependent on the temperature level of the heating surface.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR

UDC: 621.396.6

FEL'DMAN, N. B., TYULYAYEVA, N. G., ZIVZAKH, R. M., KUZNETSOVA, G. A.

"Effect Which Grain Orientation has on the Parameters of TsTS-22 Piezoceramic"

Elektron. tekhnika. Nauch.-tekhn. sb. Radiokomponenty (Electronic Technology. Scientific and Technical Collection. Radio Components), 1970, vyp. 5, pp 96-99 (from RZh-Radiotekhnika, No 5, May 71, Abstract No 5V387)

Translation: The authors study the effect of TsTS-22 ceramic grain size on fundamental parameters and the temperature coefficient of the resonance frequency. It is shown that an increase in grain size entails an increase in the permittivity and piezoelectric activity of the ceramic.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

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Acc. Nr.: AP0029510 K Ref. Code: UR 0240

PRIMARY SOURCE: Gigiyena i Sanitariya, 1970, Nr 1, pp 61-66

FEATURES TO PECULIAR GLOBAL CESIUM-137 AND STRONTIUM-90 REACHING THE POPULATION OF POLECIA BY DIFFERENT FOOD SUPPLY ROUTES

A. N. Marey, R. M. Barkhudarov, V. K. Chumak, E. V. Petukhova, E. B. Tyuryukanova, G. A. Kuznetsova, N. Va. Novikova, S. B. Pozhivilova, G. A. Bogdanovich

The paper presents investigation data on the order of passage of abovementioned isotopes from the soil into food products with due regard for the soil nature and the accumulation of isotopes in the human body. The finding was that the extent of the passage of cesium-137 from the soil into food products fluctuated considerabley and depended on the type of soil. Thus, in a soil consisting mainly of a sand fraction the passage of cesium-137 was more pronounced. Similar observation were made in respect to all of the objects examined. However, no differences in the migration of strontium-90 could be detected. Due to the high passage of cesium-137 into food products its content in the human body was high as well.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

1/2 027 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--REMOVAL OF IMPURITIES FROM A LEAD SULFAMATE ELECTROLYTE -U-

AUTHOR--KUZNETSOVA, G.A.

KUZNETSOVA, G.A.

COUNTRY OF INFO--USSR

SOURCE--TSVET. METAL. 1970, 43(4), 48-50

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--ELECTROLYTE, HIGH PURITY METAL, ULTRAHIGH PURITY METAL, ELECTROLYSIS, ION EXCHANGE, EXTRACTIVE METALLURGY, LEAD ALLOY, SPONGE METAL, METAL IMPURITY, SILVER, COPPER, ARSENIC, ANTIMONY, INDIUM/(U)KAD GROUND ACTIVATED CARBON

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3005/0115 STEP NO--UR/0136/70/043/004/0048/0050

CIRC ACCESSION NO--AP0132408

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

2/2 027 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0132408

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SEVERAL WAYS OF REMOVING UNDESIRED ELEMENTS FROM SULFAMATE ELECTROLYTES PRIOR TO THEIR ELECTROLYSIS IN THE PRODUCTION OF HIGHLY PURE PB WERE EXAMD. THE ION EXCHANGE METHOD WAS NOT FEASIBLE, DUE TO LACK OF A SELECTIVE RESIN CAPABLE OF REMOVING THE CONTAMINATING IONS (SMALLER THAN 0.1 MG-L.) EFFECTIVELY AT VERY HIGH CONCNS. OF PB (120 GL.). WHEN THE SOLNS WERE CONTACTED WITH PB SPONGE (CEMENTATION METHOD) AT 35DEGREES FOR 1 HR, APPROX. 30PERCENT OF THE AG AND CU AND ONLY 10-20PERCENT OF THE AS AND SB WERE REMOVED. HOWEVER, PB CONTG. SIMILAR TO 1 TIMES 10 PRIME NEGATIVE5 PERCENT OF EACH OF THESE IMPURITIES COULD BE MADE FROM THUS PURIFIED SOLNS. BETTER RESULTS WERE OBTAINED BY METHODS BASED ON ADSORPTION OR HYDROLYSIS AND SUBSEQUENT ADSORPTION. GROUND ACTIVATED CARBON (TRADE NAME "KAD") WAS THE MOST EFFECTIVE ADSORBENT. EXTREMELY PURE PB (99.99997-99.99999PERCENT) WAS MADE FROM SULFAMATE SOLNS. WHOSE PH WAS FIRST ADJUSTED TO 4-5 BY ADDN. OF PBCO SUB3. THEN THE SOLNS WERE PURIFIED BY 2 STAGE COUNTERCURRENT CONTACT WITH ACTIVATED C (65 G-LL) AT 20-35DEGREES FOR 30 MIN. THE INITIAL AND FINAL CONCNS. (10 PRIME NEGATIVE3 MG-L.) OF THE CONTAMINANTS WERE: AG 72.5-0, CU 123.0-0.09, AS 49.8-0.5, SB 126.0-0.4, SN 176.0-5.5, AND IN 56.0-0.3, RESP.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR

UDC 591.18

MYSLOBODSKIY, M. S., and KUZNETSOVA, G. D., Institute of Higher Nervous Activity, Academy of Sciences USSR

"Degree of Indifference of a Conditioned Stimulus: Light Self-Stimulation"

