

TSAP, M., kand. khim. nauk

Agricultural chemists' aids. Znan. ta pratsia no.6:15 Je '62.
(MIRA 16:7)

(Chemical apparatus)

TSAP, M. L.

TSAP M. L. -- "Spectrophotometric Method of Investigating Blue Heteropoly Acids in the Near Infrared Region and Its Application in Industrial-Sanitary Chemistry." Acad Sci USSR, Inst of General and Inorganic Chemistry named N. S. Kurnakov, Moscow, 1955 (Dissertation For the Degree of Candidate in Chemical Sciences)

SO: Knizhnaya letopis' No. 37, 10 September 1955

TSAP, M.L.

TSAP

✓ Conditions for the formation of blue phospho- and arseno-
molybdic heteropoly acids. M. I. Tsap (Inst. Incl. Hyg.
 and Occupational Diseases, Kirov-Zavodskaya Lab. 21,
 10-17(1955). -- The maxima of absorption in the near infra-
 red lie at 790-25 and 825-6 m μ for molybdenum blue and
 the blue Mo heteropoly acid complexes. The optimum pH
 for formation of the blue complexes is that of 1-1.1 N H-ion
 concn. when only a slight absorption of light, relative to H₂O,
 is evident; the yellow color is probably caused by Mo(V)
 compls. Reduction with hydrazine sulfate or ascorbic acid
 leads to solns. with the greatest light absorption. In reduction
 with hydrazine sulfate of $2 \times 10^{-3} - 6 \times 10^{-3}$ moles/l.

solns of molybdate, the intense formation of Mo blue begins
 at a ratio of H₂SO₄ to molybdate of 25:1 or smaller, the
 color max. is reached at H-ion concn. of 0.1 N, when highly
 polymeric complexes form. The instability const. of the
 blue phosphomolybdate complex is 6.26×10^{-7} . The
 coeffs. of light absorption at 825-37 m μ for blue phospho- and
 arsenomolybdates are about 2×10^4 . G. M. K.

TSAP

TSAP, M.L.

1347. Conditions for the formation of blue molybdosilic heteropolyacid. M. I. Tsap (Zavod. Khim. 1958, 21, 137, 281-283). The effect of pH on the formation of molybdenum blue was studied by mixing 3 to 3.5 ml of citrate buffer with 0.5 ml of 0.006 M ammonium molybdate and 0.5 to 1.0 µg of Si as sodium silicate, then adding 0.5 ml of 0.001 M 1-amino-2-naphthol-4-sulphonic acid. The soln.

was diluted to 5 ml with water, and examined photometrically at 825 to 837 mµ. The optimum absorption occurs at pH 1.0 to 3.0. Phosphate and arsenate in amounts up to 100 times that of silicate do not interfere. Metol can be used nearly as satisfactorily as reducing agent. The molar absorption coeff. is 1.1×10^4 . G. S. Smith


Handwritten initials: "AB" and "JW".

Reim Inst Labor Kupfering Occupational Disease

7 2 37 212

7

PH A portable photoelectric absorptiometer for the visible and near infrared region of the spectrum. V. P. Vendi and M. L. Tsip. *Zavodskaya Lab.* 21, 999-1001(1953).—A portable photoelec. absorptiometer is described. Calibration curves are given for detn. of Cr (sensitivity = 0.8 γ), Mn (sensitivity = 0.3 γ), and P (sensitivity = 0.3 γ). J. Rovtar Leach

Kiev Inst Labor Hyg. & Occup. Diseases *SMW* 

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910017-4

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910017-4"

TSAP, M.L.; LINNIKOVA, G.L.

Photometric method of determining the total phosphorus content
of soil. Pochvovedenie no.2:102-107 F '60. (MIRA 15:7)

1. Ukrainskiy nauchno-issledovatel'skiy institut zemledeliya.
(Soils--Phosphorus content)
(Photometry)

TSAP, M.L.

Portable flame photometer of the type PPF-UMIIZ. Zav. lab. 27
no. 4:483-484 '61. (MIRA 14:4)

1. Ukrainskiy nauchno-issledovatel'skiy institut zemledeliya.
(Photometers)

TSAP, M.L.; TOLKACHEVA, L.A.

Applying spectrum analysis in investigating soil extracts and solutions. Pochvovedenie no.1:87-94 Ja '61. (MIRA 14:1)

1. Ukrainskiy nauchno-issledovatel'skiy institut zemledeliya.
(Soils--Analysis) (Spectrum analysis)

TSAP, M.I.

Instrument for photoelectric titration. Zav. lab. 26 no.7:
890-891 '60. (MIRA 13:6)

1. Ukrainskiy nauchno-issledovatel'skiy institut zemledeliya.
(Titrimeters)

TSAP, M.L.; YUNIK, Sh.M.

Using ultraviolet spectrophotometry for determining phosphorus in soil extracts. Pochvovedanie no.10:92-100 0 '59.
(MIRA 13:2)

1. Ukrainskiy nauchno-issledovatel'skiy institut zemledeliya.
(Soils--Analysis) (Spectrophotometry)

Tsap, M.L.

USSR/ Analytical Chemistry. Analysis of Organic Substances. G-3

Abs Jour: Referat. Zhur.-Khimiya, No. 8, 1957, 27262.

Author : M.L. Tsap.

Title : Spectrophotometrical Method of Determination of Small Amounts of Ascorbic Acid in Water Solutions.

Orig Pub: Biokhimiya, 1956, 21, No. 5, 534 - 537.

Abstract: The method is based on oxidation of the ascorbic acid with the yellow phosphomolybdenum heteropolycomplex and on the measurement of the light absorption at 825 to 837 $m\mu$ by molybdenum blue, which is forming at this occasion. The sensitivity and exactitude of determination are maximum (± 0.4 mg) at the concentration of H equal to 1.0 n. The coloration of the solution is stable 2 to 3 hours. Beer's law is complied with at the

Card 1/2

USSR/ Analytical Chemistry. Analysis of Organic
Substances.

G-3

Abs Jour: Referat. Zhur.-Khimiya, No. 3, 1957, 27262.

single excess of the oxidizer. Acidified solu-
tion of heptamolybdate of ammonium can also be
used as oxidizer; photometering is carried out at
700 to 725 m μ in this case.

Card 2/2

TSVETAYEV, N.; TSAP, S.

Struggle of Moldavian State Bank departments against excessive wage fund expenditures. Den. i kred. 19 no.7:62-66 J1 '61. (MIRA 14:7)

1. Nachal'nik proizvodstvenno-ekspluatatsionnogo otdela Moldavskoy kontory Gosbanka (for TSvetayev). 2. Starshiy kreditnyy inspektor Moldavskoy kontory Gosbanka (for TSap). (Moldavia--Banks and banking) (Wages) (Auditing)

TSAP, S.

Control over wage fund disbursement and standard manufacturing cost. Den. i kred. 21 no.11:46-50 N '63.

(MIRA 17:2)

1. Starshiy inspektor Moldavskoy respublikanskoy kontory Gosbanka.

KANAYEV, A.; TSAP, S.

Problems of improving the consumer service industries. Den. i kred.
21 no.10:39-42 0 '63. (MIRA 16:10)

1. Nachal'nik otdela kreditovaniya mestnogo khozyaystva Moldavskoy respublikanskoy kontory Gosbanka (for Kanayev). 2. Starshiy inspektor planovo-ekonomicheskogo otdela Moldavskoy respublikanskoy kontory Gosbanka (for TSap).

