"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

USSR

Epidemiology

UDC 616.932-092.9

AVROROV, V. P., SAYAM'I, R. M., ILYUKHIN, V. I., GLYAN'KO, Ye. V., and BARDYKH, I. D., Rostov-on-Don Cholera Institute Laboratory of Pathological Physiology and Laboratory of Emergency Prophylaxis and Treatment of Cholera

"Factors That Promote the Development of Experimental Cholera in Puppies"

Moscow, Byulleten' Eksperimental'noy Biologii i Meditsiny, No 6, 1972, pp 18-20

Abstract: Two- to 3-month-old puppies were inoculated with various strains of El Tor vibrio under different conditions to determine the suitability of these animals as an adequate model of cholera for pathophysiological and immunological studies. Infection was generally induced only when the animals received bacterial suspensions freshly isolated from cholera patients. The administration of actinomycin D, which lowers resistance to intoxication and infection, increased the probability of infection with the typical clinical symptoms and isolation of the causative agent from the stools and intestinal contents. The rate of infection was also increased by blocking gastric secretion either with alcohol or 3 days' fasting.

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USSR

UDC 612.833.81+159.9+612.822.3

SAMOKHVALOVA, V. P., and SAYANOVA, YE. M.

"Problems of Age-Sex Characteristics of Establishing Higher Nervous Activity of Children"

Sb. tr. Gorkov. n-i pediatr. in-t (Gorkiy Scientific Research Pediatric Institute — collection of works), 1970, vyp 7, pp 26-23 (from RZh-Biologiya, No 1, Jan 71, Abstract No 1P543)

No Abstract

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

1/2 009 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--REACTION OF BENZIMIDAZOLE DERIVATIVES WITH CHLOROSULFONIC ACID -U-

AUTHOR-(03)-SAYAPIN, V.G., SIMONOV, A.M., KUZMENKO, V.V.

COUNTRY OF INFO--USSR

SOURCE--KHIM. GETEROTSIKL. SOEDIN. 1970, (5), 681-3

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--BENZIMIDAZOLE, CHLORINATED AROMATIC COMPOUND, SULFONIC ACID, CHEMICAL SUBSTITUENT, MOLECULAR STRUCTURE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3006/1018 STEP NO--UR/0409/70/000/005/0681/0683

CIRC ACCESSION NO--AP0134730

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

2/2 009 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0134730

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE TITLE REACTION GAVE BENZIMIDAZOLE,5,SULFONYL CHLORIDES WITH BENZIMIDAZOLES HAVING ELECTROPHILIC SUBSTITUENTS AT THE 2 POSITION; OTHER BENZIMIDAZOLES YIELDED 5,SULFONIC ACIDS. THUS, TO 4 ML OF FRESHLY DISTD. HSO SUB3 CL WAS ADDED OVER 30 MIN 1.18 G BENZIMIDAZOLE, AND THE MIXT., STIRRED 30 MIN AT 105-10DEGREES TO GIVE 1.65 G I (R EQUALS H, X EQUALS SO SUB3 H), M. 365DEGREES. SIMILARLY OBTAINED WAS I (R EQUALS ME, X EQUALS SO SUB3 H), M. IS SIMILAR TO 380DEGREES. 2,PHENYLBENZIMIDAZOLE SIMILARLY GAVE 80PERCENT I.HCL (R EQUALS PH. X EQUALS SO SUB2 CL), M. 363DEGREES, WHICH GAVE I (R EQUALS PH, X EQUALS SO SUB2 CL), M. 265DEGREES; ALSO OBTAINED AS A BY PRODUCT WAS 14PERCENT I (R EQUALS PH, X EQUALS SO SUB3 H), M. 300DEGREES (91PERCENT), AND FROM IT THE CORRESPONDING SULFONIC ACID, M. 390DEGREES. STRUCTURE PROOFS WERE DESCRIBED. FACILITY: ROSTOV. NA-DONU GOS. UNIV., ROSTOV ON DON, USSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

1/2 010 UNCLASSIFIED PROCESSING DATE--11DEC70

TITLE--SYNTHESIS OF 5,METHYLTHIO, AND 5,MERCAPTO DERIVATIVES OF 2,AMINOBENZIMIDAZOLE -U-

AUTHOR-(03)-SIMONOV, A.M., SAYAPIN, V.G., SIDERMAN, V.I.

COUNTRY OF INFO--USSR

SOURCE--ZH. VSES. KHIM. OBSHCHEST. 1970, 15(2), 232-3

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ORGANIC SYNTHESIS, MERCAPTAN, SULFUR, AMINE, BENZIMIDAZOLE, ANISOLE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3008/1496 STEP NO--UR/0063/70/015/002/0232/0233

CIRC ACCESSION NO--AP0138497

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

2/2 010 UNCLASSIFIED PROCESSING DATE--11DEC70

CIRC ACCESSION NO--AP0138497

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. NITRATION OF P-MEC SUB6 H SUB4 SO SUB2 NHC SUB6 H SUB4 SME-P IN ACOH AT 12-14DEGREES WITH A 2-3PERCENT DEFICIENT AMT. HNO SUB3 GAVE 70-5PERCENT 3,NITRO,4,(P,TOLYLSULFONAMIDO) THIOANISOLE (I), M. 117DEGREES, ALONG WITH BUT 10-15PERCENT ME P,(P,TOLYLSULFONAMIDO)PHENYL SULFOXIDE, M. 180DEGREES, WHICH WAS MORE SOL. IN ETOH. WITH THE THEORETICAL AMT. HNO SUB3 THE REACTION GAVE 25-30PERCENT LATTER PRODUCT. METHYLATION OF I WITH MEI IN ALC. NAOH GAVE THE N,ME,DERIV., M. 126DEGREES, WHICH DISSOLVED IN CONCD. H SUB2 SO SUB4 GAVE 86PERCENT 3,NITRO,4,METHYLAMINOTHIOANISOLE, M. 63.5DEGREES, WHICH HEATED WITH POWD. SN IN CONCD. HCL-HCO SUB2 H 3 HR GAVE AFTER TREATMENT WITH NH SUB4 OH AND EXTN. WITH C SUB6 H SUB6 63PERCENT 5,METHYLTHIO,1,METHYLBENZIMIDAZOLE (II), M. 78.5DEGREES. THIS AND A THREEFOLD AMT. NANH SUB2 IN PHNME SUB2 AT 100DEGREES, THEN 2 HR AT 140DEGREES, GAVE 87PERCENT 2,AMINO,5,METHYLTHIO,1,METHYLBENZIMIDAZOLE, M. 181-2DEGREES, WHICH IN LIQ. NH SUB3 WITH NA GAVE 70PERCENT 2,AMINO,5,MERCAPTO,1,METHYLBENZIMIDAZOLE, M. 256DEGREES, AFTER 2 DAYS IN WARM H SUB2 O (TO EFFECT HYDROLYSIS OF THE NA SALT). II SIMILARLY TREATED WITH NA IN LIQ. NH SUB3 GAVE AN OIL THAT WAS INSOL. IN ALKALIES AND WHOSE STRUCTURE WAS NOT DETD. FACILITY: ROSTOV.-NA-DONU GOS. UNIV., ROSTOV-CN-DON, USSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

USSR UDC 614.73

BAD'IN, V. I., SAYAPINA, R. Ya., ALFEROV, M. V., and NOVIKOV, V. I., Moscow

"The Problem of Evaluation of Radiation Hazards from Nonequilibrium Emissions"

Moscow, Gigiyena i Sanitariya, No 7, Jul 70, pp 51-54

Abstract: A method is proposed for assessing the amount of radiation absorbed by lung tissue under nonequilibrium conditions of the daughter products of emission disintegration. The method greatly simplifies and shortens the monitoring process. It is based on the fact that the maximum permissible concentration of nonequilibrium emissions is equal to the ratio of the balanced maximum permissible concentration to the degree of equilibrium of the second decay product (RaB, ThB, AcB). Under industrial conditions, the degree of equilibrium of the daughter products of emissions varies as a function of the number of times the area is ventilated.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

1/2 021 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--THE EFFECT OF POLARIZATION UPON THE PRECISION OF TEMPERATURE MEASUREMENTS BY OPTICAL PYROMETERS -U-

AUTHOR-(02)-SVET, L.YA., SAYAPINA, V.I.

COUNTRY OF INFO--USSR

SOURCE--MOSCOW, IZMERITEL'NAYA TEKHNIKA, NO 2, PP 49-51

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS, METHODS AND EQUIPMENT

TOPIC TAGS--OPTIC PYROMETER, LIGHT POLARIZATION, ERROR ANALYSIS, LIGHT REFRACTION, LIGHT REFLECTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1993/1544 STEP NO--UR/0115/70/000/002/0049/0051

CIRC ACCESSION NO--AP0114139

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

2/2 021 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0114139

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE PRESENCE, IN THE OPTICAL CIRCUIT OF PYROMETRIC SYSTEMS, OF VARIOUS COMPONENTS, MIRRORS, FLAT AND TRANSPARENT PLATES, AND PRISMS, THAT ARE AT AN ANGLE TO THE OPTICAL AXIS, MAY BRING ABOUT AN ERROR IN THE MEASUREMENT OF TEMPERATURE IN A CASE WHERE THE RADIATION IS POLARIZED. A CHANGE OF THE INCLINATION ANGLE OF SUCH COMPONENTS ALSO AFFECTS THE PRECISION OF TEMPERATURE MEASUREMENT. ACCORDING TO THE CALCULATIONS MADE IN THIS ARTICLE, IF THE RADIATION PROCEEDS FROM THE SOURCE AT A SMALL ANGLE (UP TO 20DEGREES) AND IS REFLECTED (REFRACTED) ALSO AT A SMALL ANGLE OF INCIDENCE, THEN POLARIZATION DOES NOT AFFECT THE MEASURED TEMPERATURE. IN THE CASE OF LARGE ANGLES OF RADIATION (UP TO 80DEGREES) AND ANGLES CLOSE TO 0DEGREES, AND ALSO DIFFERS FROM THE TEMPERATURE COMPUTED ON THE BASIS OF THE MEAN VALUES OF THE REFLECTING POWER AND THE REFRACTION FACTOR FOR THE CORRESPONDING ANGLES. THE USE OF A TURNABLE PRISM FOR DEFLECTING THE RADIATION DOES NOT AFFECT THE READINGS OF THE PYROMETER WHEN THE DEGREE OF RADIATION POLARIZATION IS CHANGED.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

1/2 031 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--METHOD FOR MEASURING TRUE TEMPERATURES BASED ON THE CORRELATION OF POLARIZED RADIATION FLOWS IN THE VISIBLE SPECTRAL REGION -U-

AUTHOR-(02)-SVET, D.YA., SAYAPINA, V.I.

COUNTRY OF INFO--USSR

SOURCE--ZH. PRIKL. SPEKTROSK. 1970, 12(3), 518-22

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS, MATERIALS

TOPIC TAGS--CRYSTAL POLARIZATION, TANTALUM, TUNGSTEN, HAFNIUM, NIOBIUM, MOLYBDENUM, PHENIUM, IRIDIUM, SPECTRUM, EMISSIVITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1996/1815 STEP NO--UR/0368/70/012/003/0518/0522

CIRC ACCESSION NO--AP0118779

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

2/2 031 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0118779

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. BY USING TABULATED OPTICAL CONSTS., THE SPECTRAL EMISSIVITIES WERE CALCD. OF SOME METALS (HF, NB, TA, MO, W, RE, IR, AND PT) WITH PURE POLISHED SURFACES AT RADIATION ANGLES OF 0, 60, 70, AND 80DEGREES AND WAVELENGTHS OF 0.45 AND 0.65 MU. BY STARTING FROM THE EMISSIVITY VALUES, BOTH BRIGHT AND COLOR TEMPS. ARE COMPUTED AS A FUNCTION OF RADIATION ANGLE AT A TRUE TEMP. OF 1500DEGREESK. FOR ALL THE METALS STUDIED THE TRUE TEMPS. CAN BE DETD. WITHIN EXPTL. ERRORS (SMALLER THAN 1PERCENT) BY MEASURING THE COLOR TEMPS. BASED ON RATIO OF PARALLEL RADIATION FLOWS AT AN ANGLE OF SIMILAR TO 80DEGREES. THE CONCLUSION IS EXPTL. VERIFIED BY TAKING COLOR TEMP. MEASUREMENTS (1500-2400DEGREES) ON NB, TA, MO, AND W AT 0.49 AND 0.64 MU. THE VALUES OF BRIGHT TEMP. OBTAINED UNDER THE SAME CONDITIONS (WAVELENGTH OF 0.66 MU) DIFFER FROM TRUE VALUES BY 1-2PERCENT (TA, W) AND BY SIMILAR TO 6PERCENT (MO, NB).