Moscow, Doklady Akademii Nauk SSSR, No 4, 1971, pp 978-980

Abstract: Rats were placed in a chamber in one wall of which was a pedal that produced a flash of light when pressed. After a few attempts the animals repeatedly pressed the pedal from 20 to 150 times an hour and between flashes they would lie on or near the pedal. When the light was disconnected, the animals ceased to press the pedal and would occupy various parts of the chamber. Intraperitoneal injection of amphetamine sulfate stimulated the animals and at first resulted in their pressing the pedal somewhat less often than usual. But 5 to 20 minutes later the rate of self-stimulation increased sharply and sometimes 20 or more times greater than the original level. Thus light, like electric current, is not a neutral stimulus. In another series of experiments, rats were given the choice of two chambers in a labyrinth, one containing a blinking light. Most of the animals displayed a clear-cut preference for the illuminated chamber until the frequency of flashes was increased to 20 per sec, whereupon all the animals immediately left the chamber.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR

UDC 537.533:533.951.8

ASEYEV, G. G., KUZNETSOVA, G. G., REPALOV, N. S., KHIZHNYAK, N. A., Physical-Technical Institute, Academy of Sciences of the UkrSSR, Khar'kov

"Parametric Instability of an Electron Beam Modulated by an External Electrostatic Field"

Leningrad, Zhurnal Tekhnicheskoy Fiziki, Vol 42, No 11, Nov 72, pp 2264-2271

Abstract: The paper presents the results of experiments on studying the instability of an electron beam passing through a spatially periodic electric field. The conditions of existence of instability are experimentally determined. The increment of instability is measured together with its dependence on the electric field. The energy distributions of the electrons in the beam are measured in various operating modes. Some nonlinear limitations of stability are observed. The results agree with the theoretical model of parametric instability. The authors thank A. P. Vorobin for preparing the experiment and assisting with the measurements.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR

UDC 533.916

ASEYEV, G. G., KUZNETSOVA, G. G., REPALOV, N. S., SAMROKOV, B. G., KHIZHNYAK, N. A.

"Parametric Instability of an Electron Beam in a Spatially Periodic Electric Field"

Fiz. plazmy i probl. upravl. termoyader. sinteza. Resp. mezhved. sb. (Plasma Physics and Problems of the Controlled Thermonuclear Fusion. Republic Interdepartmental Collection), 1972, No. 3, pp 202-208 (from RZh-Fizika, No 11, Nov 72, Abstract No 11G248)

Translation: Experimental studies of parametric instability of an electron beam as it passes through a spatially periodic electric field are described. The functional relationship between the level of the high-frequency radiation and the accelerating voltage and the current of the gun and also the magnitude of the external electric field is investigated. It was established that these relationships have a resonance character. Theoretical and experimental results for the case of resonance at the second harmonic of the plasma frequency of the beam agree quite satisfactorily. The results are analyzed.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR

UDC 621.372.826:535

MOLODKIN, V. A., KUZNETSOVA, G. I.

"Dispersion Characteristics and Damping of the Natural Waves of Tubular Dielectric Wave Guides"

Tr. ucheb. in-tov svyazi. M-vo svvazi SSSR (Works of the Communication Training Institutes. USSR Ministry of Communications), 1971, vyp. 56, pp 183-186 (from RZh-Radiotekhnika, No 5, May 72, Abstract No 5B163)

Translation: An analysis was made of the dispersion characteristics and damping demonstrating the significant advantages of tubular filaments by comparison with the solid filaments ordinarily used in filament optics. There are 5 illustrations and a 3-entry bibliography.

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APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

Radiation Chemistry

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USSR

UDC 541.183.65:541.15

MAZINA, G. R., PANICH, R. M., USTINOVA, Z. M., VOYUTSKIY, S. S., FODIMAN, N. M., KRATSHEYN, P. N., and KUZNETSOVA, G. I., Moscow Institute of Fine Chemical Technology imeni M. V. Lomonosov

"Effect of Ionizing Radiation on the Properties of Fluorine-containing Copolymer Latex"

Moscow, Kolloidnyy Zhurnal, Vol 33, No 5, Sep-Oct 71, pp 690-692

Abstract: The effect of ionizing radiation on the properties of fluorine-containing copolymer latex was studied by using Co^{60} as a source, the radiation dose ranging from 0.25 to 50 Mrad. The pH of the irradiated copolymer latex became lower, as did the resistance to electrolytes. After irradiation the coagulation threshold of the latex was also lowered with simultaneous coagulation of globules and intraglobular crosslinking of the polymer. Increased radiation dose resulted in greater three-dimensional lattice density. Irradiation of the latex does not lead to formation of intraglobular chemical bonds and to better film formation.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

1/2 021 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--SOLUBILITY OF YTTRIUM ALUMINATES AND GALLATES CONTAINING NEODYMIUM IN PBF SUB2.1.17PBO.0.35B SUB2 O SUB3 MELTS --U--

AUTHOR-(03)-BAKRADZE, R.V., KUZNETOSVA, G.P., SADOVNIKOVA, L.A.