KAPLAN, S.A.; TSAP, T.T.

Ionization functions of the elements C I, Na I, K I, Ca I, Ca II in interstellar space. Astron. tsir. no.137:6-7 Ap '53. (MLBA 6:8)

1. L'vovskaya astronomicheskaya observatoriya. (Gases, Interstellar)

MUSTEL', E.R.; TSAP, T.T.

Spectrophotometry of lines of the infrared triplet of ionized
calcium λ 8498, 8542, and 8662 in flocculi. Izv.Krym.
astrofiz.observ. 16:67-72 '56. (MIRA 13:4)
(Sun--flocculi--Spectra)

MUSTEL', B.R.: TSAP, T.T.

Comparison of hydrogen and calcium spectroheliograms and the
excitation of hydrogen atoms in flocculi. Izv.Krym.astrofiz.
obs. 17:162-176 '57. (MIRA 13:4)
(Sun--Flocculi--Spectra)

MUSTEL', E.R.; TSAP, T.T.

Spectrophotometry of the three infrared lines of ionized calcium
 λ 8498, 8542, 8662 in flocculi. Part 2. General characteristic
properties of lines of the infrared triplet in spectra of flocculi and
sunspots. Izv. Krym. astrofiz. obser. 20:74-79 '58.

(Sun--Flocculi--Spectra)
(Sunspots--Spectra)

(MIRA 13:3)

22113

S/O35/E1/000/03/04/048
A001/A101

3,1540

AUTHORS: Mustel', E.R., Tsap, I.I.

TITLE: The spectrophotometry of bright conversions in H- and K-lines of spectra of sunspot nuclei

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 3, 1961, 64, abstract 3A461 ("Izv. Krymsk. astrofiz. observ.", 1960, v. 22, 75-80, Engl. summary)

TEXT: The authors studied the profiles of emission lines K and H in the spectra of sunspot nuclei. All records of sunspot spectra show a slight asymmetry in the upper part which is apparently due to the Evershed effect. The profiles of the singular conversion of the K line of Ca II in the spectra of three sunspots are well represented by the formula:

$$I_{\nu} = P_{\nu} [1 - \exp(-s_{\nu} N_1 (\text{Ca II}))]$$

with turbulent velocity $v_{\nu} = 0$ and the value of $N_1 \approx 4 \times 10^{15} \text{ cm}^{-2}$.

From author's summary

[Abstracter's note: Complete translation]

Card 1/1

23707

S/O35/61/000/00-1/039/058
AC01/A101

3,1540

AUTHORS: Mustel', E.R., Tsap, T.T.

TITLE: On behavior of bright reversal in the center of lines H and K of Ca II in a sunspot region

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geofizika, no. 4, 1961, 60, abstract 4A466 ("Izv. Krymsk. astrofiz. observ.", 1960, v. 23, 299-303, Engl. summary)

TEXT: The authors studied variation of the profiles of Ca II emission line K in spectra of two sunspots with distance from their centers. Spectra were obtained at dispersion 0.192 A/mm. The following conclusions were drawn from the comparison of the spectra: 1) The width of emission continuously drops to the sunspot center, which is apparently caused by decreasing number of absorbing and emitting atoms in layers producing emission. 2) Dark reversal of K₂ continuously decreases with approaching the center of the nucleus, which apparently indicates a drop of temperature gradient over the sunspot, and in particular over the sunspot center. 3) The short-wave component becomes ever stronger with approaching the nucleus center, and

Card 1/2

23707

S/O 5/61/000/004/09/058
A001/A101

On behavior of bright reversal ...

In the center, where the profile becomes a single-top one, it is asymmetrical. This phenomenon is explained by Evershed's effect, i.e., by influx of gas into the sunspot at a high altitude, which causes displacement of dark reversal of K_2 towards longer wavelengths. The absolute intensity value in the reversal center is minimum in the nucleus center.

O. Mitropol'skaya

[Abstracter's note: Complete translation.]

Card 2/2

TSAP, T T

S/035/61/000/004/044/058
A001/A101

3,1540

AUTHORS: Abramenko, S. I.; Dubov, E. Ye.; Ogir', M. B.; Steshenko, N. Ye.; Shaposhnikova, Ye. P., and Tsap, T. T.

TITLE: Photometry of solar flares

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 4, 1961, 62-63, abstract 4A476 ("Izv. Krymsk. astrofiz. observ.", 1960, v. 23, 341-361, Engl. summary)

TEXT: The authors present photometric curves of H α intensity and areas of flares of mark ≥ 2 (4 flares in 1957 and 10 flares in 1958), results of comparing photometric curves obtained by measuring moving pictures taken by means of a KГ-1 (KQ-1) coronagraph (Crimean Astrophysical Observatory, AS USSR, Partizanskoye) and photospheric-chromospheric telescopes App-2 (APR-2) (Crimean Astrophysical Observatory, Simeiz) and APR-2 (Main Astronomical Observatory, AS UkrSSR, Kiyev). The authors investigated the role of side pass maxima of filters and various effects leading to a shift in the filter pass band. There are 5 references.

Author's summary

[Abstracter's note: Complete translation]

Card 1/1

! B

S/035/62/000/005/052/028
A055/A101

AUTHOR: Tsap, T. T.

TITLE: Characteristic peculiarities of the fine structure of the flocculi in the line K_{232} of Ca^+

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 5, 1962, 54, abstract 5A394 ("Izv. Krymsk. astrofiz. observ.", 1961, 25, 148 - 153, English summary)

TEXT: The lifetime and the relative movements of the bright nodules of the fine flocculi structure are investigated. It has been ascertained that the average lifetime of the vanishing and emerging nodules is one hour. The movement of the nodules with respect to one another occurs with an average velocity of 100 ± 30 m/sec. The highest observed relative velocity of the nodules is equal to 270 m/sec. There are 8 references. ✓

Author's summary

[Abstracter's note: Complete translation]

Card 1/1

41280

S/035/62/000/010/029/128

A001/A101

3.1.7

AUTHOR: Tsap, T. T.

TITLE: Characteristics features of the chromospheric fine structure
in the K_{232} line of Ca II

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 10, 1962, 50,
abstract 10A354 ("Izv. Krymsk. astrofiz. observ.", 1961, v. 26,
45 - 51, English summary)

TEXT: The author studied life time and motion of bright knots of the
chromosphere outside of the active zone. It has been established that the
average life duration of knots with sizes ≤ 1.5 is less than 10 min, and
their mutual displacement proceed at an average speed of 116 ± 28 m/sec. The
lower limit of electronic temperature has been estimated for knots in a flob-
culus and outside the active zone. In an active zone $T_e \approx 5100^\circ$ K, and out-
side of it $T_e \approx 4600^\circ$ K. There are 8 references.

[Abstracter's note: Complete translation]

Author's summary

Card 1/1

S/712/62/027/000/009/015
A001/A101

AUTHOR: Tsap, T. T.