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

1/2 017 UNCLASSIFIED

TITLE--DENSITY OF CARBON DIOXIDE IN THE LIQUID PHASE -U- PROCESSING DATE--23OCT70

AUTHOR-(02)-POPOV, V.N., SAYAPOV, M.K.

COUNTRY OF INFO--USSR

S

SOURCE--TEPLOENERGETIKA 1970, 17(4), 76

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CARBON DIOXIDE, GAS DENSITY, FLUID DENSITY, LIQUID CARBON DIOXIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1996/1950 STEP NO--UR/0096/70/017/004/0076/0076

CIRC ACCESSION NO--AP0118912

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

2/2 017 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0118912

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE D. OF LIQ. CO SUB2 WAS STUDIED BY THE WT. METHOD. A PIEZOMETER WITH AN INTERNAL VOL. OF 245 CM PRIME3 WAS SUSPENDED FROM SCALES. IT WAS CALIBRATED WITH WATER AT 25 AND 30DEGREES AT PRESSURES FROM 1 ATM TO 300 BAR. COM. CO SUB2 WAS USED THAT HAD BEEN PURIFIED SO THAT THE CONTENT OF GASEOUS IMPURITIES DID NOT EXCEED 0.02PERCENT. A TOTAL OF 117 POINTS WAS OBTAINED AT MINUS 50 TO PLUS 30DEGREES. THE MAX. ERROR DID NOT EXCEED 0.086PERCENT.

FACILITY MOSK. ENERG. INST., MOSCOW USSR.

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SAYBEL', A.G.

Tracking-Measuring Systems

SOV/RS 5619
01 Jan 1962

UDC 629.7.058.55.001

ANALYSIS OF TRACKING SYSTEMS WHICH MAINTAIN CONSTANCY OF THE PRODUCT (OR QUOTIENT) OF DEPENDENT AND INDEPENDENT VARIABLES

R. A. Gonchar, Candidate of Technical Sciences
A. G. Saybel', Doctor of Technical Sciences

Paper 5-62

Introduction

The majority of tracking measuring systems reduce to minimum mismatch (difference) between the dependent and independent variables. However, recently automatic regulators have come to be widely used which maintain constancy of the product or quotient of dependent and independent variables. This article is devoted to analysis of such automatic regulators.

In Figure 1 we have the equivalent diagram of an automatic regulator which keeps the product of dependent and independent variables constant (the first system), and in Figure 2, the automatic regulator which keeps the quotient from dividing independent and dependent variables constant (second system).

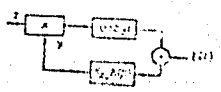

Figure 1. Equivalent diagram of the first system: x -- multiplication circuit; z -- independent variable subject to measurement; y -- dependent measured variable; $K_0 K(p)$ -- operator transmission coefficient of the smoothing circuits; $\xi(t)$ -- external input with correlation time significantly less than the time constant of the system

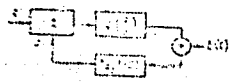

Figure 2. Equivalent diagram of the second system
: -- divisible circuit;
-- summator;
$\varphi(z/y)$ -- discriminator transmission function

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Radio

GLORIA

50 JPRS 56143
01 June 1972

Radio engineering

UDC 629.7.058.54.001

ANALYSIS OF PHASE RADIO RANGE FINDERS WITH MANUAL AUTOLYTIC SCALING FREQUENCY CONTROL IN THE INTERROGATOR-RESPONDER

[illegible], Candidate of Technical Sciences
[illegible], Doctor of Technical Sciences

Introduction

Pages 62-70

In phase radio range finders with automatic scaling frequency control, the phase shift between the reference and the received scaling frequency oscillations is kept constant (equal to an integral number) by automatic scaling frequency control. The range is determined by the magnitude of the scaling frequency, and range measurements are possible both in the interrogator and the responder. The application of phase automatic scaling frequency control both in the responder and in the interrogator (up to pulse into range, the scaling frequencies of the interrogator and the responder are independent) permits execution of the responder of the range finder identical to the interrogator. In addition, the effective passband of the responder is equal to the effective band of the interrogator and, as a rule, does not exceed several tens of hertz.

A system similar to the investigated system was analyzed for the first time in reference [1]. In this article primary attention was given to determining the stability of the range finder. Here, a linear dependence of the modulation frequency period on the control frequency (period tuning) was proposed. The actual pulse discriminator with an inversely proportional dependence of the transformation coefficient on the modulation period was replaced by an idealized one with a constant transformation coefficient for variation of the modulation frequency period. The indicated idealization permitted the author to refrain from solving the system of two nonlinear difference equations and use linear methods of investigation (the methods of the modified z-transformation and signal graph theory). The basic conclusion of the author is the principle that in the presence of smoothing circuits of the interrogator and responder in the form of one integrator the system becomes unstable, and for its correction it is necessary to introduce a forming element.

In this article, methods of investigation are applied which were used to analyze continuous systems. The study was made with more complex smoothing circuits (an integrating link is added) in the presence of a filter

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USSR

UDC 621.396.96:629.7.054'842

GONCHAR, R. A., SAYBEL', A. G.

"Analysis of Phase Radiotechymeters With Mutual Scale AFC in Interrogator and Responder"

Tr. Mosk. aviats. in-ta (Works of Moscow Aviation Institute), 1971, vyp. 207, pp 62-70 (from RZh-Radiotekhnika, No 12, Dec 71, Abstract No 12G70)

Translation: Differential equations are found for a phase radiotachymeter with mutual scale AFC in the challenger and the transponder. Conditions are determined for range finder stability taking account of a filter in the receiver channel which tracks the scale frequency. Expressions are found for dynamic errors of range measurement and the noise bands of the challenger and the transponder. One illustration, bibliography of one title. Resumé.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

UNCLASSIFIED

TITLE--FROM THE HISTORY OF THE KURSK MAGNETIC ANOMALY INVESTIGATION -U-

PROCESSING DATE--16OCT70

AUTHOR-(02)-SEMENOV, A.S., SVESHNIKOV, G.B.

COUNTRY OF INFO--USSR

SOURCE--VESTNIK LENINGRADSKOGO UNIVERSITETA, NO 6, GEOLOGIYA, GEOGRAFIYA, 1970, NR 1, PP 19-30

DATE PUBLISHED--------70

SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY

TOPIC TAGS--MAGNETIC ANOMALY, DEEP DRILLING, IRON ORE/(U)KURSK MAGNETIC ANOMALY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1991/0839

STEP NO--UR/0307/70/000/001/0019/0030

CIRC ACCESSION NO--AP0110562

UNCLASSIFIED

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UNCLASSIFIED

CIRC ACCESSION NO--AP0110562 PROCESSING DATE--16OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE KURSK MAGNETIC ANOMALY (KMA) WAS DETECTED BY ACADEMICIAN P. B. INOHODTSEV IN 1783 AND DISCOVERED FOR THE SECOND TIME BY I. N. SMIRNOV IN 1873. THE INDIVIDUAL ENTHUSIASTIC MAGNITOLOGISTS, N. D. PILCHIKOV, P. G. POPOV AND ESPECIALLY E. E. LEIST, INVESTIGATED IT IN THE POSTERIOR YEARS. THEY CARRIED OUT THEIR WORK WITHOUT ANY ESSENTIAL HELP FROM THE STATE AND INDUSTRIAL ESTABLISHMENTS OF TSARIST RUSSIA. IMMEDIATELY AFTER THE GREAT OCTOBER SOCIALIST REVOLUTION KMA CAME TO BE AN OBJECT OF ATTENTION OF THE YOUNG SOVIET STATE. ON THE PROPOSAL OF THE SOVIET GOVERNMENT A SPECIAL COMMISSION FOR INVESTIGATING THE KURSK MAGNETIC ANOMALY (O. C. KMA) WAS FOUNDED. OUTSTANDING SCIENTISTS WERE INVITED TO TAKE PART IN THE WORK OF THE COMMISSION. THE SOVIET GOVERNMENT AND V. I. LENIN PERSONALLY RENDERED AN ASSISTANCE AND GAVE ALL KINDS OF HELP TO THE COMMISSION. DUE TO THIS IN A SHORT PERIOD OF TIME IT CARRIED OUT COMPLEX GEOPHYSICAL OBSERVATIONS AND DRILLING DEEP WELLS ON A LARGE SCALE. THE RESULTS OF THE WORK WERE THE ASCERTAINMENT OF THE IRON STONE NATURE OF THE ANOMALY AND EXPOSURE OF ITS PRESENCE ON A LARGE TERRITORY OF THE COUNTRY. GIGANTIC BEDS OF RICH IRON ORE WERE DISCOVERED THERE IN THE FOLLOWING YEARS.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

USSR

SAYBELYA, A. G. (Editor)

(Teoriya i Tekhnika Radiolokatsii) Radar Theory and Technology, Moscow, 1971, Izd-vo "Mashinostroyeniye," 268 pages

Abstract: A collection of articles devoted to problems of improving the efficiency of primary and secondary processing using quantum signals, an analysis of some new methods of measuring the parameters of radar signals, and also to problems of statistical approach to systems for selecting moving targets with alternating-periodic compensation.

The collection is of interest for a wide circle of specialists in the radio engineering industry and students of higher institutes of learning. There are 4 tables, 106 illustrations, and 113 citations in the bibliography.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

USSR

SAYBELYA, A. G., (Teoriya i Tekhnika Radiolokatsii) Radar Theory and Technology, Moscow, 1971, Izd-vo "Mashinostroyeniye," 268 pages

Determination of the Mean Time Between Consecutive False Detections for Detectors of Binary Signals with Variable Memory Capacity, Ya. A. Furman, V. A. Likharev 9

Measuring Angular Target Position with a Surveillance Radar in a Background of Correlated Noise, Yu. A. Nifontov, V. A. Likharev 15

Analysis of the Accuracy of Direction Finding with a Surveillance Radar Using Markov Circuit Apparatus, V. A. Likharev, Ya. A. Furman, A. S. Kartashkin 23

Orthogonal Binary Random Processes, G. G. Dzhavadov 28

Spectrum-Correlated Characteristics of Pairs of Orthogonal Binary Random Signals, I. A. Sklyarov, G. G. Dzhavadov 33

II. Statistical Analysis of Radar Measuring Equipment

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

USSR

SAYBELYA. A. G., (Teoriya i Tekhnika Radiolokatsii) Radar Theory and Technology, Moscow, 1971, Izd-vo "Mashinostroyeniye," 268 pages

Analysis of the Operation of Automatic Range Meters of Pulse Radars, A. Ye. Kharybin 40

Analysis of Tracking Systems Maintaining Fixed (or Partial) Products of Dependent or Independent Variables, R. A. Gonchar, A. G. Saybel' 53

Analysis of Phase Radio Range Meters with Mutual Automatic Tuning of the Scaling Frequency in an Interrogator and Transponder, R. A. Gonchar, A. G. Saybel' 62

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USSR

SAYBELYA, A. G., (Teoriya i Tekhnika Radiolokatsii) Radar Theory and Technology, Moscow, 1971, Izd-vo "Mashinostroyeniye," 268 pages

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USSR

SAYBELYA, A. G., (Teoriya i Tekhnika Radiolokatsii) Radar Theory and Technology, Moscow, 1971, Izd-vo "Mashinostroyeniye," 268 pages

Probability Distribution Density of the Difference of the Target Signal Sum Amplitude and Correlated Interference, P. A. Bakulev, M. B. Tenin 156

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USSR

SAYBELYA, A. G., (Teoriya i Tekhnika Radiolokatsii) Radar Theory and Technology, Moscow, 1971, Izd-vo "Mashinostroyeniye," 268 pages

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USSR

SAYBELYA, A. G. (Teoriya i Tekhnika Radiolokatsii) Radar Theory and Technology, Moscow, 1971, Izd-vo "Mashinostroyeniye," 268 pages

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1/2 037 UNCLASSIFIED

TITLE--KINETICS AND MECHANISM OF THE OXIDATION OF DIETHYLANILINE BY IODATE

PERIODATE -U- PROCESSING DATE--23OCT70

AUTHOR-(03)-PAYLOVA, V.K., SAYCHENKO, YA.S., YATSIMIRSKIY, K.B.

