"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

1/2 023 UNCLASSIFIED PROCESSING DATE--09OCT70

TITLE--EFFECT OF A PRIORI INITIAL PHASE DISTRIBUTION IN ESTIMATING THE PARAMETER OF A NARROW BAND SIGNAL IN NOISE -U-

AUTHOR-(02)-KULIKOV, YE.I., TRIFONOV, A.P.

COUNTRY OF INFO--USSR

SOURCE--KIEV, IZVESTIYA VUZOV SSSR RADIOELEKTRONIKA, VOL 13, NO 2, 1970, PP 144-151

DATE PUBLISHED--------70

SUBJECT AREAS--NAVIGATION

TOPIC TAGS--SIGNAL NOISE SEPARATION, NARROW BAND TRANSMISSION, RADIO ENGINEERING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1991/1450 STEP NO--UR/0452/70/013/002/0144/0151

CIRC ACCESSION NO--AP0110943

UNCLASSIFIED

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UNCLASSIFIED

CIRC ACCESSION NO--AP0110943 PROCESSING DATE--09OCT70

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. THE DETERMINATION OF THE EFFECT OF A PRIORI KNOWLEDGE OF THE INITIAL PHASE ON THE ACCURACY WITH WHICH THE PARAMETERS OF THE SIGNALS ON A BACKGROUND OF NORMAL NOISE ARE OPTIMALLY ESTIMATED IS OF PRACTICAL INTEREST IN THE RECEPTION OF NARROW BAND SIGNALS IN VARIOUS FIELDS OF RADIO ENGINEERING, COMMUNICATIONS, RADAR, TELEMETERING, AND THE LIKE. THIS ARTICLE CONSIDERS THIS EFFECT BY PROPOSING A PROBLEM IN WHICH AN ADDITIVE SIGNAL AND NOISE MIXTURE IS INPUT TO A RECEIVER OVER A PERIOD OF TIME, THE SIGNAL BEING NARROW IN FREQUENCY RANGE AND THE NOISE NORMAL WITH ZERO AVERAGE VALUE AND A DEFINITE CORRELATION FUNCTION. THE ASSUMPTION IS MADE THAT THE PARAMETER CAPABLE OF ESTIMATION BELONGS TO A CLASS OF NONENERGETIC PARAMETERS, I.E., THE ENERGY OF THE USEFUL SIGNAL IS INDEPENDENT OF THE ACTUAL VALUE OF THE PARAMETER. THREE POSSIBLE CASES OF RELATIVELY A PRIORI KNOWLEDGE OF THE INITIAL PHASE, IN THE RECEPTION OF THE MIXED SIGNAL, ARE CONSIDERED: FIRST, THE INITIAL PHASE IS PRECISELY KNOWN; SECOND THE INITIAL PHASE IS A DEFINITE UNKNOWN QUANTITY, OR IT IS ASSUMED TO BE A RANDOM QUANTITY WITH UNIFORM DISTRIBUTION IN THE INTERVAL OF 0 YIELDS 2 PI; THIRD, THE INITIAL PHASE IN A RANDOM QUANTITY WITH A KNOWN A PRIORI DISTRIBUTION OTHER THAN UNIFORM.

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USSR

UDC 621.391.8

KULIKOV, Ye. I. and TRIFONOV, A. P.

"Effect of A Priori Initial Phase Distribution in Estimating the Parameter of a Narrow-Band Signal in Noise"

Kiev, Izvestiya VUZov SSSR-Radicelektronika, Vol 13, No 2, 1970, pp 144-151

Abstract: The determination of the effect of a priori knowledge of the initial phase on the accuracy with which the parameters of the signals on a background of normal noise are optimally estimated is of practical interest in the reception of narrow-band signals in various fields of radio engineering -- communications, radar, telemetering, and the like. This article considers this effect by proposing a problem in which an additive signal and noise mixture is input to a receiver over a period of time, the signal being narrow in frequency range and the noise normal with zero average value and a definite correlation function. The assumption is made that the parameter capable of estimation belongs to a class of nonenergetic parameters, i.e., the energy of the useful signal is independent of the actual value of the parameter. Three possible cases of relatively a priori knowledge of the initial phase, in the reception of the

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USSR

KULIKOV, Ye. I., et al., Izvestiya VUZov SSSR-Radioelektronika, Vol 13, No 2, 1970, pp 144-151

mixed signal, are considered: first, the initial phase is precisely known; second, the initial phase is a definite unknown quantity, or it is assumed to be a random quantity with uniform distribution in the interval of $0 \rightarrow 2\pi$; third, the initial phase is a random quantity with a known a priori distribution other than uniform.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

UDC 621.391.16

POZDNYAK, S.I., RADZIYEVSKIY, V.G., TRITONOV, A.P. [Members, Scientific-Technical Society Of Radio Engineering, Electronics, And Communications imeni A.S. Popov]

"Analysis Of Optimum Reception Of Elliptically Polarized Signal"

Radiotekhnika, Vol 27, No 6, June 1972, pp 6-10

Abstract: In this paper, as applied to the problem of detection, an analysis is made of an optimum receiver of an elliptically polarized signal, and in addition the polarization parameters of the useful signal are found which assure the best quality of reception. 2 fig. 3 ref. Paper received after revision, 20 July 1971.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

GENKIN, V. N., PISKAREV, V. I., TRIFONOV, B. A., Scientific Research Radio Physics Institute

UDC 621.376.234

"Detector Based on n-Type InSb at 77°K"

Gor'kiy, Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, Vol XV, No 9, 1972, pp 1417-1419

Abstract: A study was made of the detecting properties of n-InSb at a temperature of 77° K. A sample of n-type InSb 0.25 × 0.21 × 0.05 mm^3 ($n = 9.1 \cdot 10^{13}$, $\mu = 7.5 \cdot 10^5$ cm^2/volt-second, T = 77° K) was used as the detector element. The volt-watt sensitivity $K = U/P_c$ (the ratio of the voltage at the modulation frequency to the signal power absorbed in the detector) was investigated by measurements on a frequency of 3 and 150 gigahertz with a modulation frequency of 1,000 hertz. Two characteristic regions are isolated on the curve obtained for the volt-watt sensitivity as a function of the bias. One corresponds to an increase in the resistance with an increase in the field (E < 160 volts/cm), and the other, a drop in the resistance (E > 160 volts/cm). The boundary of value of the field E = 160 volts/cm is the characteristic field for which a significant change in concentration begins in the n-InSb at 77° K [O. Madelung, Fizika poluprovodnikovykh soyedineniy elementov III i V grupp , Mir, Moscow,

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USSR

GENKIN, V. N., et al., Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, Vol XV, No 9, 1972, pp 1417-1419

1967]. In the first region the detection effect is caused by the dependence of the electron mobility on the field. The maximum volt-watt sensitivity in this region k ~ 10 volts/watt. For the E > 160 volts/cm fields, the detection effect is connected with the dependence of the concentration on the field. The volt-watt sensitivity of the detector does not in practice depend on the signal power or $P_c < P_0$. The limiting sensitivity P_{limit} is estimated at $P_{limit} = 3 \cdot 10^{-11}$ watts in the pre-breakdown region and $P_{limit} = 4 \cdot 10^{-12}$ watts in the post-breakdown region. Thus, the detector is inferior with respect to limiting sensitivity to the detector introduced by A. N. ystavkin, et al. [FTP, Vol 1, No 6, 844, 1967] which operates at a temperature of 4.2° K, but its advantages are the possibility of operating at 77° K and its low inertia.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

UNCLASSIFIED

TITLE--EVOLUTION OF THE COHERENT STATES OF A CHARGED PARTICLE IN A VARYING MAGNETIC FIELD -U-

PROCESSING DATE--09OCT70

AUTHOR-(03)-MALKIN, I.A., MANKO, V.I., TRIFONOV, D.A.

COUNTRY OF INFO--USSR

SOURCE--ZHURNAL EKSPERIMENTAL'NOY I TEORETICHESKOY FIZIKI, 1970, VOL 58, NR 2, PP 721-729

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--CHARGED PARTICLE, PARTICLE MOTION, ALTERNATING MAGNETIC FIELD, TRANSITION PROBABILITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1976/2067

STEP NO--UR/0056/70/058/002/0721/0729

CIRC ACCESSION NO--AP0043594

UNCLASSIFIED

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UNCLASSIFIED

CIRC ACCESSION NO--AP0043594 PROCESSING DATE--09OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. NEW INVARIANTS ARE FOUND IN THE PROBLEM OF A CHARGED PARTICLE IN A VARYING MAGNETIC FIELD. COHERENT STATES OF A CHARGED PARTICLE IN A UNIFORM VARYING MAGNETIC FIELD ARE INTRODUCED. THE TRANSITION PROBABILITIES BETWEEN LANDAU LEVELS CALCULATED FOR MAGNETIC FIELDS CONSTANT IN THE REMOTE PAST AND REMOTE FUTURE CAN BE EXPRESSED IN TERMS OF JABOBI POLYNOMIALS. EVOLUTION OF THE INITIAL COHERENT STATES IS ALSO DETERMINED. THE GROUP ASPECT OF THE PROBLEM IS DISCUSSED.

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USSR

Radiobiology

UDC 621.311.12(540)

KOMOLOVA, G. S., TRIFONOV, E. N., and YEGOROV, I. A., Institute of Biochemistry imeni A. N. Bakh, Academy of Sciences USSR, Moscow

"Structural Changes in DNA Isolated From Tissues of Gamma-Irradiated Animals"

Moscow, Doklady Akademii Nauk SSSR, Vol 208, No 1, 1973, pp 248-250

Abstract: Investigations were conducted on the effects of whole-body gamma irradiation on the DNA in different tissues. The experiments were performed on sixty 200-250 g male Wistar rats, the experimental group of which was exposed to ^{60}Co at a rate of 200 r/min for a total dose of 650 r (the equivalent of an LD_{50} dose). Following irradiation, the animals were decapitated at different periods of time, the thymus, liver, and spleen were removed and the DNA extracted in both control and experimental animals. The molecular weight of the isolated DNA in both groups of animals was about 7-10 x 10^6. Analysis of DNA by the formaldehyde kinetic method showed that in the case of thymus DNA, there were 1.3± 0.4 structural defects per 10,000 nucleotide pairs 15 min after irradiation. This figure remained relatively constant for about one hour, and by 3 hr increased to 6.1 ± 0.3 per 10,000 nucleotide pairs and remained relatively unchanged for the next 15 hrs. In the spleen and liver, the number of defects in secondary DNA structure was 4.5 and 1.6, respectively, per 10,000

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USSR

KOMOLOVA, G. S., et al., Doklady Akademii Nauk SSSR, Vol 208, No 1, 1973, pp 248-250

nucleotide pairs 18 hr after irradiation. The data indicate certain tissue specificity with respect to DNA damage in the postirradiation period. After 3 hr it is believed that damage to the secondary structure of DNA was due to irradiation-induced nucleases as indicated by the concomitant increase in the amount of single-strand DNA.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

Acc. Nr: AP0045589 Ref. Code: UR 0463

PRIMARY SOURCE: Molekulyarnaya Biologiya, 1970, Vol 4, Nr 1, pp 137-143

MELTING OF DNA WITH DEFECTS IN ITS SECONDARY STRUCTURE

Berestetskaya, I. V.; Kosaganov, Yu. N.; Lazurkin, Yu. S.; Trifonov, E. N.; Frank-Kamenetskiy, M. D.