COUNTRY OF INFO--USSR

SOURCE--DOKL. AKAD. NAUK SSSR 1970, 191(1), 82-5

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY, PHYSICS

TOPIC TAGS--GARNET, YTTRIUM, ALUMINATE, GALLIUM, NEODYMIUM, CRYSTAL, SOLID SOLUTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/0714 STEP NO--UR/0020/70/191/001/0082/0085

CIRC ACCESSION NO--AT0124384

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

2/2 021 UNCLASSIFIED

CIRC ACCESSION NO--AT0124384 PROCESSING DATE--30OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE SOLY. METHOD WAS USED TO DET. THE CONDITIONS FOR THE ISOMORPHOUS SUBSTITUTION OF AL BY GA AND OF Y BY ND DURING THE CRYSTN. OF Y-AL AND Y-GA GARNETS FROM MELTS. OF THE CORRESPONDING OXIDES. THE SOLY. WAS DETD. AT 1100DEGREES BY THE ISOTHERMAL METHOD. THE SOLID PHASES WHICH ARE FORMED ARE SINGLE CRYSTALS OF (Y,ND) SUB3 AL SUB5 O SUB12, (Y,ND) SUB3 GA SUB5 O SUB12, AND Y SUB3 (AL,GA) SUB5 O SUB12 WITH THE GARNET STRUCTURE, WHICH DO NOT CONTAIN INTERSTITIAL TRACES OF THE SOLVENT. ALL OF THE SYSTEMS EXHIBIT THE FORMATION OF SOLID SOLNS. CRYSTALS OF SOLID SOLNS. OF ANY GIVEN COMPN. CAN BE OBTAINED ON THE BASIS OF THE SOLY. ISOTHERMS FOR THE GIVEN SYSTEM. FACILITY: VSES. ZAOCH. MASHINOSTROIT. INST., USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR

MEL'NIKOV, N. N., et al., USSR Author's Certificate No 327204, filed 23 Feb 70, published 28 Mar 72

1.2 g III is added, the mixture is boiled for 10-15 min., kept for ~16 hrs, and the residue is separated. The reaction yields 2.69 g I (R = 4-ClC_6H_4CO, n = 0), m.p. 173-175°C (decomposes; PhMe). Another I are prepared in a similar way (R, yield in %, m.p. in °C are given in that order), n=0: Bu, 99, 39-40; Me, 94, 116-117 (benzene); PhCO, 88.6, 139-141 (decomposes); 4-ClC_6H_4, 96.8, 194-195 (PhMe); 3-ClC_6H_4, 90.2, 180-181. The structure of I was verified by infrared and NMR spectra.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UDC 669.14.018.44:534-8

USSR

PON'KIN, YU. F., VOLKOV, B. I., KUDRYAKOVA, L. P., MENTS, I. I., and KUZNETSOVA, G. V.

"Effect of Ultrasonic Vibrations on Mechanical Properties and Fine Structure of 12Kh1MF Steel"

Moscow, Metallovedeniye i Termicheskaya Obrabotka Metallov, No 8, 1971, pp 67-68

Abstract: A study was made of the aging of 12Kh1MF steel (0.11% C, 0.20% Si, 0.40% Mn, 1.12% Cr, 0.20% Ni, 0.27% Mo, 0.22% V) under the action of ultrasonic vibrations. Billets were normalized at 980° C and tempered at 740° C. Ultrasound-induced changes in properties were compared with changes in the same properties as a result of thermal aging without stress. A comparison was made of fine structure, short-time mechanical properties, the content of carbide-forming elements (chromium, molybdenum, vanadium) in the anode deposit and the time until failure

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APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR

PON'KIN, YU. F., et al., Metallovedeniye i Termicheskaya Obrabotka Metallov, No 8, 1971, pp 67-68

at σ = 16 kg/mm^2 and 555°C. The results indicate that the processes occurring in 12Kh1MF steel as a result of the action of 20 kHz ultrasonic vibrations correspond to the processes taking place during thermal aging without stress, but that they occur at a much more rapid rate. Ultrasonic vibrations with a certain peak pressure can be used for accelerated long-time strength testing of 12Kh1MF-type steels.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UDC 632.3/4.633

USSR

KUZNETSOVA, I. F., and KORSHUNOVA, A. F., Main Administration of Plant Protection, Ministry of Agriculture USSR, and All Union Institute of Plant Protection

"A Disease of Winter Wheat"

Moscow, Zashchita Rasteniy, No 2, Feb 73, p 49

Abstract: In some rayons of Odessa Oblast' and in the northwest of the Moldavian SSR, a disease of winter wheat was recorded in 1971 which affected on the average 30% (a maximum of 60%) of the wheat ears. On some farms the disease caused a loss of up to 1/3 of the harvest. An investigation of infected wheat of the variety Bezostaya 1 showed that the grain was generally (to 82%) puny and was infected with fusariosis to 8.2%. F. graminearum, F. avenaceum, and F. solani were isolated from the infected grain. Saprophytic microflora (Alternaria and Penicillium) predominated on the scales of the grain. F. graminearum and sterile Fusarium forms were also isolated from the scales. F. avenaceum, F. solani, and Ophiobolus graminis were present in the discolored stalks and in the root nodes. Above-normal precipitation and high temperatures during the formation of the ears and grain ripening contributed to the outbreak of the disease.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

USSR

KUZNETSOVA, I. F., Senior Phytopathologist-Agronomist, Main Administration for Plant Protection, Ministry of Agriculture USSR

"All-Union Conference on Smut"

