"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

Cybernetics

VELYCHKO, V.G.

SO: JPRS 56972
23 May 72

UDC 681.327.12:534.78:007.51

ON ONE METHOD OF INFORMATION OUTPUT IN SPEECH FORM FROM COMPUTERS

[Article by V. G. Velychko and V. I. Mulyai Kiev, Avtomatyka, Ukrainian, No 6, 1971, pp 55-59]

Cybernetics

The creation in computers of the ability to express output information in speech form means a new direction in the development of external apparatus or even a new direction in making direct connections between people and computers. Since a tendency has been noted in computers of the third and fourth generations toward the operator's performance with the machine in the realm of direct reciprocal action (in the realm of dialogue, as it were), it is therefore useful in a number of cases to give a speech form to the intermediate information which is transmitted from machines to people.

It should be expected that speech output will find wide application in various automated information systems [1, 2].

To achieve speech output of data from computers means to create on the basis of these machines a certain automated speech information system (ASIA) which has in its composition algorithms for transforming output data with the goal of giving them a speech form, a certain auxiliary mass of data which are essential for this transformation, and finally, a certain external apparatus with whose help the speech information obtained in discrete form is transformed into a speech signal.

Restrictions concerning the rapid action and memory capacity of ZP computers, and also the large size of the speech signal, for the memorization of one second of which in digital form a memory capacity of the order of 50,000 double units is necessary [3, 4], condition the application of methods of speech synthesis in achieving speech output.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC 548.73

NOVOKHATSKIY, I. A., and VELYUKHANOV, V. P., Donets Physico-Technical Institute, Academy of Sciences Ukrainian SSR

"Determining the Crystalline Grain Sizes in Sitals"

Moscow, Zavodskaya Laboratoriya, No 10, Oct 72, pp 1216-1217

Abstract: The method of small-angle scattering of polarized light is used to determine the crystalline grain sizes in sitals made from acid slags. An LG-56 gas laser with a wavelength of 0.6328 microns is used as the polarized light source. The size of crystalline grains, dispersed in the glass-like base of the investigated sitals, amounted to 1.5 microns as computed with the aid of this method. One figure, one bibliographic reference.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC 539.2+539.171+669-154

NOVOKHATSKIY, N. A., LAD'YANOV, V. I., ARKHAROV, V. I., Academician of the UkrSSR Academy of Sciences, VELYUKHANOV, V. P., Donetsk Physicotechnical Institute, UkrSSR Academy of Sciences

"The Two-Isotherm Method in Diffractometry of Melts"

Moscow, Doklady Akademii Nauk SSSR, Vol 211, No 4, 1 Aug 73, pp 814-817

Abstract: A "two-isotherm" method based on Fourier analysis is proposed for interpreting the diffraction patterns of melts with regard to the specific characteristics of their microononhomogeneities. The procedure shows the partial diffraction effects of structural components, in principle, is applicable to multicomponent melts consisting of several types of clusters and a general disordered zone, and can be extended to analysis of the diffraction patterns of molten salts, oxides, and so forth.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

1/2 021 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--DETERMINATION OF ISOTOPE CONTENT OF EU AND IR BY USING THERMAL NEUTRON METHOD -U-

AUTHOR-(04)-VASILYEV, S.S., VELYUS, L.M., KORZH, P.D., FOMENKO, V.T.

COUNTRY OF INFO--USSR

SOURCE--AT. ENERG. (USSR); 28: 65-7 (JAN 1970)

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS, NUCLEAR SCIENCE AND TECHNOLOGY

TOPIC TAGS--THERMAL NEUTRON, NEUTRON ABSORPTION, RADIATION INTENSITY, EUROPIUM ISOTOPE, IRIDIUM ISOTOPE, QUANTITATIVE ANALYSIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1979/1829 STEP NO--UR/0089/70/028/000/0065/0067

CIRC ACCESSION NO--AP0048132

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

2/2 021 UNCLASSIFIED PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0048132

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A THERMAL NEUTRON ABSORPTION METHOD WAS DEVELOPED FOR THE DETERMINATION OF EUROPIUM AND IRIDIUM ISOTOPES. GRAPHS FOR DETERMINING PRIME151 EU AND PRIME191 IR SHOW RELATIVE INTENSITIES OF NEUTRON PASSAGE THROUGH THE SPECIMENS VS ISOTOPIC CONCENTRATION. THE ABSOLUTE STANDARD ERROR FOR DETERMINATION OF PRIME151 EU WAS 0.22 AND 0.43PERCENT WITH ISOTOPE CONCENTRATIONS OF 0 TO 30 AND 30 TO 100PERCENT, RESPECTIVELY, AND FOR PRIME191 IR IT WAS 0.85PERCENT WITH CONCENTRATIONS OF 5.7 TO 100PERCENT. DURATION OF THE ANALYSIS WAS 30 MIN.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

1/2 020 UNCLASSIFIED

TITLE--SURFACE TENSION AND DENSITY OF MELTS IN THE SILICON ZIRCONIUM SYSTEM -U- PROCESSING DATE--04DEC70

AUTHOR-(03)-YELYUTIN, V.P., KOSTIKOV, V.I., LEVIN, V.YA.

COUNTRY OF INFO--USSR

SOURCE--IZVEST. V. U. Z. TSVETNAYA MET., 1970, (2), 131-133

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--SURFACE TENSION, THERMAL EFFECT, ZIRCONIUM ALLOY, SILICON ALLOY, ISOTHERM, SPECIFIC DENSITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3003/1501

STEP NO--UR/0149/70/000/002/0131/0133

CIRC ACCESSION NO--AT0130430

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

2/2 020 UNCLASSIFIED

CIRC ACCESSION NO--AT0130430 PROCESSING DATE--04DEC70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE SURFACE TENSION AND DENSITY OF MELTS OF THE SI-ZR SYSTEM CONTG. ZR UP TO 30PERCENT WERE STUDIED AT TEMP. UP TO 1500DEGREESC. THE TEMP. COEFF. OF THE DENSITY OF THE ALLOYS WAS CONSIDERABLY GREATER THAN THAT OF PURE SI AND INCREASED WITH INCREASING PROPORTION OF ZR IN THE MELT. THE SURFACE TENSION ISOTHERM AT 1500DEGREESC DIFFERED FUNDAMENTALLY FROM THAT CHARACTERIZING THE SI-TI SYSTEM, BEING RATHER CLOSER TO THAT EXPECTED FOR IDEAL SOLUTIONS. MELTS CONTG. ZR OVER 25PERCENT EXHIBITED MICRO INHOMOGENEITIES.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

1/2 037 UNCLASSIFIED

TITLE--SURFACE TENSION AND DENSITY OF SILICON TITANIUM MELTS -U- PROCESSING DATE--13NOV70

AUTHOR-(03)-YELYUTIN, V.P., KOSTIKOV, V.I., LEVIN, V.YA.

COUNTRY OF INFO--USSR

SOURCE--IZVEST. V.U.Z., TSVETNAYA MET., 1970, (1), 53-55

DATE PUBLISHED-------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--SURFACE TENSION, SILICON ALLOY, TITANIUM ALLOY, LIQUID METAL, CHEMICAL REACTION, SPECIFIC DENSITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/0551 STEP NO--UR/0149/70/000/001/0053/0055

CIRC ACCESSION NO--AP0124246

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

2/2 037 UNCLASSIFIED

CIRC ACCESSION NO--AP0124246 PROCESSING DATE--13NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE SURFACE TENSION AND DENSITY OF SI, TI MELTS CONTG. UP TO 20PERCENT TI WERE STUDIED AT 1350-1700 DEGREESC. THE SURFACE TENSION ROSE WITH TI CONTENT, FROM 800 TO 1000 ERG-CM PRIME2 OVER THE RANGE IN QUESTION AT 1500 DEGREESC. CHEMICAL INTERACTION BETWEEN THE SI AND TI ATOMS TOOK PLACE MAINLY WITHIN THE MELT AND HAD LITTLE EFFECT ON PURELY SURFACE PROPERTIES. THE DENSITY OF THE MELT CONTG. 20PERCENT TI WAS 2.75 G-CM PRIME3 AT 1500 DEGREESC (2.46 IN THE ABSENCE OF TI).

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

1/2 033

UNCLASSIFIED

TITLE—REACTION OF ZIRCONIUM DIOXIDE WITH CARBON -U-

PROCESSING DATE--30OCT70

AUTHOR-(04)-PAVLOV, YU.A., MANUKHIN, A.V., MELEKHIN, V.F., YELYUTIN, V.P.

COUNTRY OF INFO--USSR

SOURCE--IZV. VYSSH. UCHEB. ZAVED., CHERN. MET. 1970, 13(1), 5-8

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS, CHEMISTRY

TOPIC TAGS--ZIRCONIUM DIOXIDE, GRAPHITE, HIGH TEMPERATURE HEAT TREATMENT, ZIRCONIUM CARBIDE, ACTIVATION ENERGY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/1546

STEP NO--UR/0148/70/013/001/0005/0008

CIRC ACCESSION NO--AP0125172

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

2/2 033 UNCLASSIFIED

CIRC ACCESSION NO--AP0125172 PROCESSING DATE--30OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ZRO SUB2 PELLETS, IN CONTACT WITH GRAPHITE PELLETS WERE HEATED AT 2200-600DEGREES AND THE WT. LOSS OF THE ZRO SUB2 WAS DETD. AS A FUNCTION OF TIME AT A CONST. TEMP. FOR 90 MIN. THE WT. LOSS WAS CORRECTED FOR THE LOSS OBSD. WHEN ZRO SUB2 WAS HEATED ALONE. THE CORRECTED WT. LOSS, DELTA P GRAMS, COULD BE EXPRESSED BY DELTA P EQUALS A PLUS BT PRIMEONEHALF WHERE T IS THE TIME IN MIN AND A EQUALS 0.021 (2200DEGREES) TO 0.039 (2600DEGREES) AND B EQUALS 0.09 (2200DEGREES) TO 0.019 (2600DEGREES). THE ACTIVATION ENERGY WAS 60 KCAL-MOLE. A FILM OF ZRC WAS FORMED ON THE OXIDE SURFACE AND THE FILM THICKNESS, H (CM), CAN BE DERIVED AS A FUNCTION OF DELTA P AS WELL AS OF THE DIFFUSION CONST., D,: H EQUALS 0.262 DELTA P EQUALS (2DT) PRIMEONEHALF. D CAN THUS BE EVALUATED FROM A PLOT OF H VS. T PRIMEONEHALF. THE DIFFUSION OF C THROUGH ZRC WAS 2.5 TIMES 10 PRIME NEGATIVE6 CM PRIME2-SEC AT 2200DEGREES AND 1.3 TIMES 10 PRIME NEGATIVE5 CM PRIME2-SEC AT 2600DEGREES, WITH AN ACTIVATION ENERGY OF 60 KCAL-MOLE.

FACILITY: MOSK. INST. STALI SPLAVOV, MOSCOW, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

Graphite

USSR

UDC: 546.26-162

YELMUTIN, V.P., KOSTIKOV, V.I., LEVIN, V. YA., Moscow Institute of Steel and Alloys
Moscow, Ministry of Higher and Secondary Specialized Education RSFSR

"Combined Coatings on Graphite"

Moscow, Neorganicheskiye Materialy, Vol 6, No 3, 1970, pp 414-417

Abstract: Protective coatings of alloys in the system Si-Zr on graphite were studied. Three types of graphites were used and the alloys included pure Si, Si+5, 10, 20 and 25% Zr. Flowability and flow-kinetics, the degree of saturation, and the structure of the coatings produced were studied. The coatings are not protective without subsequent roasting and diffusion roasting leads to the formation of a combined SiC + ZrC + Si_xZr_y coating on compact graphites and a carbide coating on porous graphites.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

1/2 047

TITLE--COMPOSITE COATINGS ON GRAPHITE -U- UNCLASSIFIED PROCESSING DATE--23OCT70

AUTHOR-(03)-YELYUTIN, V.P., KOSTIKOV, V.I., LEVIN, V.YA.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, NEORG. MATER. 1970, 6(3), 414-17

DATE PUBLISHED-------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--POROSITY, GRAPHITE, PROTECTIVE COATING, COMPOSITE MATERIAL, SILICON ALLOY, ZIRCONIUM ALLOY, CARBIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1993/0705

STEP NO--UR/0363/70/006/003/0414/0417

CIRC ACCESSION NO--AP0113569

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

2/2 047

CIRC ACCESSION NO--AP0113569 UNCLASSIFIED

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE POSSIBILITY OF PREPG. PROTECTIVE COATINGS ON GRAPHITE FROM ALLOYS OF THE SI-ZR SYSTEM WAS INVESTIGATED. THREE BRANDS OF GRAPHITE WERE STUDIED. ALLOYS OF SI WITH 0, 5, 10, 20, OR 25PERCENT ZR WERE INVESTIGATED. THE ALLOYS WERE PREPD. BY DOUBLE ARC MELTING IN AN AR ATM. FROM 99.99PERCENT PURE SI AND FROM IODIDE ZR. THE COATING WAS APPLIED IN 2 STAGES. THE SPREADABILITY, THE KINETICS OF SPREADING, AND THE IMPREGNATION OF GRAPHITES OF VARIOUS D. BY LIQ. ALLOYS OF THE SI-ZR SYSTEM WERE STUDIED. THE COATINGS APPLIED ONTO GRAPHITE FROM LIQ. SI-ZR ALLOYS WITHOUT THE SUBSEQUENT ANNEALING ARE NOT PROTECTIVE. DIFFUSION ANNEALING RESULTS IN THE FORMATION OF A COMPOSITE SIC PLUS ZRC PLUS SI SUBX ZR SUBY COATING ON DENSE GRAPHITES AND OF A CARBIDE (SIC PLUS ZRC) COATING ON POROUS GRAPHITES.