Institute of Atomic Energy, USSR, Moscow

It is shown that the increase in width of the melting range of DNA due to shear degradation is in accordance with the recently developed theory [5]. Since this increase is due to the disruption of the base stacking interaction at the ends of helical regions, the measurement of the increase of the melting width can be used as a method for determination of concentration of defects (locally denaturated sites) in DNA of high molecular weight. Potentialities of the proposed thermodynamic method are illustrated by the experiments with DNA samples containing defects induced by UV-irradiation. The

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concentration of defects in these DNA samples was estimated also by means of recently proposed kinetic method [1]. Analysis of the question concerning the sensitivity of both methods in regard to the defects of different origin showed that as it has been expected these methods did not distinguish between the ends of sheared molecules and the ends of helical regions neighbouring the locally denaturated sites. This result confirms the validity of the use of shear degraded DNA for calibration of both methods.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

ZHOGOLEV, Ye. A., TRIFONOV, I. P. UDC: 8.74

"A Course in Programming. Textbook for University Students. Third Revised Edition"

Kurs programmirovaniya. Uchebn. posobiye dlya stud. un-tov. Izd. 3-ye ispr. (cf. English above), Moscow, "Nauka", 1971, 400 pp, ill. 1 r. 3 k. (from RZh-Kibernetika, No 1, Jan 72, Abstract No 1V949 K)

[No abstract]

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

ZHOGOLEV, Ye. A., KABANOV, M. I., TRIFONOV, N. P. UDC: 8.74

"Types of Quantities of the SIMPR System and Their Representation on the BESM-6"

Sb. rabot Vychisl. tsentra Mosk. un-ta (Collected Works of the Computing Center at Moscow University), 1971, vyp. 17, pp 90-116 (from RZh-Kibernetika, No 6, Jun 72, Abstract No 6V530)

Translation: The initial set of forms of quantities processed in the SIMPR modular programming system is defined. The representation of these types of quantities on the BESM-6 computer is given. It is noted that the inclusion of any new algorithmic language in the SIMPR system requires definition of new forms of SIMPR quantities. The designations introduced for types of SIMPR quantities are recommended as standard for use in any scientific and procedural materials on the SIMPR system. V. Mikheyev.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

BOYKOV, V. N., KRENDEL', Yu. M., RABINOVICH, V. I., TROFIMOV, O. Ye., SHUL'TS, V. P.

UDC: 681.3

"On Calculating the Accuracy of Digital Measuring Instruments"

V sb. Teoriya i praktika ispol'z. sredstv tekhn. kibernetiki. Kn. 1 (Theory and Practice in Using the Facilities of Technical Cybernetics. Book 1--collection of works), Novosibirsk, 1970(1971), pp 94-99 (from RZh-Kibernetika, No 11, Nov 71, Abstract No 11V786)

Translation: The authors consider the effect which improper operation of the flip-flops and the comparison unit has on the accuracy of a digital device based on the method of binary sweep balancing. In order to explain the nature of the effect which these elements "in pure form" have on the accuracy of the device, a separate analysis is made: for instance in studying the effect of improper operation of the flip-flops, the comparison unit is first assumed to be ideal, and then real. It is assumed for the sake of definiteness that the distribution X of the measured quantity is uniform, and the average absolute value of the error is used as the cri-

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USSR

BOYKOV, V. N. et al., Teoriya i praktika ispol'z. sredstv tekhn. kibernetiki. Kn. 1, Novosibirsk, 1970(1971), pp 94-99

terion of accuracy of the instrument. It is noted that all the results may be written in general form or derived in the same way for distributions X using many other metrological criteria (variance of the error, mathematical expectation of the error, etc.). V. Mikheyev.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

BOYKOV, V. N., KRENDEL', Yu. M., RABINOVICH, V. I., TROPTMOV, O. Ye., SHUL'TS, V. P.

UDC: 681.3

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"On Calculating the Precision of Digital Measuring Instruments"

V sb. Teoriya i praktika ispol'z. sredstv tekhn. kibernetiki. Kn. 1 (Theory and Practice in Utilizing the Facilities of Technical Cybernetics--collection of works. Book 1), Novosibirsk, 1970(1971), pp 94-99 (from RZh-Matematika, No 11, Nov 71, Abstract No 11V786)

Translation: The authors consider the effect which improper operation of flip-flops and comparison devices has on the accuracy of a digital device based on the method of binary sweep balancing. In order to explain "in pure form" the nature of the effect which these elements have on the operating precision of the device, a separate analysis is made: for instance, in studying the influence of incorrect flip-flop operation, the comparison device is first assumed as ideal, then real. For the sake of definiteness, distribution of the measured quantity X is assumed to be uniform, and the average modulus of the error is taken as the quality criterion for accuracy of the device. It is noted that all results can be recorded in general form or obtained in the same way for specific distributions of X with the use of many other metrological criteria; e. g., variance or mathematical expectation of the error, etc. V. Mikheyev.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

TRIFONOV, S. D.

UDC 531.715:621.9.082.52

"Photoelectric Device for Measuring Large Dimensions"

V sb. Vzaimozamenyayemost' i razmern. kontrol' (Interchangeability and Dimension Control -- Collection of Works), No. 3, Moscow, Standartizdat, 1971, pp 104-109 (from Referativnyy Zhurnal, Metrologiya i izmeritel'naya tekhnika, No 11, Nov 71, Abstract No 11.32.312)

Translation: The necessity for developing new measuring devices intended for the control of linear dimensions of large-scale parts during processing on lathes and boring and turning lathes is established and the possibility of applying photoelectric devices with a projection short-focus optical system for these purposes is discussed. A block diagram of the device is given. The systematic error of measurement due to nonlinearity of the scanning of the photoelectric transducers used is 0.17-0.68%. The stability of the readings of the read-out device is ±0.01 mm and variation of the readings is ±0.01 mm over 30 min. 4 ill., 5 ref. Resume.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

Lunar geology

NASA TT F-689

PROBLEMS OF LUNAR GEOLOGY

Edited by A. V. Peyve

Translation of "Problemy Geologii Luny."
"Nauka" Press, Moscow, 1969

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

January 1973

For sale by the National Technical Information Service, Springfield, Virginia 22151
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ABSTRACTS

TECHNIQUE OF MAPPING AND A LEGEND FOR GEOLOGICAL-MORPHOLOGICAL MAPS OF THE MOON ON A SCALE OF 1:1,000,000

A. L. Sukhanov
V. G. Trifonov

ABSTRACT. A methodology is developed for interpreting telescopic and other pictures of the lunar surface for the purpose of indicating rock complexes and structures of various ages on geological — morphological rocks of the Moon. The classification of lunar craters and other features according to age is discussed, as well as morphological signs.

THE THICKNESS OF THE PROCELLARUM COMPLEX

A. L. Sukhanov
L. M. Shkerin

ABSTRACT. Lunar crater models of various authors are discussed. These include young, unfilled craters, and craters filled with material from various periods in the Moon's development. Curves between crater depths and crater diameter are developed.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

EXPLANATORY NOTES FOR THE GEOLOGICAL-MORPHOLOGICAL CHARTS OF THE REGION OF THE CIRQUES THEOPHILUS AND PTOLEMAEUS

A. L. Sukhanov

ABSTRACT. The geological and physical features within this region are discussed. A historical perspective of these charts is given.

EXPLANATORY NOTES FOR THE GEOLOGICAL-MORPHOLOGICAL CHARTS FOR THE REGION OF THE CRATER ARCHIMEDES AND THE APENNINE AND HAEMUS MOUNTAINS

V. G. Trifonov

ABSTRACT. The geology and physical properties of features within the stated region are discussed. The history of this region is traced back to 1896.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

COMPARISON OF FORMS OF LUNAR RELIEF WITH TERRESTRIAL VOLCANIC FORMATIONS

V. G. Trifonov

ABSTRACT. Recent evidence shows that the terrain features of the Moon are due both to cosmic and endogenic processes. Those features of the Moon are classified according to their origin. This is also done for several volcanic features on the Earth.

VOLCANIC RIDGES ON THE MOON

A. L. Sukhanov

ABSTRACT. Volcanic ridges on the Moon are classified according to their origin, geometrical shape and size.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

SOME GENERAL FEATURES OF THE DEVELOPMENT OF STRUCTURES ON THE MOON AND DETAILS OF ITS GEOLOGICAL HISTORY.

M. S. Markov
A. L. Sukhanov

ABSTRACT. The processes leading to the formation of various lunar features are identified. The authors present a discussion of the development of the large scale features (continents and maria) on the Moon.

GEOLOGICAL COMPARISON OF THE MOON AND EARTH

V. G. Trifonov
P. V. Florenskiy

ABSTRACT. The geological processes leading to the layering on the Moon are discussed and compared with processes on the Earth. Research conducted by various Russian and American scientists on volcanic activity is described.

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USSR

UDC 621.375.7.29.52:621.383

STUKAN, V.A., TRIFONOV, V.I.

"Magnetoresistance Effect Low-Frequency Regenerative Amplifiers For Photoreceivers"

Radiotekhnika i Elektronika, Moscow, Vol XVII, No 12, Dec 1972, pp 2568-2574

Abstract: An analysis is made of the circuit of a magnetoresistance amplifier (cooled to the temperature of liquid helium) with a photoreceiver, and of the circuit in the case where sufficiently pure n-InSb magnetoresistance specimens used for submillimeter band receivers are also used as the photosensitive element. It is shown that when the resistance of the photosensitive element is much smaller than the resistance of the magnetoresistance specimen, the noise factor of the amplifier is close to unity. Conditions and requirements are determined for the superconducting solenoid which is used in the amplifier. The types of amplifiers considered are most acceptable for operation with low-resistance photosensitive elements. During operation with relatively high-resistance photosensitive elements they must be connected into the circuit across a step-down transformer. 2 fig. 10 ref. Received by editors, 6 December 1971.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

UDC: 621.391.22:621.378.325

AFINOGENOV, V. M., AYTKHOZHIN, S. A., STRAKHOV, V. A., TELEGIN, A. A., and TRIFONOV, V. I.

"Highly Sensitive Submillimeter Receiver Using n-GaAs"

Gor'kiy, Izvestiya VUZ--Radiofizika, No 10, 1972, pp 1572-1579

Abstract: There is, at the present time, a demand for receivers in the short wave part of the submillimeter band with minimum inertia. Receivers using pure gallium arsenide with electron conductivity are especially promising in view of the qualities they possess, particularly the photoconductive effects of n-type GaAs. These characteristics of GaAs are investigated in the present paper for the purpose of designing this type of receiver. Subjects of the investigation were monocrystalline epitaxial films grown on substrates of semi-insulating n-GaAs, with arsenic and gallium chlorides used as the initial materials. A table of the parameters of some of the films investigated is given and other characteristics explored. The block diagram of a receiver using the epitaxial n-GaAs is proposed and analyzed. The authors thank A. N. Vystavkin, Yu. V. Gulyayev, V. F. Dvoryankin, V. V. Migulin, and A. V. Sokolov

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

AFINOGENOV, V. M., et al, Izvestiya VUZ--Radiofizika, No 10, 1972, pp 1572-1579

for their devotion to the work, V. N. Listvin for his useful comments, and N. G. Yaremenko for helping investigate the film parameters.