COUNTRY OF INFO--USSR

SOURCE--ZH. FIZ. KHIM. 1970, 44(3), 658-63

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHEMICAL KINETICS, CHEMICAL REACTION MECHANISM, OXIDATION, ANILINE, IONIC BONDING, PHOTOEFFECT, QUINONE, IMINE, ACTIVATION ENERGY, IODATE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/0716

STEP NO--UR/0076/70/044/003/0658/0663

CIRC ACCESSION NO--AP0119623

UNCLASSIFIED

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2/2 037 UNCLASSIFIED

CIRC ACCESSION NO--AP0119623 PROCESSING DATE--23OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE FORMATION OF AN INTERMEDIATE COMPLEX OF IO SUB4 PRIME NEGATIVE AND PHNET SUB2 IS SHOWN BY THE RELATIONSHIP BETWEEN THE OXIDN. RATE AND IO SUB4 PRIME NEGATIVE AND PHNET SUB2 CONCN. (NONLINEAR AND LINEAR, RESP.). MAX. OXIDN. RATE IS OBSD. OVER PH 6.3-7.2; THE RATE DECREASES WITH INCREASING IONIC STRENGTH. THE OXIDN. IS REPRESENTED BY: SHOWN ON MICROFICHE. THE VALUE OF ACTIVATION ENERGY EQUAL TO 19.2 KCAL-MOLE CONFIRMS THE PARTICIPATION OF FREE RADICALS IN THE REACTION. FAICLITY: INST. OBSHCH. NEORG. KHIM., KIEV, USSR.

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USSR

UDC 519.281

SAYCHENKO, Yu. P., PAVLOV, A. A.

"Method of Stochastic Approximation for One Class of Unstable Media"

Vestn. Kiyevsk. Politekhn. In-ta. Ser. Avtonatiki i Elektropriborostr. [Herald of Kiev Polytechnical Institute. Automation and Electrical Instrument Building Series], No. 7, 1970, pp 8-13 (Translated from Referativnyy Zhurnal Kibernetika, No. 4, April, 1971, Abstract No. 4 V198 by M. Nevel'son).

Translation : The problem is studied of finding the maximum of an unknown regression function if the position of the maximum point changes with time according to a certain rule which can be approximated by an exponential polynomial. The algorithm of stochastic approximation is presented and its convergence is proven.

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USSR

KELLER, V. S. and SAYCHUK, L. V., Honored Trainer

"Control of Mental Stress: a Major Prerequisite for Sound Regulation of the Process of Achieving Athletic Form"

Moscow, Teoriya i Praktika Fizicheskoy Kul'tury, No 5, 1970, pp 7-10

Abstract: The quality of athletic performance is a function both of specific skills and of the emotions. And the emotions, like the specific physical skills, can be brought to the highest level by training. Simulation during the training period of the conditions encountered in competitions sets into motion the body's adaptation mechanisms, which will enable the athlete to perform at his best in actual matches. More research by physiologists on the variety of actors that play upon the emotions of athletes, and on ways of controlling them, is needed.

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1/3 028 UNCLASSIFIED PROCESSING DATE--11SEP70.

TITLE--INTERACTION AND DISTRIBUTION OF IMPURITIES DURING THE GROWTH OF SILICON STUDIED BY USING TUNNEL P-N JUNCTIONS -U-

AUTHOR--SAYDOV, M.S., YUSOPOVA, M.K.

COUNTRY OF INFO--USSR

SOURCE--FIZ. TEKH. POLUPROV. 1970, 4(2), 252-5

DATE PUBLISHED-------70

SUBJECT AREAS--PHYSICS, ELECTRONICS AND ELECTRICAL ENGR.

TOPIC TAGS--SOLID STATE PHYSICS, SILICON FILM, PN JUNCTION, SEMICONDUCTOR IMPURITY, TUNNEL DIODE, TUNNEL CURRENT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1988/0287 STEP NO--UR/0449/70/004/002/0252/0255

CIRC ACCESSION NO--AP0105359

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2/3 028 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0105359

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CHANGES IN THE NATURE AND CONCN. OF IMPURITIES IN THIN LAYERS OF SI GROWN FROM METALLIC SOLNS. WERE DETD. WITH THE AID OF THE VOLTAGE-CURRENT CHARACTERISTICS OF SI TUNNEL PN JUNCTIONS PREPD. WITH THE HELP OF VARIOUS ALLOYS. THUS, SI TUNNEL DIODES HAVING A RATIO OF THE EXTREMUM CURRENTS OF I SUBMAX.- I SUBMIN. EQUALS 4-5 WERE PREPD. (AT 650DEGREES) FROM THE ALLOYS CU PLUS SN PLUS B, CU PLUS IN PLUS B, AND AU PLUS IN PLUS B, THESE BEING RICH IN AU OR CU, RESP. IN SPITE OF THE SATN. OF THE RECRYSTN. LAYER WITH AU OR CU, THESE DIODES HAVE RELATIVELY SMALL EXCESS CURRENTS, WHICH CAN BE ATTRIBUTED TO THE SIGNIFICANT CHANGES IN THE DEEP LEVELS OF CU AND AU IN THE FORBIDDEN BANDS OF SI. ACCORDING TO THE PHASE DIAGRAMS FOR THE SYSTEMS CU-IN, CU-SN, AND AU-IN, INTERMETALLIC COMPDS. ARE FORMED, AND TAKING ACCOUNT OF THE FACT THAT IN AND SN ARE MORE SOLN. IN SOLID SI THAN ARE CU AND AU, IT IS REASONABLE TO CONCLUDE THAT AU OR CU CONTAINED IN THE RECRYSTN. LAYERS OF THESE DIODES IS CHEM. BOUND TO THE IN AND SN. IN TUNNEL DIODES PREPD. AT 580-660DEGREES FROM AN ALLOY OF AL PLUS 2 WT. PERCENT B IN SI, ALL WITH THE SAME DEGREE OF DOPING BY AS OR P, THE D. OF THE DIRECT TUNNEL CURRENTS WAS GREATER THAN WITH DIODES PREPD. FROM SI DOPED WITH AS. THIS IS ASSOCD. WITH THE FACT THAT P MARKEDLY INCREASES THE SOLY. OF B IN SOLID SI. A LARGE NO. OF PN JUNCTIONS ON DEGENERATE SI WERE PREPD. TO DET. THE EFFECT OF P AND CU ON THE SOLY. OF AL IN SI.

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CIRC ACCESSION NO--AP0105359 PROCESSING DATE--11SEP70

ABSTRACT/EXTRACT--THE VOLTAGE-CURRENT CHARACTERISTICS OF THESE DIODES SHOWED THAT PN JUNCTIONS OBTAINED AT 580DEGREES BY THE FUSION OF AL IN SI DOPED WITH AS EXHIBIT LARGER REVERSE TUNNEL CURRENTS THAN DIODES DOPED WTH P, WHICH INDICATES THAT P REDUCES THE SOLY. OF AL IN SOLID SI.

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TITLE--INTERACTION AND DISTRIBUTION OF IMPURITIES DURING THE GROWTH OF SILICON STUDIED BY USING TUNNEL P-N JUNCTIONS -U- PROCESSING DATE--11SEP70

AUTHOR--SAYDOV, M.S., YUSOPOVA, M.K.

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COUNTRY OF INFO--USSR

SOURCE--FIZ. TEKH. POLUPROV. 1970, 4(2), 252-5

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS, ELECTRONICS AND ELECTRICAL ENGR.

TOPIC TAGS--SOLID STATE PHYSICS, SILICON FILM, PN JUNCTION, SEMICONDUCTOR IMPURITY, TUNNEL DIODE, TUNNEL CURRENT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

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CIRC ACCESSION NO--AP0105359 PROCESSING DATE--11SEP70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CHANGES IN THE NATURE AND CONCN. OF IMPURITIES IN THIN LAYERS OF SI GROWN FROM METALLIC SOLNS. WERE DETD. WITH THE AID OF THE VOLTAGE-CURRENT CHARACTERISTICS OF SI TUNNEL PN JUNCTIONS PREPD. WITH THE HELP OF VARIOUS ALLOYS. THUS, SI TUNNEL DIODES HAVING A RATIO OF THE EXTREMUM CURRENTS OF I SUBMAX.- I SUBMIN. EQUALS 4-5 WERE PREPD. (AT 650DEGREES) FROM THE ALLOYS CU PLUS SN PLUS B, CU PLUS IN PLUS B, AND AU PLUS IN PLUS B, THESE BEING RICH IN AU OR CU, RESP. IN SPITE OF THE SATN. OF THE RECRYSTN. LAYER WITH AU OR CU, THESE DIODES HAVE RELATIVELY SMALL EXCESS CURRENTS, WHICH CAN BE ATTRIBUTED TO THE SIGNIFICANT CHANGES IN THE DEEP LEVELS OF CU AND AU IN THE FORBIDDEN BANDS OF SI. ACCORDING TO THE PHASE DIAGRAMS FOR THE SYSTEMS CU-IN, CU-SN, AND AU-IN, INTERMETALLIC COMPDS. ARE FORMED, AND TAKING ACCOUNT OF THE FACT THAT IN AND SN ARE MORE SOLN. IN SOLID SI THAN ARE CU AND AU, IT IS REASONABLE TO CONCLUDE THAT AU OR CU CONTAINED IN THE RECRYSTN. LAYERS OF THESE DIODES IS CHEM. BOUND TO THE IN AND SN. IN TUNNEL DIODES PREPD. AT 580-660DEGREES FROM AN ALLOY OF AL PLUS 2 WT. PERCENT B IN SI, ALL WITH THE SAME DEGREE OF DOPING BY AS OR P, THE D. OF THE DIRECT TUNNEL CURRENTS WAS GREATER THAN WITH DIODES PREPD. FROM SI DOPED WITH AS. THIS IS ASSOCD. WITH THE FACT THAT P MARKEDLY INCREASES THE SOLY. OF B IN SOLID SI. A LARGE NO. OF PN JUNCTIONS ON DEGENERATE SI WERE PREPD. TO DET. THE EFFECT OF P AND CU ON THE SOLY. OF AL IN SI.

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CIRC ACCESSION NO--AP0105359

ABSTRACT/EXTRACT--THE VOLTAGE-CURRENT CHARACTERISTICS OF THESE DIODES SHOWED THAT PN JUNCTIONS OBTAINED AT 580DEGREES BY THE FUSION OF AL IN SI DOPED WITH AS EXHIBIT LARGER REVERSE TUNNEL CURRENTS THAN DIODES DOPED WTH P, WHICH INDICATES THAT P REDUCES THE SOLY. OF AL IN SOLID SI.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

UNCLASSIFIED

TITLE--SPECTROPHOTOMETRIC DETERMINATION OF GANGLERON AND QUATERON IN THE UV REGION -U-

PROCESSING DATE--04DEC70

AUTHOR-(02)-SAYED, YE., MOHAMMED, A.M.

COUNTRY OF INFO--USSR

SOURCE--FARM. ZH. (KIEV) 1970, 25(1), 33-7

DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--SPECTROPHOTOMETRY, PHARMACEUTICS, NERVOUS SYSTEM DRUG

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3007/0196

STEP NO--UR/0491/70/025/001/0033/0037

CIRC ACCESSION NO--AP0135692

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

2/2 024 UNCLASSIFIED

CIRC ACCESSION NO--AP0135692 PROCESSING DATE--04DEC70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. BIOL. (CENTRALLY) ACTIVE GANGLERON (I) AND QUATERON (II) CAN NOT BE DETD. WITH HIGH ENOUGH ACCURACY BY THE EXISTING ANAL. METHODS. A NEW PROCEDURE HAS BEEN ELABORATED CONSISTING IN THE SPECTROPHOTOMETRIC DETN. IN 0.1 N AQ. HCL SOLNS. IN UV. FOR I LAMBDA SUBMAX. EQUALS 260.5 NM AND FOR II LAMBDA SUBMAX. EQUALS 260.0 NM. THE CORRESPONDING VALUES OF E PRIMEIPERCENT SUB1CM (EXTINCTION COEFF. EQUAL TO THE OPTICAL DENSITY CORRESPONDING TO 1PERCENT WT. SOLN. MEASURED IN 1 CM OPTICAL PATH CUVETTE) ARE EQUAL TO 496 AND 368 AND THE LAMBERT-BEET'S LAW IS FOLLOWED. FACILITY: 1-ST MOSCOW I. M. SECHENOV MED. INST., MOSCOW, USSR.