Moscow, Zashchita Rasteniy, No 5, 1971, pp 48-50

Abstract: Although some progress has been made in recent years in controlling fungus diseases, the problem remains a severe one in most regions of the USSR. The reasons for the prev lence of wheat infections and other fungus diseases include inadequate treatment of seeds, failure to keep seed plots isolated, reluctance to plant spring wheat late in the fall, and failure to use resistant varieties. An All-Union Conference held last February in Leningrad under the sponsorship of the Ministry of Health USSR indicates the concern shown by the authorities at the continuing heavy crop losses caused by smut. Papers were presented on the value of thermal and chemical methods of disinfecting seeds, modern agricultural practices, and the possibility of centralized treatment of seeds. Several reports dealt with systemic fungicides that not only have a disinfecting action on the agents of various diseases, but possess immunizing properties as well, e.g., rodan, vitavax, and benlite.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

AA0039852

UR 0482

Soviet Inventions Illustrated, Section I Chemical, Derwent, 3-70

238675 GLASS-TO-METAL SEALS in electric vacuum devices are made moisture resistant if the component is heated to 250°C and a constant positive potential is applied to the metal lead, a negative potential is applied to a lead which has no contact with atmosphere or is sealed in the glass. The furnace temperature is then raised to 520°C and the prongs are held at that temperature for 20-30 min. which completes the migration of the alkali metal ions in the metal-glass interface from the positive to the negative electrode. 10.5.67. as 1157074/26-25. I.N.KUZNETSOVA. A.S.LEVIN. (14.7.69.) Bul.10/10.3.69. Class 21g. Int.Cl.H01j.

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19741241

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

1/2 021 UNCLASSIFIED PROCESSING DATE--27NOV70

TITLE--POSSIBLE USE OF THIN FILM METHOD FOR EVALUATING THE PURITY OF ORGANIC COMPOUNDS -U-

AUTHOR-(03)-LEBEDEVA, N.D., KUZNETSOVA, I.N., LYADOVA, N.P.

COUNTRY OF INFO--USSR

SOURCE--ZH. FIZ. KHIM. 1970, 44(1), 274-7

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHEMICAL PURITY, CHEMICAL LABORATORY APPARATUS, HEAT EFFECT, CRYOGENIC EFFECT, PROPYLENE OXIDE, CHLORINATED ORGANIC COMPOUND, ETHYLENE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3006/0814 STEP NO--UR/0074/70/044/001/0274/0277

CIRC ACCESSION NO--AP0134547

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UNCLASSIFIED PROCESSING DATE--27NOV70

2/2 021

CIRC ACCESSION NO--AP0134547

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A CRYOSCOPIC METHOD BASED ON THE MELTING CURVE (TEMP. TIME) OF A SMALL QUANTITY OF THE STUDIED MATERIAL (0.1-0.2 G) WAS USED TO DET. THE PURITY OF ORG. COMPDS. M, MINUS 120DEGREES TO PLUS 150DEGREES. THE PROPOSED APP. IS DESCRIBED IN DETAIL. THE METHOD WAS CHECKED BY USING BZOH, C SUB2 H SUB4 CL SUB2, AND PROPYLENE OXIDE CONTG. ANTHRACENE, STILBENE, PHCL, CCL SUB4, AND PHME AS IMPURITIES. REPRODUCIBILITY WAS 0.01-0.02 MOLE PERCENT AT INITIAL PURITY OF THE MATERIALS OF 99.9 MOLE PERCENT. FACILITY: GOS. INST. PRIKL. KHIM., LENINGRAD, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UNCLASSIFIED PROCESSING DATE--23OCT70

1/2 010

TITLE--SYNTHESIS OF CALCIUM SILICATE HYDRATES FROM NONAQUEOUS SOLUTIONS AND A STUDY OF THE PROPERTIES OF 2CAO.SIO SUB2 PREPARED FROM LT -U-

AUTHOR-(03)-BUDNIKOV, P.P., KUZNETSOVA, I.P., SAVELYEV, V.G.

COUNTRY OF INFO--USSR

SOURCE--IZV. VYSSH. UCHEB. ZAVED., KHIM. KHIM. TEKHNOL., 1970, 13(1), 96-9

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CALCIUM COMPOUND, SILICATE, HYDRATE, HYDRATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/1388 STEP NO--UR/0153/70/013/001/0096/0099

CIRC ACCESSION NO--AT0120181

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UNCLASSIFIED PROCESSING DATE--23OCT70

2/2 010

CIRC ACCESSION NO--AT0120181

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CA HYDRATED SILICATE, OF COMPN. 1.7CAO.SIO SUB2.2.9H SUB2 O AND 1.7CAO.SIO SUB2.3.2H SUB2 O, CONTG. 0.10 AND 1.96 WT. PERCENT NA SUB2 O, IS PREPARED. IN A FIBROUS AND VERY FINE PLATELIKE TOBERMORITIC FORM BY HOMOGENIZING ALC. SOLNS. OF SI(OET) SUB4 AND CACL SUB2 IN 1:2 MOLE RATIO, ADDING THE NECESSARY AMT. OF AQ. NAOH FOR SAPONIFICATION, SEPG. THE MOTHER LIQUOR, AND WASHING WITH 50PERCENT ETOH TO FREE THE PPT. FROM NA POSITIVE AND CL NEGATIVE. THE LOWER CONTENT OF NA SUB2 O IS OBTAINED BY LONGER WASHING. THE ANHYD. 2CAO.SIO SUB2 IS OBTAINED BY FIRING AT 800-1500DEGREES FOR 3 HR AT THE MAX. TEMP. SAMPLES CONTG. BOTH THE LESSER AND GREATER AMOUNTS OF NA SUB2 O FIRED AT 800DEGREES CONSISTED OF BETA 2CAO.SIO SUB2 AND SHOWED THE GREATEST STRENGTH AFTER HYDRATION AND AGING; WITH THE LOWER AMT. OF NA SUB2 O, THE SAMPLE FIRED AT 1500DEGREES CONSISTED OF GAMMA 2CAO.SIO SUB2 AND SHOWED THE LOWEST STRENGTH AFTER HYDRATION AND AGING. SAMPLES CONTG. THE LARGER AMT. OF NA SUB2 O AND FIRED AT 1000-1500DEGREES RETAINED BETA 2CAO.SIO SUB2, AND EXHIBITED INTERMEDIATE STRENGTH AFTER HYDRATION AND AGING. FACILITY: MOSK. KHIM. TEKHNOL. INST. IM. MENDELEEVA, MOSCOW, USSR.