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USSR

UDC 621.376.234

AFINOGENOV, V. M., TRIFONOV, V. I.

"Low-Inertia Millimeter Radiation in n-InSb Detector"

Moscow, Pribory i Tekhnika Eksperimenta, No 6, 1971, pp 114-116

Abstract: On the basis of the phenomenon of volumetric radiation detection in the millimeter and submillimeter wave ranges in n-InSb at the temperature of liquid nitrogen described previously [V. M. Afinogenov, et al., Pis'ma v ZhETF, No 7, 5, 1968] a low-inertia detector was developed for these wave bands. A schematic is presented for one version of the detector in the quasioptical execution. The spectral characteristics of the volt-watt and limiting sensitivity are presented for the wave bands of 0.3-10 mm, and the relative dependence of the sensitivity on temperature is illustrated. The inertia of the given detector is $\sim 10^{-10}$ seconds.

A formula is presented for the volt-watt sensitivity of the detector, and its dependence on the finish of the samples is indicated. The described version of the n-InSb detector was developed to insure the maximum range of detected radiation, and, as a result, the detector does not show maximum possible sensitivity to any given wavelength. Since the absorption of the incident radiation power in a single crystal of n-InSb does not exceed 10 percent, by

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AFINOGENOV, V. M., et al., Pribory i Tekhnika Eksperimenta, No 6, 1971, pp 114-116

using an integrating head insuring complete absorption of the radiation in the detector, it is possible to increase the sensitivity by an order or more by comparison with the given figures. The high stability of the detector characteristics makes it convenient for application in systems for monitoring low power levels.

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USSR

UDC 577.391

TRIFONOV, V. I., Institue of Biphysics, Ministry of Health USSR, Moscow

"Effect of External Gamma-Irradiation on the Extent of Americium-241 Resorption From the Gastrointestinal Tract of Rats"

Moscow, Radiobiologiya, Vol 12, No 1, Jan/Feb 72, p 155

Abstract: The effect of gamma-irradiation on americium-241 resorption from the gastrointestinal tract of female white rats was tudied. One hour after irradiation with 100-1600 r doses, 30 microcuries of a hydrochloric solution of americium-241 were administered to the rats orally. Radiometric studies of the organs and tissues showed that regardless of the gamma-ray dose, the level of americium-241 absorption from the gastrointestinal tract remains the same, averaging 0.06%.

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UDC 616.2-022.6/7-022.3

TRIFONOV, V. I., Institute of Epidemiology and Microbiology imeni Gamaleya, Academy of Medical Sciences USSR

"Role of the Various Routes of Transmission of Agents of Respiratory Infections in the Spread of Diseases. Review of the Literature"

Moscow, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 3, 1971, pp 118-123

Abstract: The mechanism of transmission of the agents of respiratory infections is greatly over simplified in the literature: Some people exhale the pathogens in drops and then others inhale these drops and with them the pathogens. Comparatively little consideration is given to the kinetics of large-drop aerosols (rapid settling and fewer drops compared with the small-drop phase) or to the nature of the agents, their localization in the body, or concentrations in nasal discharges. Although all respiratory diseases have a common droplet mechanism of transmission, they differ in the size of the agents, localization, course of the disease, duration of the contagious period, and clinical symptoms. They differ too in the mode and form of discharge of the agents, its hardiness and the form in which it remains in the external environment, as well as in the route of penetration into the upper respiratory tract of the recipient.

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Acc. Nr: AP0043922

Ref. Code: UR 0016

PRIMARY SOURCE: Zhurnal Mikrobiologii, Epidemiologii, i Immunobiologii, 1970, Nr 2, pp 100-104

EPIDEMIOLOGICAL OBSERVATIONS OVER REINFECTION OF DIPHTHERIA CARRIERS. REPORT IX

V. I. Trifonov, L. A. Favorova, L. A. Gukasyan

It was demonstrated in this work that, along with undoubtful cases of reinfection (with diphtheria bacilli of other types) there may occur a repeated infection with the causative agents of the same type (in 6.1% of the cases). The possibility of repeated infection primarily depended on the presence in the collective body of carriers of corresponding types of diphtheria bacilli. Conditions for reinfection failed to differ from conditions of infection, and the course of reinfection — from the course of previous carrier state. The duration of reinfection course directly depended on the number of diptheria bacilli in the nasopharynx and on the extent of its affection.

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USSR

UDC: 621.373.531.1(088.8)

TRIFONOV, V. R., Yaroslav Fuel Equipment Plant

"A Transistorized Multivibrator"

USSR Author's Certificate No 270790, filed 13 Jan 69, published 26 Aug 70 (from RZh-Radiotekhnika, No 1, Jan 71, Abstract No 1G229 P)

Translation: This Author's Certificate introduces a transistorized multivibrator with coupling through emitter followers. The device contains storage capacitors and resistors in the collector-base circuits of the transistors. To improve operational stability of the multivibrator in the presence of pulse interference in the supply circuit, the transistors in the device are shunted by the closing contacts of a relay whose windings are connected in the emitter circuits of emitter followers in the opposite legs of the multivibrator.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

UDC 621.374.5 (088.8)

TRIFONOV, V.V., SHONUROV, S.A., LEMZYAKOV, S.R., KHMELEVSKIY, V.A., PRILEPSKIY, V.M. (Leningrad Electrical Engineering Institute)

"Magnetostrictive Transducer For Delay Lines"

USSR Author's Certificate No 296154, filed 25 Feb 69, published 9 Apr 71 (from RZh:Radiotekhnika, No 2, Feb 72, Abstract No 2G241P)

Translation: A magnetostrictive transducer for a delay line is proposed, which contains a winding with a few loops connected with an acoustic line, a matching transformer, and an acoustic damper. With the object of an increase of the product of the transmission coefficient by the power in the band of the frequencies being transmitted, the transducer winding is made in the form of two adjacent sections situated at the acoustic line and connected across the corresponding matching transformers into the circuit of an electromagnetic delay line. In order to decrease the dissipation inductance and widening of the band of the frequencies being transmitted, the step-down windings of the transformers are made in the form of cylindrical rods with a disk bulge [utolshchenyy] in the middle part and with the cores of the step-up windings at the ends placed in cup-shaped cavities connected electrically with the ends of the rod, and in so

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TRIFONOV, V. V. et al, USSR Author's Certificate No 296154

doing a section of the winding of the transducer is connected between the edge of each cup-shaped cavity and the disk. With the object of increasing the efficiency, sections of the winding are made in the form of solenoids and each section -- in the form of two adjoining coils of an insulated wire, the diameter of which is equal to the internal diameter of the solenoid. The alignment of the acoustic line in the latter is accomplished with the aid of bushings /vtulka/ located at the ends of the winding, and the transformer, magnet, and acoustic damper are attached to a common housing.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

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UDC 681.327

TRIFONOV, V. V., SHONUROV, S. A., et al.

"A Memory Device"

USSR Author's Certificate No 276165, Filed 25/02/69, Published 8/10/70 (Translated from Referativnyy Zhurnal Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, No 5, 1971, Abstract No 5B310P)

Translation: Delay line memory units are known which contain recirculation systems, arithmetic devices, synchronous generators for cycle marker and access pulses, a commutator-distributor, and a combining commutator. The defects of these devices include increased cycle frequency of the delay line and arithmetic unit elements in the circuit of undistributed pulse sequences. This makes the use of standard elements in the delay line and arithmetic unit circuits difficult and makes the device impossbile without elements operating at high cycle frequencies. Furthermore, when the delay of one delay line only is stabilized, it is difficult to assure stable circulation of codes when the number of delay lines in the memory unit is further increased and with more rigid tolerances for delay. In the device suggested, each recirculation system contains a stabilizer and adder connected to the output of the distributing commutator and the input of the combining

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

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TRIFONOV, V. V., et al., USSR Author's Certificate No 276165, Filed 25/02/69, Published 8/10/70 (Translated from Referativnyy Zhurnal Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, No 5, 1971, Abstract No 5B310P)

commutator. The inputs of the commutators are connected with the synchronous generator, while the delay stabilizer providing for regulation of the delay time of the signals might be a delay line heater, for example. 2 figs.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

Devices

USSR

UDC: 681.327.76

PEGOYEV, A. N., TRIFONOV, V. V., BUDRIS, M. V. K., LEMZYAKOV, S. R., TARASOV, V. A., SHEREMET[redacted]TEV, A. K., Leningrad Electrical Engineering Institute of Communications imeni V. I. Ul'yanov (Lenin)

"A Digital Memory Unit"

Moscow, Otkryitya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, No 9, Mar 71, Author's Certificate No 297071, Division G, filed 10 Dec 66, published 2 Mar 71, p 162

Translation: This Author's Certificate introduces: 1. A digital memory unit based on a magnetostriction delay line with cadence pulse generator. As a distinguishing feature of the patent, the effect of variations in ambient temperature is reduced by adding a magnetostriction resonator in the cadence pulse generator made from the same material as the acoustic line in the delay unit. 2. A modification of this memory unit distinguished by the fact that mismatch between the period of the delay line and the cadence pulse period due to nonuniformity in heating of sections of the device is eliminated by utilizing a heater such as the regulating transistor of an electronic voltage stabilizer for the supply system of the device. 3. A modification of this device distinguished by the fact that the range of permissible variations in ambient temperature is extended by adding a system for precisely

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

PEGOYEV, A. N. et al., USSR Author's Certificate No 297071

matching the period of the delay line to the cadence pulse period. The actuating element of this system is made in the form of an electronic switch which controls the above-mentioned heater and an acoustic line heater. This latter heater is another controlling transistor in a stabilizer located on the housing of the acoustic line.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

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TRIFONOV, V. V., SHONUROV, S. A., BUDRIS, M.-B. K. UDC 621.374.5(088.8)

"Device for Manufacturing the Spiral Acoustic Line of an Acoustic Delay Line"

USSR Author's Certificate No 277836, Filed 25 Feb 69, Published 20 Oct 70 (from RZh-Radiotekhnika, No 4, Apr 71, Abstract No 4G270P)

Translation: A device is proposed which contains a winding mechanism in the form of a rotating drum with a diameter equal to the outside diameter of the manufactured acoustic line. Supporting strips made of polyfluoroethylene resin are attached near the rim which is wound with a wire acoustic line.