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USSR

UDC 577.11

SAYENKO, A. S., and ZHARKOV, YU. A., Institute of Medical Radiology, USSR Academy of Medical Sciences, Obninsk

"Investigation of Heterogeneity of Nuclear RNA of the Liver in Irradiated Rats by the Method of DNA-RNA Hybridization"

Moscow, Biokhimiya, Vol 36, No 3, May/Jun 71, pp 545-550

Abstract: Since exposure of animals to ionizing radiation stimulates the incorporation of precursors into RNA in liver cells, the authors undertook to elucidate the causes of this altered metabolism. It was especially important to establish whether irradiation modifies DNA chains or sections thereof, resulting in the formation of new messenger RNA molecules. The study was performed on intact Wistar rats and rats exposed to 5,000 r of gamma irradiation delivered at a rate of 60 r/sec. The total amount and the composition of RNA synthesized in the liver of these rats were determined by the DNA-RNA hybridization method on nitrocellulose filters. Preliminary saturation of DNA with nonlabeled RNA obtained from the liver of intact rats markedly inhibited the hybridization of P^{32}-labeled nuclear RNA in the liver of intact and irradiated rats. The degree of inhibition was the same in both groups. The results suggest that the enhanced incorporation of precursors into RNA in the liver of

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USSR

SAYENKO, A. S., and ZHARKOV, YU. A., Biokhimiya, Vol 36, No 3, May/Jun 71, pp 545-550

irradiated animals is probably due to an increased rate of nuclear RNA metabolism rather than to a stimulation of DNA molecules. The hybridization method used was not adequately sensitive to detect either a stimulation or a depression of repeatedly recurring DNA segments. If the method is made several times more sensitive, this problem can be resolved.

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Acc. Nr: AP0045618

Ref. Code: UR 0463

PRIMARY SOURCE: Molekulyarnaya Biologiya, 1970, Vol 4, Nr 1, pp 37-44

THE ROLE OF PROTEIN SYNTHESIS IN THE UV-INDUCTION OF COLICINOGENIC FACTOR E1 IN *E. COLI*

Likhoded, V. G.; Padalko, T. B.; Sayenko, A. S.; Tolcheyev, Yu. D.

Institute for Vaccines and Sera Research, Ministry of Health, of the USSR, Moscow and Institute of Medical Radiology, Academy of Medical Sciences, Obninsk, USSR

The role of protein synthesis in UV-induction of colicinogenic factor E1 was investigated. UV-induction was shown to depend on the presence of some protein(s) synthesized prior to UV-irradiation. During a lag period after irradiation protein synthesis was not required for UV-induction of colicinogenic factor. In new infected cells UV-induction and zygotic induction were shown to depend on protein synthesis just after the transfer of colicinogenic factor.

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UDC 621.791.754

(3)

RABKIN, D. M., Doctor of Technical Sciences, ISHCHENKO, A. YA., Candidate of Technical Sciences, IGNAT'YEV, V. G., Candidate of Technical Sciences, LOZOVSKAYA, A. V., Candidate of Technical Sciences, SAYENKO, M. I., Engineer, Electric Welding Institute imeni Ye. O. Paton of the Academy of Sciences UkrSSR, KOZLOVSKAYA, V. P., Candidate of Technical Sciences, and IODA, M. V., [expansion unknown]

"Influence of Admixtures on the Mechanical Properties of Joints of 1201 Aluminum Alloy"

Kiev, Avtomaticheskaya Svarka, No 7(244), Jul 73, pp 53-55

Abstract: Mechanical test results of joints of aluminum alloys, 1201 type (0.15% Fe, 0.12% Si) and 01203 type (0.003% Fe, 0.02% Si), are discussed by reference to curves of the effect of temperature on the strength of the initial metal and the joint and of the effect on the relative elongation of the initial metal. The decrease of the total Fe and Al content to 0.06% in alloys of Al-Cu type improves the mechanical properties of the initial metal and of welded joints at normal temperature. The relative elongation, impact ductility, and the angle of bend of the initial metal and of joints of 01203 alloy are ~1.5 times higher than on 1201 alloy. The mechanical properties of both alloys

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RABKIN, D. M., et al., Avtomaticheskaya Svarka, No 7(244), Jul 73, pp 53-55

improve with decreasing temperature. At liquid He temperature, the resistance to rupture of the initial metal and of joints of 01203 alloy are somewhat higher than on 1201 alloy and the relative elongation of the initial metal is two times higher. Three figures, one table, four bibliographic references.

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USSR

RYABOV, V. R., YUMATOVA, V. I., SAYENKO, M. I., Institute of Electric Welding im. Ye. O. Paton, An UkrSSR, KAZACHINSKAYA, N. V., Kiev Polytechnic Institute

"Use of the Method of Multifactor Planning of Experiments for Studies of Calorizing of Kh18N10T and Type 3 Steels Before Welding With Aluminum"

Kiev, Avtomaticheskaya Svarka, No 12, 1972, pp 34-37

Abstract: The dependence of diffusion layer thickness formed upon calorizing of Kh18N10T and type 3 steels on melt temperature, calorizing time, and specimen volume was studied. The influence of heating rate and cooling on growth of the diffusion layer was also studied. Mathematical dependences were produced, showing that in direct welding of aluminum with steel, calorizing and the production of bimetallic castings, the basic factor determining the thickness of the diffusion layer is the melt temperature. This provides technological possibilities for regulation of layer thickness. The influence of volume (mass) of the specimens is less significant.

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1/2 022 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--ON PRINCIPLES UNDERLYING SURGICAL TREATMENT OF GASTRIC AND DUODENAL ULCERS -U-

AUTHOR-(04)-SHALIMOV, A.A., SAYENKO, V.F., ZAYTSEV, V.T., DALAVURAK, V.P.

COUNTRY OF INFO--USSR

SOURCE--KHIRURGIYA, 1970, NR 6, PP 23-28

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--SURGERY, DUODENUM, DIGESTIVE SYSTEM DISEASE, SECRETION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3002/1770 STEP NO--UR/0531/70/000/000/0023/0028

CIRC ACCESSION NO--AP0129138

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2/2 022 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0129138

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. BOTH CLASSICAL GASTRIC RESECTION AND VAGOTOMY WITH DRAINAGE OPERATIONS OR WITH ANTRUMECTOMY ACCORDING TO RIGIDLY SUBSTANTIATED INDICATIONS SHOULD BE EMPLOYED IN SURGICAL TREATMENT OF PEPTIC ULCER. CLASSICAL RESECTION IS DONE IN THE ABSENCE OF DISTURBANCES IN THE FIRST PHASE OF GASTRIC SECRETION AND WITH AN ELEVATED OR NORMAL SECOND PHASE. SELECTIVE VAGOTOMY WITH ANTRUMECTOMY IS INDICATED IN HYPERSECTION BOTH DURING THE FIRST AND SECOND PHASES OF GASTRIC SECRETION. SELECTIVE VAGOTOMY WITH DRAINAGE OPERATION IS PERFORMED IN HYPERSECTION DURING THE FIRST STAGE OF SECRETION. THE RESTORATIVE STAGE OF THE OPERATION IS REALIZED WITH DUE ACCOUNT FOR PREDISUSITICN TO THE DUMPING SYNDROME. FROM 1966 UP TO JULY 1968 A TOTAL OF 181 OPERATIONS FOR PEPTIC ULCER WERE PERFORMED. IMMEDIATE AND LATE RESULTS OF THE SURGERY PROVED SATISFACTORY. FACILITY: NII OBSHCHEY I NEOTLOZHNOY KHIRURGII, KHAR'KOV.

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USSR

UDC 621.373.531.3(088.8)

IVAKHNENKO, M. M., PANCHENKO, V. A., SAYENKO, V. M., PROKHORCHUK, YE. F.

"Controlled Trapezoidal Oscillator with an Exponential Decay"

USSR Author's Certificate No 275111, Filed 10 Jul 68, Published 15 Oct 70 (from RZh-Radiotekhnika, No 4, Apr 71, Abstract No 4G234P)

Translation: An oscillator made of magneto-transistor elements is proposed. It contains two transistors and two magnetic toroidal cores included in a balanced circuit. In order to reproduce the proper shape of the exponential decay and keep the pulse amplitude invariant during the period of variation of the coefficient of the exponent and during the process of variation of the output signal frequency, a saturation choke with binary control is connected to the common collector circuit of the transistor in series with the power supply and the secondary information sensor. The first control winding is connected to the first information circuit and forms an auxiliary electrical and magnetic coupling, and the second winding is connected to the second information circuit opposite, and it forms only a magnetic coupling together with the collector circuit.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

1/2 019 UNCLASSIFIED

TITLE--HIGHER FREQUENCY STATIC SUPPLY SOURCES BASED ON MAGNETIC ELEMENTS -U- PROCESSING DATE--30OCT70

AUTHOR-(04)-ROYZEN, S.S., STEPE, F.YU., PANCHENKO, V.A., SAYENKO, V.M.

COUNTRY OF INFO--USSR

SOURCE--MOSCOW, ELEKTRICHESTVO, NO 2, 1970, PP 72-74

DATE PUBLISHED--------70

SUBJECT AREAS--ELECTRONICS AND ELECTRICAL ENGR., METHODS AND EQUIPMENT

TOPIC TAGS--FREQUENCY METER, FREQUENCY CONVERTER, HIGH FREQUENCY, MAGNETIC METHOD

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1999/1233 STEP NO--UR/0105/70/000/002/0072/0074

CIRC ACCESSION NO--AP0123197

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

2/2 019

UNCLASSIFIED

CIRC ACCESSION NO--AP0123197 PROCESSING DATE--30OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A SHORT ANALYSIS IS MADE OF THE WORKING CONDITIONS OF A ONE STAGE, MAGNETIC OCTUPLE FREQUENCY METER. THIS SERVES AS THE BASIS FOR INDUSTRIAL, STATIC FREQUENCY CONVERTERS (50-400 CPS) OF THE PCHMS SERIES. ORIGINAL ARTICLE: TWO ILLUSTRATIONS AND FOUR BIBLIOGRAPHIC ENTRIES.

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

USSR UDC: 621.317.341

ZHILINSKAS, R. P., SAYESHNIKOVA, I. A.

"On One Approach to the Design of Microwave Measuring Instruments"

Dokl. Vses. nauchno-tekhn. konferentsii po radiotekhn. izmereniyam. T. 2 (Reports of the All-Union Scientific and Technical Conference on Radio Engineering Measurements. Vol. 2), Novosibirsk, 1970, pp 31-35 (from RZh-Radiotekhnika, No 1, Jan 71, Abstract No 1A389)

Translation: It is noted that the technological tendency to increase the precision of panoramic measuring instruments is now beginning to diminish. On the other hand, increased precision has been achieved in some new instruments by structural circuit changes (e. g. by connection to a special type of computer at the Hewlett-Packard Co. in the United States, etc.), and by increasing the cost, but not through technology. It is noted that a similar trend is developing in the Soviet industry. An analysis is given of a panoramic SWR meter which operates on the reflectometer principle on directional couplers; a table is given which enumerates types of errors with indication of ways to reduce them, and it is shown that error reduction can be achieved by circuit modifications, chiefly as a result of perfecting the structural circuit of the indicator. Bibliography of 4 titles.
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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

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USSR UDC 621.382.3

BARNEM, R. D., HOLONYAK, N. N., KORB, G. V., MAKSI, G. M., SAYFERS, D. R., WOODHAUSE, D. B., and ALFYYEROV, Zh. I.

"AlGaAsP Solid Solutions and Injection Lasers With Two Heterojunctions On Their Base"

Fizika i tekhnika poluprovodnikov, Vol 6, No 1, January 1972, pp 97-102

Abstract: The solid solutions $Al_yGa_{1-y}As_{1-x}P_x$ ($y = 0.0--0.2$; $x = 0.0--0.2$) are obtained by the fluid epitaxy method. The dependence is considered of the width of the forbidden band of the solid solutions on the compound and the dependence of the concentration of phosphorous in the epitaxial layers of AlGaAsP on the growth temperature is investigated. Injection lasers are obtained with the two heterojunctions $n\text{-}Al_yGa_{1-y}As_{1-x'}P_{x'}$--$p\text{-}Al_{y'}Ga_{1-y'}As_{1-x'}P_{x'}$--$p^+\text{-}Al_{y''}Ga_{1-y''}As_{1-x'}P_{x'}$ with threshold currents $\sim 10^4$ a/cm^2 at room temperature. The authors thank D.V.Bird and F.V.Williams (Monsanto, St.Louis) for the substrate and for technical assistance -- K.A. Cool, B.L.Marshall, M. Stone, and Yuri Moroz. University Of Illinois, Urbana, Illinois, USA; Physicotechnical Institute imeni A.F. Ioffe, AS, USSR, Leningrad. Received by editors 28 June 1971. 6 fig. 14 ref.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

Acc. Nr: AP0045016 Abstracting Service: 1/70 Ref. Code: US 0000
INTERNAT. AEROSPACE ABST.