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APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UNCLASSIFIED PROCESSING DATE--30OCT70

1/2 012

TITLE--PRODUCTS OF THE PHOTOCHEMICAL NITROSATION OF CHLOROCYCLOHEXANE -U-

AUTHOR-(05)-SEMINA, G.N., ZELENSKAYA, L.G., LEVASHOVA, L.A., KUZNETSOVA, K.YE., STRELTSOVA, A.A.

COUNTRY OF INFO--USSR

SOURCE--NEFTEKHIMIYA 1970, 10(1), 103-9

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

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ORGANIC OXIME COMPOUND, CHLORINATED ORGANIC COMPOUND, CYCLOHEXANE, PHOTOCHEMISTRY, NITROSYL CHLORIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/0904 STEP NO--UR/0204/70/010/001/0103/0109

CIRC ACCESSION NO--AP0124565

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UNCLASSIFIED PROCESSING DATE--30OCT70

2/2 012

CIRC ACCESSION NO--AP0124565

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. NOCL AND HCL, 0.3 AND 0.6 L.-MIN, RESP., WERE BUBBLED INTO 1700 ML CHLOROCYCLOHEXANE AT 250DEGREES USING A 750 W LIGHT; AFTER 8 HR, 240 G HEAVY OIL SEPD., CONTG. 11.6PERCENT CHLOROCYCLOHEXANE, 29.4 HCL, AND 55.9 ISOMERIC CHLOROCYCLOHEXANONE OXIMES. HYDROLYSIS OF AN ALIQUOT WITH 20PERCENT H SUB2 SO SUB4 FOR 30 MIN GAVE 1.9PERCENT CHLOROCYCLOHEXANE, 2.8 CYCLOHEXANONE, 65.0 CHLOROCYCLOHEXANONE, 4.0 CYCLOHEXANONE OXIME, AND 23.4 TAR. THE SOLN. AFTER 10 HR CONTAINED 3.0PERCENT 1,2 TRANS, 2.0 MIXED 1,3 AND 1,4 TRANS, 0.9 1,2 AND 1,4 CIS, 0.5 1,3 CIS, AND 0.3 1,1,DICHLOROCYCLOHEXANES, AND 0.5 TRICHLOROCYCLOHEXANE. IN THE NITROSATION OF CYCLOHEXANE ADDING CHLOROCYCLOHEXANE INCREASED THE CONTENT OF CHLOROCYCLOHEXANONE OXIME IN THE OIL FROM 0.6PERCENT (AT 0.7PERCENT ADDED) TO 4PERCENT (AT 12PERCENT ADDED). FACILITY: GOS. NAUCH.-ISSLED. PROEKT. INST. AZOT. PROM. PROD. ORG. SIN., MOSCOW, USSR.

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APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UDC 615.849.1.015.25

USSR

KUZNETSOVA, L. A., RYBAKOV, N. I., FROLOVA, A. V., and KOLOTILOVA, V. G.,
Moscow Scientific Research Institute of Roentgenology and Radiology

"Radioprotective Properties of Bis(2-Aminoethyl) Disulfide Dihydrobromide in the Longwave Band of X-Ray Irradiation"

Moscow, Meditsinskaya Radiologiya, Vol 15, No 12, 1970, pp 7-11

Abstract: The dose decrease factor (DDF) of the radioprotector bis(2-aminoethyl) disulfide dihydrobromide was determined using as a test the induction of prophage development in lysogenic bacteria. Suspensions of a 4-hour bacterial culture of E. coli K-12 (λ) in physiological saline were exposed to x-rays (100 to 300 r) with an effective energy of 35.7 kev. All the doses of the radioprotector used (0.01, 0.005, 0.001 M) markedly reduced the yield of phage particles in the irradiated lysogenic culture. The mean value of the DDF for the 0.005 M concentration (derived from 4 experiments) was 2.1±0.94. This value remained constant within the limits of experimental error in the entire range of irradiation doses. Another series of experiments showed that the DDF for longwave x-ray irradiation in the energy region of 10.3 to 35.7 kev is independent of the effective energy.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UNCLASSIFIED PROCESSING DATE--09OCT70

1/2 027

TITLE--EFFECT OF FREQUENCY ON THE ELECTRICAL CONDUCTIVITY ACTIVATION ENERGY IN FERRITES -U-

AUTHOR--KUZNETSOVA, L.A.