These strips have holes converging on two sides to a cone located at the apexes of equilateral triangles.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

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UDC 621.383.292.8

PEGOYEV, A.N., TRIFONOV, V.V., BUDRIS, M.V., TARASOV, V.A., LEMZYAKOV, S.R., SHEREMET'YEV, A.K. [Leningr. elektrotekhn. in-t -- Leningrad Electrical Engineering Institute]

"Source Of High Voltage For Supply Of A Photomultiplier"

USSR Author's Certificate No 266860, filed 8 July 66, published 15 July 70 (from RZh--Elektronika i yeye primeneniye, No 2, February 1971, Abstract No 2A259P)

Translation: The proposed source of high voltage for supply of a photomultiplier contains a voltage regulator, the input of the comparison element of which is connected to the output of the first section of the voltage converter. As the operating element of the regulator a single-cycle pulse generator with controlled frequency is used, and as a comparison element for the regulator, a silicon stabilitron. S.D.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR UDC 535.33 / 34 : 548.0.048

TRIFONOV, YE. D. (Reviewer)

Elementarnaya Teoriya Kolebatel'noy Struktury Primesnykh Tsentrov Kristallov (Spectra of Impurity Centers of Crystals: Elementary Theory of Vibrational Structure), by K. K. Rebane, Moscow, "Nauka" Press, 1968, 232 pp

Leningrad, Optika i Spektroskopiya, Vol 28, No 6, Jun 70, pp 1226-1227

Abstract: The book consists of four chapters and an appendix. Chapter One explains the principal approximations in which electron-phonon interaction is considered and gives some data from the theory of vibrations of an impurity crystal. Chapter Two sets forth the theory of electron-vibrational spectra of impurities and gives calculations for such impurity spectrum characteristics as the position and integrated intensity of the phonon-free line and its temperature properties, as well as considering the spectrum shape in the presence of one or more local vibrations and peculiarities of the appearance of pseudolocal vibrations in the spectrum. Chapter Three studies the relation be-

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ARTYUSHIN, L. F., Osvony Vosproizvedeniya Tsveta v Fotografii, Kino i Poligrafii, Moscow, Iskusstvo Press, 1970, 548 pp.

correction considering light scattering; 15) Electronic CC using the comparison method; 16) Gradation and frequency-contrast correction of differences in perception of the original and image; 17) Four-component CC; 18) Evaluation of accuracy of CR; 19) Use of video testing devices for selection of optimal CC conditions.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

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UDC 621.3.083.8

MEL'NIKOV, A. A., RYZHEVSKIY, A. G., TRIFONOV, YE. F., SHLYANDIN, V. M., Penza

"Some Means of Constructing High-Speed Frequency-to-Code Converters with Simulation of the Inverse Function"

Novosibirsk, Avtometriya, No 2, 1972, pp 40-46

Abstract: A study was made of possible means of implementing the structures of high speed analog-to-digital frequency converters with simulation of the inverse function. The basic problem in implementing the investigated converters is development of the functional generator which in connection with its purpose is called a square-law function generator. The construction of the square law function generator from binary multipliers and binary dividers is discussed in detail. Inasmuch as the conversion result in the discussed devices is proportional to the frequency of the investigated signal and the conversion time is equal to one period of the signal, they are characterized by the properties of both digital frequency meters and period meters. Their advantages include limiting high speed characteristic of the meters and proportionality of the results of the conversion to the frequency of the investigated signal characteristic of frequency meters. The disadvantages include the presence of errors in shaping the time interval characteristic of period meters and an increase in the relative conversion error at the beginning of the range characteristic of frequency meters. The introduction of a conversion digitalization

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MEL'NIKOV, A. A., et al., Avtometriya, No 2, 1972, pp 40-46

switch in the described devices permits the counter to contain the code result proportional to the frequency of the investigated signal with an error not exceeding the given error for the time of 1 period of the investigated signal. A model frequency to code converter was developed for the frequency range from 1 to 1,024 hertz. An error on the order of ±0.2% was obtained in the indicated frequency range.

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Acc. Nr: AP0044410

Ref. Code: UR 0660

PRIMARY SOURCE: Neyrofiziologiya, 1970, Vol 2, Nr 1, PP 87-90

THE MEASUREMENT OF THE LATENCY PERIOD OF HORIZONTAL CELLS RESPONSE TO THE ELECTRIC STIMULATION OF TURTLE RETINA

Yu. A. Trifonov

Institute of Problems of Information Transmission, Academy of Sciences, USSR, Moscow

Summary

Short pulses of current passing radially through the retina (anod on sclera) evoke positive response of the horizontal cells of the turtle. The latency of this response was 3—7 msec. It is suggested that the current acts upon the presynaptic membrane of receptors, and therefore the latency is the synaptic delay between receptors and horizontal cells. The duration of the latency is near to the interval between the beginning of the distal and proximal subcomponents of PIII measured by Murakami a. o. in frogs and carps. This interval seems to be the difference between the beginning of the receptors response and response of the cells of inner nuclear layer.

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Acc. Nr: AP0044411

Ref. Code: UR 0660

PRIMARY SOURCE: Neyrofiziologiya, 1970, Vol 2, Nr 1, pp 79-86

SOME PECULIARITIES OF THE SYNAPTIC TRANSMISSION BETWEEN PHOTORECEPTORS AND HORIZONTAL CELLS

Yu. A. Trifonov, M. A. Ostrovskiy

Institute of Problems of Information Transmission and Institute of Higher Nervous Activity and Neurophysiology, Academy of Sciences, USSR, Moscow

Summary

A hypothesis, according to which the transmitter depolarising the horizontal cell membrane is continually liberated from the receptors in darkness and ceases to be liberated in the light, is tested experimentally. The results described in the first part show that current passing radially through the retina (anod on the receptor surface) and evoking the positive (depolarizing) response of the horizontal cells acts on the presynaptic endings of receptors. As a result they become depolarized and the transmitter is liberated from the receptors endings. The experiments with electric stimulation of

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the retina showed that potassium cyanide breaks the synaptic transmission from the receptors to the horizontal cells (part II). The membrane potential in this case is equal to membrane potential in the bright light and it seems to be the true resting potential of horizontal cells. The stability of the light membrane potential of the horizontal cells in the case of temperature changes supports this suggestion (III part). At the same time the membrane potential in the darkness can be greatly incresed by heating. This effect was explained by an increase in the speed of destruction of the transmitter, because the increase of temperature shortens the response of horizontal cells to electric stimulation.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

040 UNCLASSIFIED

TITLE--DETERMINATION OF THE HYDRAULIC RESISTANCE IN A GAS FLOW DRIVEN BY SELF DRAFT -U- PROCESSING DATE--16OCT70

AUTHOR-(02)-TRIFONOV, YU.M., TRIFONOVA, YU.A.

COUNTRY OF INFO--USSR

SOURCE--MINSK, IZVESTIYA VYSSHIKH UCHEBYNKH ZAVEDENIY, ENERGETIKA (NEWS OF HIGHER EDUCATIONAL INSTITUTIONS, ENERGETICS), 1970, NO 1, PP 71-75

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--HYDRAULIC RESISTANCE, GAS FLOW, TURBULENT FLOW, THERMAL CONVECTION, THERMODYNAMIC CALCULATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1982/0561 STEP NO--UR/0143/70/000/001/0071/0075

CIRC ACCESSION NO--AT0052029

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

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CIRC ACCESSION NO--AT0052029 PROCESSING DATE--16OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A METHOD IS DERIVED AND A DIAGRAM PRESENTED FOR DETERMINING THE HYDRAULIC FRICTION COEFFICIENT IN THE TURBULENT FLOW REGIME OF A GAS DRIVEN BY SELF DRAFT. TO CALCULATE THE DIMENSIONLESS GROUPS IT IS NECESSARY TO KNOW THE INTEGRAL MEAN TEMPERATURE OF THE GAS STREAM, THE LOCAL FRICTIONAL RESISTANCES, THE HYDRAULIC DIAMETER AND HEIGHT OF THE APPARATUS. THE USE OF THE CONVENTIONAL TECHNIQUES FOR ESTIMATING THE FRICTIONAL RESISTANCE OF A GAS FLOW FOR SMALL PRESSURE DIFFERENTIALS IS COMPLICATED BY THE FACT THAT THE VELOCITY IS AN IMPLICIT FUNCTION OF THE FRICTION COEFFICIENT. THEREFORE THE USE OF THE AVAILABLE HANDBOOK DATA IS POSSIBLE ONLY WITH THE APPLICATION OF THE METHOD OF SUCCESSIVE APPROXIMATIONS OR CUMBERSOME GRAPHICAL CONSTRUCTIONS.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

UNCLASSIFIED

TITLE--SOME STATISTICAL CHARACTERISTICS OF THE BRIGHTNESS INDICATRIX AT AN ALTITUDE OF 17.5 KM, STATISTICAL CHARACTERISTICS OF BRIGHTNESS

PROCESSING DATE--13NOV70

AUTHOR-(03)-SAMOUMIRSKIY, A.B., KOPKOVA, L.I., TRIFONOVA, G.I.

COUNTRY OF INFO--USSR

SOURCE--MOSCOW, IZVESTIYA AKADEMII NAUK S SR, FIZIKA ATMOSFERY I OKEANA, VOL VI, NO 6, 1970, PP 577-584

DATE PUBLISHED--------70

SUBJECT AREAS--ATMOSPHERIC SCIENCES

TOPIC TAGS--PHOTOMETER, AIRCRAFT MEASUREMENT, OPTIC BRIGHTNESS, INDICATRIX, EIGENVECTOR, ATMOSPHERIC OPTICS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3007/0009

STEP NO--UR/0362/70/006/006/0577/0584

CIRC ACCESSION NO--AP0135509

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2/2 032 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0135909

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A STUDY WAS MADE OF THE STATISTICAL CHARACTERISTICS OF THE BRIGHTNESS INDICATRIX FOR THE DAYTIME SKY MEASURED USING AN AIRCRAFT PHOTOMETER AT AN ALTITUDE OF 17.5 KM SIMULTANEOUSLY AT THREE WAVELENGTHS IN THE VISIBLE PART OF THE SPECTRUM. FOR EACH WAVELENGTH THE AUTHORS COMPUTED THE MEAN VALUES OF THE INDICATRIX, THEIR DISPERSIONS AND AUTOCORRELATION MATRICES AND CONSTRUCTED A SYSTEM OF EMPIRICAL ORTHOGONAL VECTORS. THERE IS A BREAK IN THE CORRELATION NEAR A SCATTERING ANGLE PHI IS APPROXIMATELY EQUAL TO 50DEGREES WITH A MARKED INCREASE IN THE VALUES OF THE CORRELATION COEFFICIENTS WHEN PHI GREATER THAN 50DEGREES. FOR THE INDICATRIX AT DIFFERENT WAVELENGTHS NEAR PHI IS APPROXIMATELY EQUAL TO 50DEGREES THERE IS A MINIMUM OF THE CROSS CORRELATION COEFFICIENT. THE AUTHORS GIVE A POSSIBLE INTERPRETATION OF THE CHARACTERISTICS OF BEHAVOIR OF THE CORRELATIONS. IT IS SHOWN THAT THE FIRST THREE EIGENVECTORS ENSURE OPTIMUM APPROXIMATION OF THE INDICATRIX. FACILITY: INSTITUTE OF ATMOSPHERIC PHYSICS.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

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TITLE--EXPEDIENCY AND ACCURACY OF REDUCING SHORT TIME SERIES BY MEANS OF DIFFERENCES METHOD -U-

PROCESSING DATE--27NOV70

AUTHOR-(02)-MARCHENKO, A.S., TRIFONOVA, L.I.

COUNTRY OF INFO--USSR

SOURCE--METEOROLOGIYA I GIDROLOGIYA, 1970, NR 6, PP 56-61

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--DIFFERENCE METHOD, TIME

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/2194

STEP NO--UR/0050/70/000/006/0056/0061

CIRC ACCESSION NO--AP0125774

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

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UNCLASSIFIED

CIRC ACCESSION NO--AP0125774 PROCESSING DATE--27NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IN THE ARTICLE THE DIFFERENCES METHOD FOR REDUCING THE MEAN VALUES OF SHORT TIME SERIES IS INVESTIGATED FROM THE SAME POINT OF VIEW AS REGRESSION METHOD IN THE STUDY (3). CRITERIA ARE SUGGESTED FOR TAKING DECISION ON EXPEDIENCY AND ACCURACY OF REDUCTION WITH ACCOUNTING OF LIMITED SELECTIONS USED FOR TAKING A DECISION.