FACILITY: MOSK. INST. STALI SPLAVOV, MOSCOW, USSR.

PROCESSING DATE--23OCT70

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

1/2 034 UNCLASSIFIED

TITLE--PHYSICOCHEMICAL FEATURES OF THE REACTION OF MOLYBDENUM TRIOXIDE AND TUNGSTEN TRIOXIDE WITH GRAPHITE -U-

PROCESSING DATE--23OCT70

AUTHOR-(05)-YELYUTIN, V.P., PAVLOV, YU.A., SHEBOLADEV, S.B., POLYAKOV, V.P., MESHCHERYAKOV, G.YA.

COUNTRY OF INFO--USSR

SOURCE--DOKL. AKAD. NAUK SSSR 1970, 191(1), 73-5

DATE PUBLISHED-------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--TUNGSTEN COMPOUND, METAL OXIDE, GRAPHITE, CHEMICAL REACTION, MOLYBDENUM OXIDE, THERMAL DIFFUSION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/1085

STEP NO--UR/0020/70/191/001/0073/0075

CIRC ACCESSION NO--AT0119944

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

2/2 034

CIRC ACCESSION NO--AT0119944 UNCLASSIFIED

PROCESSING DATE--23OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. MOO SUB3 AND WO SUB3 WERE HEATED UNDER VACUUM AT VARIOUS TEMPS. WITH GRAPHITE. A REACTION OCCURRED ON THE SURFACE OF THE GRAPHITE GIVING OXIDE LAYERS CONTG. MO SUB2 O SUB3 AND MO SUB4 O SUB11 (410-640DEGREES) AND W SUB18 O SUB49, W SUB20 O SUB58, AND W (750-1050DEGREES). THE COMPN. OF THE OXIDE LAYERS AND THE DISTRIBUTION OF W AND MO ON THE GRAPHITE SURFACE WERE DETD. THE THICKNESS OF THE OXIDE LAYERS WAS DETD. AT VARIOUS TEMPS. AND REACTION TIMES (1-12 HR). AT LOWER TEMP. THE FILMS WERE VERY THIN. AT 440DEGREES AND 510DEGREES, MOO SUB3 VAPORS WERE REDUCED TO MO SUB2 O SUB3. AT 640DEGREES THE RATE OF EVAPN. OF MOO SUB3 AND THE NO. OF PARTICLES ON THE GRAPHITE SHARPLY INCREASED. THE FORMATION OF A LAYER OF MO SUB2 O SUB3 HAMPERED FURTHER REDN. OF MOO SUB3 AND LED TO THE FORMATION OF MO SUB4 O SUB11, PROBABLY BY REACTION OF MO SUB2 O SUB3 WITH CO FORMED IN THE REACTION. AT HIGH TEMP. (1050DEGREES) MO SUB2 O SUB3 REACTED WITH GRAPHITE TO GIVE MOC. THE REACTION OF WO SUB3 WITH GRAPHITE GAVE A NONHOMOGENEOUS OXIDE LAYER CONTG. W METAL. AT 900-1050DEGREES A HEAVY LAYER OF W SUB20 O SUB58 FORMED. DIFFUSION PROCESSES PLAY AN IMPORTANT PART IN THESE REACTIONS.

FACILITY: MOSK. INST. STALI SPLAVOV, MOSCOW, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

1/2 016

UNCLASSIFIED

TITLE--REACTION OF VANADIUM PENTOXIDE, MOLYBDENUM TRIOXIDE, AND TUNGSTEN TRIOXIDE WITH CARBON AND CARBON MONOXIDE -U-

PROCESSING DATE--11SEP70

AUTHOR--YELYUTIN, V.P., PAVLOV, YU.A., POLYAKOV, V.P., SHEBOLDAYEV, S.B.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, NEORG. MATER. 1970, 6(1), 37-40

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--VANADIUM PENTOXIDE, MOLYBDENUM OXIDE, TUNGSTEN COMPOUND, CARBON, CHEMICAL REDUCTION, METAL OXIDE, CARBON MONOXIDE, ISOTOPE EXCHANGE, CHEMICAL REACTION MECHANISM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1981/0981

STEP NO--UR/0363/70/006/001/0037/0040

CIRC ACCESSION NO--AP0050973

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

2/2 059 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0050937

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CERAMIC AND METALLIC COATINGS AFFECT THE DECREMENT OF OSCILLATIONS AND CORRESPONDINGLY THE HIGH TEMP. STRENGTH OF REFRACTORY ALLOYS SUBJECTED TO VIBRATION. TWO STEEL GRADES, AN AUSTENITIC AND A MEDIUM ALLOYED STEEL WITH A FERRITIC BASE, HAVE BEEN INVESTIGATED IN THE AS CAST STATE TO DET. THE DECREMENT OF OSCILLATIONS DURING FLEXURAL VIBRATION. SPECIMENS HAVE BEEN COATED WITH (1) A CERMET LAYER OF CR-NI-SI-B, (2) SILICATE ENAMEL, (3) ELECTROLESS NI. THE ENAMEL COATING GIVES A HIGHER DECREMENT COMPARED WITH AN UNCOATED SPECIMEN ONLY AT TEMPS. GREATER THAN 600DEGREES. IN THE OTHER 2 CASES THE SAME EFFECT APPEARS EARLIER AND IS MORE IMPORTANT; THE PRESENCE OF A NI COATING AT 550-600DEGREES GIVES A DECREMENT 1.5-2 TIMES HIGHER.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

AN0 026676

UR9025

AUTHOR-- YELYUTIN, V. P., MINISTER OF HIGHER AND MIDDLE SPECIALIZED EDUCATION, U.S.S.R.

TITLE-- A NEW RESEARCH CENTER OF HIGHER SCHOOLS

NEWSPAPER-- TRUD, FEBRUARY 21, 1970, P 4, COL 1

ABSTRACT-- IN VIEW OF THE GROWING IMPORTANCE OF RESEARCH DONE AT HIGHER SCHOOLS, THE TIME IS RIPE FOR ITS MERGER AND COORDINATION. THUS YELYUTIN EXPLAINS THE ESTABLISHMENT OF THE NORTHERN CAUCASIAN RESEARCH CENTER OF HIGHER SCHOOLS. THE CENTER WILL INCLUDE THE ROSTOV STATE UNIVERSITY /THE LEADING SCHOOL/, THE ROSTOV CIVIL ENGINEERING INSTITUTE, THE TAGANROG RADIO ENGINEERING INSTITUTE, AND THE KRASNODAR AND NOVOCHERKASSK POLYTECHNIC INSTITUTES. PLANS

30

1/2

19661728

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

AN0026676

ALSO CALL FOR THE ESTABLISHMENT OF A PHYSICAL INSTITUTE, PHYSICAL-MATHEMATICAL INSTITUTE, INSTITUTE OF PHYSICAL AND ORGANIC CHEMISTRY, BIOLOGICAL INSTITUTE, INSTITUTE OF NEUROCYBERNETICS, AND A COMPUTATION CENTER.

THE CONSTRUCTION OF THREE RESEARCH INSTITUTES AT THE ROSTOV UNIVERSITY, THREE LABORATORY BUILDINGS AT THE TAGANROG RADIO ENGINEERING INSTITUTE, KRASNODAR AND NOVOCHERKASSK POLYTECHNIC INSTITUTES, AS WELL AS LIVING QUARTERS, ADMINISTRATION CENTER, DORMITORY, AND REST HOME WILL BE STARTED IN 1971-1972. THE HIGHEST ADMINISTRATIVE BODY OF THE NEW CENTER WILL BE THE COUNCIL OF THE RESEARCH CENTER. ON IT WILL BE PRESIDENTS OF HIGHER SCHOOLS, DIRECTORS OF RESEARCH INSTITUTES, AND LEADING SCIENTISTS OF HIGHER SCHOOLS AND RESEARCH ORGANIZATIONS OF THE NORTHERN CAUCASUS.

2/2

19661729

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

Graphite

USSR

UDC 669.296:669.111.2:532.7:532.692

YELYUTIN, V. P., PAVLOV, YU. A., MANUKHIN, A. V., and MELEKHIN, V. F.,
Moscow Institute of Steel and Alloys

"Interaction of Zirconium Dioxide With Carbon"

Moscow, IVUZ. Chernaya Metallurgiya, No 1, 1970, pp 5-8

Translation: The nature of the interaction of zirconium dioxide with graphite in the temperature interval 2200-2600°C, at contact arrangement of the specimens, is considered. Thermogravimetric methods are used to obtain the kinetic curves which characterize the interaction process of oxide with graphite and, separately, the processes taking place on the surface of the oxide specimen in the absence of graphite. Calculations are made of changes of the overall decrease in the mass of oxide and graphite specimens, dependent on the interaction of ZrO_2 with graphite in the contact zone, with the isothermic lag. The dependence of the thickness of the carbide layer on the time lag and the coefficients of carbon diffusion through ZRC at specific temperatures are calculated according to the diminishing mass of specimens. It appears that the interaction takes place due to oxide conversion of the gaseous phase followed by graphite deposition on zirconium monoxide. After the formation of carbide, the process of its interaction with ZRO is limited by carbon diffusion through a layer of ZrC.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC 621.373:535

ARISTOV, A. V., VEMBER, T. M., KOZLOVSKIY, D. A., CHERKASOV, A. S.

"Photochemical Method of Determining the Luminous Pumping Energy Absorbed by Rhodamine Dyes Under Conditions of Stimulated Emission"

Leningrad, Optika i Spektroskopiya, Vol 33, No 5, Nov 72, pp 961-965

Abstract: A photochemical method is proposed for determining the quantum light sum absorbed by a rhodamine 6G solution with flash-tube stimulation of emission. The method is based on sensitized photo-oxidation of anthracene compounds in nondeoxygenated solutions by excited molecules of a "generating" organic phosphor. The proposed method is used to determine the limiting coefficient of conversion of optical pumping energy to stimulated emission by ethanol solutions of rhodamine 6G with flash-tube excitation.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC: 51

VEN, V. L., ERLIKH, A. I.

"A Linear Model of the Production Possibilities of Industry"

V sb. Programmn. metod upr. Vyp. 1 (Program Method of Control, No 1--collection of works), Moscow, Computing Center of the Academy of Sciences of the USSR, 1971, pp 46-58 (from RZh-Kibernetika, No 6, Jun 72, Abstract No 6V467)

Translation: A method is proposed for constructing a linear model of the possibilities for production of goods based on linear models of the production capacities of enterprises. The concept of technological sectors is generalized, and an algorithm is proposed for partitioning industry into such sectors.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

Information Systems

GLORIA

SO: JPRS 56049
19 MAY 1972

INFORMATION SYSTEMS

UDC 025.4.004.14:002.6:65.011.56

SUPERVISION OF ALL-UNION CLASSIFIERS OF TECHNICAL-ECONOMIC INFORMATION

[Article by Yu. I. Blokhin, L.B. Venchkovskiy, Candidates of Technical Sciences, VNIIKI, Moscow, Standarty i Kachestvo, Russian, No 3, 1972, pp 20-23]

An important problem occurring during the creation of a United System of Classification and Coding in the organization of the system for supervision of classifiers of technical-economic information in the country.