TITLE: The brightness distribution of the chromosphere over the solar disk
in the K_{232} Ca II line

SOURCE: Akademiya nauk SSSR. Krymskaya astrofizicheskaya observatoriya.
Izvestiya. v. 27, 1962, 162 - 166

TEXT: The author studied the variation of flocculi brightness in the K_{232} Ca II line from the center toward the limb of the solar disk. Spectrograms used for this study were taken with the tower solar telescope of the Observatory with the Sun's image diameter equal to 44 mm. They were measured on a MF-2 (MF-2) microphotometer with slit dimensions 1" x 1". The maximum brightness of flocculi distributed in various sections of the solar disk was studied. To decide on justification of using this quantity, rather than average brightnesses, the ratios of average to maximum brightnesses were determined for various flocculi, and it was found that this ratio varies very slightly. Therefore, the conclusions based on measurements of maximum brightnesses are justified. It has

Card 1/2

The brightness distribution of the...

3/712/62/027/000/009/015
A001/A101

been found out that the brightness of flocculi radiation decreases from the center to the limb of the solar disk in the K_{232} line of Ca II. According to E. R. Mustel' (this Journal, v. 9, 25 and v. 13, 96) the H_2 and K_2 lines arise due to excitation of calcium ions by electronic impact. The existence in the center of these emission lines of absorption dips H_3 and K_3 is related to a decrease of the quantity $R_\lambda = \frac{J_\lambda}{K_\lambda}$ outwards. Therefore, the observed darkening of flocculi brightness from the center to the limb indicates that P_λ decreases outwards in the upper layers of the flocculi. There are 2 figures and 2 tables.

SUBMITTED: May 1961

Card 2/2

S/712/62/028/000/011/020
E010/E401

AUTHOR: Tsap, T.T.

TITLE: The dimensions and motion of elements of the chromospheric fine structure in H_{α} in an active region

SOURCE: Akademiya nauk SSSR. Krymskaya astrofizicheskaya observatoriya. Izvestiya. v.28. 1962. 246-251

TEXT: The purpose of the present investigation was studying the elements of the chromospheric fine structure on the basis of observational data obtained by V.Ye. Stepanov with the Tower solar telescope of the Crimean Astrophysical Observatory in 1959-1960. The data consisted in several series of spectroheliograms in H_{α} taken with the diameter of the solar image being 110 mm. There are separate dark formations (small filaments) observed in active regions in H_{α} , oriented along definite directions. Sets of such filaments form "chromospheric streams" attaining sometimes a length of 300000 km. The most frequently occurring small filaments are 1.6" wide and 4" long. Large filaments can exist for one hour and more, whereas smaller ones exist less than 10 min. There is, apparently, a relation between dimensions of a filament and its life time. It has been established that filaments are
Card 1/3

S/712/62/028/000/011/020
E010/E401

The dimensions and motion ...

oriented along the force lines of the magnetic field and chromospheric streams, made of filaments, connect regions of different polarities. Filaments located between two close magnetic centers are oriented in the same direction as the fine structure, namely along toroidal magnetic fields. The motion of small filaments proceeds along their orientation in both directions with a mean velocity of ~ 5 km/sec. The velocity distribution of small filaments is represented by Fig.5. Using the relation

$$\frac{H^2}{8\pi} > \frac{\rho v^2}{2} \quad (4)$$

between the magnetic and kinetic energies, the author estimates the strength of a magnetic field, necessary for the orientation of filament motion along the field, to be > 2.3 gauss, if density is assumed to equal $\rho = 1.7 \times 10^{-12}$ g/cm³. V.Ye.Stepanov is thanked for valuable indications during the performance of this study. There are 5 figures.

SUBMITTED: December 1961
Card 2/3

The dimensions and motion ...

S/712/62/G28/000/011/020
EC10/E401

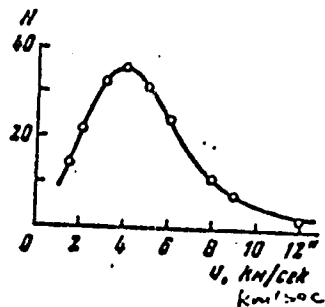


Fig.5. Velocity distribution of small filaments.
Continuous curve - observed distribution,
circles - calculated distribution.

Card 3/3

s/0211/63/000/004/0077/0081

ACCESSION NR: APL007597

AUTHORS: Gopasyuk, S. I.; Ogir', M. B.; Tsap, T. T.

TITLE: On the relationship between photospheric and chromospheric processes in the active region during flares

SOURCE: Solnec'ny*ye danny*ye, no. 4, 1963, 77-81

TOPIC TAGS: photospheric process, chromospheric process, flare, photoheliogram, sunspot umbra, sunspot penumbra, corona, magnetograph, active region

ABSTRACT: Sunspot activity and solar flares accompanied by particle emissions along radial lines have been carefully studied using motion pictures and photoheliograms. A superposition of the two has allowed investigation of detailed sunspot distributions. The data obtained have been used to calculate the total number of atoms in the active region of the chromosphere and in the whole solar corona. When these values are compared with the total number of atoms, the source of particle emission and strong flares is found to be in the photosphere. Furthermore, magnetograph records indicate an increase in radial velocity in photospheric levels during solar flares. It is shown that among the increased mass of ascending substances in the photosphere, sunspot displacement, particle surges in

Card 1/2

ACCESSION NR: AP4007597

the chromosphere above the sunspots during solar flares, and the solar flares themselves, there exists a very intimate relationship. All these phenomena are then assumed to be due to a single primary process occurring, in all probability, within or immediately below the photosphere. Orig. art. has: 3 figures.

ASSOCIATION: Krymskaya astrofizicheskaya observatoriya (Crimean Astrophysical Observatory)

SUBMITTED: 00

DATE ACQ: 21Jan64

ENCL: 00

SUB CODE: AS

NO REF SOV: 004

OTHER: 000

Card 2/2

[Faint, mostly illegible text, possibly a title or abstract]

TOPIC TAGS: astrophysics; solar flare; solar active region; photosphere; chromosphere

[Faint text, possibly a summary or description]

I 1978-66

ACCESSION NR. AR494106

SUB CODE: AA

ENCLOSURE

Card 2/2

TSAP, T.T.

Magnetic fields and the fine structure of the α corona in
an active region. *Izv. Akad. Nauk SSSR Ser. Fiz. Nauk*,
(1984) 10:11

L 45849-66 EWT(1) GW

ACC NR: AR6028401

SOURCE CODE: UR/0269/66/000/005/0051/0051

AUTHOR: Tsap, T. T.

TITLE: Photospheric magnetic field and flocculi brightness

12
B

SOURCE: Ref. zh. Astronomiya, Abs. 5. 51. 402

REF SOURCE: Izv. Krymsk. astrofiz. observ., v. 34, 1965, 296-304

TOPIC TAGS: photospheric magnetic field, flocculus, penumbra, flocculus brightness

ABSTRACT: The author compares the brightness of flocculi observed in the K₂₃₂ CaII line, with longitudinal, transverse and complete photospheric magnetic fields. It is found that on the average, the brightness of flocculi increases with an increase in the strength of the longitudinal, transverse and complete fields. The closest connection in the entire active area is observed between the brightness of the flocculi and the strength of the complete magnetic field. When the strength of the field increases, the brightness of the flocculi at first grows, and then remains almost constant at a certain degree of strength. The magnitude of the fields in which the brightness of flocculi reaches its

Card 1/2

UDC: 523.75

L 45849-66

ACC NR: AR6028401

maximum differs according to the various active areas and the various points within the same area. The strength of transverse magnetic fields in which the brightness of flocculi reaches its maximum is usually greater than that of longitudinal magnetic fields. In the sunspot penumbra, the best concordance is observed between the brightness process and the strength of the transverse field. The bibliography has 14 titles. [Translation of abstract] [GC]

SUB CODE: 20/

Card 2/2

JS

L 06355-67 EW1(1) GW

ACC NR: AR6013400

SOURCE CODE: UR/0269/65/000/011/0048/0048

AUTHOR: Tsap, T. T.