K

COUNTRY OF INFO--USSR

SOURCE--IZV. VYSSH. UCHEB. ZAVED., FIZ. 1970, 13(2), 121-3

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS, MATERIALS

TOPIC TAGS--ACTIVATION ENERGY, ELECTRICAL CONDUCTIVITY, FERRITE, SINGLE CRYSTAL, CRYSTAL LATTICE DEFECT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1994/1783

STEP NO--UR/0139/70/013/002/0121/0123

CIRC ACCESSION NO--AT0115612

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UNCLASSIFIED PROCESSING DATE--09OCT70

2/2 027

CIRC ACCESSION NO--AT0115612

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE SP. ELEC. RESISTANCES OF THE FERRITES MN SUB0.8 ZN SUB0.2 FE SUB2 O SUB4 (I) DEFECT SINGLE CRYSTAL; MN SUB0.8 ZN SUB0.2 FE SUB2 O SUB4 (II), POLYCRYST.; AND NI SUB0.5 ZN SUB0.5 FE SUB2 O SUB4 (III) WERE MEASURED AT 6-100 KHZ AND AT 20-180DEGREES. THE ACTIVATION ENERGY OF ELEC. COND. OF SAMPLES I AND II (CURIE POINTS 85 AND 90DEGREES, RESP.) DEPENDED STRONGLY ON THE FREQUENCY, WHILE THE VALUES FOR III WERE 0.238 AND 0.232 EV FOR 6 AND 100 KHZ, RESP. FACILITY: RYAZAN. RADIOTEKH. INST., RYAZAN, USSR.

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APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

1/2 008 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--O ACYLATION OF PHENOL WITH CARBOXYLIC ACIDS -U-

AUTHOR--FOKIN, A.V., KOLOMIYETS, A.F., STUDNEV, YU.N., KUZNETSOVA, L.D.

COUNTRY OF INFO--USSR

SOURCE--IZVESTIYA SIBIRSKOGO OTDELENIYA AKADEMII NAUK SSSR, NO 2, SERIYA KHIMICHESKIKH NAUK, 1970, NR 1, PP 87-90

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--PHENOL, CARBOXYLIC ACID, ESTER, ACYL RADICAL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1984/1766 STEP NO--UR/0289/70/000/001/0087/0090

CIRC ACCESSION NO--AP0100346

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UNCLASSIFIED PROCESSING DATE--11SEP70

2/2 008

CIRC ACCESSION NO--AP0100346

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CARBOXYLIC ACIDS (I) ACYLATE PHENOL AND GIVE ESTERS WHEN THE REACTION IS PERFORMED AT 110-1400EG/FFS6 (ASEOTROPIC DISTILLATION OF WATER) IN THE PRESENCE OF HCL, 4,CH SUB3 C SUB6 H SUB4 SO SUB3 H, H SUB2 SO SUB4 (II) OR HCLO SUB4 (III); II AND III ARE BETTER CAYALYSTS. RELATIVELY WEAKER CARBOXYLIC ACIDS ARE STRONGER ACYLATION AGENTS. THE GREATER ACIDITY OF ACIDS RESULTS IN SMALLER ACYLATING ABILITY. THE DATA ARE IN ACCORD WITH THE POSTULATED INTERMEDIATE FORMATION OF ACYL CATION.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

KUZNETSOVA L. P.

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AA0044819

UR 0482

Soviet Inventions Illustrated, Section II Electrical, Derwent, 2/70

243977 GENERATOR FREQUENCY STABILISING DEVICE, in which the piezoelectric element is cut at an angle of minus 22-24o with the X axis, and plus 33.5-35o with the Z axis of the piezoelectric quartz crystal. This cutting eliminates the effect of temperature gradients in the element on its resonant frequency.
3.7.67 as 1168743/18-10.DIKIDZHI.A.N.et al.(1.10.69)
Bul 17/14.5.69. Class 42m. Int.Cl. B 06b.

AUTHORS: Dikidzhi, A. N., Dikidzhi, L. Sh., Ivlev, L. Ya., Teran'ko, V. S., Kuznetsova, L. P., Perel'man, G. G.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

1/2 020 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--HISTOCHEMICAL FEATURES OF THE KIDNEYS OF ADRENALECTOMIZED ANIMALS FOLLOWING ADMINISTRATION OF DOCA DEOXYCORTICOSTERONE ACETATE -U-

AUTHOR-(04)-ZUFAROV, K.A., KHAMIDOV, D.KH., AKHMADZHANOVA, M.M., KUZNETSOVA, L.G.

COUNTRY OF INFO--USSR

SOURCE--UZB. BIOL. ZH. 1970, 14(2), 70-1

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--HISTOCHEMISTRY, CORTICOSTEROID, KIDNEY, RNA, RAT, ADRENAL GLAND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3002/0417 STEP NO--UR/9079/70/014/002/0070/0071

CIRC ACCESSION NO--AP0127588 UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UNCLASSIFIED PROCESSING DATE--20NOV70

2/2 02C

CIRC ACCESSION NO--AP0127988

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DOCA ADMINISTERED FOR 2 WEEKS POSTOPERATIVE DECREASED THE RENAL RNA CONTENT OF ADRENALECTOMIZED RATS TO A LESS EXTENT THAN IN UNTREATED ADRENALECTOMIZED RATS. CHANGES IN THE CHEM. COMPONENTS OF THE KIDNEY CELLS OF ADRENALECTOMIZED RATS ARE PROBALY DUE TO THE ABSENCE OF GLUCOCORTICOIDS AS WELL AS TO THE ABSENCE OF MINERALOCORTICOIDS. FACILITY: INST. BIOKHIM., TASHKENT, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UNCLASSIFIED

1/2 024 PROCESSING DATE--02DEC70

TITLE--ACTION OF 2,CHLORO,4,6,BIS(ISOPROPLAMINA),S,TRIAZINE (PROPAZINE) ON LIVER AND KIDNEY NUCLEIC ACIDS -U-

AUTHOR--KUZNETSOVA, L.I.