The basic goal of creating such a system is operative supplying of automatic control systems on all levels and also the enterprises and organizations which will refer to the introduction system and be serviced by it with complete and reliable information contained in the classifiers. Thus, the classifier supervision system is a complex state information system unique with respect to scale and problems solved.

The various services in the supervision system will solve the following basic problems:

Creation of information files on the basis of the initial version of the classifier;

Assignment of codes to new objects and groupings;

Permanent introduction of changes into the classifier on the appearance of new objects or groupings;

Introduction of changes in the classifier on changing the classifier attributes, that is, on changing the nature of the solved problems;

Informing the consumers about the changes originating in the classifier (as changes are introduced or periodically);

Information servicing of the consumers by demand on the basis of the existing classifiers;

Continuous improvement of each classifier and solution of problems of best coordination of them;

VENCHKOVSKIY, L.B

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

1/2 018 UNCLASSIFIED

TITLE--LIFETIME OF NATIONAL PRODUCT CLASSIFIER -U- PROCESSING DATE--30OCT70

AUTHOR--VENCHKOVSKIY, L.B.

COUNTRY OF INFO--USSR

SOURCE--STANDARTY I KACHESTVO, 1970, NR 5, PP 19-22

DATE PUBLISHED-------70

SUBJECT AREAS--BEHAVIORAL AND SOCIAL SCIENCES, ELECTRONICS AND ELECTRICAL ENGR.

TOPIC TAGS--INFORMATION STORAGE, ELECTRONIC DATA PROCESSING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1999/0119

CIRC ACCESSION NO--AP0122385 STEP NO--UR/0422/70/000/005/0019/0022

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

UNCLASSIFIED

1/2 018

TITLE--LIFETIME OF NATIONAL

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

2/2 018

UNCLASSIFIED

CIRC ACCESSION NO--AP0122385 PROCESSING DATE--30OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE PROBLEM OF FUNCTIONAL LIFETIME OF A NATIONAL PRODUCT CLASSIFIER IS APPROACHED ON THE BASIS OF DATA ON COMPLETENESS OF THE INITIAL INFORMATION FOR COMPILATION OF THE CLASSIFIER AND FLOW OF NEW ENTRIES.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

VENDIK, I. B., and RESH, Ye. A. UDC 621.382.2

"Distribution of the Concentration of Carriers in Middle Region of P-I-N Diode in a Microwave Nonlinear Regime"

Izv. Leningr. elektrotekhn. in-ta (Bulletin of the Leningrad Electrical Engineering Institute), 1971, Issue 92, pp 64-67 (from RZh-Elektronika i yeye primeneniye, No 8, August 1971, Abstract No 8B191)

Translation: The solution of a non-stationary diffusion equation describing the distribution of the concentration of carriers in the i-layer, with which modulation of conductance in a p-i-n semiconductor diode is connected, is presented with the aid of Bessel functions. A calculation of the distribution of concentrations of excess carriers in the i-region, conducted with the aid of a "Minsk-22" computer, shows that in the frequency range to 100 MHz, as a result of the intertia of the diffusion process in the middle i-region, a delay takes place in the change of concentration as compared with the boundaries and as a result a charge buildup takes place. The process in question depends on the lifetime of the carriers (τ), the width of the i-region (W), and the frequency and amplitude of the signal. With a decrease of τ, the charge buildup in the medium i-region is decreased and a change of the carrier concentration in time is only expected close to the junctions. This same effect should appear with an increase of the frequency and W. With an increase of the

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

VENDIK, I. B., and RESH, Ye. A., Izv. Leningr. elektrotekhn. in-ta (Bulletin of the Leningrad Electrical Engineering Institute), 1971, Issue 92, pp 64-67 (from RZh-Elektronika i yeye primeneniye, No 8, August 1971, Abstract No 8B191)

frequency and τ, the charge in the i-region has no time to be resorbed during the time of the negative half-cycle which leads to a reduction of the resistance of a p-i-n semiconductor diode. 7 ill. V.S.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC 621.372.8.049.75-416

VENDIK, I. B., STEPANYAN, A. L.

"Calculation of the Coefficient of Attenuation in a Microstrip Line on a Dielectric Substrate"

Izv. Leningr. elektrotekhn. in-ta (News of the Leningrad Electrical Engineering Institute), 1971, vyp. 92, pp 68-71 (from RZh-Radiotekhnika, No 7, Jul 71, Abstract No 7B141)

Translation: A method is outlined for calculating the coefficient of attenuation for a system formed by rows of infinite metal-dielectric layers, which may be used to approximate a real microstrip line. An equation is derived which can be used for practical calculations. A computational example is presented. Two illustrations, bibliography of two titles. N. S.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

VENDIK, O. G., LOOS, G. D., TER-MARTIROSYAN, L. T.

UDC 621.319.491-416.029.64

"Planar Segnetoelectric Capacitors for Microwave Devices"

Moscow, Radiotekhnika i Elektronika, Vol 17, No 10, 1972, pp 2241-2243

Abstract: Studies were made of the electric and thermal characteristics of segnetoelectric capacitors for superhigh frequency devices at temperatures corresponding to the paraelectric phase of the segnetoelectric. Planar capacitors of Ba (Ti, Zr)O_3, (Ba, Sr)TiO_3 and $SrTiO_3$ films obtained by the method of agglomeration on BeO were investigated. For thicknesses of the films of several microns the capacitors have high nonlinearity. A decrease in the initial capacitance of the capacitor with a decrease in the film thickness confirms the known laws of variation of ε with thickness of the segnetoelectric layer [E. V. Bursian, et al, Fizika tverdogo tela, Vol 6, No 6, 1818, 1964; St. Clucksman, et al., Zesz. nauk. Wyzsza szkola ped. Katowicach, No 6, 7, 1963]. The nonlinearity of the films in the investigated thickness range of 3-40 microns varied little. MgO can be recommended as the substrate material. The capacitance and nonlinearity of planar capacitors with a substrate of MgO is lower than in the case of using BeO for the same film thicknesses. Satisfactory nonlinearity is not obtained on sapphire with film thicknesses less than 5 microns. The dielectric losses in the planar capacitors in the centimeter wave

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

VENDIK, O. G., et al., Radiotekhnika i Elektronika, Vol 17, No 10, 1972, pp 2241-2243

range were defined by the resonator method. To measure the thermal delay constant the investigated capacitor was included in a superhigh frequency circuit to which a weak measuring signal and powerful pulses were fed. The temperature dependence of the capacitance of a planar capacitor is characterized by a highly diffuse peak for film thicknesses less than 10 microns. Capacitors with a $SrTiO_3$ film applied by the agglomeration method on a BeO substrate made it possible for the first time to realize successful operation of a nondegenerate parametric amplifier in the 2 gigahertz range in the continuous mode.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC: 621.396.677

VENDIK, O. G., RYZHKOVA, L. V.

"Matching of a Linear Phase Array of Waveguide Radiators in the Case of Wide-Angle Scanning in the E-Plane"

V sb. Antenny (Antennas--collection of works), vyp. 10, Moscow, "Svyaz'", 1971, pp 3-11 (from RZh-Radiotekhnika, No 5, May 71, Abstract No 5B34)

Translation: The authors discuss a diagram of a linear antenna array of waveguide radiators in which the change in the reflection coefficient is compensated at the input of the system in the oscillatory sector of the radiation pattern. Circuit parameters are determined. Calculation of the reflection coefficient at the input as a function of the oscillatory angle of the radiation pattern shows that compensation improves matching considerably in a broad sector of oscillatory angles of the radiation pattern. Six illustrations, two tables, bibliography of four titles. Resumé.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC: 621.372.852.2(088.8)

ANTONOV, N. N., VENDIK, O. G., DAKHNOVICH, A. A., MIRONENKO, I. G., Leningrad Electrical Engineering Institute

"A Capacitive Phase Shifter"

USSR Author's Certificate No 261493, filed 2 Dec 68, published 28 May 70 (from RZh-Radiotekhnika, No 1, Jan 71, Abstract No 1B212 P)

Translation: The proposed capacitive phase shifter contains a strip line and controllable capacitors based on a nonlinear dielectric. To keep phase displacement constant over a wide temperature range, the phase shifter is made in the form of a series circuit of capacitors connected in a break in the central conductor of the line. One illustration.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

1/2 029 UNCLASSIFIED PROCESSING DATE--27NOV70

TITLE--THE MICROWAVE IMPEDANCE OF A METAL WIRE DURING THE HIGH CURRENT PULSE -U-

AUTHOR-(02)-VENDIK, O.G., KTITOROV, S.A.

COUNTRY OF INFO--USSR

SOURCE--J. PHYS. C. PROC. PHYS. SOC. (SOLID STATE PHYS.) (GB), SER., VOL. 3, NO. 3, P. 671-4 (MARCH 1970)

DATE PUBLISHED--------70

SUBJECT AREAS--ELECTRONICS AND ELECTRICAL ENGR., PHYSICS

TOPIC TAGS--ELECTRIC IMPEDANCE, MICROWAVE TECHNOLOGY, TEMPERATURE DISTRIBUTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3007/0497

STEP NO--UK/0000/70/003/003/0671/0674

CIRC ACCESSION NO--AP0135960

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

029

CIRC ACCESSION NO--AP0135960 UNCLASSIFIED

PROCESSING DATE--27NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE INFLUENCE OF THE HIGH PULSE CURRENT ON THE TEMPERATURE DISTRIBUTION OF A THIN METAL WIRE IS CONSIDERED UNDER THE CONDITION THAT THE CROSS SECTIONAL AREA OF THE WIRE HAS RANDOM VALUES. THE CHANGE OF THE WIRE IMPEDANCE DURING THE CURRENT PULSE MAKES IT POSSIBLE TO EXPLAIN THE ANOMALOUS BEHAVIOUR OF THE MICROWAVE IMPEDANCE, WHICH HAS BEEN OBTAINED PREVIOUSLY (1968).

FACILITY: V. I. ULYANOV ELECTRICAL ENGNG. INST., LENINGRAD, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

1/2 031 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--ELECTRICAL NONLINEARITY OF A FERROELECTRIC SEMICONDUCTOR IN A HETEROGENEOUS ELECTRIC FIELD -U-

AUTHOR--VENDIK, O.G., MIKHALVESKIY, A.N.

COUNTRY OF INFO--USSR

SOURCE--FIZ. TVERD. TELA 1970, 12(2), 612-14

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS, ELECTRONICS AND ELECTRICAL ENGR.

TOPIC TAGS--SEMICONDUCTOR DEVICE, FERROELECTRIC MATERIAL, ELECTRIC FIELD

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1988/0253 STEP NO--UR/0181/70/012/002/0612/0614

CIRC ACCESSION NO--AP0105327

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

2/2 031 UNCLASSIFIED

CIRC ACCESSION NO--AP0105327 PROCESSING DATE--11SEP70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. FOR A TRUNCATED CONICAL CONDENSER FOR SUPER HIGH FREQUENCY USE THERE IS A LIMITING FREQUENCY F SUBO EQUALS 0.3 HZ SUCH THAT AT F SMALLLER THAN F SUBO CONTROLABILITY BY THE EXTERNAL FIELD DECREASES. FOR SRTIO SUB3 F SUBO EQUALS 10 PRIME3 MINUS 10 PRIME4 HZ.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC: 621.375.7.029.6

VENDIK, O. G., DAKHNOVICH, A. A., RUBAN, A. S., TER-MARTIROSYAN, L. T., YANCHENKO, Yu. F.

"A Cooled Parametric Amplifier on Strontium Titanate"

Moscow, Radiotekhnika i Elektronika, Vol 17, No 9, Sep 72, pp 1981-1983

Abstract: The paper gives the results of an experimental study of a two--circuit regenerative mavar for reflection with a planar nonlinear capacitor based on a strontium titanate thin film. The current-voltage characteristic of the capacitor is given. The signal frequency in the amplifier was 1.78 GHz, and the pumping frequency was 5 GHz. The amplifier was made in the coaxial strip version. The nonlinear capacitor was connected in a break in the central conductor of the strip line. As a distinguishing feature of the design, the energy from the pumping oscillator and the signal are sent to the same coaxial input. Separation is by a filter. Tests were done in a cryostat at 77 kelvins. The coaxial Y-circulator was located outside the cryostat. Losses in the input circuits including the circulator amounted to 1.0 dB; losses in the output circuits were 3 dB. At an amplification factor of 15 dB, the band of the proposed mavar was 12 MHz. The

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

VENDIK, O. G. et al., Radiotekhnika i Elektronika, Vol 17, No 9, Sep 72, pp 1981-1983

pumping power consumption was no more than 500 mW. The calculated noise temperature was 200 K, and measurements gave 320 K. The authors thank V. V. Smirnyy for furnishing the crystal specimens.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC 678:66.018.86

SEMENKO, E. I., MYSHKOVSKIY, V. I., VOBLIKOVA, V. A., and VENDILLO, V. P.