TITLE: Magnetic fields and fine structure in active regions

SOURCE: Ref. zh. Astronomiya, Abs. 11.51.418

REF SOURCE: Izv. Krymsk. astrofiz. observ., v. 33, 1965, 92-99

TOPIC TAGS: solar magnetic field, solar chromosphere, transverse magnetic field, sunspot

ABSTRACT: The orientation of the fine structure of the chromosphere in the H α line and of the structure of the penumbra in white light with respect to the transverse magnetic fields was investigated. The data were recorded at the photosphere level with the magnetograph of the solar tower of KrAO for groups observed 5--8 August 1963. Maps of the transverse component of the magnetic field are presented. The directions of the magnetic field and of the elements of the chromosphere fine structure practically coincide. The frequency distribution according to the angles between the direction of the lines of force and the direction of filaments was constructed for a numerical estimate of the direction coincidence. It is shown that 70% of the total number of filaments were oriented with an accuracy of 5 $^{\circ}$ along lines of force of the magnetic field. The structure of spot penumbra observed in white light conforms significantly more poorly with the direction of the magnetic field, which probably is

Card 1/2

UDC: 523.75/76

L 06355-67

ACC NR: AR6013400

connected with a strong rotation of the magnetic field vector at great depths. Another possible reason is the fact that the magnitude of the magnetic energy in the chromosphere significantly exceeds the magnitude of the kinetic energy, and the magnetic field more easily controls the motion of material. Bibliography of 8 citations. V. Obridko [Translation of abstract]

SUB CODE: 03

Card 2/2 p. 1/2

GOPASYUK, S.I.; OGIR', M.B.; TSAP, T.T.

Some peculiarities of active solar regions during flares. Izv.
Krym. astrofiz. obser. 30:148-160 '63. (MIRA 17:1)

AUTHOR: Tsapa, S. SOV-27-58-10-20/31
TITLE: None given
PERIODICAL: Professional'no-tekhnicheskoye obrazovaniye, 1958, Nr 10,
p 26 (USSR)
ABSTRACT: A photo shows two combine workers. They harvested 314 hec-
tars in 10 days. There is 1 photo.

1. Agriculture 2. Personnel—Performance

Card 1/1

TSAPALIN, A.M., podpolkovnik med. sluzhby; KITAYGORODSKIY, B.A., mayor med. sluzhby

Fluorography of the accessory sinuses of the nose in the selection
of specialists for the Navy. Voen. med. zhur. no.2:50-53 7 '59.

(PARANASAL SINUSES, radiography (MIRA 12:7)

fluorography of accessory sinuses in selection of naval
specialists (Rus))

(ARMED FORCED PERSONNEL

naval specialist selection by fluorography of accessory
sinuses of nose (Rus))

TSAPALINA, V.I., inzhener

Amplitude-frequency characteristics of a channel equipped with a
"compressor-expander" system and ways of measuring it. Vest. svyazi
15 no.6:12-14 Je '55. (MLRA 8:7)

1. Mladshiy nauchnyy sotrudnik Leningradskogo oblastnogo nauchno-
issledovatel'skogo instituta svyazi. (Telephone)

amoc *Comrad*

Distortions, V.I.

CIRCUITS

"Distortions in the Dynamics of Transmission in a System Consisting of a Compressor, an Intermediate Channel, and an Expander", by V.I. Tsapalina, Elektrosvyaz', No 1, January 1958, pp 58-67.

It is shown that increasing the interference rejection of long-distance telephony and broadcast by compressing the dynamic range of the transmission on the transmitting end and subsequent restoring of the level at the receiver involves in principle the appearance of a inherent distortion, whose values are approximately determined in this article.

Card 1/1

TSAPALINA, V. I.

TSAPALINA, V. I. -- "The Investigation and Estimation of Distortions in Canals Equipped with an Expansion Compressor." Min Communications USSR, Leningrad Electrical Engineering Institute of Communications Inoni Professor M. A. Bonch-Bruyevich, Leningrad, 1956. (Dissertation for the Degree of Candidate of Technical Sciences)

SO: Knizbrava Letopis' No 43, October 1956, Moscow

TSAPALINA, V. N.

USSR/Electronics

Card 1/1 Pub. 133 - 6/19

Authors : Tsapalina, V. N.

Title : Amplitude-frequency characteristics of a channel equipped with "Compressor-expander" units, and methods for their calculation

Periodical : Vest. svyazi 6, 12-14, June 1955

Abstract : Problems concerning the magnitude of amplitude-frequency distortions in a channel equipped in a compressor and expander, are discussed. The experiments indicate that these units do not result in additional frequency distortions. Methods for measuring frequency distortions in channels equipped in a compressor and expander with constant and variable control coefficients, are described and evaluated. Diagrams.

Institution :

Submitted :

RESHETNIK, G.; ALESHIN, V., gornyy master-inspektor; TSAPANA, A., brigadir;
DENEZHKO, S., zven'yevoy sutochnoy kompleksnoy brigady

Let us not forget about the main thing. Sov.shakht. 12 no.12:19-20
D '63. (MIRA 17:3)

1. Nachal'nik shakhty No.1-2 "Novaya Golubovka" (for Reshetnik).

~~TSAPAVA, Aida.~~

Fighter pilot Valeriia Khoniakova. Kryl.rod. 8 no.6:23 Ja '57.
(MLRA 10:8)

(Khoniakova, Valeriia Dmitrievna)
(Women in aeronautics)

TSAPAVA, A.Ye., starshiy leitenant voyenn.

Valeriia Khenziakova's feat. Vest. Yuzh. U. 40 no. 6:72-73 Je 1977.
(PLA: 1:2)

Khenziakova, Valeriia/
(in in newspapers)

TSAPAYEV, G.K.

Automatic conveying of yarn. Tekst.prom. 20 no.9:59-62 S '60.
(MIRA 13:10)

1. Glavnyy inzhener Furmanovskoy pryadil'no-tkatskoy fabriki
No.1.
(Conveying machinery)

SHADURSKIY, K.S.; Prinsipali uchastiye: KOMISSAROV, I.V.; FRANKOV, I.A.;
TSAPAYEVA, T.S., MEREZHINSKIY, M.P., prof., red.; STEPANOVA,
~~N.P., tekhn. red.~~

[Pharmacology as a basis for therapy; a manual for physicians]
Farmakologiya kak osnova terapii; posobie dlia vrachei. Minsk,
Gos.izd-vo BSSR. Red.nauchno-tekhn.lit-ry. Vol.1. [Pharmacology
of the cholinergic processes] Farmakologiya kholinergicheskikh
protseessov. 1959. 315 p. (MIRA 12:9)
(AUTONOMIC DRUGS)

TSAPENKA, M.M.; MAKHNACH, N.A.

Stratigraphy of Anthropogenic deposits in Starobin District, Vests
AN BSSR. Ser. fiz.-tekh. nav. no.1:93-106 '57. (MIRA 10:6)
(Starobin District--Geology, Stratigraphic)

Z/019/61/018/011/001/005
D006/D102

AUTHORS: Tsapenko, E. F. and Sychev, L. I.