COUNTRY OF INFO--USSR

SOURCE--VRACH. DELO 1970, (1), 111-113

DATE PUBLISHED--------70

SUBJECT AREAS--AGRICULTURE, BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--CHLORINATED ORGANIC COMPOUND, AZINE DERAVITIVE, LIVER, KIDNEY, NUCLEIC ACID, HERBICIDE, DNA, RNA

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

STEP NO--UR/0475/70/000/001/0111/0113

PROXY REEL/FRAME--1986/1681

CIRC ACCESSION NO--AP0103447

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UNCLASSIFIED PROCESSING DATE--02OCT70

2/2 024

CIRC ACCESSION NO--AP0103447

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE TITLE HERBICIDE WAS ADMINISTERED ORALLY TO RATS ONCE AT 2500 MG-KG OR AT 500 MG-KG DAILY FOR 10-60 DAYS OR AT 5-50 MG-KG DAILY FOR 60-120 DAYS; IT DECREASED THE DNA CONTENT IN THE LIVER AND KIDNEYS AND GENERALLY ACCUMULATED DNA IN THESE ORAGNS. THE DECREASE IN DNA IN THE LIVER AND KIDNEYS MAY BE DUE TO ACTIVATION OF ENZYMES OF THE GASTROINTESTINAL FLORA WHICH BREAK DOWN THIS POLYMER.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

1/2 008 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--COATING FOR MOLDS -U-

AUTHOR-(02)-KHRAMKOV, V.P., KUZNETSOVA, L.I.

COUNTRY OF INFO--USSR

SOURCE--U.S.S.R. 261,235
REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRAZTSY, TOVARNYE ZNAKI 1970,
DATE PUBLISHED--06JAN70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--CHEMICAL PATENT, PIGMENT, MOLD LUBRICANT, GLASS INDUSTRY/(U)BF2 MOLD LUBRICANT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1994/1973 STEP NO--UR/0482/70/000/000/0000/0000

CIRC ACCESSION NO--AA0115772

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UNCLASSIFIED PROCESSING DATE--30OCT70

2/2 008

CIRC ACCESSION NO--AA0115772

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. COATING FOR MOLDS USED IN HE GLASS INDUSTRY CONSISTED OF A SYNTHETIC BINDER, SUCH AS BF-2, 90-9 AND A FILLER WHITE PIGMENT 1-10 WT. PERCENT TO INCREASE THE LIFE OF THE COATING AND IMPROVE THE SURFACE OF THE GLASS PRODUCTS. FACILITY: GUSEV STATE SCIENTIFIC RESEARCH INSTITUTE OF GLASS.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

UNCLASSIFIED PROCESSING DATE--13NOV70

1/2 011

TITLE--CHELATE COMPOUNDS OF AKENEAZO,2,IM]DAZOLES. NEW EXAMPLE OF COMPLEXES WITH A METAL CHELATE JUNCTION POINT OF THE M PLUS 4N TYPE -U-

AUTHOR-(05)-GARNOVSKIY, A.D., KUZNETSOVA, L.I., ANDREYCHINOV, YU.P., OSIPOV, O.A., SIMONOV, A.M.

COUNTRY OF INFO--USSR

SOURCE--ZH. OBSH. KHIM. 1970, 40(3), 710-11

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ORGANIC AZOLE COMPOUND, ORGANIC COMPLEX COMPOUND, ACETATE, DIPOLE MOMENT, BROMINATED ORGANIC COMPOUND, HETEROCYCLIC OXYGEN COMPOUND, BENZENE DERIVATIVE, MOLECULAR STRUCTURE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3004/2022 STEP NO--UR/0079/70/040/003/0710/0711

CIRC ACCESSION NO--AP0132282

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201710015-2

2/2 011 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0132282

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A 2:1 MIXT. (MCLAR) OF ARENFAZO,2,IMIDAZOLES AND APPROPRIATE METAL ACETATES IN MEOH GAVE I (M, COLOR, AND DIPOLE MOMENT GIVEN): NI PRIME POSITIVE POSITIVE, BROWN, 3.18; CO PRIME POSITIVE POSITIVE, GREEN, 4.40; AND II: CU PRIME POSITIVE POSITIVE, YELLOW BROWN, 2.04; NI PRIME POSITIVE POSITIVE, RED BROWN, 3.43; CO PRIME POSITIVE POSITIVE, BROWN, 4.76. IN THE SOLID STATE, EVIDENTLY THE STRUCTURE OF I IS A TETRAHEDRAL ARRANGEMENT, IN WHICH HALF OF THE MOL. IS ROTATED AT RIGHT ANGLES TO THE OTHER ABOUT THE HORIZONTAL AXIS. POSSIBILITY OF POLYMERIC OCTAHEDRAL STRUCTURE FROM FURTHER COORDINATION OF THE METAL WITH THE N PRIME ATOM OF IMIDAZOLE IS ALSO POSSIBLE, HOWEVER. FACILITY: ROSTOV.-NA-DONU GOS. UNIV., ROSTOV-ON-DON, USSR.