"Study of the Gaseous Products of γ-Radiolysis of Polymers in the Presence of Small Doses of Irradiation"

Moscow, Plasticheskiye Massy, No 5, 1973, pp 30-32

Abstract: A study was made of the gaseous products formed during γ-irradiation by small (2.5 Mrads) doses of certain polymer materials used in the medical industry: high-density polyethylene, methylmetacrylatebutyl acrylate copolymer polymethylmethacrylate, polyvinyl chloride and copolymers of styrene with methylemthacrylate, isoprene and divinyl.

From the experimental results presented it can be concluded that by using highly sensitive gas chromotography to analyze the products of radiolysis of certain polymer materials subjected to the effect of sterilizing doses of γ-radiation (2.5 Mrads) it is possible to establish the course of the decomposition processes with the formation of C_1-C_5 hydrocarbons, CO, and CO_2.

Broad utilization of ionizing radiation to sterlize medical products made of plastics requires a detailed study of the mechanism of the initial stages of the decomposition processes of polymers on irradiation of them by small doses.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC 771.537.33

VENDROVSKIY, K. V., VEYTSMAN, A. I., PTASHENCHUK, V. M.

"Signal/Noise Ratio and Quantum Effectiveness of Differentiation in Photographic Emulsion"

Moscow, Zhurnal Nauchnoy i Prikladnoy Fotografii i Kinematografii, Vol 17, No 6, Nov-Dec 72, pp 426-433.

Abstract: The quality of photographic materials of various sensitivities can be characterized by the quantum effectiveness of differentiation. This value compares the actual detector (its "signal/noise" ratio) to an ideal radiation detector, the accuracy of reproduction of which is limited only by photon noise resulting from the discrete nature of the light flux. The macroscopic quantum effectiveness, determining the effectiveness of recording of large parts, is distinguished from the microscopic quantum effectiveness, corresponding to the reproduction of small objects and considering the scattering of light in the light-sensitive emulsion. This work presents experimental results of determination of the signal/noise ratio and quantum effectiveness of films of varying sensitivities.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC 621.396.722(083.8)

KAZIMIROV, B. A., VENEDIKTOV, M. D.

"Receiver for Multichannel Asynchronous Communication Systems"

USSR Author's Certificate No 290249, filed 29 Aug 1969, published 26 Feb 1971, (from RZh-Radiotekhnika, No 1, 1972, Abstract No 1D79P)

Translation: A receiver is proposed for multichannel asynchronous communication systems with time-frequency division of the channels and significantly reduced intrasystem noise by comparison with the known ones. The device contains a radiofrequency amplifier and a frequency converter the output of which is connected to the decoding coincidence cascade via several signal processing channels. Each of the latter includes a series-connected narrow band filter, an intermediate frequency amplifier, a detector and a delay line. A correction time coincidence cascade is connected to each channel between the detector output and the corresponding delay line. The second inputs of all the correcting channels are connected to the output of the converter via a series-connected wide band logarithmic amplifier, a special detector and a shaping cascade.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC 621.383.032.217.3

VENEDIKTOV, N.YA., GALINSKIY, N.D., SHEFTEL', M.M.

"Study Of Porous Layers Of MgO As Emitters Based On Streaming For Preliminary Amplification Of Image Intensity"

Elektron.tekhnika. Nauch.-tekhn.sb. Elektronnoluch. i fotoelektr.pribory (Electronic Technology. Scientific-Technical Collection. Electron Beam And Photoelectric Devices), 1971, Issue 2(20), pp 40-47 (from RZh--Elektronika i yeye primeneniye, No 3, March 1972, Abstract No 3A118)

Translation: The results are reported of a study of porous layers of MgO, operating at streaming [prostrel] in models of image intensity amplifiers. The stability of the coefficient of secondary emission and the effect of streaming of the film by fast electrons are studied. A.B.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC 621.438.12.62.712

VENEDIKTOV, V. D., Candidate of Technical Sciences

"Study of the Turbine Stage in the Outflow of Cooling Air Through a Slit on the Concave Surface of Nozzle Blades"

Moscow, Teploenergetika, No. 7, Jul 72, pp 15-19

Abstract: A gasdynamic efficiency of turbine lattices when cooling air flows through slits on the concave surface of the blade is discussed. The operation of the turbine stage under these conditions is investigated by the small deviations method. An experimental study showed that the presence of slits on the blades for the supply of cooling air has practically no effect on the efficiency of the lattice for $\Delta/l < 0.02$-0.03. The presence of pockets for the slits on the concave surface of the blades leads to additional losses proportional to the relative height of the projection in the zone of the slit. Balancing of the rates of the emitted air in the basic flow for a slit width of $\Delta/l < 0.02$-0.03 occurs at a distance $x/\Delta = 10$-15 from the slit and is completed within the limits of the interblade channel in the majority of cases. The effective efficiency decreases monotonically with an increase in the flow of cooling air.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

1/2 017 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--TRANSISTORIZED CONVERTER FOR AUTOMATIC CHARGING OF SILVER CADMIUM STORAGE BATTERIES -U-

AUTHOR-(04)-VENEDIKTOV, YU.P., LEONTYEV, N.I., REPIN, O.M., SAYMUKOV, V.N.

COUNTRY OF INFO--USSR

SOURCE--ELEKTRICHESTVO (ELECTRICITY), 1970, NO 1, PP 82-83

DATE PUBLISHED-------70

SUBJECT AREAS--ENERGY CONVERSION (NON-PROPULSIVE)

TOPIC TAGS--ELECTROMECHANIC CONVERTER, TRANSISTORIZED GENERATOR, BATTERY CHARGER, STORAGE BATTERY/(U)24SK 100 SILVER CADMIUM BATTERY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3004/0260 STEP NO--UR/0105/70/000/001/0082/0083

CIRC ACCESSION NO--AP0130992

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

2/2 017 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0130992

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE BLOCK DIAGRAM IS PRESENTED OF A TRANSISTORIZED 1.5 KW CONVERTER WITH AN EFFICIENCY OF 85PERCENT WHICH IS USED FOR SIMULTANEOUS CHARGING OF TWO TYPE 24SK-100 STORAGE BATTERIES. THE CONVERTER HAS AN OUTPUT VOLTAGE STABILIZING CIRCUIT WHICH OPERATES ON THE PULSE WIDTH MODULATION PRINCIPLE. PROVISIONS ARE MADE FOR AUTOMATIC SELECTION OF THE CHARGING REGIME CORRESPONDING TO THE DEGREE OF DISCHARGE OF THE BATTERY AND FOR PROTECTION AGAINST CONVERTER OVERLOADING. SOME CHARACTERISTIC FEATURES OF THE CHARGING OF SILVER CADMIUM BATTERIES ARE EXAMINED. EXPERIMENTAL CHARACTERISTICS OF THE CONVERTER ARE GIVEN.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC 621.376.55(088.8)

VENEDIKTOV, M. D., ZHENEVSKIY, YU. P., NEVDYAYEV, L. M., MUSAYELYAN, S. A.

"Nonsynchronous Demodulator"

USSR Author's Certificate No 252411, Filed 27 Feb 68, Published 12 Feb 70 (from RZh-Radiotekhnika, No 9, Sep 70, Abstract No 9D34P)

Translation: This author's certificate introduces a demodulator which contains a forbidden circuit, an inertialess pulse expander, a low-frequency filter and a forbidden circuit control circuit. In order to improve the noiseproofness of the device, a two-channel device is connected between the output of the pulse expander and the input of the low-frequency filter. This two-channel device contains a series-connected differentiating circuit for the leading edge, a delay line and an OR circuit in the first channel and a differentiating circuit for the trailing edge, a delay line and a forbidden circuit is connected to the second input of the OR circuit, and the second input, to the output of the expander.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

Acc. Nr: AP0053438 Abstracting Service: CHEMICAL ABST. 5/70 Ref. Code: UR0366

111180q Preparation of 2-phenoxy-3,3-dimethyl-2-(p-chlorophenyl)oxetane. Temnikova, T. I.; Venediktova, N. A. (Leningrad, Gos. Univ., Leningrad, USSR). *Zh. Org. Khim.*, 1970, 6(2), 408 (Russ). Heating p-$ClC_6H_4COCMe_2CH_2OS$-C_6H_4Me with PhOK in PhOH soln. 50 hr at 80° gave the title compd., isolated by chromatog. on Al_2O_3. CPJR

REEL/FRAME
19830463

7

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

Computers

VENETSKIY, I.

JPRS 55453

16 March 1972

MACHINE ENTRANCE TESTING FOR HIGHER SCHOOLS

[Article by I. Venetskiy, M. Miroshnikova, I. Dunyavo, and N. Kremer: "An Electronic Computer Gives Exams", Moscow, Vestnik Statistiki, Russian, No 1, January 1972, pp 69-72]

In his report at the 24th CPSU Congress, L. I. Brezhnev pointed out the importance and necessity of work in the area of changing the content of the teaching process with the aim of bringing it into accord with the level of scientific and technical progress.

The higher school obtains, creates and turns out an enormous amount of information. The effective processing of this information for obtaining sound conclusions is extremely difficult. This applies particularly to testing the knowledge of persons entering the institutions of higher learning and also testing the current progress of the students. For this reason, electronic computers are beginning to come to the aid of the higher school.

Beginning in 1969, the Moscow Economics and Statistics Institute [MESI] has been using the Abiturlyent [secondary school graduate] system which was worked out under the leadership of the institute's rector, M. A. Korolev. The task of this system is to process information on the course of the received applications, admission, the results of entrance exams, and so forth. In 1970, this system was supplemented by the Analiz [analysis] subsystem, the basic function of which was to process on a Minsk-22 computer data about the secondary school graduates entering the institution of higher learning in terms of the information of their personal file and the grades received by them in the entrance exams.

The problem of raising the quality of instruction and the effectiveness of the pedagogical process becomes more and more urgent every year. The sharp increase in the amount of professional knowledge and the necessity of assimilating this

(I - USSR - N)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

knowledge in the established period of instruction require a fundamental improvement in the existing teaching methods and means. Here the following are of help: training films, various systems of educational TV, linguaphone equipment, teaching machines, and so forth. A group of instructors and graduate students at the MEGI became acquainted with the experience of using various devices and machines for giving competitive entrance exams in higher mathematics and physics and for a final testing of the students' knowledge in higher mathematics.

At the Georgian Polytechnical Institute imeni V. I. Lenin, they use the Aisi-3 testing machine which has been developed and manufactured at the Tbilisi Scientific Research Institute for Instrument Building and Automation Equipment. The examinations are given in writing. The secondary school graduate is to solve seven problems and examples covering various areas in a course of elementary mathematics. All the problems are compiled in such a manner that the answers consist of whole one-digit or two-digit positive numbers, since the machine is designed for a numerical answer input from 00 to 99. The four first problems are simpler than the last three. A grade of "satisfactory" is given for correctly solving five problems, "good" for six problems, and "excellent" for all seven problems. The institute has provided for a number of methodological measures aimed at achieving complete independence for each secondary school graduate and for creating a quiet situation during the exam. After the secondary school graduate has solved all the problems and after a cursory examination of the work by the instructor, a laboratory assistant, under the supervision of the secondary school graduate, feeds the numerical answers into the computer, and after that the computer prints out the final grade on the examination sheet indicating the correctness of the answer for each problem. If the secondary school graduate does not agree with the grade given, he can immediately turn to a commission which, in the event of necessity, with the secondary school graduate present, checks the grade given by the machine. After leaving the "computer" room, complaints by the secondary school graduate about the results of the exam are not considered. The used testing device does not make it possible to test the knowledge on certain theoretical questions and sections of the course (the solution of trigonometric equations, function analysis, the constructing of graphs of functions, and so forth). For this reason, another written mathematics exam is given where the work is tested by the traditional method, that is, by the instructor. The necessity of reducing the solution of the problem or example to a single-digit or two-digit number limits the number of possible problems and

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

Computers/Education

VENETSKIY, I.

JPRS 55453

16 March 1972

MACHINE ENTRANCE TESTING FOR HIGHER SCHOOLS

[Article by I. Venetskiy, M. Miroshnikova, I. Dubrava, and N. Kremer: "An Electronic Computer Gives Exams", Moscow, Vestnik Statistiki, Russian, No 1, January 1972, pp 69-72]

In his report at the 24th CPSU Congress, L. I. Brezhnev pointed out the importance and necessity of work in the area of changing the content of the teaching process with the aim of bringing it into accord with the level of scientific and technical progress.