TITLE: Transistorized instruments for checking the insulation of three-phase networks with insulated neutral by a tension up to 1000 v

PERIODICAL: Přehled technické a hospodářské literatury, Energetika a elektro-
technika, v. 18, 1961, no. 11, 499, abstract # E 61-6901. Prom.
Energ. 16, July 1961, no. 7, 32-35

TEXT: The article presents an analysis of the transistor circuit diagrams of insulation checking instruments, including the basic triode diagram, a bridge diagram, bridge diagrams with a trigger relay and with a trip relay, and a bridge diagram with a switch. The original article contains 5 figures and 5 references.
[Abstracter's note: The above text is a full translation of the Czech abstract]

Card 1/1

TSAPENKO, G.V., dotsent.

Materials on the study and prevention of diseases in swine causing the snout to turn sidewise and upwards. Sbor.trud.Khar'.vet.inst. 21:232-241 '52. (MLRA 9:12)

1. Kafedra razvedeniya, chastnogo zhivotnovodstva i organizatsii sotsialisticheskogo sel'skogo khozyaystva Khar'kovskogo veterinarnogo instituta.

(Swine--Diseases) (Nose--Diseases)

TSAPENKO, G.V.

Early diagnostics of milk productivity in cattle. Zhur.ob.
biol. 20 no.2:150-154 Mr-Apr '59. (MIRA 12:5)

1. Kharkov Veterinary Institute.
(DAIRY CATTLE)

TSAPENKO, G.V., dotsent.

~~TSAPENKO, G.V., dotsent.~~
"Blood" combinations in line breeding of cattle. Sbor.trud.Khar'.
vet.inst. 21:193-201 '52. (MLRA 9:12)

1. Kafedra rasvedeniya chastnogo zhivotnovodstva i organizatsii
sotsialisticheskogo sel'skogo khozyaystva Khar'kovskogo veteri-
narnogo instituta.

(Cattle breeding)

BABINETS, A.Ye., *otv. red.*; VARAVA, K.N., *red.*; MESYATS, I.A., *red.*;
POPOV, V.S., *red.*; RUDENKO, F.A., *red.*; ULASOVICH, N.M., *red.*;
FALOVSKIY, A.A., *red.*; TSAPENKO, I.I., *red.*; MEL'NIK, A.F.,
red.; LISOVETS, A.M., *tekhn. red.*

[Transactions of the First Ukrainian Hydrogeological Conference]
Trudy Ukrainского gidrogeologicheskogo soveshchaniia, 1st.
Kiev, Izd-vo Akad. nauk USSR. Vol.1. [Hydrogeology] Voprosy
gidrogeologii. 1961. 463 p. (MIRA 15:5)

1. Ukrainskoye gidrogeologicheskoye soveshchaniye. 1st.
2. Institut geologicheskikh nauk Akademii nauk Ukrainskoy SSR
(for Babinets, Varava, Falovskiy, TSapenko). 3. Kiyevskiy gosudarstvennyy universitet im. T.G.Shevchenko (for Rudenko).
(Ukraine--Water, Underground)

BURKSER, Ye.S. [Burkser, YE.S.]; TSAPENKO, I.I.

Enlarged conference of the Commission on the Utilization of
Natural Therapeutic Resources of the Ukrainian S.S.R. Geol.
zhur. 20 no. 5:113-114 '60. (MIRA 14:1)
(Ukraine—Health resorts, watering places, etc.)

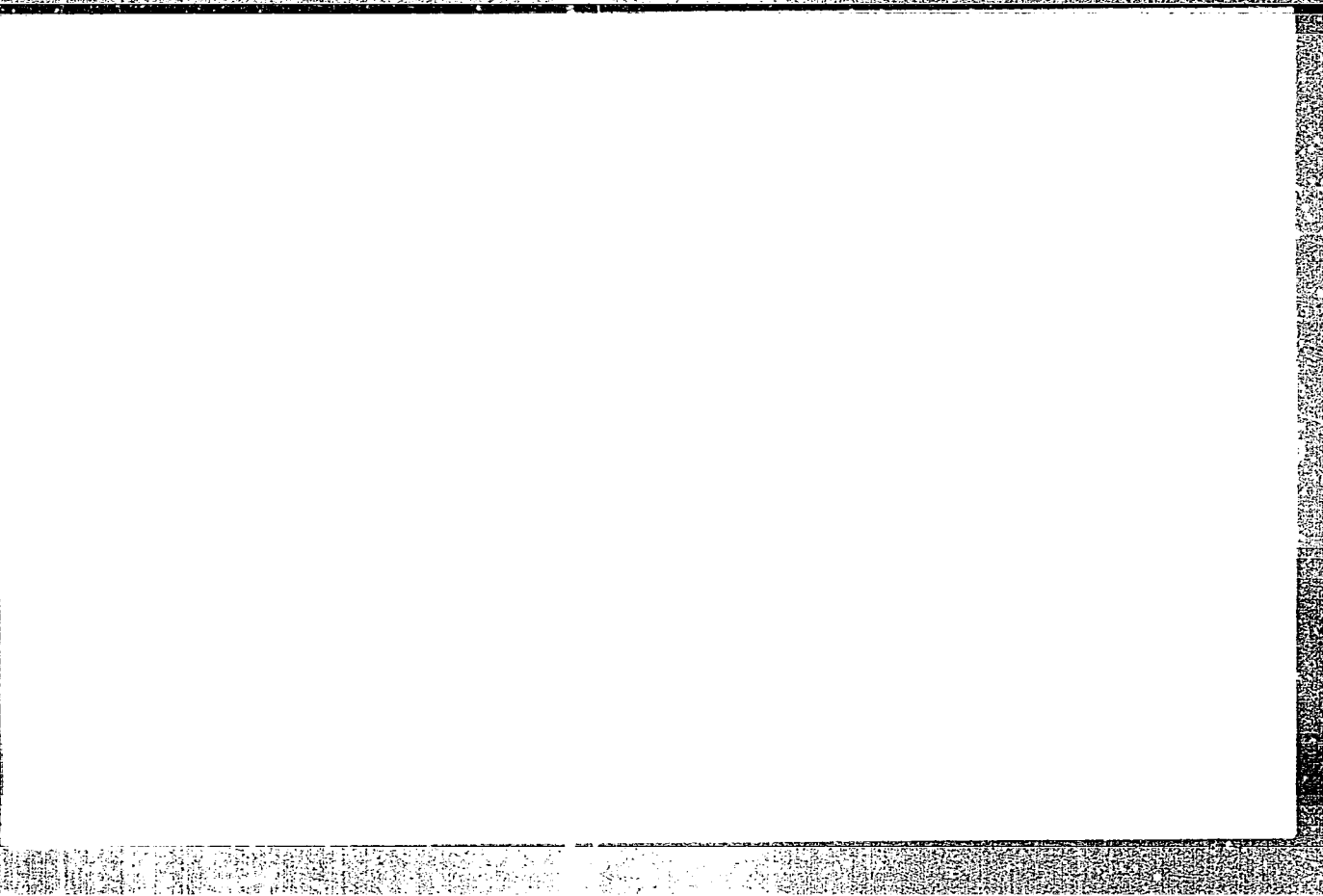
TSAPENKO, I.I.