A70-21385 A magnetosphere model based on two zones of precipitating energetic particles. V. M. Mishin, T. I. Saifudinova (Akademiia Nauk SSSR, Institut Zemnogo Magnetizma, Ionosfery i Rasprostraneniia Radiovoln, Irkutsk, USSR), and I. A. Zhulin (Akademiia Nauk SSSR, Institut Zemnogo Magnetizma, Ionosfery i Rasprostraneniia Radiovoln, Akademgorodok, USSR). *(International Symposium on the Physics of the Magnetosphere, Washington, D.C., Sept. 3-13, 1968.) Journal of Geophysical Research*, vol. 75, Feb. 1, 1970, p. 797-806. 48 refs.

Description of the main features of two quasi-circular zones of precipitation of energetic particles on the basis of the instantaneous patterns of the distribution of geomagnetic activity as well as on the basis of the dynamics of these patterns. A magnetosphere model reflecting these features is presented. The suggested model links the lower-latitude zone with processes occurring in the magnetospheric tail, whereas the higher-latitude zone is connected with particle injection through the neutral points. (Author)

E.B.

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REEL/FRAME
19771912

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

1/2 010 UNCLASSIFIED PROCESSING DATE--02OCT70

TITLE--PURIFICATION OF WASTE IN BIOFILTERS -U-

AUTHOR-(03)-SAYFUTDINOV, K.Z., IOAKIMIS, E.G., DUDNIKOVA, R.V.

COUNTRY OF INFO--USSR

SOURCE--KHIM. PROM. (MOSCOW) 1970, 46(1) 14-16

DATE PUBLISHED--------70

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

TOPIC TAGS--WASTE WATER CONVERSION, WATER PURIFICATION, FILTRATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1990/1753 STEP NO--UR/0064/70/046/001/0014/0016

CIRC ACCESSION NO--AP0109714

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

2/2 010 UNCLASSIFIED PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0109714

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE NEUTRALIZED AND FILTERED WASTE WATERS FROM VARIOUS PETROCHEM. PROCESSES (WITH A TOTAL BOD OF UP TO 500 MG-L.) WERE PURIFIED BY PASSING THROUGH A BIOCHEM. FILTER 2 M HIGH IN WHICH THE TOTAL BOD WAS REDUCED TO 16-80 MG O-L. AFTER 5 DAYS. THE BIOFILM IN THE UPPER LAYER OF THE FILTER CONSISTED OF ZOOGLOEA AND A DENSE NETWORK OF FUNGIN HYPHA; THE UPPER FILM CONTAINED DIFFUGIA AND CALLIDINE, WHILE FLAKES OF OOZE AS WELL AS NEMATODES AND PINNULARIA WERE FOUND AT A DEPTH OF 0.75 M AND EUGLYPHA WERE FOUND AT A DEPTH OF 1.45 M. THE MAX. OXIDN. CAPACITY OF A FILTER WITH A CROSS SECTION OF 25 TIMES 25 CM WAS 156 G O-(M PRIME3 DAY).

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

USSR

UDC: 621.762.8(088.8)

PROSKURYAKOV, Yu. G., SAYKO, I. B., FEDOTOV, V. I.

"Method of Saturation of Metal Ceramic Products"

USSR Author's Certificate Number 358088, Filed 19/10/70, Published 26/12/72 (Translated from Referativnyy Zhurnal Metallurgiya, No 8, 1973, Abstract No 8G407P).

Translation: A method is suggested for saturation of metal ceramic products with liquid, differing in that in order to increase the degree of saturation, the products are saturated during the process of standardization.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

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

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

UNCLASSIFIED PROCESSING DATE--13NOV70

2/2 017

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.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

1/2 010 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--NEW SYNTHESES INVOLVING ORGANOZINC COMPOUNDS. VI. SYNTHESES OF BETA HYDROXY KETONES, BETA KETO ALDEHYDES, AND GAMMA CHLORO BETA ALKOXY

AUTHOR-(02)-LAPKIN, I.I., SAYTKULOVA, F.G.

COUNTRY OF INFO--USSR

SOURCE--ZH. ORG.M. 1970, 6(3), 450-2

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHEMICAL SYNTHESIS, ORGANOZINC COMPOUND, KETONE, ALDEHYDE, CHLORINATED ORGANIC COMPOUND, MOLECULAR STRUCTURE, HETEROCYCLIC NITROGEN COMPOUND, BENZENE DERIVATIVE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1992/1667 STEP NO--UR/0366/70/006/003/0450/0452

CIRC ACCESSION NO--AP0112661

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

2/2 010 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0112661

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CONDENSATION OF RCH)ZNBR)COCH SUB2 R (I) (PREPD. IN SITU) WITH (CLCH SUB2) O GAVE RCH(CH SUB2 OCH SUB2 CL)CO CH SUB2 R WHICH WAS DECOMPD. WITH AQ. HCL SOLN. TO RCH(CH SUB2 OH) COCH SUB2 R (R EQUALS ME, ET, PR, OR BU). THE REACTION OF I WITH CHCL SUB2 OME GAVE RCH(CHCLOME)COCH SUB2 R WHICH DECOMPD. TO RCH(CHO)COCH SUB2 R (II). THE REACTION OF II WITH O,2 SUB2 N C SUB6 H SUB4 NH SUB2 GAVE THE CORRESPONDING DISUBSTITUTED BENZO,1,4,DIAZEPINES (III) (M. WEISSENFELS, ET AL., 1967). THE REACTION OF I WITH CH SUB2 CLCHCLOR PRIME1 GAVE RCH(COCH SUB2 R)CH(OR PRIME1)CH SUB2 CL. FACILITY: PERM. GOS. UNIV., PERM. USSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

USSR

UDC 546.681'682'683:543.257.1

KRESHKOV, A. P., SAYUSHKINA, Yu. N., and TIMASHEVA, N. A.,
Moscow Institute of Chemical Technology imeni D. I. Mendeleyev

"Analysis of Binary Mixtures of Gallium, Indium, and Thallium Salts by Methods of Potentiometric Titration and Ion Exchange in Non-Aqueous Solutions"

Moscow, Zavodskaya Laboratoriya, Vol 37, No 12, 1971, pp 1421 –1424

Abstract : The behavior of chlorides, nitrates, and sulfates of gallium (III) and indium (III), nitrate of thallium (I), and accompanying elements [Zn (II), Cd (II), Cu (II), Co (II)] in non-aqueous solutions was investigated. For the quantitative determination of nitrates and gallium and indium chlorides and their accompanying elements, a mixed solvent, water-acetone (1:4), was selected in which the salts show like acids and are titrated potentiometrically by 0.1 ethanoic solution of

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

USSR

KRESHKOV, A. P., et al., Zavodskaya Laboratoriya, Vol 37, No 12, 1971, pp 1421-1424

KOH. Thallium nitrate develops a neutral character in water-acetone media. For its determination, the ion exchange on cationite SVD-3 in H-form is used. For the determination of gallium and indium sulfates and other elements and also mixes of sulfates with nitrates (or chlorides), the cationite SDV-3 in H-form is used with following potentiometric titration of separated acids by 0.1-normal methanol solution of diphenylguanidine. Determinations of salts and their mixtures are described. Two illustr., two tables, 13 biblio. refs.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

Acc. Nr: AP0045006 Abstracting Service: 5/70 Ref. Code: UR0109

INTERNAT. AEROSPACE ABST.

A70-22416 # Optimal reception of an amplitude-modulated radio signal on a background of white and narrow-band noise (Optimal'nyi priem amplitudno-modulirovannogo radiosignala na fone belogo i uzkopolosnogo shumov). Iu. V. Salutin. *Radiotekhnika i Elektronika*, vol. 15, Jan. 1970, p. 180-182. In Russian.

Application of the theory of nonlinear filtration to the development of a practically realizable structural circuit for optimal reception of an amplitude-modulated radio signal on a background of white and narrow-band noise. It is shown that the optimal receiver in this case has two channels in which a quasi-coherent processing of the useful radio signal and the narrow-band noise is carried out. The reference signals are shaped by two phase-locked automatic frequency control systems.

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REEL/FRAME
19771902

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

USSR

UDC 616-002.71-08

SAZANOV, N. S.

"Chloramphenicol Treatment of Pseudotuberculosis"

Moscow, Voyenno-Meditsinskiy Zhurnal, No 6, 1971, pp 51-53

Abstract: Of 330 males 19 to 25 years of age suffering from pseudotuberculosis, 104 (group 1) received chloramphenicol (0.5 g 4 times daily) for 5 to 8 days, 120 (group 2) received the antibiotic for 2 weeks (0.5 g 4 times daily the first week and 0.5 g 3 times daily the second week), and 106 (group 3, the control) received symptomatic and desensitizing agents (diphenhydramine, calcium chloride, salicylates, and so forth). In the two groups that received chloramphenicol, body temperature returned to normal and the main symptoms of intoxication (headache, general weakness) disappeared much sooner than controls. There were also fewer relapses, especially in the group receiving chloramphenicol for 2 weeks. Other broad-spectrum antibiotics should be alternated with chloramphenicol to prevent the development of resistant strains.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

USSR

UDC 620.194.8

KARLASHOV, A. V., and SAZONOV, V. V., Kiev Institute of Civil Aviation Engineers

"Fatigue Strength of D16T Alloy at Different Load Frequencies and at Elevated Temperatures"

Kiev, Fiziko-Khimicheskaya Mekhanika Materialov, Vol 9, No 5, 1973, pp 3-6

Abstract: An experimental study was made of the effect of the frequency of a cyclic load (n_1 = 200 and n_2 = 10000 cycles/min) at t_1 = 20 and t_2 = 150°C temperatures on the fatigue of smooth specimens of D16T alloy, prepared from bar material of one melt according to 2860-65 All-Union State Standard (tensile strength σ_t = 50 kg/mm^2; specification yield point in elongation determinable by δ = 0.2% allowance of residual deformation $\sigma_{0.2}$ = 34 kg/mm^2; residual relative elongation δ = 20%). The results are discussed by reference to experimentally determined fatigue curves and the stress level dependences on frequency effect coefficients and two factors characterizing the reduction of durability and the interaction of frequency and temperature. Problems of the influence of the cyclic deformation rate on the structural condition and, consequently, on the fatigue longevity, are analyzed. Three figures, nine bibliographic references.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

1/2 008 UNCLASSIFIED PROCESSING DATE--02OCT70

TITLE--DEVICE FOR MEASURING THE CONTACT PRESSURE OF A V BELT ON A PULLEY -U-

AUTHOR-(02)-SAZHENOV, A.F., TROFIMOVA, I.N.

COUNTRY OF INFO--USSR

SOURCE--KAUCH. REZINA 1970, 29(2), 49-50

DATE PUBLISHED--------70

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

TOPIC TAGS--MECHANICAL POWER TRANSMISSION DEVICE, MECHANICAL ENGINEERING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1990/1302 STEP NO--UR/0138/70/029/002/0049/0050

CIRC ACCESSION NO--AP0109386

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

2/2 008 UNCLASSIFIED PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0109386

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE PRESSURE (P) EXERTED BY A TRANSMISSION BELT OF TRAPEZOID CROSS SECTION ON THE INNER SURFACES OF A SHEAVE CHANGES WITH THE TENSION OF THE BELT. THE TENSION CHANGES THE SHAPE OF THE CROSS SECTION AND, CONSEQUENTLY, THE DISTRIBUTION OF P. AN APP. IS DESCRIBED FOR DETG. P AT VARIOUS LOCATIONS OF THE INNER SHEAVE SURFACE. IT CONSISTS OF A BELT TENSIONING SYSTEM, AND A SHEAVE THE 2 SIDES OF WHICH CAN MOVE IN PARALLEL TO THE AXIS. ONE OF THE INNER SIDES HAS SMALL PERFORATIONS SERVING FOR THE HYDRAULIC P DETN. THE APP. IS USED IN THE DESIGN OF SHEAVE GROOVES FOR THE V AND TRAPEZOID CROSS SECTION BELTING. FACILITY: NAUCH-ISSLED. INST. REZIN, PROM., LENINGRAD, USSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

1/2 025 UNCLASSIFIED PROCESSING DATE--27NOV70

TITLE--PROPERTIES OF ANTISTATIC AND CONDUCTING POLYMERIC MATERIALS -U-

AUTHOR-(06)-VASILENOK, YU.I., DEYANOVA, A.S., KONOPLEV, B.A., LAGUNOVA, V.N., LELCHUK, SH.L., SAZHIN, B.I.