The higher school obtains, creates and turns out an enormous amount of information. The effective processing of this information for obtaining sound conclusions is extremely difficult. This applies particularly to testing the knowledge of persons entering the institutions of higher learning and also testing the current progress of the students. For this reason, electronic computers are beginning to come to the aid of the higher school.

Beginning in 1969, the Moscow Economics and Statistics Institute [MESI] has been using the Abiturlyent [secondary school graduate] system which was worked out under the leadership of the institute's rector, M. A. Korolev. The task of this system is to process information on the course of the received applications, admission, the results of entrance exams, and so forth. In 1970, this system was supplemented by the Analiz [analysis] subsystem, the basic function of which was to process on a Minsk-22 computer data about the secondary school graduates entering the institution of higher learning in terms of the information of their personal file and the grades received by them in the entrance exams.

The problem of raising the quality of instruction and the effectiveness of the pedagogical process becomes more and more urgent every year. The sharp increase in the amount of professional knowledge and the necessity of assimilating this

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC 8.74

VENETSKIY, I. G., KREMER, N. SH., and MIROSHNIKOVA, M. M.

"Giving Entrance Examinations with the 'Minsk-22' Computer"

Mat. v shkole (Mathematics in the School) 1972, No 1, pp 39-44 (from RZh-Matematika, No 7, 1972, Abstract No 7V631)

Translation: A method is described for giving entrance exams with the help of the "Minak-22" electronic computer. According to this method, a separate card bearing problems chosen by a sensor of pseudo-random numbers from a reserve recorded on magnetic tape is printed and issued to each matriculant by the machine. A program provides a sequence of problems of a certain complexity from specified subjects of a course in elementary mathematics. The place of the matriculant in the hall is also determined by random choice. In order to reduce the number of errors in the perforated answers to the problems and to shorten the time for checking the examination results, all the problems are made up so that the answers are in integers or in tenths, with no variable, π, or units of measurement. It was noted that these examinations pointed up the following advantages of this method of taking entrance examinations over the traditional scheme: 1) the standardization of requirements for all matriculants; 2) the high objectivity of the evaluations; 3) the elimination of difficulties, particularly the mechanical work of the instructor in correcting written material and oral examinations;

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

VENETSKIY, I. G., et al., Mat. v shkole, 1972, No 1, pp 39-44 (from RZh-Matematika, No 7, 1972, Abstract No 7V631)

4) a notable reduction in subject committees; 5) the absence of unusual circumstances in the examination, of direct contact between the matriculant and the machine; 6) the high efficiency with which the examination was conducted (issuing a card with 20 problems took 45 seconds, a card with 5 problems, 25 seconds; the punching of the answers and the distribution of the results to 500 people took 2.2 hours); 7) the answer is written and can thus be controlled by the instructor; 8) a large number of problems given to the matriculant reduces to a minimum the element of randomness in evaluating its significance; 9) the high efficiency of the system permits conducting all theexaminations during the morning hours; 10) the high centralization of the direction of the work by the reception and subject committees. V. Mikheyev

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR.

UDC 8.74

VENETSKIY, I. G., KREMER, N. SH., MIROSHNIKOVA, M. M.

"Entrance Exam Procedure Using the Minsk-22 Computer"

Mat. v shkole (Mathematics in School), 1972, No 1, pp 39-44 (from RZh-Kibernetika, No 7, Jul 72, Abstract No 7V631)

Translation: A procedure is described for entrance exams using the Minsk-22 computer. In accordance with this procedure, for each person who has finished secondary school the machine prepares, prints out and sends an individual note with the problems selected by the random number generator from a library recorded on magnetic tape. The program provides for the sequence of generating problems of defined complexity from the given divisions of the elementary mathematics course. The place of the graduate in the room is also determined randomly. In order to decrease the number of errors in punching the answers to the solved problems and to reduce the time of checking the examination results, all the problems are compiled so that the answer to any of them will be an integer or a decimal fraction without naming the variable, the number π, the notation for the measurement units, and so on. It is noted that the exams revealed the following advantages of the given entrance exam procedure

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

VENETSKIY, I. G., et al., Mat. v shkole, 1972, No 1, pp 39-44

by comparison with the traditional one: 1) standardization of the requirements on all the graduates; 2) high objectivity of the evaluation; 3) elimination of the tedious, to a significant degree mechanical work of teachers with respect to checking written work and for the oral examination procedure; 4) significant reduction of the subject commissions; 5) insurance of the usual situation at the exams; absence of direct contact of the graduate with the machine; 6) high operativeness of giving the exam (generation of a sheet of 20 problems takes 45 seconds, a sheet of 5 problems, 25 seconds, and punching the answer and generating the results for 500 people takes 2.2 hours); 7) the response presents a written solution which can be checked by the teacher; 8) a large number of problems presented to the graduate reduces the element of chance when evaluating his skills to a minimum; 9) high operativeness of the system permits all the exams to be given in the morning; 10) high centralization of administration of the work of the acceptance and subject commissions.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR UDC 621.315.61.537.226

DIDKOVSKAYA, O. S., SAVENKOVA, G. Ye., KLIMOV, V. V., VENEVTSEV, Yu. N.

"A Piezoceramic Material"

Moscow, Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, No 23, Aug 71, Author's Certificate No 310310, Division H, filed 8 Dec 69, published 26 Jul 71, p 167

Translation: This Author's Certificate introduces a piezoceramic material based on solid solutions of $Pb(Zr_xTi_{1-x})O_3$ with x = 0.4-0.6 with the addition of 0.5-5 mol.% Bi_2O_3 and 0.25-10 mol.% Li_2O. As a distinguishing feature of the patent, the sintering temperature is reduced and the dielectric and piezoelectric properties of the material are improved by adding 0.25-3.0 Mol.% Nb_2O_5.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR UDC 666.638

SAVENKOVA, G. Ye., DIDKOVSKAYA, O. S., KLIMOV, V. V., VENEVTSEV, Yu. N.

"A Piezoceramic Material"

Moscow, Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, No 23, Aug 71, Author's Certificate No 310354, Division H, filed 3 Mar 70, published 26 Jul 71, p 177

Translation: This Author's Certificate introduces a piezoceramic material based on lead zirconate-titanate solid solutions containing an additive in the form of a mixture of oxides of tungsten and one of the bivalent elements. As a distinguishing feature of the patent, the sintering temperature of the material is reduced by using the above-mentioned additive in the form of tungsten oxide in amounts of 0.3-3.5 mol.%, oxide of one of the bivalent elements (Sr, Ca, Zn, Ba) in amounts of 1.0-10 mol.%, and by the addition of bismuth trioxide in amounts of 0.25-5 mol.%.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

1/2 035 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--PHASE TRANSFORMATIONS OF GADOLINIUM MOLYBDATE AND ISOSTRUCTURAL COMPOUNDS -U-

AUTHOR--DROBYSHEV, L.A., FROLKINA, I.T., PONOMAREV, V.I., TOMASHPOLSKIY, YU.YA., VENEVTSEV, YU.N.

COUNTRY OF INFO--USSR

SOURCE--KRISTALLOGRAFIYA 1970, 15(1), 68-74

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS, PHYSICS

TOPIC TAGS--PHASE TRANSFORMATION, X RAY ANALYSIS, MECHANICAL PROPERTY, ELECTRICAL PROPERTY, MOLYBDATE, GADOLINIUM COMPOUND, EUROPIUM, TERBIUM, DYSPROSIUM, HOLMIUM, NEODYMIUM LASER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1984/0117 STEP NO--UR/0070/70/015/001/0068/0074

CIRC ACCESSION NO--AP0054913

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

2/2 035 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0054913

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. PHASE TRANSFORMATIONS OF THE L MODIFICATION OF GD, EU, TB, DY, AND HO MOLYBDATES USED FOR QUANTUM ELECTRONICS WERE INVESTIGATED BY USING X RAY AND THERMOGRAPHIC MEHTODS. A RELATION WAS ESTABLISHED BETWEEN THE STRUCTURAL CHANGES AND PHYS. PROPERTIES OF THESE COMPDS. THE OCCURENCE OF SEIGNETTE ELEC. PROPERTIES WERE NOTED IN THE TETRAGONAL L MODIFICATIONS OF EU, TB, DY, AND HO MOLYBDATES AT IS LESS THAN 192, 165, 158 AND 134DEGREES, AND ON THIS BASIS, THE POSSIBLILITY WAS CONSIDERED OF USING THESE COMPDS. AS ACTIVE MATERIALS FOR ND ACTIVATED LASERS, THE MAGNETIC ORDERING OF THESE COMPDS. AT DEFINITE TEMPS. WAS ALSO CONSIDERED. THE TEMP. CHANGES OF 2 TYPES OF PHASE TRANSFORMATIONS (SEIGNETTE ELEC. AND TRANSFORMATIONS WITH CRYSTAL DECAY) WERE DEPENDENT ON THE AT. NO. OF THE RARE EARTH ELEMENT. THE EXISTENCE OF A GD SUB2(MOO SUB4) SUB3 TETRAGONAL MODIFICATION WITH ALPHA EQUALS 7.25 AND C EQUALS 10.58 ANGSTROMS WAS ALSO VERIFIED.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

Materials

USSR

UDC 534.232.46.8

VISKOV, A.S., VENEVTSEV, YU. N.

"Piezoceramic Material"

USSR Author's Certificate No 251631, filed 21 Mar 68, published 3 Feb 70 (from RZh--Elektronika i yeye primeneniye, No 11, November 1970, Abstract No 11A303P)

Translation: A piezoceramic material is proposed, based on a solid solution of lead titinate. In order to expand the operating range of the temperature and to increase the mechanical quality, it contains $(100-x)PbTiO_3--xBaNb_{4/5}O_3$, and also the admixture 0.1--0.2 $xMnO_2$, 0.1 xNiO with $x = 3--8$ mol.%.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC 621.372.413

VENEVTSEV, Yu. N., KARNAUKH, A. I., SHVORNEVA, L. I.

"Tuning a Hollow Resonator by a Nonlinear Dielectric"

Elektron. tekhnika. Nauchno-tekhn. sb. Elektron. SVCh (Electronic Engineering. Scientific and Technical Collection. Superhigh-Frequency Electronics), 1970, vyp. 5, pp 49-58 (from RZh-Radiotekhnika, No 8, Aug 70, Abstract No 8B161)

Translation: This article contains an investigation of toroidal and rectangular resonators with a nonlinear dielectric in the paraelectric phase filling the capacitive gap of the resonator. On the basis of replacing the resonator by an equivalent circuit in the form of two long lines, one of which is loaded with a nonlinear capacitance, the resonance wavelength of the resonator and the range of its application under the effect of a controlling field on the dielectric are calculated. The results of the calculations agree well with the experimental results. There are ten illustrations and a ten-entry bibliography.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

1/2 025 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--HIGH TEMPERATURE X RAY STUDY OF THE PEROVSKITE MODIFICATION OF CDTIO SUB3 -U-

AUTHOR-(03)-LEBEDEV, V.M., VENEVTSEV, YU.N., ZHDANOV, G.S.