Hydrochemical anomalies in the Volyn'-Podolian artesian basin.
Geol.zhur. 23 no.3:50-62 '63. (MIRA 16:9)

1. Institut geologicheskikh nauk AN UkrSSR.
(Volyn' Province--Water, Underground)
(Podolia--Water, Underground)

"APPROVED FOR RELEASE: 03/14/2001

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APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910017-4"

TSAPENKO, I.I.; YELISEYEVA, M.P.

Development of the balneologic resources of the U.R.S.R. Dop.
AN URSR no.6:584-586 '55. (MIRA 9:7)

1. Institut geologichnikh nauk AN URSR. Predstaviv diysniy chlen
AN URSR V.G. Bondarchuk.
(Ukraine--Health resorts, watering places, etc.)

TSAPENKO, I.I.: YELISEYEVA, M.P.

Characteristics of the chemical composition of underground waters of the Buchakian-Kanev aquiferous horizon of the Dnieper-Donets Lowland. Geol.shur.16 no.3:44-51 '56. (MLRA 9:11)

(Dnieper Lowlands--Water, Underground) (Donets Basin--Water, Underground)

TSAPENKO, I.I.

New data on the chemical activity of underground waters of
Paleozoic deposits of Podolia. Geol.shur. 18 no.5:88-93
'58. (MIRA 12:1)

(Podolia--Water, Underground)

TSAPENKO, I. I.

"Aleksey Yakovlevich Bilyavskiy"
Geologicheskii Zh. 1953, 13, No 4, 91-92 (Ukrainian)

Recollections of one of the senior scientific associates of the Academy of Sciences of the Ukrainian SSR, candidate of geologicomineralogical sciences, A. Ya. Bilyavskiy (1899-1953). (RZhGeol, No 3, 1954)

SO: W-31187, 8 Mar 55

BABINETS, A.Ye., otv. red.; VARAVA, K.N., red.; MESYATS, I.A., red.;
POPOV, V.S., red.; RUDENKO, F.A., red.; ULASOVICH, N.M., red.;
PALOVSKIY, A.A., red.; TSAPENKO, I.I., red.; MEL'NIK, A.F.,
red.; LISOVETS, A.M., tekhn. red.

[Transactions of the 1st Ukrainian Hydrogeological Conference] Trudy
Ukrainskogo gidrogeologicheskogo soveshchaniya. 1st. Kiev,
Izd-vo Akad. nauk USSR. Vol.1. [Hydrogeology] Voprosy gidrogeolo-
gii. 1961. 463 p. (MIRA 15:4)

1. Ukrainskoye gidrogeologicheskoye soveshchaniye. 1st. 2. In-
stitut geologicheskikh nauk Akademii nauk USSR (for Babinets,
Varava, Palovskiy, Tsapenko). 3. Kiyevskiy gosudarstvennyy uni-
versitet im. T.G.Shevchenko (for Rudenko).
(Ukraine--Water, Underground)

TSAPENKO, I.Z., podpolkovnik

Student achieves excellence in studies. Vest. protivovozd. obor.
no.6:68-69 Je '61. (MIRA 14:8)

(Military education)

TSAPENKO, I.Z., podpolkovnik

Experienced mentor of military engineers. Vest. protivovozd.
obor. no.8:68-69 Ag '61. (MIRA 14:8)
(Military engineers)

TSAPENKO, M.

Stratigraphy of the Quaternary deposits of White Russian SSR.

p. 83 (Moksliniai Pranesimai) Vol. 4, 1957, Vilnius, Lithuania

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN. 1958

TSAPENKO, M.

A contribution to the geomorphological subdivision of the territory of White Russian SSR.

p. 261 (Moksliniai Pranesimai) Vol. 4, 1957, Vilnius, Lithuania

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN. 1958

TSAPENKO, M.M. [TSapenka, M.M.]; MOTUZ, V.M.; MAKHNACH, N.A.

Interesting monograph ("Quaternary deposits in the area
west of the middle Dneiper" by M.F.Beklych. Reviewed by M.M.
TSapenka, V.M.Motuz, N.A.Makhnach). Vestsi AN BSSR.Ser.fiz.-
tekh.nav. no.4:139 '59. (MIRA 13:4)
(Dnieper Valley--Geology, Stratigraphic)
(Beklych, M.F.)

TSAPENKO, M.M.; MAKHNACH, N.A.; LUKASHEV, K.I., akademik, red.;
BARXANOVA, Ye., red.izd-va; VOLOKHANOVICH, I., tekhn.red.

[Quaternary sediments in White Russia] Antropogenovye otlo-
zhenia Belorussii. Minsk, Izd-vo Akad.nauk BSSR, 1959.
224 p. (MIRA 12:6)

1. AN BSSR (for Lukashev).
(White Russia--Geology, Stratigraphic)

TSAPENKO, M.M.; MOTUZ, V.M.; MAKHNACH, N.O.

Study of loess in White Russia. Geol. zhur. 22 no.1:30-39 '62.

(MIRA 15:2)

1. Institut geologicheskikh nauk AN BSSR.
(White Russia--Loess)

TSAPENKO, M.M.

History of geological development of the White Russian S.S.R.
during the Quaternary period. Trudy Inst. geol. nav. An BSSR
no. 2:94-104 '60. (MIRA 13:12)
(White Russia--Geology)

LUKASHEV, K.I. [Lukashau, K.I.], red.; TSAPENKO, M.M. [TSapenka, M.M.], red.;
VOZNYACHUK, L.N. [Vaznyachuk, L.M.], red.; MARIKS, L., red. izd-va;
SIDERKO, N., tekhn. red.

[Materials on the Quaternary period in White Russia; for the Sixth
Congress of INQUA, Warsaw, 1961] Materialy po antropogenu Belorussii;
k VI kongressu INKVA v Varshave, 1961.g. Minsk, Izd-vo Akad. nauk
BSSR, 1961. 217 p. (MIRA 14:11)

(White Russia--Geology)

1.24/2.4.60. M.M.
LUFASHEV, K.I.; TSAPENKO, M.M.

Correlation between the Quaternary deposits of the White Russian
S.S.R. Dokl. AN BSSR 1 no.2:64-65 0 '57. (MIRA 11:2)
(White Russia--Geology, Stratigraphic)

MAKHNACH, A.S.; STEFANENKO, A.Ya.; TSAPENKO, M.M.; KOZLOV, M.F.; BOGOMOLOV, G.V., redaktor; BARABANOVA, L., redaktor izdatel'stva; ALEKSANDROVICH, Kh., tekhnicheskij redaktor

[Brief outline of the geology of White Russia] Kratkii ocherk geologii Belorussii. Minsk, Izd-vo Akad.nauk Belorusskoi SSR, 1957. 214 p.
(MLRA 10:9)

1. Institut geologicheskikh nauk Akademii nauk Belorusskoy SSR (for Makhnach, Stefanenko, TSapenko, Kozlov). 2. Chlen-korrespondent Akademii nauk Belorusskoy SSR (for Bogomolov)
(White Russia--Geology)

TSAPENKO, M. M.; MAKHNACH, N. A.

Some data on the Pliocene and Early Quaternary in White Russia.
Trudy Kom. chetv. per. 20:85-91 '62. (MIRA 16:1)

(White Russia--Geology, Stratigraphic)
(White Russia--Palynology)

TSAPENKO, M. N.