COUNTRY OF INFO--USSR

SOURCE--PLAST. MASSY 1970, (5), 57-60

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS, PHYSICS

TOPIC TAGS--SURFACE ACTIVE AGENT, POLYETHYLENE, PROPYLENE, COPOLYMER, BUTENE, ACETATE, POLYMETHYLMETHACRYLATE, ELECTRIC RESISTANCE, PLASTIC FABRICATION, ANTISTATIC ADDITIVE, MONOETHANOLAMINE, AMMONIUM CHLORIDE, ALCOHOL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3006/0923 STEP NO--UR/0191/70/000/005/0057/0060

CIRC ACCESSION NO--AP0134652

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4"

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CIRC ACCESSION NO--AP0134652 PROCESSING DATE--27NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE ADDITION OF SURFACE ACTIVE COMPDS. TO POLYETHYLENE, ETHYLENE,PROPYLENE COPOLYMER, ETHYLENE,ALPHA,BUTYLENE COPOLYMER, ETHYLENE,VINYL ACETATE COPOLYMER, OR POLY(ME METHACRYLATE) REDUCED THEIR SP. SURFACE ELEC. RESISTANCE (RHO SUBS). THE REDN. OF RHO SUBS INCREASED THE RATE OF THE ELEC. CHARGE DISSIPATION AND IMPROVED THE ANTISTATIC PROPERTIES. THE REDN. OF RHO SUBS DEPENDED ON THE THICKNESS OF THE SURFACTANT LAYER ON THE POLYMER SURFACE, WHICH WAS THE FUNCTION OF THE SURFACTANTS DIFFUSION TOWARDS THE SURFACE. THE BEST METHOD OF ADDING THESE SURFACTANTS (HYDROXYETHYLATED CETYL ALC., STEARYL ALC., OCTADECYLAMINE, MONOETHANOLAMINE, OR DIMETHYLOCTADECYLAMMONIUM CHLORIDE) WAS DURING THE EXTRUSION.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

Acc. Nr: AP0049944 Abstracting Service: CHEMICAL ABST. 5-70 Ref. Code: UR 0314

101317a **Liquid-holding properties of some substances dried from organic liquids and water.** Kaminskii, L. P.; Bel'dii, V. V.; Dushchenko, V. P.; Sazhin, B. S.; Panchenko, M. S. (USSR). *Khim. Neft. Mashinostr.* 1970, (1), 6-8 (Russ). The heat of vaporization of MeOH, Me_2CO, CCl_4, and H_2O from kaolin, loam, potato starch (I), polycarbonate, poly(vinyl chloride), and chlorendic anhydride was detd. from thermal anal. heating curves of isothermal drying and sorption and adsorption isotherms. All of the materials cited had considerable amts. of adsorbed liqs. The amts. of liqs. retained by the polymers were detd. The sp. heat of vaporization was inversely proportional to temp. Increased temp. had different effects on the polymers, depending on their phys. structure; for instance, in I there was a significant swelling which increased its surface area and the amt. of the liq. retained. CKJR

REEL/FRAME
19801880

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

Devices

USSR

UDC 621.327.534.15.032.43(088.8)

MAMSUROV, A.KH., OSKOLKOV, I.N., SAZHIN, L.I., TROFIMOV, V.V., YUDOVSKIY, B.Z.
[Vses. n.-i. kinofotoin-t--All-Union Scientific-Research Camera Institute]

"Device For Ignition Of Xenon Lamps"

USSR Author's Certificate No 311430, filed 15 Apr 70, published 6 Oct 71 (from RZh:Elektrotekhnika i energetika, No 5, May 1972, Abstract No 5V190P)

Translation: A device is proposed for ignition of xenon lamps, which contains a rectifier made with a thyristor, with a control circuit consisting of a RC network [tsepochka] with a switching diode. The rectifier is supplied from a supplementary winding of the power transformer of the rectifier. In order to accomplish control of the process of ignition of the lamps, an increase of their lifetime, and a decrease of the overall size of the device, the rectifier is connected in series with a supplementary winding of the transformer in the ignition circuit [tsep'] of the xenon lamp. For supply of the control circuit an auxiliary rectifier is used, connected to the power transformer, at the output of which the RC network is connected. 1 ill. Ye.I. Afanas'yeva.

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

SAZHIN, S. M.

UDC 551.509.323

USE OF NEPHANALYSIS WHEN COMPILING THE MEAN MONTHLY TEMPERATURE FORECAST

[Article by Candidate of Physical and Mathematical Sciences S. M. Sazhin, USSR Hydrometeorological Scientific Research Center; Moscow, Meteorologiya i Gidrologiya, Russian, No 12, 1971, submitted 15 June 1971, PP 85-89]

A method of forecasting the mean monthly temperature next to the ground is discussed in this article. It is based on the heat flux equation from which, after a series of assumptions, the regression equation is obtained. The values of the coefficients of this equation and also the estimates of the experimental forecasts are presented in the form of tables.

The definite progress made in references [1,3] with respect to using satellite data on the state of the cloud cover to compile a forecast of the average ten-day values of the temperature next to the ground permits hope of the possibility of using nephanalysis for monthly forecasting of this temperature. Here, an effort is made to generalize the above-indicated work. A scheme is proposed for using the statistical relation of the temperature fields, the temperature advection and cloudiness. The basis for this scheme is the heat flux equation

$$\frac{\partial T}{\partial t} = A_T + \frac{I_0 - I_T}{R^2} + \frac{1}{c_p \gamma} \varepsilon_q. \qquad (1)$$

Here A_T is the temperature advection, where

$$A_T = -\vec{v} \operatorname{grad} T = \frac{1}{r^2 \sin \theta} \left(\frac{\partial T}{\partial \theta} \frac{\partial H}{\partial \lambda} - \frac{\partial T}{\partial \lambda} \frac{\partial H}{\partial \theta} \right),$$

$$\gamma = \frac{dz}{dT},$$

H is the geopotential of the 500 millibar isobaric surface,
ε_q is the heat flux intensity,
θ is the colatitude,
λ is the longitude.

JPRS 55331
2 Mar 72

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

Refractory Materials

USSR

UDC 669.01:666.76.001.5

KHARCHENKO, I. G., SAZHIN, V. A., STARUN, V. R., RADCHENKO, I. I., TANDURA, I. P., and KOVALENKO, A. N.

"Some Problems of Internal Heat Exchange During Roasting of Magnesian Refractories"

Dnepropetrovsk, Metallurgicheskaya i Gornorudnaya Promyshlennost', No 4, Jul-Aug 70, pp 49-51

Abstract: Experimental material on the effect of the heating rate of the heat-and mass-transfer processes on the thermophysical parameters of roasted refractories is summarized. The material, published for the first time in the Soviet literature, can be used as a basis for further studies for determination of effective methods of heat treatment of magnesian refractories.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

USSR

UDC: 669.71.053.4.067

LIKHODED, A. D., ZAPOL'SKIY, A. K., SAZHIN, V. S.

"Separation of Pulp After Roasting of Alunite Ores with Sulfuric Acid"

Vopr. Khimii i Khim. Tekhnol. Resp. Mezhved. Temat. Nauch.-Tekhn. Sb. [Problems of Chemistry and Chemical Technology. Republic Interdepartmental Thematic Scientific and Technical Collection], 1973, No 28, pp 141-150 (Translated from Referativnyy Zhurnal Metallurgiya, No 8, 1973, Abstract No 8G161, by G. Svodtseva).

Translation: The process of agglomeration of pulp after leaching of alunite cake roasted at 300° with full dosing of H_2SO_4 is studied. As the temperature is varied from 80 to 96°, the settling rate is increased by 6.2 times, the degree of clarification of the solution -- by 2.6 times. When the L:S ratio in the pulp is changed from 4.4:1 to 15.8:1, the settling rate increases from 0.035 to 1.59 m/hr, while the quantity of solids in the clarified layer decreases from 12.89 at L:S = 4.4:1 to 0.82 g/l at L:S = 15.8:1. When 18 mg/dm^2 polyacrylamide is introduced to the pulp, the settling rate increases by 1.8 times, the quantity of solids in the clarified layer decreases by 5.1 times. The optimal filtration conditions are L:S = 12.1:1, temperature 96°, thickness of layer of sediment on filter 5 mm, polyacrylamide 18 mg/dm^3.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

USSR

UDC 620.179.16

DIMITROV, T. V. and SAZHIN, V. V., VNIINK

"The 'SNEZHINKA' Ultrasonic Detector Unit"

Sverdlovsk, Defektoskopiya, No 4, Jul-Aug 72, pp 136-139

Abstract: The authors have developed the SNEZHINKA (snow flake) unit which has the following detectors: divided-integrated (d.i.) detectors for testing parts of cylindrical shape; a d.i. widecut detector; a d.i. detector with improved parameters, a direct contact-immersion detector; and slanting, miniature and wear-resistant detectors. The detectors are mounted on an eight-pointed star-shape table and can be used under shop or laboratory conditions at ambient temperatures between -10 and +40 C.

In 1970 the SNEZHINKA unit underwent shop tests at metallurgical plants and the interdepartmental commission recommend it for series production. The Elektrotochpribor Plant started using the first industrial batch of SNEZHINKA units in 1971. A photograph of the unit is given along with three tables of technical specifications. 1 figure, 3 tables, 9 bibliographical references.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

USSR

UDC 615.372:576.851.49].07

SHAPIRO, N. I., VASIL'YEVA, T. G., MOSKVICHEVA, I. V., DUDKIKA, M. Y., KRUGLIKHINA, Z. M., SAZONETS, G. I., OZERETSKOVSKIY, N. A., BALAYAN, V. D., and KOVAL'SKAYA, S. Ya., Leningrad Institute of Vaccines and Sera and State Control Institute of Medical Biological Preparations imeni Tarasevich, Moscow

"Molecular Heterogeneity of Endotoxins Extracted From the Typhoid-Paratyphoid Group of Bacilli. Report II. Antigenic Structure and Biological Activity of High and Low-Molecular-Weight Fractions"

Moscow, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 11, 1971, pp 35-39

Abstract: By means of sepharose 2B columns, endotoxin extracts from typhoid (4446) and paratyphoid B (50602) bacilli can be separated into a high-molecular-weight and a low-molecular-weight fraction. Components of the latter fraction retain some serological specificity but are nontoxic, exert a low protective activity, and display no stressor activity. On the other hand, components of the high-molecular-weight fraction have a full antigenic structure, are highly immunogenic and toxic, and display pronounced stressor activity. The high-molecular-weight fraction is the carrier of the biological properties of typhoid and paratyphoid endotoxins.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

USSR

UDC 576.851.49:576.809.7:541.24

VASIL'YEVA, T. G., SAZONETS, G. I., and SHAPIRO, N. I., Leningrad Institute of Vaccines and Sera

"Characteristics of the Molecular Weights of the Highly Active Large-Molecular Component of Salmonella paratyphi B Endotoxins According to Light Diffusion and Electron-Microscopy Data"

Moscow, Doklady Akademii Nauk SSSR, Vol 211, No 3, 1973, pp 711-713

Abstract: Salmonella paratyphi B endotoxins can be separated into fractions differing markedly from one another in molecular weight, chemical composition, and biological activity. The first and largest-molecule fraction possesses the greatest biological activity (antigenicity, immunogenicity, toxicity, stressor action). This fraction is more active than even the original endotoxin. Electron-microscopic study of the fraction revealed the presence of two types of particles: (a) 140 X 250 Å - 500 X 650 Å and (b) 240 X 780 Å - 340 X 1200 Å. The authors regard them as fragments of the microbial cell membrane.

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USSR

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UDC 615.372:576.851.49].011.4

SHAPIRO, N. I., VASIL'YEVA, T. G., MOSKVICHEVA, I. V., SAZONETS, G. I., and REPINA, G. V., Leningrad Institute of Vaccines and Sera

"Molecular Heterogeneity of Endotoxins of Typhoid and Paratyphoid Bacteria. I. A Method of Fractionation and Some Physicochemical Properties of the Resulting Fractions"

Moscow, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 10, 1971, pp 55-59

Abstract: Preparations of S. typhi (4446) and S. paratyphi B (50602) endotoxins obtained by different methods of chemical disintegration of stab cultures were fractionated by gel filtration on columns of sepharose 2 B and 4 B. The optical density (at λ=260 and 280 mμ), carbohydrate and protein contents were determined in successive samples. The original preparations were found to be heterogeneous in molecular weight and chemical composition. A large protein-polysaccharide fraction with a molecular weight of about 9×10^6 and a polydisperse low-molecular fraction were isolated from all the preparations. Besides proteins and carbohydrates, the second fraction contained nucleic acids not present in the first fraction.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

1/2 030

TITLE--FIREPROOF ALUMINA -U- UNCLASSIFIED

PROCESSING DATE--20NOV70

AUTHOR-(04)-KISELEV, I.M., ZROZHEVSKIY, V.T., SHAKHNOVICH, I.G., SAZHIN, V.S.