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Mechanical Properties

UDC 669.15-194:669.14

USSR

NIKITSKAYA, V. A., PYATAKOVA, L. L., POLTAVETS, N. A., SHUBINA, S. A., KUZNETSOVA, L. L., VOLKOV, L. G., BARKOV, V. Ye., and CHEREDNIK, L. Ye., Metallurgical Plant imeni Dzerzhinskiy, Dneprodzerzhinsk Industrial Institute imeni M. I. Arsenichev

"Improvement of Mechanical Properties of Hot-Rolled 10KhSND Steel"

Moscow, Metallurg, No 1, Jan 73, pp 16-17

Abstract: Experimental data are presented on the effects of chemical composition, method of final deoxidation, and temperature at the end of rolling on the level of mechanical properties and the amount of waste of 10KhSND steel in the hot-rolled state. The effects of C, Mn, Si, and Cr and their summary effect on the impact strength and the ultimate strength (yield) of 10Kh[illegible]D steel deoxidized in the ladle with aluminum (1000 g/ton) and ferrotitanium (500 g/ton) are discussed by reference to diagrams. Best results in improving the mechanical properties and in decreasing the amount of waste were obtained by applying calciosilicate (2000 g/ton) and by reducing the rolling temperature to 900 °C at the same time. The use of calciosilicate in the final deoxidation of steel in the open-hearth shop of the Plant imeni Dzerzhinskiy decreased the amount of waste by 5-5.5 times. Two figures, one table.

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TITLE--COMPARATIVE STUDY OF ADSORPTION OF 2,4,DINITROPHENYL HYDRAZONES ON GRAPHITIZED CARBON BLACK FROM SOLUTIONS -U-

AUTHOR-(03)-VORONTSOV, V.V., KUZNETSOVA, L.P., ELTEKOV, YU.A.

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2/2 020 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125222

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE ADSORPTION OF 2,4,DINITROPHENYL HYDRAZONES OF ACETONE (2,4,DNPHA) AND METHYLPROPYLKETONE (2,4,DNPH MPK) HAS BEEN STUDIED ON GRAPHITIZED CHANNEL BLACK FROM SOLUTIONS IN C SUB2 H SUB5 OH AND CCL SUB4 AT 0, 20 AND 40DEGREES. FROM THE COMPARISON OF THE ADSORPTION ISOTHERMS OF THESE SUBSTANCES AND OF 2,4,DINITROPHENYL HYDRAZONE OF METHYLETHYLKETONE (2,4,DNPH MEK) STUDIED EARLIER IT HAS BEEN CONCLUDED THAT HORIZONTAL SECTIONS OF ISOTHERMS OR INFLECTION POINTS CORRESPOND TO LOOSER PACKING OF MOLECULES OF 2,4,DNPHA AND 2,4,DNPH MPK AS COMPARED TO 2,4,DNPH MEK. THIS VARIATION OF THE ADSORPTION CHARACTERISTICS FOLLOWS THAT OF THE MELTING POINTS AND SOLUBILITIES OF HYDRAZONES IN C SUB2 H SUB5 OH AND CCL SUB4. COMPARISON OF THE ISOSTERIC ADSORPTION HEATS OF THE HYDRAZONES STUDIES (4-9 KCAL-MOLE) SHOWS THAT THEIR DECREASE WHEN PASSING FROM C SUB2 H SUB5 OH TO CCL SUB4 IS DUE TO INCREASING COMPETITION OF THE SOLVENT. FACILITY: INSTITUT FIZICHESKOY KHIMII AN SSR, MOSCOW.

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UDC: 541.183:678.046.2

VORONTSOV, V. V., KUZNETSOVA, L. P., and EL'TEKOV, YU. A., Institute of Physical Chemistry, Moscow, Academy of Sciences USSR

"Comparative Study of the Adsorption of 2,4-Dinitrophenylhydrazones on Graphitized Carbon Black from Solutions"

Moscow, Kolloidnyy Zhurnal, Vol 32, No 3, May-Jun 1970, pp 354-359

Abstract: The adsorption of acetone 2,4-dinitrophenylhydrazone (I) and methylpropylketone 2,4-dinitrophenylhydrazone (II) on graphitized channel black from EtOH and CCl_4 solutions at 0, 20, and 40° was studied. Comparison of the area per adsorbed molecule of I and II in dense monolayers with that for methylethylketone 2,4-dinitrophenylhydrazone (III), the adsorption of which had been investigated earlier, showed that the packing of molecules was looser for I and II than for III. The adsorption increased with decreasing solubilities, which diminished in the order III > I > II for either solvent, and were greater for all three substances in EtOH than in CCl_4. The adsorption characteristics were also related to the melting points of the substances, which were 116, 126, and 145° for III, I, and II, respectively. For every hydrazone studied, the heat of

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VORONTSOV, V. V., et al, Kolloidnyy Zhurnal, Vol 32, No 3, May-Jun 1970, pp 354-359

adsorption decreased on transition from an EtOH solution to one in CCl_4. This was due to a corresponding difference in the capacity of molecules of the solvent to compete in adsorption with those of the hydrazones. The authors thank YU. S. SHABAROV for synthesizing the 2,4-dinitrophenylhydrazones.

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