FACILITY: VYCHISLITEL'NYY TSENTR SIBIRSKOGO OTDELENIYA AN SSSR, TOMSKIY.

FACILITY: GOSUDARSTVENNYY UNIVERSITET.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

Acc. Nr: AP0038111

PRIMARY SOURCE: Fiziologiya Rasteniy, 1970, Vol 17, Nr 1, pp 103-106

Ref. Code: UR 0326

EFFECT OF PRESOWING TREATMENT OF SEEDS WITH A WEAK DIRECT CURRENT ON UPTAKE OF TRACE ELEMENTS BY BARLEY PLANTS

M. F. TRIFONOVA

Higher Party School, Khabarovsk

The trace element content differed at various organogensis phases in seeds subjected the action of a direct current of $8 \cdot 10^{-8}$ to $15 \cdot 10^{-7}$ A/cm^2 density over a period af 5 to 15 minutes in vegetation experiments. The greatest effect of the current was on uptake of Mn, Fe, Cu and Zn.

REEL/FRAME
19731162

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

UDC 681.3.055

KALINKIN, I. P., SELEZNEV, G. D., and TRIFONOVA, L. S.

"A Counting Device Which Retains Information When Power is Interrupted"

USSR Author's Certificate No 364112, kl4 03 k 23/10, filed 16 Aug 71, published 21 Mar 73 (from RZh Avtomatika Telemekhanika i Vychislitel'naya Tekhnika, No 11, Nov 73, abstract No 11 A364 P)

Translation: A counting apparatus which retains information during power interrupts is proposed, containing a single pulse generator, flipflops, memory elements, and a delay line. To extend the logical capabilities, inhibit and assembly circuits are included, with the output of the single pulse generator connected to one of the regulating inputs of the flipflops and through one of the delay lines to the inputs of the read elements of the memory and to one of the inputs of the assembly circuit.

The other input of this last circuit is connected to the "command reading" bus, with the output of the assembly circuit connected through a second delay line to the signal inputs of the inhibit circuits; the controlling inputs of the latter are connected to the outputs of the flipflops, while the outputs of the inhibit circuits are connected to the inputs of the memory elements, the outputs of which are connected to the secondary regulating inputs of the flipflops. One illustration.

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

UDC 636.2:615.9

GLADENKO, I. N., MALININ, O. A., TRIFONOVA, T. K., SHULYAK, V. D., and KARTASHEV, M. V., Ukrainian Scientific Research Institute of Experimental Veterinary Medicine

"Toxic Properties of Sevin and Prophylaxis of Poisoning"

Moscow, Doklady Vsesoyuznoy Ordena Lenina Akademii Sel'skokhozyaystvennykh Nauk Imeni V. I. Lenina, No 1, Jan 73, pp 38-39

Abstract: An aqueous suspension of sevin in a 0.1-0.85% concentration has satisfactory acaricidic activity on sheep treated in vats, without any toxic manifestations. Even the 0.1% dose resulted in total kill of the parasitic mites. Oral administration of sevin leads to a rapid absorption so that in 30 min it can be observed in considerable quantities in blood, all parenchymatic organs and skeletal muscles. Maximal concentration after 4-6 hrs is observed in liver and kidneys. After 4 days no traces of sevin can be found in any organs. Sevin exhibits no cumulative properties, being rapidly excreted from the organism. Sevin residues may be found in milk and meat. Milk from the cows exposed for three days to this agent should be checked for residual content of the chemical; no beef should be slaughtered within one week of the exposure to sevin.

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

UNCLASSIFIED

TITLE--DETERMINATION OF THE HYDRAULIC RESISTANCE IN A GAS FLOW DRIVEN BY SELF DRAFT -U-

PROCESSING DATE--16OCT70

AUTHOR-(02)-TRIFONOV, YU.M., TRIFONOVA, YU.A.

COUNTRY OF INFO--USSR

SOURCE--MINSK, IZVESTIYA VYSSHIKH UCHEBYNKH ZAVEDENIY, ENERGETIKA (NEWS OF HIGHER EDUCATIONAL INSTITUTIONS, ENERGETICS), 1970, NO 1, PP 71-75

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--HYDRAULIC RESISTANCE, GAS FLOW, TURBULENT FLOW, THERMAL CONVECTION, THERMODYNAMIC CALCULATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1982/0561

STEP NO--UR/0143/70/000/001/0071/0075

CIRC ACCESSION NO--AT0052029

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

2/2 040 UNCLASSIFIED

CIRC ACCESSION NO--AT0052029 PROCESSING DATE--16OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A METHOD IS DERIVED AND A DIAGRAM PRESENTED FOR DETERMINING THE HYDRAULIC FRICTION COEFFICIENT IN THE TURBULENT FLOW REGIME OF A GAS DRIVEN BY SELF DRAFT. TO CALCULATE THE DIMENSIONLESS GROUPS IT IS NECESSARY TO KNOW THE INTEGRAL MEAN TEMPERATURE OF THE GAS STREAM, THE LOCAL FRICTIONAL RESISTANCES, THE HYDRAULIC DIAMETER AND HEIGHT OF THE APPARATUS. THE USE OF THE CONVENTIONAL TECHNIQUES FOR ESTIMATING THE FRICTIONAL RESISTANCE OF A GAS FLOW FOR SMALL PRESSURE DIFFERENTIALS IS COMPLICATED BY THE FACT THAT THE VELOCITY IS AN IMPLICIT FUNCTION OF THE FRICTION COEFFICIENT. THEREFORE THE USE OF THE AVAILABLE HANDBOOK DATA IS POSSIBLE ONLY WITH THE APPLICATION OF THE METHOD OF SUCCESSIVE APPROXIMATIONS OR CUMBERSOME GRAPHICAL CONSTRUCTIONS.

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

UDC 621.375.4

YUDIN, YE. YE., TRIFONYUK, V. V., SPIVAK, V. M.

"Internal Feedback in Transistor Cascade Amplifiers"

Vestn. Kievsk. politekhn. in-ta. Ser. radioelektron. (Bulletin of the Kiev Polytechnic Institute, Series on Radio Electronics), 1969, No 6, pp 84-86 (from RZh-Radiotekhnika, No 4, 1970, Abstract No 4D99)

Translation: The authors study the effect of the regeneration factor which characterizes internal feedback in a semiconductor triode on the stability of cascade type amplifiers. A regeneration factor is obtained for a cascade amplifier based on a semiconductor triode with the aid of the quadripole method. It is shown that a cascade type amplifier exhibits greater stability than an amplifier with a common base circuit. Original article: three bibliographic entries.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

UDC 621.373.521.1(088.8)

YUDIN, YE. YE., TRIFONYUK, V. V.

"Harmonic Oscillation Autogenerator"

USSR Author's Certificate No 252404, Filed 18 Oct 67, Published 17 Feb 70 (from RZh-Radiotekhnika, No 9, Sep 70, Abstract No 9D258P)

Translation: This author's certificate introduces a harmonic oscillation autogenerator containing an active transistor element and a passive RC phase converter included in the positive feedback circuit of the active element. In order to increase the frequency stability of the generated oscillations, the active element is executed from two series-connected transistors with the same type of conductivity between the collectors of which a negative feedback circuit made of resistors is also included, and the common point of the resistors is connected to the output of the phase converter.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

UDC 621.438-596.6:536.2

ANTONOVICH, A. V., BASHKATOV, Yu. N., TRIFSIK, M. I., and RACHIM, E. V.

"Dynamics of Thermal Conditions of the Turbine at Various Stop Methods of the Gas Turbine Unit"

V sb. "Dinamika Teplov. Protsessov v Energetike i Tekhnol." [In the Collection "Dynamics of Thermal Processes in Power Engineering and Technology], Kiev, "Nauk. Dumka", 1971, pp 61-67 (from Referativnyy Zhurnal, No 6, Jun 72. 49. Turbostroyeniye. Abstract No 6.49.133)

Translation: The stop method with instantaneous turning off of the combustion chamber, usually applied on gas turbine units, results in a sharp change of the heat conditions of turbine parts reached by working gases, negatively affecting their reliability and life; the internal potentialities of the gas turbine unit practically make it possible to control the turbine heat conditions by a programmed change of the fuel consumption not only when starting but also when stopping; thanks to this fact, the thermal nonuniformity of turbine parts decreases. A simple and effective system of programmed stop, developed and put into practice on a gas turbine unit, made possible to increase the operational reliability of the unit. Four illustr., two biblio. refs.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

UDC 629.7.036.3:629.7.063.6

AKSENOV, A. F., LITVINOV, A. A., TRIGUB, G. I.

"Types of Friction Surface Wear in Fuel Apparatus"

Sb. Nauch. Tr. Kiev. In-t Inzh. Grazhd. Aviatsii [Collected Scientific Works of Kiev Institute of Civil Aviation Engineering], No 2, 1971, pp 74-75, (Translated from Referativnyy Zhurnal, Aviatsioynnye i Raketnye Dvigateli, No 10, 1972, Abstract No 10.34.39).

Translation: The friction surfaces of fuel apparatus parts of aircraft used in civil aviation are studied. The studies show that, depending on the geometric characteristics and operating conditions of friction couples, the most significant types of wear are: 1) oxidative; 2) by seizing; 3) fatigue cracking. The accompanying wear is abrasive. 3 Figures; 2 Biblio. Refs.

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

UDC: 518.5:681.3.06

YANBYKH, G. F., TRIGUB, V. F.

"Optimizing a Communications Network for a System of Centralized Data Processing"

V sb. Mat. metody issled. i optimizatsii sistem. Vyp. 5 (Mathematical Methods of Studying and Optimizing Systems--collection of works, No 5), Kiev, 1970, pp 87-99 (from RZh-Kibernetika, No 7, Jul 71, Abstract No 7V766)

[No abstract]

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

UNCLASSIFIED

TITLE--THE EXPERIENCE OF REGISTRATION WAVES FROM DIRECTED SOURCES BY THE ORE SEISMIC PROSPECTING -U-

PROCESSING DATE--11SEP70

AUTHOR--KEFELI, A.S., MIKHELEV, I.P., TRIGUBOV, A.V.

COUNTRY OF INFO--USSR

SOURCE--GEOLOGIYA I GEOFIZIKA, 1970, NR 1, (121) PP 110-115

DATE PUBLISHED--------70

SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY

TOPIC TAGS--SEISMIC PROSPECTING, ORE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1986/1287

STEP NO--UR/0210/70/000/001/0110/0115

CIRC ACCESSION NO--AP0103169

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

2/2 006

UNCLASSIFIED

CIRC ACCESSION NO--AP0103169 PROCESSING DATE--11SEP70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE POSSIBILITIES OF REFLECTED TRANSITIONAL WAVES APPLICATION BY THE STUDY OF UPPER PART OF THE SECTION IN ORE AREAS ARE DISCUSSED. THE RESULTS OF FIRST OBSERVATIONS IN ORE ALTAI REGION AND UZBEKISTAN ARE LISTED.