COUNTRY OF INFO--USSR

SOURCE--U.S.S.R. 264,211

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

DATE PUBLISHED--10FEB70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--CHEMICAL PATENT, ALUMINA, CHEMICAL COMPOSITION, KAOLIN, FIRE RESISTANT MATERIAL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3004/1830

STEP NO--UR/0482/70/000/000/0000/0000

CIRC ACCESSION NO--AA0132095

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4"

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2/2 030 UNCLASSIFIED

CIRC ACCESSION NO--AA0132095 PROCESSING DATE--20NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. TO OBTAIN AN ALUMINA FIREPROOF MATERIAL EFFECTIVE TO 1950DEGREES, KACLIN IS ROASTED AT 1050-1200DEGREES FOR 1-3 HR. THE RESULTING PRODUCT IS TREATED WITH AN ALK. SOLN. OF 100-40 G NA SUB2 O-L. AT 95-105DEGREES FOR LARGER THAN 30 MIN, AND WASHED UNTIL THE RESIDUAL CONTENT OF ALKALI IS SMALLER THAN 1PERCENT.

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Acc. Nr. AA0037185 Abstracting Service: CHEMICAL ABST. 3-7d Ref. Code: UK 0000

57299v Alumina from nephelite rock and kaolin. Semenenko, N. P.; Sazhin, V. S.; Shor, O. I.; Moshkina, M. K.; Chumachenko, V. S.; Smirnov, M. N.; Zorikov, M. M. (Institute of General and Inorganic Chemistry, Academy of Sciences, Ukrainian S.S.R.) Brit. 1,177,133 (Cl. C 01f), 07 Jan 1970, Appl. 10 Feb 1967; 3 pp. A process for prepg. Al_2O_3 is described in which nephelite rock is leached in an autoclave with an aq. NaOH soln. (500 g Na_2O/l.) in the presence of CaO. The temp. is 280–300°, the time is 10 min, and the $CaO:SiO_2$ mole ratio is 1.05:1. The mixt. is filtered, the solids are washed, and the filtrate and washings are evapd, yielding an aluminate soln. contg. 500–20 g Na_2O/l. The soln. is cooled to 40–5° to crystallize aluminates which are then sepd. from the mother liquor. A portion of the mother liquor (contg. 120–30 g Na_2O/l.) is recycled to the autoclave; the remainder is fortified with NaOH and used

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to leach calcined (1050–150°) kaolin. The NaOH is added in an amt. calcd. to react only with the sol. part (~60%) of the SiO_2 in the kaolin. The leach liquor, comprised of a silicate soln. (contg. Na_2O 130–50, SiO_2 100–20, and Al_2O_3 2–5 g/l.), it is cooled to 20° to crystallize com. Na silicate. The leach solids, comprised of an Al_2O_3 conc. (contg. Al_2O_3 55–65, SiO_2 32–8, and impurities 2–3%) are sintered (1100–200°) with limestone and Na_2CO_3. The sinter is cooled and leached with wash H_2O to prep. an aluminate soln. contg. 65–75 g Al_2O_3/l. The insol. material is sepd. from the leach liquor and can be used as raw material for the manuf. of portland cement. The crvst. aluminates from the nephelite treatment are dissolved in the aluminate soln. from the kaolin treatment to prep. a soln. contg. 130 g Al_2O_3/l. and 130 g Na_2O/l. which corresponds to the concns. in Bayer process solns. Silicates are removed from the soln. by treatment at 105° for 6 hr with $3CaO.Al_2O_3.6H_2O$. The solids are sepd. and the soln. is treated with $Al(OH)_3$ to ppt. Al oxide hydrate which is sepd. and calcined to prep. Al_2O_3. Compared with other processes for prepg. Al_2O_3 from nephelite or kaolin this process requires less evapn. of leach solns. and less NaOH.

E. C. Houston

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USSR

Measuring, Testing, Calibrating

UDC 620.179.16

GITIS, M. B., DOBROMYSLOV, V. M., KOPANSKIY, A. G., and SAZHIN, V. V., All-Union Scientific Research Institute for the Development of Nondestructive Materials Quality Control Methods and Facilities

"Separate-Combined Finder for Ultrasonic Flaw Detector"

USSR Authors' Certificate No 363031, Cl. G 01n 29/04, filed 10 Mar 70, published 20 Dec 72 (from Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 3, 1973, p 87)

Abstract: The device contains an emitting and a receiving transducer mounted on acoustic lines separated by an acoustic screen. The unique feature is that, to increase measurement accuracy, one of the transducers takes the form of a capacitor consisting of two metal plates separated by a dielectric layer and connected to the polarizing voltage. An illustration is given.

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USSR Conferences

IL'IN, V.G., SAZHIN, V.V. 529.781

"USSR State Time And Frequency Service In 1972"

Izmeritel'naya tekhnika, Moscow, No 1, Jan 1972, p 6

Abstract: The second conference of the Interdepartmental Commission Of The Unified Time Service was conducted on 24 Dec 1971 at the State Committee Of Standards Of The Council Of Ministers, USSR, under the chairmanship of the Chairman of the State Standards Of The USSR, Doctor Of Technical Sciences Professor V.V. Boytsov. The Commission, which unites 14 ministries and departments of the USSR, noted that for the State Time And Frequency Service Of The USSR, 1972 would be important as a year of transition to a new system of world-wide coordinated time and as the year of the 25th Anniversary of the creation of the service in 1947. Past and present activities of the State Time And Frequency Service are discussed in detail. Received by editors 29 Dec 1971.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

1/2 022

UNCLASSIFIED

TITLE--SEPARATE COMBINED HEAD FOR ULTRASONIC DEFECTOSCOPES -U-

PROCESSING DATE--20NOV70

AUTHOR-(03)-BUDENKOV, B.A., KOPANSKIY, A.G., SAZHIN, V.V.

COUNTRY OF INFO--USSR

SOURCE--U.S.S.R. 245429

REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRAZTSY, TOVARNYE ZNAKI NR 19

DATE PUBLISHED--23OCT70

SUBJECT AREAS--METHODS AND EQUIPMENT

TOPIC TAGS--DEFECTOSCOPE, ULTRASONIC EMITTER, SIGNAL INTERFERENCE, ERROR MINIMIZATION, PATENT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1994/0734

STEP NO--UR/0482/69/000/000/0000/0000

CIRC ACCESSION NO--AA0114886

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

2/2 022

UNCLASSIFIED

CIRC ACCESSION NO--AA0114886 PROCESSING DATE--20NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SEPARATE COMBINED HEAD FOR ULTRASONIC DEFECTOSCOPES OVERCOMES THE DISADVANTAGE OF CONVENTIONAL HEADS, WHICH HAVE A DEAD ZONE NEAR THE INSPECTED SURFACE CAUSED BY ECHOES DUE TO IMPERFECTIONS OF THE SCREENING BETWEEN HEADS AND ECHOES IN NEARBY DEFECTS IN A ZONE OF LOW SENSITIVITY. IN THE PROPOSAL, ONE PRISM IS MADE SHORTER THAN THE OTHER BY A LENGTH EQUAL TO THE PRODUCT OF THE PICK UP PULSE AND THE VELOCITY OF PROPAGATION OF THE WAVE IN THE PRISM MATERIAL. THIS CUTS DOWN THE DEAD ZONE, SINCE THE ECHO SIGNAL OF THE SHORTER PRISM IS CLEAR OF THE INSPECTED ZONE, AND THAT FROM THE LONGER ONE IS DISPLACED INTO A ZONE OF HIGH SENSITIVITY, THUS AVOIDING HINDERING THE RECEPTION OF THE DEFECT SIGNAL. FACILITY: VSESOYUZNYY NAUCHNO-ISSLEDOVATEL'SKIY INSTITUT PO RAZRABOTKE NERAZRUSHAYUSHCHIKH METODOV I SREDSTV KONTROLYA KACHESTVA MATERIALOV.

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USSR

ZABELKIN, M. M., SAZONOV, A. A.

UDC: 621.396.6-181.48

"Automating the Control of a Sharp-Focus Electron-Beam Installation in the Production of Integrated Circuits"

Elektron. prom-st'. Nauch.-tekhn. sb. (The Electronics Industry. Scientific and Technical Collection), 1972, No 1, pp 74-77 (from RZh-Radiotekhnika, No 8, Aug 72, Abstract No 8V262)

Translation: The time for machining a single module can be cut to ten seconds or less by using a differential analyzer to control an electron beam installation. Resumé.

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USSR Materials

UDC 666.293.52

VYKHOVANETS, A. F., SAZONETS, N. V., NIKITENKO, L. N. GURSKIY, B. A., KOCHUYEV, YE. S., and GLADUSH, V. M.

"An Enamel for Steel"

USSR Author's Certificate No 366160, Filed 27 Oct 70, Published 16 Jan 73 (from Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 7, Mar(a) 73 Claim No 1488623/29-33)

Translation: An enamel for steel, including SiO_2, B_2O_3, Al_2O_3, TiO_2, CaO, and Na_2O, distinguished by the fact that in order to increase its acid resistance and heat resistance it additionally contains SrO, Li_2O, Na_2SiF_6, K_2O, CaF_2, Co_2O_3, Ni_2O_3 and Cr_2O_3 in the following ratio of components, weight %: SiO_2 64-67, B_2O_3 1.8-2.7, Al_2O_3 1.0-1.6, TiO_2 3.1-3.6, CaO 3.2-3.7, SrO 0.6-0.9, Na_2O 9.4-10.7, K_2O 3.9-4.5, Li_2O 4.3-4.5, Na_2SiF_6 1.3-2.0, CaF_2 1.7-2.5, Co_2O_3 0.5-0.56, Ni_2O_3 0.4-0.53, Cr_2O_3 0.16-0.25.

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USSR

SAZONOV, A. A. and SMIRNOV, E. A. UDC 621.396.6-181.48

"Some Problems Associated With the Construction of Automatic Systems for Orienting Integrated Circuits"

Sb. Nauch. tr. po probl. mikroelektron. Mosk. in-t elektron. tekhn. (Collected Scientific Works on Problems of Microelectronics. Moscow Institute of Electronics Technology), 1972, vyp.10, pp 149-156 (from RZh-Radiotekhnika, No 11, Nov 72, Abstract No 11 V252)

Translation: The potentialities of TV-pickups are studied with respect to the construction of automatic, integrated circuit, orienting systems. The advantages of TV-pickups as opposed to photoelectric pickups are shown with respect to the degree of light contrast reproduction, high-speed activity, resolution, degree of automation and reliability. Resume.

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JPRS: 60372
25 Oct '73

(1)

Med/Dir. Sci. Res. Clinical Inst.

SAZONOV, A. M.

ORGANIZATION OF WORK OF A KIDNEY CENTER IN MOSCOW OBLAST

UDC: 614.2.07:616.61-78(670.111)

[Article by A.M. Sazonov, L.A. Kozhinskiy, S.P. Varkhovskiy, Moscow Oblast Scientific Research Clinical Institute imeni M.F. Vladimirskiy (Professor A.M. Sazonov, Director); Moscow, Sovetskiye Zdravookhraneniye, Moscow, No 9, 1973, submitted 13 April 1973, pp 67-71]

The development and successful use of Soviet-manufactured artificial kidneys in the complex therapy of acute and chronic renal insufficiency has made it possible to adapt hemodialysis in clinical practice. The complexity of the equipment and the necessity of specially trained personnel to operate it served as the basis for the USSR Ministry of Health to issue order No 145, dated 26 August 1969, which specified the staff schedule for servicing artificial kidney machines. A staff schedule of 10 units was approved with reference to operating artificial kidneys, rather than to a specific number of hospital beds or a specific number of patients. This played a major part in providing specialized medical care for patients with acute renal insufficiency of diverse etiology. By 1966, more than 4,000 hemodialysis procedures had been performed on the Soviet equipment and many hundreds of previously deemed individuals were saved. Further accumulation of the Soviet equipment revealed that it is possible to use the artificial kidney not only for patients with acute but also chronic renal insufficiency in the form of preoperative and postoperative management of patients after kidney transplants (E.A. Lavitskiy and I.G. Yaroslavskiy; I.N. Kuchinskiy).