COUNTRY OF INFO--USSR

SOURCE--KRISTALLOGRAFIYA 1970, 15(2), 377-9

DATE PUBLISHED--------70

SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY, PHYSICS

TOPIC TAGS--CADMIUM COMPOUND, TITANATE, X RAY STUDY, MINERAL, CURIE POINT, NIOBIUM OXIDE, HIGH TEMPERATURE EFFECT, ANTIFERROELECTRICITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/0319 STEP NO--UR/0070/70/015/002/0377/0379

CIRC ACCESSION NO--AP0119306

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

2/2 025 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0119306

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A HIGH TEMP. (EQUAL TO 1200DEGREES) X RAY DIFFRACTION STUDY OF THE PHASE TRANSITION IN THE PEROVSKITE MODIFICATION OF CDTIO SUB3 WAS MADE TO CLARIFY THE CONFLICTING LITERATURE DATA ON THE CURIE TEMP. AND THE TRANSITION FROM THE FERROELEC. TO THE ANTIFERROELEC. STATE. THE TEST SPECIMENS WERE PREPD. BY THE USUAL CERAMIC PROCEDURE BY FIRING TWICE (AT 1050DEGREES AND 1250DEGREES) A STOICHIOMETRIC MIXT. OF PURE CDCO SUB3 AND TIO SUB2 IN A CDO ATM. TO PREVENT DECOMPN. OF THE CDTIO SUB3 FORMED. WITHIN THE TEMP. RANGE STUDIED, THE SUBLATTICE OF CDTIO SUB3 SUSTAINED MONOCLINIC DISTORTION. AT ROOM TEMP., THE LATTICE PARAMETERS COINCIDE WITH LITERATURE DATA. WITH INCREASING TEMP., PARAMETERS A EQUALS C, B, AND V PRIMEONETHIRD TEND TO INCREASE AND PARAMETERS BETA AND B-A DECREASE. THE RESULTS CONFIRMED AN EARLIER CONCLUSION THAT CDTIO SUB3 HAS A CURIE TEMP. OF EQUIVALENT 960DEGREES AND THAT BELOW THIS TEMP. THE COMPD. IS ANTIFERROELEC. THE CHARACTER OF THE TRANSITION AT THE CURIE POINT IS SIMILAR TO THAT EARLIER REPORTED FOR NANBO SUB3. FACILITY: NAUCH. ISSLED. FIZ. KHIM. INST. IM. KARPOVA, MOSCOW, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

1/2 017 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--PIEZOCERAMICS BASED ON LEAD ZIRCONATE TITANATE WITH COMPLEX ADDITIVES CONTAINING GERMANIUM -U-

AUTHOR-(03)-DIDKOVSKAYA, O.S., KLIMOV, V.V., VENEVTSEV, YU.N.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, NEORG. MATER. 1970, 6(3), 606-7

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS, CHEMISTRY

TOPIC TAGS--GERMANIUM CONTAINING ALLOY, ZIRCONATE, TITANATE, PIEZOELECTRIC CERAMIC

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/1511 STEP NO--UR/0363/70/006/003/0606/0607

CIRC ACCESSION NO--AP0120292

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

UNCLASSIFIED PROCESSING DATE--23OCT70

2/2 017

CIRC ACCESSION NO--AP0120292

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. RESULTS ARE GIVEN OF THE STUDY OF THE EFFECT OF ADDNS. BI(B SUBONE HALF PRIME2 POSITIVE GE SUBONE HALF) O SUB3 (WHERE B PRIME2 POSITIVE EQUALS BA PRIME2 POSITIVE, SR PRIME2 POSITIVE, CA PRIME2 POSITIVE, MG PRIME2 POSITIVE, AND CU PRIME2 POSITIVE) ON THE SINTERING AND THE PROPERTIES OF PBTIO SUB3 PBZRO SUB3 SOLID SOLNS. NEAR THE MORPHOTROPIC TETRAGONAL RHOMBOHEDRAL BOUNDARY. THE SAMPLES STUDIED WERE PREPD. BY CONVENTIONAL CERAMIC TECHNOLOGY BE TWO TIME FIRING AT 800DEGREES FOR 2 HR AND AT 1000-1050DEGREES FOR 1.5 HR. X RAY DIFFRACTION STUDIES SHOWED THAT THE POSITION OF THE MORPHOTROPIC TETRAGONAL RHOMBOHEDRAL BOUNDARY WITH THE INTRODUCTION OF THE ADDNS. IS SHIFTED TOWARDS THE SIDE OF THE TETRAGONAL REGION. THE BEST CHARACTERISTICS IN THE CASE OF A 2PERCENT ADDN. ARE SHOWN BY COMPNS. WITH THE RATIO (ZR PRIME4 POSITIVE):(TI PRIME4 POSITIVE) EQUALS 52:48. THE PROPERTIES OF A NO. OF THE PREPD. MATERIALS ARE TABULATED. THE PROPERTIES OF THE SOLID SOLNS. PREPD. WERE INVESTIGATED AS A FUNCTION OF THE TEMP. AS WELL AS IN STRONGLY VARIABLE FIELDS. TEMP. DEPENDENCE OF DIELEC. PERMEABILITY WAS DETD. INVESTIGATION OF THE TEMP. DEPENDENCE OF THE COEFF. OF THE ELECTROMECH. BOND AND OF THE PIEZOMODULUS SHOWED THAT THE RESULTS OBTAINED DIFFER BUT LITTLE FROM THE TEMP. DEPENDENCES OF THESE PARAMETERS FOR KNOWN MATERIALS BASED ON PBTIO SUB3 PBZRO SUB3.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

Acc. Nr.: AP0046866

Ref. Code: UR0122

UDC 621.824.678.5.026.37:621.787.4

USSR

VELLER, V. A., Candidate of Technical Sciences, VENGARTEN, A. M., Candidate of Technical Sciences, GOMAN, G. M., Engineer, OSTANINA, V. A., Engineer

"Fatigue Strength Increase of Rolled Shafts by Polymer Coating"

Moscow, Vestnik Mashinostroyeniya, No 1, 1970, pp 13-15

Abstract: Experimental data are presented on fatigue tests conducted on carbon steel shafts from 30 to 165 mm in diameter with a press fit, in order to evaluate the increase in the fatigue limit produced by surface rolling and by application of a polymer coating. The results show that the fatigue strength increases 1.5-2 times, and that the effectiveness of rolling increases with shaft diameter. The surface strengthening by rolling is being currently applied to propeller shafts on all ships in construction.

18

1/3

Reel/Frame

19790182

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

The effect of rolling on prevention of crack formation is being substantially smaller than on tensile strength. The formation of surface defects due to fretting-corrosion at the location of press-fits was observed on the ordinary and rolled samples. A polymer coating of the surface at the location of a press fit is one of the very effective procedure for lowering corrosion. A combination of rolling with polymer coating is highly recommended for reducing the intensity of fretting-corrosion.

The metallographic study of samples at the location of a press fit shows, that at the same stress levels, the application of a polymer coating substantially delays the formation of surface defects, caused by the fretting-corrosion, and by the same way, increases the durability of the part. The efficiency of polymer coating is tentatively explained by separation of contact surfaces, by protection of metallic surfaces from air action; by reduction of the stress along the edges of a press-fitted bushing.

19790183

2/3

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

AP0046866

It is concluded that 1) the fatigue strength at the location of press fits increases 1.5-2 times, by using the surface rolling; and 2) the use of polymer coatings on rolled shafts at the location of press fits ensures an increase in fatigue strength and durability, and at first the decrease in fretting corrosion intensity. Original article has 1 figure and 2 tables.

3/3

19790184

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

Acc. Nr. AP0054892 Abstracting Service: CHEMICAL ABST. 6 70 Ref. Code UR0363

115359c Indium sesquisulfide-germanium sulfide system. Sarkisov, E. S.; Lidin, R. A.; Vengelevskaya, N. S. (Mosk. Inst. Tonkoi Khim. Tekhnol. im. Lomonosova, Moscow, USSR). *Izv. Akad. Nauk SSSR, Neorg. Mater.* 1970, 6(1), 184–5 (Russ). The In_2S_3–GeS system was studied by using DTA and x-ray diffraction methods. The fusibility diagram of the In_2S_3–GeS system was constructed on the basis of heating and cooling data. It corresponds to a system of the simple eutectic type, with the eutectic point at 600° and 30 mole % In_2S_3. The effect of polymorphic transformation $\beta \rightarrow \alpha$-GeS at 535° is obsd. only for samples rich in GeS. An effect at 750° is obsd. in the case of annealed samples (700°, 10 hr) contg. 35–100 mole % In_2S_3. This thermal effect was interpreted as being the effect of polymorphic transformation $\gamma \rightarrow \beta$-In_2S_3. X-ray diffraction patterns for samples of the In_2S_3–GeS system contain only lines for the starting sulfides (β-In_2O_3 and α-GeS). S. A. Mersol

C K. 18

REEL/FRAME
19840095

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

1/2 007 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--TERTIARY TRIHYDRIC ALCOHOLS OF THE ACETYLENIC AND ETHYLENIC SERIES AND THEIR CHEMICAL REACTIONS. TRIETHERS AND MONO AND DIETHERS OF

AUTHOR-(03)-NIKITIN, V.I., GLAZUNOVA, YE.N., VENGER, E.F.

COUNTRY OF INFO--USSR

SOURCE--ZH. ORG. KHIM. 1970, 6(4), 661-5 (RUSS)

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ACETYLENE, GLYCEROL, ETHER, ORGANIC SYNTHESIS, CONDENSATION REACTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/2042 STEP NO--UR/0366/70/006/004/0661/0665

CIRC ACCESSION NO--AP0125630

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

2/2 009 UNCLASSIFIED

CIRC ACCESSION NO--AP0125630 PROCESSING DATE--13NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CONDENSATION OF RCME(ONA)C: SHOWN ON MICROFICHE. SIMILARLY, MECR(CAC)C:CR, WHERE R IS 1,METHOXYCYCLOHEXYL OR 1,ETHOXYCYCLOHEXYL, WERE PREPD.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

VENGEROVA, G. T., MARTYNOV, A. V. UDC: 51

"The Method of Branches and Boundaries in Nonconvex Programming With Application to the Multiproduct Problem of Inventory Control"

Tr. Krasnodar. politekhn. in-t (Works of Krasnodar Polytechnical Institute), 1972, vyp. 42, pp 160-185 (from RZh-Kibernetika, No 5, May 73, abstract No 5V630 by Yu. Finkel'shteyn)

Translation: The paper deals with a linear programming problem with a nonconvex separable target function and a convex permissible region

$$F(x)=F(x_1,\ldots,x_n)=\sum_{i=1}^{n} f_i(x_i)\to\max,\ x\in G.$$

Two versions of the algorithm of branches and boundaries are used. The paper is closely related to articles by Falk and Soland (RZhMat, 1970, 1V406; 8V358) in which the method of branches and boundaries is applied to problems of the same

1/3

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

VENGEROVA, G. T., MARTYNOV, A. V., Tr. Krasnodar. politekhn. in-t, 1972, vyp. 42, pp 160-185

type by constructing convex envelopes for component functions $f_i(x_i)$. In this regard the goal function is required only to be semicontinuous from below for solution of the minimization problem. As pointed out by Falk and Soland, one of the main difficulties of their method is the complexity of constructing a convex envelope for an arbitrary semicontinuous function. The object of this article is to get around this difficulty to some extent by breaking the permissible region up into sections such that construction of envelopes occasions no difficulty. Convex envelopes are readily constructed for convex or concave functions. Therefore it is proposed that the component functions $f_i(x_i)$ be comprised of a finite number of convex, concave or linear segments. This requirement is usually met in practice, or can be satisfied with sufficient accuracy. Besides, in meeting this requirement the rule of weak improvement of Falk and Soland can be used since the conditions of their convergence theorem are satisfied. In the last section a multi-

2/3

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

VENGEROVA, G. T., MARTYNOV, A. V., Tr. Krasnodar. politekhn. in-t, 1972, vyp. 42, pp 160-185

product dynamic problem of inventory control is formulated and the possibilities of solving it by the method here proposed are discussed.

3/3

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR UDC: 616.981.232-036.22-616.831.9-022-022.7-036.22

FAVOROVA, L.A., MIRONOVA, T.K., MARGOLINA, M.S., POKROVSKIY, V.I., VENGEROV, YU.YA., KOSTYUKOVA, N.N., AND IGNATOV, YU.I., Institute of Epidemiology and Microbiology imeni Gamaleya, Academy of Medical Sciences USSR, and Central Institute of Epidemiology

"Epidemiological Analysis of Outbreaks of Epidemic Cerebrospinal Meningitis Report!"