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

Acc. Nr: AP0040326

Ref. Code: UR 0481

PRIMARY SOURCE: Eksperimental'naya Khirurgiya i Anesteziologiya, 1970, Nr 1 , pp 32-34

ON SUSTAINED HAEMODIALYSIS

Galchikov, V. I.; Trikashchnyy, A. A.; Kosloy, Yu. M.; Gorbovitskiy, Ye. B.

A preliminary report on sustained haemodialysis with a small dialyzer.

//

REEL/FRAME
19741757

02 kc

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

UDC 632.95

KRUTITSKAYA, M. N., KOL'TSOV, N. S., TRIKHANOV, M. D., SHOGAM, S. M., DAVYDOVA, A. N., YEGOROVA, I. L., and KUZOVLEVA, M. V.

"Method of Preparing Calcium Tetrathionate"

USSR Authors' Certificate No 264363, filed 27 Dec 68, published 4 Jun 70 (from RZh-Khimiya, No 1, 10 Jan 71, Abstract No 1N588P)

Translation: CaS_4O_6 (I) is obtained in an $H_2S_4O_6$ medium by the oxidation of calcium thiosulfate (II) with perhydrol, taken in 10% excess, at 10-12°. 52 g II are added in the course of 1 hr to a 13.5 ml, 27% solution of H_2O_2, cooled to 10°, to which 96 ml $H_2S_4O_6$ (concentration 235 g/l) was added beforehand. The resultant suspension is filtered out from traces of sulfate; the filtrate is evaporated in vacuum, and the residue crystallized. 23 g of 98% dihydrate of I is obtained. The mother liquor remaining after crystallization is used to prepare $H_2S_4O_6$.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

UNCLASSIFIED

TITLE--CALCIUM TETRATHIONATE PREPARATION -U-

PROCESSING DATE--13NOV70

AUTHOR-(05)-KRUTITSKAYA, M.N., KOLTSOV, N.S., TRIKHANOV, M.D., SHOGAM, S.M., DAVYDOVA, A.N.

COUNTRY OF INFO--USSR

SOURCE--USSR 264,363

REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRAZTSY, TOVARNYE ZNAKI 1970, 47(9)

DATE PUBLISHED--03MAR70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHEMICAL SYNTHESIS, CALCIUM COMPOUND, THIOSULFATE, CHEMICAL PATENT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3003/1779

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

CIRC ACCESSION NO--AA0130612

UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

2/2 008 UNCLASSIFIED

CIRC ACCESSION NO--AA0130612 PROCESSING DATE--13NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CA TETRATHIONATE IS PREPD. BY OXIDIZING CA THIOSULFATE WITH PERHYDROL IN TETRATHIONIC ACID.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

UDC 619:616.981.42-084:636.32/.38

TRILENKO, P. A., Professor, FISHBEYN, V. Ya., Candidate of Veterinary Sciences, Leningrad Veterinary Institute, BALANDIN, F. G., Chief Veterinary Surgeon of Veterinary Division, GUKOV, A. S., Chief Veterinary Surgeon, and FOMENKO, T. V., Veterinary Surgeon of Oblast Veterinary Laboratory, Volgogradskaya Oblast

"An Experiment in Sanitation Among Flocks of Sheep for the Prevention of Brucellosis"

Moscow, Veterinariya, No 11, 1971, pp 54-55

Abstract: Because brucellosis vaccination with strain 19 produces low immunity in sheep and the antibodies developed cannot be differentiated from those produced during natural brucellosis, an experiment with live nonagglutinating vaccine from strain Br. melitensis K-24 was conducted in a sovkhoz over a period of 7 years. It was established that sheep which are brucellosis carriers but do not react in tests with standard antigens, may, after vaccination with strain K-24, have agglutinins in their blood and react to the standard antigens, owing to provocation of the latent infection by the vaccinal culture. Thus, vaccine from this strain can help clear a flock of hidden brucellosis carriers, at the same time promoting greater resistance to infection among the rest of the flock. Animals reacting allergically need not be removed, as the

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

TRILENKO, P. A., et al., Veterinariya, No 11, 1971, pp 54-55

K-24 vaccine also produces an allergic reorganization. As a result of systematic vaccination, isolation, and/or removal of reactive animals, coupled with other preventive measures, at the end of the experiment in 1969, an absence of brucellosis-caused abortions, practical absence of serologically reactive sheep, and marked decrease of postvaccination allergy were recorded.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

UDC: 621.317.77

KHOZYAINOV, S. A., TRILIS, V. G., GOYZHEVSKIY, V. A.

"An Automatic Trigger Phase Meter"

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 116-117 (from RZh-Radiotekhnika, No 12, Dec 70, Abstract No 12A326)

Translation: It is noted that a common disadvantage of modern trigger phase meters is the instability of readings in the case of small trigger intervals for the measurement flip-flop, i. e. usually in the vicinity of 0°, 180° or 360°. The zone of instability covers several degrees, and expands in the case of noises. In the proposed phase meter, this disadvantage is eliminated by adding a special logic circuit; the action of this circuit is briefly described. The use of automatic readout (without the services of an operator) over the entire range of angles from 0 to 360° made it possible to use phase multiplication by a factor of 36. The use of class 1.0 dial meters ensures a resolution of at least 0.05°. E. L.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

UDC: 620.179.05: 538.54.083.8

TRILISSKIY, V.M., MALINKA, A.V., SOSNINA, L.L., YURCHENKO, S.V., SOSNOVSKIY, M.I. and CHERNEY, L.I.

"Automatic Eddy-Current Installation for Control of Continuity, Diameter and Wall Thickness of Seamless, Stainless Pipes"

Sb. Electromagnit. methody nerazrushayushch. Kontrolya (Symposium on Electromagnetic Methods of Nondestructive Control) Minsk, Nauka i Tekhnika Publishing House, 1971, pp 139-142 (from Referativnyy Zhurnal-Metrologiya i Izmeritel'naya Tekhnika, No 8, 1972, Abstract No 8.32.224)

Translation: An automatic installation to detect defects, and to measure the wall thickness and the outside diameter of seamless, cold-drawn, stainless pipes of 6-12 mm diameter is described. The basic part of the automatic installation is the control system, including the servo-mechanism, common circuits, centering and drawing mechanisms, electronic analyzing blocks and actuator mechanisms. The control

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

TRILISSKIY, V. M., et al., Sb. Electromagnit. methody nerazrushayushch. Kontrolya, 1971, pp 139-142

system includes also a mimic bus consisting of several MTx-90 tubes and making it possible to monitor the operation of the mechanisms and instruments. The electronic part of the control system makes it possible to detect separately the external and internal defects, the deviations of the wall thickness and mean diameter. The instruments are set according to calibrating devices. Two indicating blocks contain an electronic radiation tube with rotary scanning, synchronized with the rotation of printed pickups. The line is handled by a single operator. The pipes pass through an automatic control device. The defects are marked with dye. The pipe ends are marked by means of an electric arc device. After marking, the pipes are sorted into containers.

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UNCLASSIFIED

SECTION III

SO: SELECTED AEROSPACE MED FACILITIES
PCS - 89
JUNE 71

Name: Institute of Biophysics, Pushchino

Description:

(U) During this quarterly reporting period, 13 new articles were located from the Institute of Biophysics at Pushchino. On the basis of these articles, it was possible to associate 19 new persons with the institute. These persons are listed below together with the subjects and dates of the articles:

Basurmanov, O. K.	endocrine system	1970(17)
Berestovskiy, G. N.	phospholipids	1970(18)
Geziyev, A. I.	DNA	1970(19)
Ivannikova, A. G.	plant physiology	1969(20)
Kiselev, Ye. Ye.	muscle physiology	1970(21)
Kravchenko, N. A.	EPR spectra	1970(22)
Narimanov, A. A.	radiation effects	1970(23)
Panov, A. A.	endocrine system	1970(17)
Pasoyan, V. G.	EPR spectra	1970(22)
Porotikov, V. I.	muscle physiology	1970(21)
Postnikova, G. B.	chromatography	1970(24)
Razhin, V. D.	phospholipids	1970(18)
Revin, A. F.	radiation effects	1970(23)
Sukhoruchkina, L. V.	chromatography	1970(24)
Trincher, K. S.	plant physiology	1969(20)
Vasiloy, Yu. V.	radiation effects	1970(23)
Zaikin, A. N.	hydrogen peroxide	1970(25)
Zakrzhevskaya, D. T.	DNA	1970(19)
Zuzin, A. M.	DNA	1970(19)

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

UDC 535.37:548.736

TRINKLER, M.F., KALNIN', A.E. [Physics Institute, AS, Latvian SSR]

"Study Of Intracenter Luminescence Of A KCl-KJTl Crystal. I."

Izv. Akademii Nauk Latviyskoy SSR: Seriya fizicheskikh i tekhnicheskikh nauk (Bulletin Of The Academy Of Sciences, Latvian SSR: Physics And Technical Sciences Series), No 4, 1972, pp 33-40

Abstract: A detailed description is presented of spectral-kinetic measurements made on monocrystals of KCl-KJTl grown by the Kyropoulos procedure with two concentrations of iodine (2 and 4 molar percent) and a concentration of thallium of 0.3 molar percent in the melt. Based on these investigations, it is possible to conclude that the emission spectrum of the phosphor crystal KCl.KJ (4 molar percent)--Tl (0.2 molar percent) consists of nine bands which are connected with the luminescence of the thallium ion in different isostructures of the mixed base of KCl-KJ or close to residual defects caused by uniaxial pressure (possible emission band on 480 nm). Received, 29 Nov 1971. 23 ref. 6 fig. 1 tab.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

TRINOS, V. N.