2

S/081/62/000/001/046/067
B150/B101

AUTHORS: Khodzhayev, G., Zomlinskiy, E. Ye., Chernov, M. F.,
Kvasnikova, K. A., Kul'metov, A., Tsapenko, M. N., Uszanova,
D. A.

TITLE: Petroleums from fields in Southern Alamyshik

PERIODICAL: Referativnyy zhurnal. Khimiya, No. 1, 1962, 439-440,
abstract 1M79 (Uzb. khim. zh., no. 1, 1961, 55-64)

TEXT: Uzbekian petroleums from the field mentioned have low sulfur content, are resinous, have a paraffin base and have a composition approaching that of petroleums from paleogenic and neogenic beds in the same field. The average clear fraction content is 35%, this boils at up to 300°C; the gas oil fraction (300-400°C) is 11-12%, light oils (400-460°C) 13% and asphalt (>460°C) 33.5%. The oils obtained are of low viscosity and require deparaffination. The solid paraffin yield (on petroleum) from fractions up to 460°C is ≤ 5.1%, and in the individual narrow fractions
Card 1/2

2

Petroleums from fields in...

S/081/62/000/001/046/067
B158/B101

up to 20-21%. The paraffin is medium fusible. The total solid paraffin content is 10%. [Abstracter's note: Complete translation.]

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Card 2/2

KHODZHAYEV, G.; ZEMLINSKIY, E.Ye.; CHERNOV, M.F.; KVASNIKOVA, K.A.;
KUL'METOV, A.; TSAPENKO, M.N.; USMANOVA, D.A.

Petroleums of the Yuzhnyy Alamyshik field. Uzb. khim. zhur. no.1:
55-64 '61. (MIRA 14:1)

1. Institut khimii AN UzSSR.
(Yuzhnyy Alamyshik--Petroleum)

TSAPENKO, M.S.

Some results of the paleomagnetic correlations of the cross
sections of Cretaceous formations in Fergana. Nauch. trudy
TashGU no.256 Geol. nauki no.22:68-69 '64 (MIRA 18:2)

TSAPENKO, M.P.

Alternating current multibrige measuring circuits. Izv.tekh.
no.6:52-56 N-D '56. (MIRA 10:1)

(Electric measurements)

TSAPENKO, M. P. Cand Tech Sci -- (diss) " Automatic measuring compensators with
resistance decade ^{100,000,000,000} ~~boxes~~" Mos, 1957. 12 pp (Min of Higher Education USSR. Mos
Order of Lenin Power Engineering Inst), 100 copies (KL, 43-57, 89)

TSAPENKO, M.P.

Automatic measuring compensators with decade resistance boxes. Pri-
berestroenie no.1:3-7 Ja '57. (MLRA 10:4)
(Electronic instruments)

TSAPENKO, M.P.

Rotary inductive converters. Priborostroenie no.3:7-9 Mr '57.
(Rotary converters) (MLRA 10:5)

32722

S/669/60/000/001/001/004
D299/D302

6.9500

AUTHORS: Tsapenko, M. P., Shamara, I. N. and Talalay, L. B.

TITLE: Semi-automatic device for decoding and calculating
the extremal value distribution of curves

SOURCE: Akademiya nauk SSSR. Sibirskoye otdeleniye. Institut
avtomatiki i elektrometrii. Avtomaticheskii 'control'
i elektricheskiye izmereniya. no. 1, 1960, 5 60

TEXT: A semi-automatic decoder is described, in which the extre-
mal points of the curve are determined by the human operator, and
addition and subtraction of 2 neighboring extremal values of the
curve, as well as addition of correlated sums (or differences)
of equal sign is carried out automatically. The semi-automatic de-
coder has the following characteristics: Calculation of correlated
sums and differences of neighboring extremal values of the curve
is carried out with an error of about 5%. The optical magnifica-
tion of the curve can vary from 6.5 to 20.5 times. It is possible
to correct the position of the recording. The decoder can process

Card 1/3

4

Semi-automatic device ...

32722
S/669/60/000/001/001/004
D299/D302

recordings made on tape or on oscillograph paper of width 60 to 120 mm. The decoder can be readily adapted to recordings made on film. The readings from the dial of a 4-decade electromagnetic counter can be made visually or photographed. The decoder is designed for operation under stationary conditions. It consists of a control unit, the counter-indicator device, and a photographic apparatus. The control unit consists of a keyboard-device, mechanisms for moving the tape and a projector with screen; the projector is used for magnifying the image of the curve. The rate of motion of the tape can be varied from 2 to 30 mm. The counter-indicator consists of electromechanical counters. The photographic apparatus is a modified version of the aerophotocamera *PB-20M* (RB-20 M). The difference in the readings of each pair of counters gives the number of a certain sum (difference) of extremal values. The electrical circuit of the semi-automatic decoder operates as follows: The human operator determines the channel in which the extremal value of the curve is found, and presses the corresponding key. To each key, there corresponds a relay R. As the counting scheme of the decoder, the matrix scheme is used. This scheme is described in

Card 2/3

Semi-automatic device ...

32722
S/669/60/000/001/001/004
D299/D302

more detail. The same counter indicates simultaneously the sum and the difference of the ordinal numbers of rows and columns. If decoding along the ascending or descending branch of a curve is sufficient, it is possible to use a triangular matrix scheme. It is noted that the triangular scheme makes it possible to determine the number of extremal values (of equal magnitude) of the function to be decoded. The operation of the counting circuit of the decoder involves pressing of the keys, whereby electrical circuits are closed. The described semi-automatic decoder is being used (in practice) for decoding overload curves, related to the flight of aircraft in a disturbed atmosphere and to aircraft maneuvers. It was found that the labor expense involved in operating the semi-automatic decoder is 10 to 15 times smaller than with manual processing of curves. There are 4 figures and 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: C.J.D.M. Verhagen, J.C. De Does, A special stress analyzer for use on board ship, Int. Shipbuilding Progress, v. 3, no. 21, 1956.

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Card 3/3

16.6400 (1121,1329,3403)

32723
S/669/60/000/001/002/004
D299/D302

AUTHORS: Ulin, O. V. and Tsapenko, M. P.

TITLE: On methods of automatic determination of extremal values of continuous functions

SOURCE: Akademiya nauk SSSR. Sibirskoye otdeleniye. Institut avtomatiki i elektrometrii. Avtomaticheskii kontrol' i elektricheskiye izmereniya. no. 1, 1960, 61-68

TEXT: Methods are considered for automatic determination of the extremal values of non-periodic processes by electronic computers. A function of type $n = f(t)$ is considered, whose graph is given; n is the ordinate of the curve and t - the time. The possible use of electric differentiation of this function is considered. In this case the function $n = f(t)$ can be represented by the voltage $U = k_0 n$, proportional to the ordinate at each moment of time. The derivative of the function can be found by a differentiating RC-circuit. This method, however, poses serious difficulties. Another

Card 1/3

32723
S/669/60/00/001/002/004
D299/D302

On methods of automatic ...