With all the obvious success of using hemodialysis in complex therapy of acute and chronic renal insufficiency, we still do not have scientifically substantiated norms that would determine the optimum work loads for a kidney center, as related to the population served, number of artificial kidneys, availability of (activities, etc. The literature dealing with the use of Soviet artificial kidneys indicates that, in spite of specially assigned personnel, there is a considerable fluctuation in the work load of kidney centers. Thus, with reference to rendering the necessary care only to patients with acute renal insufficiency, between 1966 and 1969, the Tashkent artificial kidney department performed only 36 hemodialyses (B.A. Aripov et al.), in Perm 53 hemodialyses were performed in 3 years (L.I. Fridman), 445 were performed in Donetsk between 1961 and 1969 (P.E. Beruyak), and at the clinic of faculty surgery of the First Moscow Medical Institute imeni I.M. Sechenov 1,380 were performed in 8 years (M.I. Kurin and M.I. Seronina).

In our country there are also centers that render care to patients with both acute and chronic renal insufficiency. For example, in 8 years of operating the artificial kidney department in Tbilisi, 400 hemodialyses were performed (A.M. Agayan); 1,900 hemodialyses (A.F. Zemlikov) were performed in 12 years of operating the artificial kidney department at the urological clinic of the Second Moscow Medical Institute. In 2 years, 900 hemodialyses were used in the department of chronic hemodialysis at the Chair of Internal Medicine and Occupational Diseases of the First Moscow Medical Institute imeni I.M. Sechenov, using Soviet equipment (V.M. Yermolenko et al.).

To what can we attribute this difference in the work load of different centers in the country? What are the optimum criteria of effective use of the expensive artificial kidneys and staff?

We should like to call the attention of specialists and public health organizers to questions of effective use of artificial kidneys and thus to find additional opportunities to care for patients with acute and chronic renal insufficiency.

The kidney center of Moscow Oblast began to function in January 1971 in the department of clinical surgery of Moscow Oblast Scientific Research Clinical Institute imeni M.F. Vladimirskiy. When the center was organized, the objective was to provide consultation for all patients with renal insufficiency of any

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USSR

SAZONOV, B.V., KHOMICH, V.B.

UDC 621.385.623.4

"Some Features Of Calculations For Klystrons With Periodic Electrostatic Focusing"

Elektron. tekhnika. Nauchno-tekhn. sb. Elektron. SVCh (Electronics Technology. Scientific-Technical Collection. Microwave Electronics), 1970, No 2, pp 3-10 (from RZh--Elektronika i yeye primeneniye, No 8, August 1970, Abstract No 8A127)

Translation: The dependences are determined by the modeling method of the parameters of a focusing field, on the basic dimensions of a single-potential electrostatic lens. The data obtained are used to determine the flight time of electrons in the space drift and the optimum length of the bunching area. An approximate method of calculating the field in the lenses is presented. Summary.

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USSR

SAZANOV, B. V. UDC 669.1.076

"Prospects for the Use of Gas Turbines at Ferrous Metallurgy Plants"

Moscow, Stal', No 1, Jan 73, pp 85-89.

Abstract: Gas turbine installations have a number of advantages over steam turbine installations and are becoming ever more commonly used. The heating of blast furnace gas before a waste-gas turbine without a compressor is unsuitable in the energetic aspect, since the heat of the spent gas is used less efficiently and expensive enriched blast is used. Mixing heating results in a reduction in the quality of the blast furnace gas (decreases the operating efficiency of its consumers). Heating should be limited to the minimum level necessary to prevent deposits. The experience of the operation of waste gas turbines of 6 and 8 Mw power capacity operated at two plants is analyzed. Heating gas turbines are quite efficient, utilizing the heat of fully spent gas, so that the fuel consumption is independent of the parameters of the heat-transfer medium (hot water or industrial steam). The economy of systems of gas heating turbines and steam heating turbines is compared for a planned plant, where one or two 100 Mw gas turbines can be used.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002202820001-4

USSR

POLISHCHUK, N. P. and SAZONOV, D. M.

UDC 621.396.677.494.001.24

"Calculation of Phased Annular Aerial Arrays of Interacting Emitters Excited by Butler Circuit"

Moscow, Antenny, No 13, 1971, pp 3-17

Abstract: The present work considers an aerial array consisting of several emitters equally spaced along an equatorial ring.

A method is presented for determining the amplitudes and phase relations of the emitter signals which would result in maximum power in a given direction. This direction may vary in the meridianal plane as well as in the equatorial one. The emitters are excited by a passive, reactive Butler circuit.

The numerical examples show that the emitter interaction has to be considered only for scanning at or near the equatorial plane. If the beam deviates from this plane by over 20°, the emitter interaction can be ignored.

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USSR

UDC 621.396.677.4:621.372.552

POLISHCHUK, N. P., SAZONOV, D. M.

"Synthesis of a Multiterminal Network Which Compensates Mutual Coupling in a Ring Antenna Array"

Moscow, Radiotekhnika i Elektronika, Vol 16, No 7, Jul 71, pp 1158-1162

Abstract: A procedure is proposed for synthesizing a multiterminal network which compensates for mutual coupling between radiators in a ring antenna array, and guarantees minimum rms deviation of the system of realized radiation patterns from the initial pattern. The proposed method of calculating a multiple-terminal compensating network can be extended to arbitrary antenna arrays.

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1/2 036 UNCLASSIFIED

TITLE--SYNTHESIS OF MULTIBEAM ANNULAR ANTENNA ARRAYS WITH FULL CIRCULAR SYMMETRY -U- PROCESSING DATE--30OCT70

AUTHOR-(02)-SAZCNOV, D.M., USHAKOV, YU.S.

CCUNTRY OF INFO--USSR

SOURCE--RADIOTEKHNIKA I ELEKTRONIKA, VOL. 15, MAY 1970, P. 897-904

DATE PUBLISHED----MAY70

SUBJECT AREAS--ELECTRONICS AND ELECTRICAL ENGR., PHYSICS

TOPIC TAGS--ANTENNA ARRAY, ANTENNA RADIATION PATTERN, MULTIPLE BEAM ARRAY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/0263 STEP NO--UR/0109/70/015/000/0897/0904

CIRC ACCESSION NO--AP0124025

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UNCLASSIFIED

CIRC ACCESSION NO--AP0124025 PROCESSING DATE--30OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DESCRIPTION OF A METHOD FOR THE SYNTHESIS OF AN AXISYMMETRIC MULTIBEAM ANNULAR ANTENNA ARRAY OF INTERACTING RADIATING ELEMENTS BY CONSTRUCTING A SYSTEM OF PARTIAL RADIATION PATTERNS WHICH ARE CHARACTERIZED BY THE LEAST MEAN SQUARE DEVIATION FROM A GIVEN FORM. THE SOLUTION IS OBTAINED BY A MATRIX METHOD, USING SPECTRAL DECOMPOSITION OF THE FIELD OF THE ARRAY.

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ACC. Nr: AP0045008

Abstracting Service: 5/70 INTERNAT. AEROSPACE ABST.

Ref. Code: UR0109

A70-23162 Calculation of the mutual impedances of arbitrary antennas from their radiation patterns (Raschet vzaimnykh impedansov proizvol'nykh antenn po ikh diagrammam napravlennosti), D. M. Sazonov, *Radiotekhnika i Elektronika*, vol. 15, Feb. 1970, p. 376-378. In Russian.

Description of an improved method of calculating the normalized mutual impedance of an arbitrary antenna from the antenna radiation pattern. An interpolation method is proposed as a means of obtaining a more accurate value of the reactive portion of this impedance than is obtainable by using Vendik's (1965) method. The results of a calculation of the reactive portion of the normalized mutual impedance of two parallel half-wave dipoles by the proposed method are compared with Tatarinov's calculations by the method of induced emf and with calculations according to Vendik's method. It is found that the interpolation method gives good accuracy for diameter to wavelength ratios greater than 0.20 and yields much greater agreement with the method of induced emf than with Vendik's method.

A.B.K.

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USSR

KILDNIK, I. I., LEZOV, A. P., SAZONOV, I. A., TSEPLYAYEV, K. N., and SILUYANOV, V. A.

UDC: 681.2/325

"Specialized Digital Measuring Unit"

Tr. Mosk. energ. in-ta (Works of the Moscow Power Engineering Institute), 1972, vyp.154, pp 133-138 (from RZh-32. Metrologiya i Izmeritel'naya Tekhnika, No 5, 1973, Abstract No 5.32.60)

Translation: The authors present a short description and the technical characteristics of a digital unit developed by the Department of Information-Measurement Technology of the Moscow Power Engineering Institute for the remote control study of high-speed processes. This unit in some ways satisfies current requirements. The unit consists of three blocks: analog-digital converter, a remote block, and a matching block. The analog-digital converter and the remote block are connected by a cable communication line 250-500m long. The following are the basic technical data of the digital remote control unit model: nominal value of the input voltage $U_{nom.}$=100mv; fundamental error of the measurement result at the most sensitive limit does not exceed $\pm(0.05-0.025 \frac{U_{nom.}}{U_x})$ percent; maximum sensitivity is not less than

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USSR

KILIMNIK, I. I., et al., Tr. Mosk. energ. in-ta, 1972, vyp. 154, pp 133-138

40 microvolts; with the following input resistance: a) not less than 100 kilohms under conditions of compensation; b) not less than 50 kilohms in the equilibration process; 50, 100, 200, 400, 1000 measurement frequency; power consumed from a 220v network does not exceed 30w; unit dimensions: a) the analog-digital converter - 220 x 400 x 250 mm, b) the remote block - 180 x 270 x 170 mm, c) matching block - 180 x 200 x 180 mm. Original article: two illustrations and one bibliographic entry.

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UR 0482

Soviet Inventions Illustrated, Section I Chemical, Derwent, 1-70

240791 ULTRASONIC CLEANING of small articles is more effective when the cleaned components are placed in a hermetically sealed container and the internal pressure is increased before agitating the liquid medium.

19.1.68 as 1212064/26-9. G.F.DOBROVOLSKIY & F.D. SAZONOV (26.8.69.) Bul 13/1.4.69. Class 21a, Int.Cl.H05k, C 23g.

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TITLE--USE OF FINELY DIVIDED METAL POWDERS AS SUPPORTS IN GAS CHROMATOGRAPHY -U-

PROCESSING DATE--30OCT70

AUTHOR-(05)-YANOVSKIY, S.M., ALKSNIS, O., LIBERMAN, I.I., SAZONOV, M.L., ZHUKHOVITSKIY, A.A.

COUNTRY OF INFO--USSR

SOURCE--ZAVOD. LAB. 1970, 36(2), 136-8

DATE PUBLISHED--------70

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SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--GAS CHROMATOGRAPHY, STAINLESS STEEL, PARTICLE SIZE, CHEMICAL LABORATORY APPARATUS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3001/0135

STEP NO--UR/0032/70/036/002/0136/0138

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CIRC ACCESSION NO--AP0125951 UNCLASSIFIED PROCESSING DATE--30OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. STAINLESS STEEL POWDER OF PARTICLE SIZE 40-45 MU WAS USED AS A SUPPORT FOR GAS-LIQ. CHROMATOG. THE COLUMNS WERE PACKED WITH DRY POWDER, AND A LIQ. PHASE (HEXADECANE) WAS APPLIED BY PASSING ITS SOLN. IN CCL SUB4 (1:5) THROUGH THE COLUMN UNDER VACUUM (WATER PUMP). THE PERMEABILITY OF THE POWDER FOR CARRIER GAS HAS PROPORTIONAL TO SQUARE OF THE DIAM. OF THE PARTICLE. APPLICATION OF SMALL SIZE PARTICLES WITH GOOD GAS FLOW ALLOWED A DECREASE OF THE HETP (HEIGHT EV. TO A THEORETICAL PLATE) DOWN TO 1 MM. AN INCREASE OF COLUMN DIAM. DID NOT DECREASE ITS EFFECTIVENESS, I.E. SUCH COLUMNS WERE PARTICULARLY USEFUL FOR PREPARATIVE WORK. USE OF H AS CARRIER GAS GAVE BETTER SEPN. THAN N. THE RELATIONS BETWEEN HETP AND GAS FLOW ACCORDING TO PARTICLE SIZE AND COLUMN DIAM. ARE GIVEN. FACILITY: VSES. NAUCH.-ISSLED. GEOLOGORAZVED. NEFT. INST., MOSCOW, USSR.

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