"Nonadiabatic Flow Over a Jet of Actual Gas"

UDC 533.697

Tr. Kazan. aviats. in-ta (Works of Kazan' Aviation Institute), 1971, No. 128, pp 46-52 (from RZh-Mekhanika, No 12, Dec 71, Abstract No 12B552)

Translation: A method is presented for the computational-theoretical determination of the flow parameters of an actual gas over the length of a nozzle considering heat release to the wall and friction for the case of a one-dimensional steady-state flow of a continuous compressible medium. It is assumed that there is ideal mixing of the fuel and oxidant and total combustion of the fuel in the combustion chamber at the input to the nozzle. The process of the expansion of the combustion products in the nozzle is assumed chemically and energetically at equilibrium. Also hypothesized is the absence of condensate in the combustion products. A system of equations is derived describing the flow of the actual gas using the usual thermodynamic quantities and considering the nonisobaric quality of processes in the chamber. The resulting system of ordinary differential equations was solved by numerical integration by the Runge-Kutta method on the BESM-4 computer. A comparison of the thermodynamic

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

UDC 615.23:547.789.5

MIRYAN, N. I., TRINUS, F. P., IZOTOVA, P. V., FADEICHEVA, A. G., and LISUNKIN, YU. I., Kiyev Scientific Research Institute of Pharmacology and Toxicology

"Biological Activity of Some Thiazole Derivatives"

Moscow, Khimiko-Farmatsevticheskiy Zhurnal, Vol 7, No 8, Aug 73, pp 17-20

Abstract: Some thiazole derivatives act as breathing stimulators and as antagonists to morphine, nicotine and to barbiturates. One of the more active agents of this group is 2,4-diamino-5-phenylthiazole hydrochloride (I) -- the so called daptazol. A simplified synthetic method for this compound with slightly improved yield has been developed, and using this method, two new derivatives were synthesized: 2,4-diamino-5-(p-fluorophenyl)thiazole hydrochloride (II), and 2-4-diamino-5-(o-nitrophenyl)thiazole hydrochloride (III). Biological studies were carried out which showed that replacement of the amino groups in the 2 and 4 positions of the thiazole ring by hydroxyl groups resulted in disappearance of the characteristic antimorphine action. The toxicity was increased. Introduction of substituents in the phenyl ring does not change the hypotensive activity of these compounds.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

UDC 616.24+616.594.171.2]-08

TRINUS, Ye. K., BARCHUK, V. F., and GORBUNOVA, Ye. N., Kiev Scientific Research Institute of Infectious Diseases, Ministry of Health, Ukrainian SSR

"Treatment of Pulmonary Candidiasis"

Kiev, Vrachebnoye Delo, No 9, 1971, pp 25-26

Abstract: Five patients suffering from pulmonary candidiasis as a complication of acute bacterial pneumonia or bronchitis received daily 4,000,000 to 8,000,000 units of nystatin by inhalation or 2,000,000 to 3,000,000 units of levorin [antifungal antibiotic obtained from Actinomyces levoris Krass. and Actinomyces globisporus] along with other fungicides (methylene blue, iodine preparations, nitrofuran derivatives) and vitamins C and B. These agents improved the patients' general condition, lowered their body temperature, and eliminated the candidiasis symptoms, but x-rays and physical findings indicated that the process was continuing. Stable improvement was brought about by the inhalation of water-soluble nystatin or levorin (200,000 units) twice a day for 5 to 10 days. One patient (whose case history was presented in some detail) who could not tolerate inhalation of water-soluble levorin responded to rectal administration of the antibiotic.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

UDC 612.441-06:612.273.2

TRINYAK, N. G., Chairs of Pathological Physiology and Faculty Surgery, Chernovitsy Medical Institute, Chernovitsy

"The Functional State of the Thyroid Under Conditions of Acute Hypoxic Hypoxia"

Moscow, Byulleten' Eksperimental'noy Biologii i Meditsiny, Vol 72, No 11, Nov 71, pp 17-19

Abstract: Rats with acute hypoxic hypoxia produced by keeping them for 30 min at a pressure of 360 mm exhibited an increased concentration of protein-bound iodine and morphological changes in the thyroid that indicated activation of thyroid function. Similar results were obtained in experiments on rats with hypoxia due to pulmonary edema produced by an intraperitoneal injection of NH_4 Cl and on dogs in which pulmonary edema causing hypoxia was induced by intravenous injection of a 10 percent solution of chloramine. The results have a bearing on inhibition of thyroid function in humans and animals living in alpine regions under conditions of chronic hypoxia.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

UDC 539.4

PANIELEYEV, A. K., RZHAVIN, L. N., GL SHCHENKO, N. I., KONOVALOV, V. I., and TRIPOL'SKIY, S. S. (Zaporoz'ye)

"Investigation of Combined Vibrations of the Disk-Blade System of the Impeller of a Turboprop-Engine Turbine"

Kiev, Problemy Prochnosti, No 11, Nov 73, pp 78-81

Abstract: In order to study the nature and modes of the vibrations of a turbo-prop-engine turbine, as well as the distribution of the stresses, a tensometric investigation was conducted of the entire ste of the 82 blades and the disk of the turbine impeller. Results of the conducted tests show that the cause of the high stresses occurring in the blades is to be found in the critical impeller rotation rates, at which combined vibrations of the disk-blade system occur in accordance with a mode with five node diameters. Frequency adjustment of the disk-blade system was conducted via variation of the system components. A correlation was established between the critical rotation rates and the average frequency during the axial mode of vibrations of the blade set. On the basis of this correlation, control over the average vibration frequency of the blade set during the axial vibration mode has been introduced into the process of blade production. 5 figures.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

BIRYUKOV, V. M., TRIPPEL', A. V.

UDC 539.4:624.012

"Strength and Deformability of the Prefabricated Monolithic Reinforced Concrete Complex of the Tadzhik Framework"

Tr. Tadzh. politekhn. in-ta (Works of the Tadzhik Polytechnical Institute), 1970, vyp. 5, pp 109-121 (from RZh Mekhanika, No 10, Oct 70 Abstract No 10 V885)

Translation: The structural scheme of the Tadzhik framework is solved in the form of two five-story prefabricated monolithic rigid space frames with hanging panels made of light concrete. The column grid is 3 × 6 m. The spans are made of reinforced concrete slabs with edges up dimensioned in the plan view for the room. The extreme edges of the slab are connected to the monolithic cross bar fittings by means of protruding stubs of the reinforcing. The concrete is type 200, and the reinforcing is round, periodic profile classes A P and A Pl. The structural design used makes the prefabricated-monolithic structure as close to monolithic as possible. This is especially important in seismic regions. The rigidity and strength of the buildings in the longitudinal and transverse

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

BIRYUKOV, V. M., et al., Tr. Tadzh. politekhn. in-ta, 1970, vyp. 5, PP 109-121

directions are insured by creation of rigid frame assemblies at the joints of the uprights with the cross bars and spans monolithically connected to the cross bars.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

UNCLASSIFIED

TITLE--CRYSTALLOGRAPHIC DIRECTIVITY OF THE PULSED BREAKDOWN OF SOLID DIELECTRICS IN A SHARPLY HETEROGENEOUS FIELD -U-

PROCESSING DATE--18SEP70

AUTHOR-(02)-VERSHININ, YU.N., TRIPPEL, V.G.

COUNTRY OF INFO--USSR

SOURCE--FIZ. TVERD. TELA 1970, 12(1), 296-8

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--CRYSTALLOGRAPH, DIELECTRICS, CALCIUM COMPOUND, QUARTZ CRYSTAL, DIELECTRIC BREAKDOWN, GEM, ALUMINUM COMPOUND, FLUORINE COMPOUND, SILICON

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1980/0095

STEP NO--UR/0181/70/012/001/0296/0298

CIRC ACCESSION NO--AP0048387

UNCLASSIFIED

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CIRC ACCESSION NO--AP0048387 UNCLASSIFIED PROCESSING DATE--18SEP70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CRYSTALLOGRAPHIC DIRECTIVITY WAS INVESTIGATED OF THE BREAKDOWN CHANNEL IN CRYSTALS OF HALITE, CALCITE, QUARTZ, AND TOPAZ, WHICH DIFFER FROM EACH OTHER BY THE TYPE OF LATTICE AND ANIONS. IN HALITE CRYSTALS, CL PRIME NEGATIVE FORM A DISCONTINUOUS SERIES IN THE DIRECTION OF FACE DIAGONAL OF THE UNIT CELL. THEY ALSO FORM, NORMAL TO THE 3 FOLD AXES OR BODY DIAGONALS, LAYERS BETWEEN WHICH IN THE OCTAHEDRAL VOIDS ARE LOCATED SMALLER CATIONS. THESE DIRECTIONS SHOULD PREVAIL UNDER THE CONDITIONS OF ELEC. BREAKDOWN. THE UNIT CELL IN CALCITE CRYSTALS CAN BE REPRESENTED AS THE UNIT CELL OF HALITE DISTORTED BY COMPRESSION ALONG THE 3 FOLD AXIS, AND NA PRIME POSITIVE AND CL PRIME NEGATIVE LOCI ARE OCCUPIED BY CA PRIME2 POSITIVE AND CO SUB3 NEGATIVE NEGATIVE. THE PREVAILING DIRECTIONS OF BREAKDOWN SHOULD COINCIDE WITH THE SMALLER DIAGONAL OF THE FACE OF A RHOMBOHEDRON, AND ALSO WITH A 3 FOLD AXIS, UNIQUE IN THE STRUCTURE OF CALCITE. IN THE QUARTZ CRYSTAL, ZIG ZAG CHAINS OF SI TETRAHEDRA ARE LOCATED ALONG THE DIAGONALS OF SIDE FACES AND THE SHORTEST BODY DIAGONAL. THE STRUCTURE OF TOPAZ REPRESENTS AN AGGREGATION OF COLUMNS OF AL OCTAHEDRA (ALO SUB4(OH,F) SUB2) STRETCHED ALONG THE C AXIS AND JOINED TO EACH OTHER BY SI TETRAHEDRA. THE PREVAILING DIRECTION OF THE DISCHARGE SHOULD COINCIDE WITH THE C AXIS.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

KINELOVSKIY, S. A., MATYUSHKIN, N. I., TRISHIN, YU. A.

UDC 534.222.2

"Convergence of an Incompressible Ring Toward the Center Under the Action of Explosion Products"

V sb. Dinamika sploshn. sredy. Vyp. 5 (Dynamics of a Continuous Medium. No. 5 -- Collection of Works), Novosibirsk, 1970, pp23-32 (from RZh-Mekhanika, No 9, Sep 71, Abstract No 9B168)

Translation: The problem of the motion of a ring of incompressible fluid under the action of explosion products is discussed. The calculation is carried out for an ideal gas with an adiabatic index $\gamma = 3$. The relationship between pressure and density $p = A\rho^3$ (where A is a constant) are added to the equations describing the one-dimensional motion of a gas with cylindrical symmetry. $p = c + v$ and $N = c - v$, where v is velocity and c is the speed of sound, are taken as the initial functions. The equations obtained are written in dimensionless form and are solved by the modified method of characteristics. The computational results are compared with experimental data. N. N. Kochina

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

UNCLASSIFIED

TITLE--DETERMINING ATMOSPHERIC PARAMETERS IN THE TRANSITION REGION AT ALTITUDES 30 TO 120 KM -U-

PROCESSING DATE--04DEC70

AUTHOR-(03)-TRISHINA, YU.M., GOLUBEV, YE.N., MIKHNEVICH, V.V.