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method involves fixing the sign change of the increment of the function. Thereby, the continuous function is transformed into a quantized signal and all subsequent operations are carried out with discrete quantities. Below, several schemes of automatic devices are considered, based on the above method of finding and fixing extremal values. First, a relay servomechanism is considered. The function $n = f(t)$ can be represented as a pulse which is commuted in different channels. Each channel corresponds to a certain level of the continuous function. The signal arrives at the inputs of the device in the form of discrete values which express the number of the commuting channel. The operation of such a scheme involves several relays. The scheme is fairly simple; its operation does not depend on the frequency range of the process under investigation. In principle, it should yield any required degree of accuracy of decoding; in practice, however, the device is too cumbersome for high accuracy requirements. Another scheme is the comparator scheme. Its operation involves the comparison of the input voltage with the voltage on a capacitor. Thereby, a current flows through the cir-

Card 2/3

32723
S/669/60/000/00/002/004
D299/D302

On methods of automatic ...

cuit and closes a contact; this fixes the moment of passage through the extremum. This principle can be incorporated in fast electronic computers. As an example, a device is considered where a step input is applied to the comparator cell. This device is stable in operation up to frequencies of 50000 - 100000 cycles. The advantages of the comparator scheme are: The amplitude of the signal is entirely independent of the curvature of the wave-fronts and of the frequency of the process; it cannot be smaller than the known potential difference between 2 neighboring discrete levels. Automatic devices based on the comparator scheme are simple and handy in operation. Their speed is only determined by the rate of switching of the trigger circuit, and can attain 0.5 - 1 million comparison-operations per second. There are 5 figures and 4 Soviet-bloc references.

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Card 3/3

KARANDEYEV, K.B., otv. red.; SIGORSKIY, V.P., doktor tekhn. nauk, red.;
TSAPENKO, M.P., kand. tekhn. nauk, red.; DREMOVA, T.A., red.;
VYALYKH, A.M., tekhn. red.

[Works of the Conference on Automatic Control and Electric Measurements] Trudy Konferentsii po avtomaticheskomu kontroliu i metodam elektricheskikh izmerenii, Novosibirsk, 1959. Novosibirsk, Izd-vo Sibirskogo otd-niia AN SSSR, 1961. 409 p. (MIRA 14:11)

1. Konferentsiya po avtomaticheskomu kontrolyu i metodam elektricheskikh izmereniy, Novosibirsk, 1959. 2.Chlen-korrespondent AN SSSR (for Karandeyev).

(Automatic control) (Electric measurements)

35292

S/637/61/000/000/005/008
D201/D301

9.7300(1159)

AUTHORS: Tsapenko, M.P., Candidate of Technical Sciences, Senior Scientific Co-worker, Aref'yev, A.A., Engineer and Kasperovich, A.N., Junior Scientific Co-worker

TITLE: A digital multi-channel electronic millivolt meter

SOURCE: Konferentsiya po avtomaticheskomu kontrolyu i metodam elektricheskikh izmereniy. Novosibirsk, 1959. Trudy. Novosibirsk., 1961, 273 - 282

TEXT: The authors present the first results in developing a digital multi-channel recording millivoltmeter, for operation in conjunction with thermo-couples and wire tension-gauges. The design data were as follows: 1) The number of parameters measured by one channel - 50. 2) Time of measurement of 50 parameters - 1 sec. 3) Error-of the order of 0.2 %. 4) Range - 60 mV. 5) Recording - digital in decimal code. The voltmeter uses the potentiometric method, the compensating voltage being selected in steps which form a three digit binary-decimal code. A multiple high-speed, lamellar type switch, commutates 50 pairs of contacts per second. The null-indicator
Card 1/3

A digital multi-channel electronic ...

S/637/61/000/000/005/008
D201/D301

cator consists of an amplifier and output trigger. The null-indicator determines the polarity of the voltage difference between the measured and compensating potentials. The compensating potential is formed by the summation of currents at a compensating resistor R_c . The compensating resistor R_c consists of three sections of $0.9 R_c$, $0.09 R_c$ and $0.01 R_c$ respectively. Currents of a first group of networks with resistances R , $2R$, $2R$, $4R$ flow through the total R_c and form the compensating voltages corresponding to the hundreds of the scale units and so on. All power supplies are stabilized. A control unit performs the following functions: It forms the synchronizing pulses; controls the operation of the compensation potential forming unit, sorts the binary-decimal code of the measured voltage and converts it into the decimal code only; it controls the operation of the photo-display unit. The photo-display unit consists of photoluminescent cells displaying the luminescent numbers, 4 mm tall, every cell being supplied from a separate transistor sine-wave generator. The experiment has shown that the requirements of the design can be met in practice. The following Junior Scientific co-workers took part in the design: V.M. Petrov, A.S. Kucherov, N.A.

Card 2/3

A digital multi-channel electronic ... S/637/61/000/000/005/008
D201/D301

Khmelevskiy, P.Ye. Tverdokhlebo. There are 6 figures and 12 referen-
ces: 8 Soviet-bloc and 4 non-Soviet-bloc. The references to the
English-language publications read as follows: G.I. Herring, D.
Lamb, High Speed Analog-to-Digital Converters. The Journal of the
British Institution of Radio Engineers, no. 8, 1957; M.N. Klein,
F.K. Williams, H.C. Morgan, Analog-to-Digital Conversion, Instru-
ments and Automation, no. 5, 1956; M.N. Klein, F.K. Williams, H.C.
Morgan, High-Speed Digital Conversion, Instruments and Automation,
no. 7, 1956; R.C. Lyman, C.I. Jones, A. Leger. Proceedings of the
National Electronics Conference, v. XIV, Chicago, 1959.

ASSOCIATION: Institut avtomatiki i elektrometrii SO AN SSSR. Novo-
sibirsk (Institute of Automation and Electrical Measu-
rements of the Siberian Branch of the AS USSR)

X

Card 3/3

TSAPENKO, M.P.

Classification of digital measuring instruments. Izv. tekh. no. 5:32-35
My '61. (MIRA 14:5)

(Electronic instruments)

KARANDEYEV, K.B.; RABINOVICH, V.I.; TSAREKO, M.F.

Definition of the concept "mensuration." Izv.tekhn. no.12:4-6 D
'61. (MIRA 15:1)

(Mensuration)

L 19318-63

ACCESSION NR: AR3005860

45
S/0271/63/000/007/A010/A010

SOURCE: RZh. Avtomatika, telemekhanika i vy*chislitel'naya tekhnika, Abs. 7 A47

AUTHOR: Tsapenko, M. P.

TITLE: The effect of external factors on errors of circular inductive converters

CITED SOURCE: Tr. In-ta avtomatiki i elektrometrii. Sib. otd. AN SSSR. vy*p. 3, 1962, 136-150

TOPIC TAGS: inductive converter, converter

TRANSLATION: Formulas are considered for calculating and selecting optimal modes of operation of inductive converters. Determinations are made of the effect of changes in voltage, frequency, and power supply, also the temperature of the surrounding medium on the error of circular inductive converters whose magnetic circuits are made of different magnetic materials (Oksifer-400, E4AA transformer iron, and Z-steel). The geometric dimensions of the magnetic circuits in the tested converters and their external appearance are given. The dependence of the output voltage of the converter on the angle of rotation of the core, changes in the unbalanced voltages of a differential circuit as a function of the input power

Card 1/2

L 19318-63

ACCESSION NR: AR3005860

voltage, and the dependence of the output voltage on the temperature of the surrounding medium are given in tables for different materials used in the magnetic circuit. There are six illustrations and four tables. The bibliography contains 13 references. P. M.

DATE ACQ: 15Aug63

SUB CODE: GE

ENCL: 00

Card 2/2