Moscow, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 2, 1970, pp 95-100

Abstract: The incidence of cerebrospinal meningitis in the Soviet Union dropped over 25 years ago to a very low level and stabilized. Only isolated cases were reported until 1967-1968, when minor epidemics of the disease occurred in a number of inhabited places. These outbreaks had a number of features in common: frequency of mostly asymptomatic nasopharyngitis not detected by physicians, prevalence of the carrier state, infection mostly among children 12-20, especially those living under extremely crowded conditions in boarding schools, and occurrence in the fall and spring. The various control measures adopted halted the spread of the disease but not the carrier state, which persisted until the children returned to their homes for holiday vacations.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC 616.988.75-06:616.981.232-097.5

POKROVSKIY, V. I., SACHKOV, V. I., MATVEYEVA, S. M., VENGEROV, Yu. Ya., GROMOGLASOVA, Ye. V., and MARKOVA, N. V., Moscow Medical Stomatological Institute

"Group-Specific Antimeningococcus Antibodies in Various Forms of Meningococcus Infection in the Presence of Influenza Viruses"

Moscow, Zhurnal Mikrobiologii Epidemiologii i Immunobiologii, No 11, 1972, pp 115-120

Abstract: Circulating antimeningococcus group-specific antibodies the formation of which was triggered by meningococcus infection were studied. The precipitation method which included the diffusion of antigens, antibodies, and their complexes through a membrane was used. The blood sera of individuals without any contact with meningococcus infection contained in average 370 μg antigen-antibody complex/ml, and it increased to 590 μg/ml for the medical personnel who had contact with patients carrying meningococcus infection. The number of antibodies in patients with pure meningitis was 920, 830, and 820 μg/ml of blood serum during the first day in hospital, in 5-6 days, and at the end of hospitalization, respectively. Patients in whom meningitis was combined with meningococcemia carried 730, 623, and 502 μg antibodies/ml of blood serum tested during the same periods. When the meningococcemia was prevalent, the

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

POKROVSKIY, V. I., et al., Zhurnal Mikrobiologii Epidemiologii i Immunobiologii, No 11, 1972, pp 115-120

number of antibodies was 630, 553, and 510 μg/ml during respective periods. The serologically detected influenza virus Hong Kong A2 produced the subclinical form of the meningococcus infection and increase the number of the infection carriers. Increase in the antibody titer toward influenza A2 viruses in patients with the meningococcus infection was, probably, the additional sensitizing factor which led to hyperergia and meningococcemia. This was accompanied by a decrease in the number of the antimeningococcus antibodies and by titer increases of the antiviral antibodies. The immunological process in the case of meningococcus infection combined with respiratory viral infection produced conditions favorable for anaphylactic reactions.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

Acc. Nr: AP0044201 Ref. Code: UR 0016

PRIMARY SOURCE: Zhurnal Mikrobiologii, Epidemiologii, i Immunobiologii, 1970, Nr 2, pp 95-100

EPIDEMIOLOGICAL ANALYSIS OF OUTBREAKS OF MENINGOCOCCUS INFECTION

REPORT I

Favorova, L. A.; Mironova, T. K.; Margolina, M. S.; Pokrovskiy, V. I.; Vengerov, Yu. Ya.; Kostyukova, N. N.; Ignatov, Yu. I.

The authors present materials concerning epidemiological and microbiological characteristics of outbreaks of meningococcus infection which occurred in 1967—1968 against the background of prolonged epidemiological welfare. The outbreaks, characterized by individual cases of the disease, widespread nasopharyngitis and carrier state, had a number of characteristic epidemiological signs (automnospring seasonal prevalence, the patients' age range — from 12 to 20 years, and marked «nidality» of meningitis cases).

Strains of meningococci isolated from carriers differed in serological respect: along with types A, B and C there occurred many nonagglutinating strains, and also polyagglutinable and spontaneously agglutinating cultures.

1/1

REEL/FRAME 19770687

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

1/2 013 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--ASCORBATE OXIDASE ACTIVITY OF A COMPLEX OF CU PRIME2 POSITIVE AND POLY(4,VINYLPYRIDINE) PARTIALLY ALKYLATED BY BROMOACETIC ACID -U-

AUTHOR-(04)-VENGEROVA, N.A., KIRSH, YU.E., KABANOV, V.A., KARGIN, V.A.

COUNTRY OF INFO--USSR

SOURCE--DOKL. AKAD. NAUK SSR 1970, 190(1), 131-4

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CATALYST ACTIVITY, COMPLEX COMPOUND, BROMINATED ORGANIC COMPOUND, OXIDATION, COPPER COMPLEX, PYRIDINE, ALKYLATION, ACETIC ACID

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1985/1902 STEP NO--UR/0020/70/190/001/0131/0134

CIRC ACCESSION NO--AT0101946

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

2/2 013 UNCLASSIFIED PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AT0101946

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CATALYTIC ACTIVITY OF THE TITLE COMPLEX (I) IN THE OXIDN. OF ASCORBIC ACID (II) BY O WAS COMPARED WITH THAT OF CU PRIME2 POSITIVE ALONE AND ITS LOW MOL. WT. ANALOG, PYRIDINIUM BROMOACETATE (III). THE OXIDN. WAS STUDIED IN 0.02M ACETATE BUFFER AT PH 4.3 AND 25 PLUS OR MINUS 0.1DEGREE. IN THE PRESENCE OF I, THE OXIDN. RATE INCREASED, AND THE RATE WAS LESS EFFECTIVELY ACCELERATED BY THE INCREASING II CONCN. THIS SUGGESTED THE FORMATION OF A MICHAELIS COMPLEX AS OBSD. IN ENZYME REACTIONS. COMPARISON OF THE I DISSOCN. CONCT. ((2.5 PLUS OR MINUS 0.5) TIMES 10 PRIME NEGATIVE3) WITH THAT OF THE CU PRIME2 POSITIVE PYRIDINE COMPLEX INDICATED THAT CU PRIME2 POSITIVE IN I WAS ASSOCD. WITH THE UNALKYLATED PYRIDINE RINGS. III HAD NO EFFECT ON THE OXIDN. OF II IN THE PRESENCE OF CU PRIME2 POSITIVE. I WAS GREATER THAN 10 PRIME3 MORE ACTIVE THAN CU PRIME2 POSITIVE ALONE. SINCE IODOMETHYLATED POLY(4,VINYLPYRIDINE) (DEGREE OF SUBSTITUTION 70PERCENT) DID NOT CHANGE THE ACTIVITY OF CU PRIME2 POSITIVE, THE HO SUB2 CCH SUB2 GROUPS OF I WERE ALSO RESPONSIBLE FOR INCREASING THE CATALYTIC ACTIVITY. THE INCREASED ACTIVITY WAS THUS ASSUMED TO BE DUE TO THE FORMATION OF ACTIVE CAVITIES CONTG. PYRIDINE RINGS SURROUNDED BY HO SUB2 CCH SUB2 GROUPS IN THE MACROMOL. COILS OF I.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

Acc. Nr: AP0052504

Abstracting Service: CHEMICAL ABST. 5-70

Ref. Code: 9R0460

101153u Polymerization of methyl methacrylate in the presence of sulfuric and phosphoric acids. Vengerova, N. A.; Georgieva, V. R.; Zubov, V. P.; Kabanov, V. A.; Tsvetkov, V. A. (Mosk. Gos. Univ. im. Lomonosova, Moscow, USSR). *Vysokomol. Soedin., Ser. B* 1970, 12(1), 46-50 (Russ). The photopolymn. of Me methacrylate (I) in the presence of H_2SO_4 or H_3PO_4 was studied at −10 to +100°. Polymn. in the I-H_2SO_4 system was initiated by uv light (λ = 313 mμ) without a sensitizer, whereas polymn. in the I-H_3PO_4 system was initiated by uv light without a sensitizer, as well as in the presence of benzil at λ = 365 mμ. The polymn. rates and the mol. wts. of poly(Me methacrylate) (II) increased with increasing I-acid ratio, presumably due to a chem. activation of the monomer or the propagating macroradical by the acids. Max. polymn. rate and mol. wt. of II were obtained in the presence of 80% H_2SO_4, suggesting that the chain termination rate const. varied in the presence of H_2SO_4. The polymn. rate of I in the presence of either acid obeyed the Arrhenius equation; the activation energy was 4.9 kcal/mole (in the presence of H_2SO_4) and 5.0 kcal/mole (in the presence of H_3PO_4). The microtacticity of II was essentially independent of the polymn. temp., indicating that the acid bound to the reactive center participated in chain propagation.

CKJR

1/1

REEL/FRAME
19821145

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

Transformation and Structure

UDC 669.715'74

USSR

VENGRENOVICH, R. D., and PSAREV, V. I., Chernovtsy

"Nonequilibrium Crystallization and Structural Transformations During Heating of Al-Mo and Al-Cr Alloys"

Moscow, Izvestiya Akademii Nauk SSSR -- Metally, No 5, 1970, pp 186-193

Abstract: This article contains a study performed to check the proposition that the earlier discovered laws of metastable crystallization, phase and structural transformations when heating nonequilibrium Al-Mn alloys are characteristic of other systems of alloys of aluminum with transition metals (Cr, Mo, V, Ti, etc.) and to discover the characteristic features of nonequilibrium crystallization and the mechanism of conversion of metastable phases into stable phases when heating nonequilibrium Al-Mo and Al-Cr alloys. X-ray micrography, thermographic, and metallographic methods were used to analyze the phase composition and structural state of the alloys.

The data presented in the paper clarify the physical processes of nonequilibrium crystallization and the formation of strongly supersaturated solid solutions based on aluminum, the mechanism of its decomposition, and conversion of the metastable states into stable states in Al-Mo and Al-Cr alloys. None-

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

VENGRENOVICH, R. D., and PSAREV, V. I., Izvestiya Akademii Nauk SSSR -- Metally, No 5, 1970, pp 186-193

equilibrium crystallization of Al-Mo and Al-Cr alloys from the temperatures of the single-phase (liquid) and double-phase (liquid + crystals) regions takes place according to metastable diagrams: $Al-Al_3Mo$ (Al-Mo system), $Al-Al_4Cr$ and $Al-Al_{11}Cr_2$ (Al-Cr system) with the formation of metastable eutectics. The transformations of $Al_3Mo \rightarrow Al_5Mo$ in Al-Mo alloys and $Cr_2Al_{11} \rightarrow CrAl_7$, $CrAl_4 \rightarrow Cr_2Al_{11} \rightarrow CrAl_7$ in Al-Cr alloys take place by separation of metastable compounds of excess atoms of molybdenum or chromium from the crystal lattice and subsequent rearrangement of it. The crystal lattice of the compounds $CrAl_7$, Cr_2Al_{11}, and $CrAl_4$ was deciphered. This permitted discovery of the mechanism of the indicated transformations when heating Al-Cr alloys. The increase in resistance to decomposition of a strongly supersaturated α-solid solution of aluminum is connected with the presence of the metastable phases (Al_3Mo, Cr_2Al_{11}, Al_4Cr) in the alloys and their conversion into stable phases (Al_5Mo, $CrAl_7$) taking place by separation of molybdenum or chromium atoms and partial solution of them in the α-solution.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC 621.382.5

VENGEROVSKIY, L.V., PAGANOV, M.A., RIVKIN, A.S.

"Transient Processes In Thermoelectric Devices"

Sb. Tr. po agron. fiz. (Collection Of Works On Agricultural Physics), 1970, Vyp 25, pp 70-86 (from RZh--Elektronika i yeye primeneniye, No 6, June 1970, Abstract No 6B266)

Translation: There is a solution in the paper of the problem of the temperature change at the cooled surface of a semiconductor thermoelement in a nonstationary regime. Formulas are obtained for calculation of the temperature and the effect is investigated of the thermal output of the surface of a thermopile and the thermal capacity of the mass attached to it on the course of thermoelectric cooling. 7 ill. 2 tab. 10 ref. Author's Abstract.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC 632.95

VENGERSKAYA, KH. YA., DEMIDENKO, I. M., and MAYOROVA, T. N.

"Determination of Small Quantities of Paraquat, Diquat and Bipyridyl Phosphate in the Air"

Tr. 2-go Vses. soveshch. po issled, ostatkov pestitsidov i profilakt. zagryazneniya imi produktov pitaniya, kormov i vnesh. sredy (Works of the Second All-Union Conference on Investigation of Residues of Pesticides, and Prevention of Pesticide Contamination of Foodstuffs, Fodder and the External Environment), Tallinn, 1971, pp 267-268 (from RZh-Khimiya, No 11, Jun 72, Abstract No 11N455)

Translation: In order to determine paraquat and dipyridyl phosphate by the colorimetric method, Nessler's reagent is added to an acid solution of the specimen, and the intensity of the resultant dye is determined. The sensitivity of the reaction is 10 γ in 1 ml of solution. Diquat forms dye complexes in an alkaline medium. The ultraviolet absorption spectra of these herbicides were studied.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC 614.72:[632.964:631.542.25

VENGERSKAYA, Kh. Ya., DEMIDENKO, N. M., MAYOROVA, T. N., and IZMAYLOVA, G. D., Tashkent Scientific-Research Institute, Tashkent Medical Institute

"Methods of Determination of Some Defoliants in Air"

Moscow, Gigiyena i Sanitariya, "Meditsina," Vol 36, No 8, Aug 71, pp 109-110

Abstract: Colorimetric and spectrophotometric analytical methods were used to detect the presence in the air of the cotton defoliants magnesium chlorate-chloride (I) -- $Mg(ClO_3)_2 \cdot MgCl_2$ -- molecular weight 191.23, a greenish mass, readily soluble in water; calcium chlorate-chloride (II) -- $Ca(ClO_3)_2 \cdot CaCl_2$ -- a yellow liquid readily mixible with water; and acrofol (III) - the sodium salt of cis-beta-chloroacrylic acid.