COUNTRY OF INFO--USSR

SOURCE--MOSCOW, KOSMICHESKIYE ISSLEDOVANIYA, VOL VIII, NO 3, 1970, PP 467-470

DATE PUBLISHED-------70

SUBJECT AREAS--METHODS AND EQUIPMENT, PHYSICS, ATMOSPHERIC SCIENCES

TOPIC TAGS--HYPERSONIC AERODYNAMICS, MANOMETER, GAS DISCHARGE, WIND TUNNEL, ATMOSPHERE, BLUNT BODY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY FICHE NO----FD70/605017/D07 STEP NO--UR/0293/70/008/003/0467/0470

CIRC ACCESSION NO--AP0140740

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054

CIRC ACCESSION NO--AP0140740 UNCLASSIFIED PROCESSING DATE--04DEC70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THIS PAPER DESCRIBES A METHOD FOR COMPUTING THE PARAMETERS OF THE UNDISTURBED ATMOSPHERE USED IN MEASUREMENTS MADE AT THE SURFACE OF A BLUNTED BODY MOVING WITH HYPERSONIC VELOCITIES IN DIFFERENT AERODYNAMIC REGIMES FROM FREE MOLECULAR THROUGH TRANSIENT TO CONTINUOUS. THE DATA USED WERE OBTAINED USING THE HIGH ALTITUDE GEOPHYSICAL STATION, ALREADY WELL DESCRIBED IN THE LITERATURE. THE PROBLEM INVOLVED EVALUATING ALL THE FACTORS AFFECTING THE NATURE OF FLOW AROUND THE OBJECT DURING ITS MOTION IN THE TRANSITION REGION AND MAKING COMPUTATIONS ON THE BASIS OF THESE ESTIMATES. THE RESULTS OF THE COMPUTATIONS OBTAINED USING DIFFERENT METHODS WERE COMPARED. FLIGHT OF THE STATION OCCURRED IN ALL AERODYNAMIC REGIMES. MEASUREMENTS WERE MADE USING TWO MAGNETIC GAS DISCHARGE MANOMETERS MOUNTED ON THE EQUATOR OF THE SPHERICAL CAPSULE. THE VELOCITY OF CAPSULE MOTION IN THE SECTOR 140-80 KM OF THE DESCENDING BRANCH OF THE TRAJECTORY VARIED IN THE RANGE 2,600 TO 2,800 M-SEC. MOTION OF THE BODY WAS ACCOMPANIED BY THE APPEARANCE OF HIGH (ABOUT 3000DEGREESK) DECELERATION TEMPERATURES, LEADING TO DISSOCIATION OF MOLECULAR OXYGEN HAVING A LOW ENERGY OF DISSOCIATION WHICH ALREADY BEGINS AT A TEMPERATURE OF 2000DEGREESK. EXPERIMENTS IN WIND TUNNELS AND THEORETICAL COMPUTATIONS MADE IT POSSIBLE TO PROCESS THE MEASUREMENT DATA OBTAINED IN THE TRANSITION REGION 80-120 KM. IT IS SHOWN THAT THE RESULTS OBTAINED BY COMPUTATIONS WITH USE OF THE METHOD EMPLOYED FOR A FREE MOLECULAR FLOW DIFFER FROM THE RESULTS OBTAINED FOR A CONTINUAL FLOW; THE DIFFERENCE INCREASES WITH A DECREASE IN ALTITUDE.

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3/3 054

CIRC ACCESSION NO--AP0140740 UNCLASSIFIED PROCESSING DATE--04DEC70

ABSTRACT/EXTRACT--THE VALUES OBTAINED USING THE MODIFIED RAYLEIGH FORMULA AGREE BETTER WITH DATA COMPUTED FOR FREE MOLECULAR FLOW IN THE REGION OF ALTITUDES 140-150 KM FOR THE MAGNETIC MANOMETER AND INDEPENDENT MEASUREMENTS WITH AN IONIZATION MANOMETER THAN WHEN USING THE RAYLEIGH FORMULA WITHOUT CORRECTION FACTORS. VERTICAL PRESSURE DISTRIBUTION WAS DETERMINED FROM THE ANALYZED DATA; DENSITY DISTRIBUTION WAS FOUND AND COMPARED WITH A DETERMINATION MADE BY THE FALLING SPHERES METHOD.

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USSR

UDC 619:576.809.8:576.851.55:636.51

RAKHMANINA, I. A., TRISHKINA, Ye. T., LYAUSHKIN, A. V., and SEREBRYAKOV, A. S., All-Union Institute of Experimental Veterinary Science

"Properties of Cl. perfringens of Type A Isolated From Chickens"

Moscow, Veterinariya, No 6, Jun 73, pp 99-100

Abstract: Cl. perfringens of type A was found to be present in clinically healthy chickens and chicks. Cultures of this microorganism were isolated in 5% of cases from the intestine and liver of healthy chickens and in 56 and 43% of cases, respectively, from the intestine and liver of chickens with gastrointestinal diseases. On peroral administration to chickens, Cl. perfringens was preserved in the gastrointestinal tract for at least 30 days. On intramuscular administration, it was present in the blood and parenchymatous organs for at least 10 days. The Cl. perfringens strains isolated from healthy and sick chickens were identical. They killed chick embryos, mice, guinea pigs, and chicks and produced disease in adult chickens. One may assume that Cl. perfringens of type A present in healthy chickens multiply and produce complications when the chickens become infected with diseases of the gastrointestinal tract, specifically

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

RAKHMANINA, I. A., et al., Veterinariya, No 6, Jun 73, pp 99-100

those of virus etiology. The strains isolated were sensitive to penicillin, erythromycin, and ampicillin. These antibiotics should be applied on an experimental basis at poultry farms in the case of infections complicated by Cl. perfringens.

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TRIVOZHENKO, B. Ye.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

TECHNICAL TRANSLATION

165

FSTC-HT-23-2015-72

ENGLISH TITLE: PROBLEMS OF LASER BEAM DATA TRANSMISSION PROCEEDINGS OF THE FIRST ALL-UNION CONFERENCE, KIEV, SEPTEMBER 1968

FOREIGN TITLE: PROBLEMY PEREDACHI INFORMATSII LAZERNYM IZLUCHENIYEM

AUTHOR: I. A. DERYUGIN, ET AL.

SOURCE: KIEV ORDER OF LENIN STATE UNIVERSITY IMENI T.G. SCHEVCHENKO

Translated for FSTC by ACSL

NOTICE

The contents of this publication have been translated as presented in the original text. No attempt has been made to verify the accuracy of any statement contained herein. This translation is published with a minimum of copy editing and graphics preparation in order to expedite the dissemination of information.

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- Title Page -

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

UDC: 621.396.932.1

TRIVOZHENKO, B. Ye.

"Potential Accuracy of Split Phase-Difference Direction Finding of Heat Sources by Uncorrelated Sampling"

Tr. Sib. fiz.-tekhn. in-ta pri Tomsk. un-ta (Works of the Siberian Physico-technical Institute Associated With Tomsk University), 1970, vyp. 51, pp 269-273 (from RZh-Radiotekhnika, No 5, May 71, Abstract No 5G62)

Translation: The author discusses the problem of taking the bearings of a certain number of point sources of thermal radio emission by means of a linear equidistant antenna array in which the number of dipoles is less than the number of sources. The accuracy of evaluating the time delay of signal arrival at one reception device with respect to the other is determined. The problem is solved by the methods of statistical theory, assuming that there is no outside interference (there are only additive noises in the receiving devices). Bibliography of two titles. N. S.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR UDC: 519.2:621.391

TRIVOZHENKO, B. Ye.

"Potential Accuracy of Taking Separate Phase-Difference Bearings on Heat Sources by Uncorrelated Sampling"

Tr. Sib. fiz.-tekhn. in-ta pri Tomsk. un-te (Works of the Siberian Physicotechnical Institute Affiliated With Tomsk University), 1970, vyp. 51, pp 269-273 (from RZh-Kibernetika, No 9, Sep 71, Abstract No 9V288)

Translation: This paper deals with the problem of taking bearings on N point sources of thermal radio emission by using an antenna array made up of M dipoles (M > N) arranged on a single straight line and spaced at equal distances. The signals in the reception channels are an additive mixture of noises from the sources and the internal noises of the receivers, which are stationary Gaussian processes. The correlation functions of the source noises coincide, and there is no correlation between the signals from the sources and between the noises of different receivers. The bearings are taken by a phase-difference method with respect to an uncorrelated time sample from the processes formed by sub-

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

TRIVOZHENKO, B. Y., Tr. Sib. fiz.-tekhn. in-te pri Tomsk. un-te, 1970, vyp. 51, pp 269-273

tracting the reference signal from the signals of the reception channels. The output from one of the M receivers is used as the reference signal. Optimum estimates of the bearing are found by solving a system of N linear independent equations whose coefficients are determined by the method of maximum likelihood. Expressions are presented for the potential accuracy of the resultant estimates. V. Brikker.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

SERGIYEV, P. G., et al., Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, Vol 39, No 5, Sep/Oct 70, pp 541-551

Secondary pyococcal infections represented the only complications observed; allergic exanthem was noted occassionally. In order to prevent local and general allergic reactions after vaccination, it is necessary to exclude persons who have had cutaneous leishmaniasis. If past disease cannot be revealed by means of anamnesis or medical examination, the intracutaneous leishmanin test is recommended. The level of the virulence in inoculative strains should be periodically tested, since insignificant initial virulence or its weakening during culturing make a given strain unfit for preparation of inoculum.

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USSR

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UDC 616.993.162-022.39-084.47-036.8

SERGIYEV, P. G., BEYSLEKHEM, R. I., MOSHKOVSKIY, Sh. D., DEMINA, N. A., KELLINA, O. I., SHUYKINA, E. Ye., SERGIYEV, V. P., [illegible] I. I., SHCHERBAKOV, [illegible] YARMUKHAMEDOV, M. A., USKOV, N. Ye., LOSIKOV, I. N., and NEDOSPELOVA, Ye. I., Institute of Medical Parasitology and Tropical Medicine imeni Ye I. Martsinovskiy, Ministry of Health USSR, Moscow

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2"

"Results of Mass Vaccinations against Zoonotic Cutaneous Leishmaniasis"

Moscow, Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, Vol 39, No 5, Sep/Oct 70, pp 541-551

Abstract: Preventive mass vaccinations with a virulent strain of Leishmania tropica major were found to give reliable protection against cutaneous leishmaniasis. Only virulent strains can be used for vaccination. The degree of inoculation with such strains is almost 100%, the inoculative process having, as a rule, a favorable effect. The maximum size of the vaccination lesion does not exceed 2 cm in diameter in 3/4 of the subjects vaccinated. In practically all cases, the process does not last more than 5-6 months. Morbidity occurred in the group vaccinated with the low-virulence strain, among those without lesions, and among those whose lesions were less than 0.5 cm in diameter.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

USSR

TRIZNA, S. A.

UDC 002.63:621.867

"Experiences in Compiling Currently Received Information Material"

Moscow, Nauchno-Tekhnicheskaya Informatsiya, Seriya 1-Organizatsiya i Metodika Informatsionnoy Rabotyi, No 1, 1972, pp 16-17

Abstract: The author, Senior Engineer of the Lvov Interbranch Territorial Center of Scientific-Technical Information and Propaganda for the Ukraine Gosplan, relates his experience in improving the service efficiency to information-seeking clients at the Lvov GPKB [State Planning and Design Bureau?] in conveyor construction. At this center, an accumulation of primary documents has been organized in the following two stages: first, the development of a classifier for the information in this document library; second, the compilation of theme lists for the primary documents. A table presents an example of how various themes are classified, according to UDC number, type of classifier, and subdivisions describing the type of literature -- research, design, structural, and the like. A description of the library organization and the functions of its staff is also given.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002203320016-2

UNCLASSIFIED

TITLE--FAILURE OF RIGID POLYMER BINDERS DURING ELONGATION -U-

PROCESSING DATE--02OCT70

AUTHOR-(02)-GOLDMAN, A.YA., TRIZNO, M.S.

COUNTRY OF INFO--USSR

SOURCE--MEKH. POLIM. 1970, 6(1), 177-8

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--POLYMER BINDER, ELONGATION, POLYMER DEGRADATION, EPOXY RESIN, POLYESTER RESIN, GLASS FIBER, REINFORCED PLASTIC, DEFORMATION RATE, MECHANICAL STRESS, ELASTICITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1989/0809

STEP NO--UR/0374/70/006/001/0177/0178

CIRC ACCESSION NO--AP0107351

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