A preparation in the form of a yellow powder, readily soluble in water, but poorly in organic solvents. The colorimetric determination of (I) and (II) is based on the capacity of their chlorates when boiled in an acid medium to be reduced by the ferrous ion to chlorides as follows:

$$ClO_3^- + 6Fe^{++} + 6H^+ \rightarrow Cl^- \; 6Fe^{+++} + 3H_2O$$

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

VENGERSKAYA, Kh. Ya., Gigiyena i Sanitariya, "Meditsina," Vol 36, No 8, Aug 71, pp 109-110

The detection of (III) is based on the formation of a colored complex as a result of the reaction of the preparation with pyridine in an alkaline medium. The spectrophotometric method of detection is accomplished with the use of a spectrophotometer and an absorbent of degreased cotton and chlorinated polyvinyl chloride filters for aerosols of (I) and (II), and an absorbent filled with distilled pyridine for the vapors of (III).

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

1/2 030 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--PHASE CHANGES IN NONEQUILIBRIUM CRYSTALLIZED ALUMNIUM CHROMIUM AND ALUMINUM MANGANESE ALLOYS -U-

AUTHOR-(02)-VENGRENOVICH, R.D., PSAREV, V.I.

COUNTRY OF INFO--USSR

SOURCE--FIZ. METAL METALLOVED. 1970, 29(3), 540-6

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--MANGANESE CONTAINING ALLOY, ALUMINUM ALLOY, CHROMIUM CONTAINING ALLOY, INTERMETALLIC COMPOUND, POWDER METALLURGY, SOLID SOLUTION, ALLOY PHASE TRANSFORMATION, EXOTHERMIC PROCESS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3001/0336 STEP NO--UR/0126/70/029/003/0540/0546

CIRC ACCESSION NO--AP0126092

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

UNCLASSIFIED PROCESSING DATE--20NOV70

2/2 030

CIRC ACCESSION NO--AP0126092

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DURING ISOTHERMAL HEATING OF NONEQUILIBRATED (COOLED DURING CRYSTN. AT 400-5000EGREES-SEC) AL,CR (CR 10, 15, AND 20 WT. PERCENT CR), AND AL,MN (12, 20, AND 25 WT. PERCENT MN) ALLOYS, THE TRANSFORMATION FROM UNSTABLE TO STABLE PHASE COMPN. AND STRUCTURE TOOK PLACE. THE FORMATION OF AN ALPHA SOLID SOLN. OF AL, STRONGLY SUPERSATD. WITH CR OR MN, IS THE RESULT OF THE PRESENCE OF METASTABLE PHASES AL SUB11 CR SUB2 OR AL SUB4 MN RESP.; THE LATTER PHASE WAS TRANSFORMED DURING HEATING ACCORDING TO: 6 AL SUB4 MN YIELDS 4 AL SUB6 MN PLUS 2MN. A SIMILAR TRANSFORMATION TOOK PLACE IN AL,CR ALLOYS. THESE PROCESSES WERE EXOTHERMIC AND WITH ONLY A SMALL CHANGE IN THE SP. VOL. OF THE ALLOY, SINCE THE COMPDS. AL SUB4 MN AND AL SUB6 MN HAVE ARHOMBIC STRUCTURE WITH ABOUT THE SAME D. THE INTENSITY OF THESE PROCESSES INCREASED WITH HIGHER TEMPS. OF ISOTHERMAL HEATING. THE OBSD. SUPERSATN. OF THE AL SOLID SOLN. COULD BE UTILIZED IN POWDER METALLURGY FOR THE SATN. OF AL WITH CR OR MN. FACILITY: CHERNOVITS. GOSUNIV., CHERNOVTSY, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

VASIL'YEVA, N. F., VEL'TISHCHEV, N. A.

UDC 669.882.4(088.8)

"Potassium Purification Procedure"

USSR Author's Certificate No 283580, filed 21 Dec 68, published 18 Dec 70 (from RZh-Metallurgiya, No 7, Jul 1971, Abstract No 7G221P)

Translation: A procedure for removing metal and gaseous admixtures from potassium by sorption on the surface of a metal sorbent is introduced. To increase the degree of purification of the potassium, its vapors are passed over a metallic Zr surface with a residual pressure of $\leq 10^{-7}$ mm Hg at a temperature of 500-600°. It is also possible to use Hf and Y as the sorbents. The procedure makes it possible to obtain K with a purity of 99.9997%.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

1/2 013 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--POLAROGRAPHIC STUDY OF THE KINETICS AND MECHANISM OF N, N DIMETHYLFORMAMIDE HYDROLYSIS IN THE PRESENCE OF FORMIC ACID -U-

AUTHOR-(04)-SEROVA, N.V., TURYAN, YA.I., MAYOROVA, G.G., VENGRYAZHINA, T.V.

COUNTRY OF INFO--USSR

SOURCE--ZH. OBSHCH. KHIM. 1970, 40(4), 899-902

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHEMICAL KINETICS, CHEMICAL REACTION MECHANISM, FORMIC ACID, AMIDE, HYDROLYSIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3006/1510 STEP NO--UR/0079/70/040/004/0899/0902

CIRC ACCESSION NO--AP0135171

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

2/2 013

UNCLASSIFIED

CIRC ACCESSION NO--AP0135171 PROCESSING DATE--04DEC70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. KINETIC DATA WERE TABULATED FOR HYDROLYSIS OF DMF IN SOLNS. OF HCO SUB2 NA CONTG. NACLO SUB4 OR IN HCO SUB2 H HCO SUB2 NA, AT 80 TO 140DEGREES. THE HYDROLYSIS IS A REACTION OF IST ORDER IN RESPECT TO H SUB2 O AND IN RESPECT TO DMF; IT IS CATALYZED BY ACIDS IN THE PRESENCE OF HCO SUB2 H. AT LESS THAN 20 WT PERCENT H SUB2 O IN THE SYSTEM, CATALYSIS BY MOL. HCO SUB2 H PREDOMINATES. AS H SUB2 O CONCN. IS RAISED, CATALYSIS BY H SUB3 O PRIME POSITIVE ALSO INCREASES IN IMPORTANCE. FACILITY: NAUCH. ISSLED. INST. MONOMER. SIN. KAUCH., YAROSLAVL; USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

1/2 011 UNCLASSIFIED

TITLE--SYNTHESIS OF 5,ARYL,2,4,PENTADIENALS AND 5,ARYL,2,4,6,HEPTATRIENOIC ACIDS -U-

PROCESSING DATE--20NOV70

AUTHOR-(04)-LOMBROVSKIY, A.V., PRIBYTKOVA, L.G., GANUSHCHAK, N.I., VENGRZHANOVSKIY, V.A.

COUNTRY OF INFO--USSR

SOURCE--ZH. ORG. KHIM. 1970, 6(5), 964-7

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--SAPONIFICATION, PHOSPHATE ESTER, BENZENE DERIVATIVE, AMINE DERIVATIVE, CARBOXYLIC ACID, CHLORINATED ORGANIC ACID

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3006/1317

STEP NO--UR/0366/70/006/005/0964/0967

CIRC ACCESSION NO--AP0134991

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

2/2 011

UNCLASSIFIED

CIRC ACCESSION NO--AP0134991 PROCESSING DATE--20NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE REACTION INTHE COLD OF SC SUB6 H SUB4 CH:CHCH:CH SUB2 WITH POCL SUB3NEGATIVE HCONME SUB2 MIXT. IN TETRAHYDROFURAN GAVE 30-67PERCENT XC SUB6 H SUB4 CH:CHCH:CHCHO (I,X EQUALS H, P,ME,P,MEO,C,CL, OR P,CL). THE REACTION OF I WITH (ETO) SUB2 P(O)CHNACO SUB2 ET GAVE 61-96PERCENT XC SUB6 H SUB4 CH:CHCH:CHCH:CHCO SUB2 ET WHICH WAS SAPONO. TO THE CORRESPONDING ACID.

FACILITY: CHERNIGOV. GOS. UNIV., CHERNIGOV, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC 547.341

GANUSHCHAK, N. I., VENGRZHANOVSKIY, V. A., and FEDOROVA, G. K., Institute of Organic Chemistry, Academy of Sciences of the UkrSSR

"4-Aryl-1,3-butadienylphosphonic Acids and Their Derivatives"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(103), No 2, Feb 72, pp 291-293

Abstract: Hexachlorophosphorates [$ArCH{=}CRCHCPCH_2\ PCl_3^+PCl_6^-$] are treated with sulfur dioxide at 20°C to produce 4-aryl-1,3-butadienylphosphonic acid dichlorides, which are then hydrolyzed to give the free acids. Reaction of the dichlorides with ethanol and piperidine in the presence of pyridine produces diethers and dipiperidides of the corresponding aryl-butadienylphosphonic acids. The IR-spectra of 4-phenyl-1,3-butadienylphosphonic acid and its derivatives show no band typical of terminal methylene or vinyl radicals. Absorption bands are observed which indicate a double bond conjugated with the benzene ring, and a trans C=C bond.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

UDC 621.791.042.4:546.74

VENGZHIN, Ya., East German Welding Institute

"Coated Electrodes for Welding of Nickel" (Literature Review)

Kiev, Avtomaticheskaya Svarka, No 11, Nov 72, pp 58-61.

Abstract: This article is a review of Eastern European, Soviet and American literature on the subject. Conclusions drawn from the literature review are as follows: the manufacture of coated nickel electrodes requires the use of alloy wires containing primarily titanium and aluminum. Coatings for nickel electrodes should be of the rutile-fluoride-carbonate type without hydrogen and should have the thickness required to protect the seam metal from contact with nitrogen and oxygen. Welding of nickel with steel should be performed using nickel electrodes containing over 1.5% Ti, or high-alloy electrodes containing primarily chromium (up to 10%), molybdenum, vanadium, tungsten and manganese (total up to 10%). The concentration of titanium and aluminum in the electrodes must be limited.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

1/2 010 UNCLASSIFIED

TITLE--SOME PROBLEMS OF TERMINOLOGY RELATED TO ESTIMATION OF QUALITY LEVEL -U- PROCESSING DATE--18SEP70

AUTHOR-(02)-VENIAMINOV, YU.S., RABINOVICH, G.O.

COUNTRY OF INFO--USSR

SOURCE--STANDARTY I KACHESTVO, 1970, NR 2, PP 79-80

DATE PUBLISHED-------70

SUBJECT AREAS--BEHAVIORAL AND SOCIAL SCIENCES

TOPIC TAGS--QUALITY CONTROL, INDUSTRIAL PRODUCTION, NATURAL LANGUAGE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1984/2034 STEP NO--UR/0422/70/000/002/0079/0080

CIRC ACCESSION NO--AP0100599

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

2/2 010 UNCLASSIFIED

CIRC ACCESSION NO--AP0100599 PROCESSING DATE--18SEP70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CERTAIN PROBLEMS OF TERMINOLOGY ARE DISCUSSED THAT ARE RELATED TO THE PROBLEM OF QUALITY OF MATERIALIZED (THE PRODUCTS) AND NONMATERIALIZED OUTCOMES OF WORK, AS WELL AS THE PROCESS OF THE WORK PROPER.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7

USSR

BRESLAVTSEV, I. D., VENIKOV, N. I., DVORNIKOV, V. D., KULESHOV, I. L., LATUSHKIN, S. T., REZVOV, V. A., CHUMAKOV, N. I., and YUDIN, L. I.

UDC: 621.374.2

"Use of 'Deviation Grouping' to Obtain Intense Short Neutron Pulses in the IAE Cyclotron"

Moscow, Pribory i Tekhnika Eksperimenta, No 4, July-August 1972, pp 26-31

Abstract: A system is described for the formation and diagnostics of a beam of neutrons using the method of deviation grouping. Similar to that of Karlsruhe, as described by S. Cierjacks et al (Rev. Scient. Instrum., 39, 1968, p 1279), the system involves a packet of ions cut by a pulsed voltage of an internal deflector and accelerated to the proper energy level. The ions are deflected vertically to a target whose thickness is larger than the ion path, and as a result of the impact of the particles on the target, short intense neutron pulses are obtained. A detector, recording the neutrons' energy spectrum, is placed at a distance of 13.5 m from the target. Unlike the Karlsruhe cyclotron, however, the IAE has two 180° duants, such that it is impossible to place all elements of the system in the space outside them. The setup

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203510010-7"