BELOGORSKAYA, N.I.; BLUDOV, M.I.; GALANIN, D.D.; YEVROPIN, G.P.;
POKROVSKIY, A.A.; POPOV, P.I.; ZVORYKIN, B.S.; IVANOV, S.I.;
KRAUKLIS, V.V.; MINCHENKOV, Ye.Ya.; PERYSHKIN, A.V.; REZNIKOV, L.I.;
SOKOLOV, I.I.; SUBOROV, N.P.; YUS'KOVICH, V.F.

Evgenii Nikolaevich; obituary. Fiz.v shkole  22  no.1:111  Ja-F
'62.                                                    (MIRA 15:3)
          (Goriachkin, Evgenii Nikolaevich, 1895-1961)

BELOGORSKAYA, N.I.; BLUDOV, M.I.; BRAVERMAN, E.M.; BULATOV, N.P.;
GALANIN, D.D.; GOL'DFARB, N.I.; YEVROPIN, G.P.; YEGOROV, A.L.
YENOKHOVICH, A.S.; ZVORYKIN, B.S.; IVANOV, S.I.; KAMARETSKIY, S.Ye.;
KRAUKLIS, V.V.; LISENKER, G.R.; MALOV, N.N.; MANOVETOVA, G.P.;
MENSHUTIN, N.F.; MINCHENKOV, Ye.Ya.; PERYSHKIN, A.V.; POKROVSKIY, A.A.;
POPOV, P.I.; RAYEVA, A.F.; REZNIKOV, L.I.; SOKOLOV, I.I.; YUSKOVICH,
V.F.; ZVENCHIK, Z.Ye.

Dmitrii Ivanovich Sakharov; obituary. Fiz.v shkole  22  no.1:109-
110  Ja-F '62.                                         (MIRA 15:3)
         (Sakharov, Dmitrii Ivanovich, 1889-1961)

S/803/62/000/003/003/012
D201/D308

AUTHORS:          Popov, P.I. and Terent'yev, V.G.

TITLE:            Increasing the reliability of protection systems in the presence of noise

SOURCE:           Moscow. Inzhenerno-fizicheskiy institut. Avtomatika i telemekhanika, no. 3, 1962. Sistemy upravleniya yadevnymi energeticheskimi ustanovkami, 22-25

TEXT:             The authors show that in reactor protection systems, with differentiating circuits having a frequency response

$$W(j\omega) = \frac{T_1 j\omega}{(T_1 j\omega + 1)(T_2 j\omega + 1)} \tag{1}$$

a well designed period meter must satisfy the condition $T_1 - T_2$.

Card 1/1

S/803/62/000/003/004/012
D201/D308

AUTHORS:        Popov, P.I., Terent'yev, V.G. and Filipchuk, Ye.V.

TITLE:          Some methods of increasing the reliability of elec-
                tron tube amplifiers

SOURCE:         Moscow. Inzhenerno-fizicheskiy institut. Avtomatika
                i telemekhanika, no. 3, 1962. Sistemy upravleniya
                yadevnymi energeticheskimi ustanovkami, 26-34

TEXT:                The authors analyze the following methods: 1) Paral-
lel connection of the main and the standby amplifier, the latter
being connected via a summing device utilizing negative feedback.
2) Standby amplifier switching by means of an anode load impedance,
applicable to power amplifiers or oscillators with tungsten filaments.
3) A special circuit excluding the variation of gain and load current
in the case of failure of heater circuit. Gain variations (with res-
pect to normal gain) and design criteria are discussed. There are
6 figures.

Card 1/1

S/803/62/000/003/006/012
D201/D308

AUTHORS:          Popov, P.I. and Terent'yev, V.G.

TITLE:            Reliability of some circuits for switching in the
                  standby equipment

SOURCE:           Moscow. Inzhenerno-fizicheskiy institut. Avtomatika
                  i telemekhanika, no. 3, 1962. Sistemy upravleniya
                  yadevnymi energeticheskimi ustanovkami, 39-43

TEXT:             The authors discuss the reliability of some basic
circuits used for the switching in of the standby equipment and
switching out of the faulty equipment. The probability of faultless
operation $P(t)$ for 1,000 hours was taken as the quantitative relia-
bility criterion. The rates of failure $\lambda$ was assumed as follows:
electron tubes $\lambda_t = (0.08 - 0.11) \times 10^{-3}$; high stab. resistors
$\lambda_R = (0.00035 - 0.013) \times 10^{-3}$; capacitors $\lambda_c = (0.0035 - 0.018) \times$
$10^{-3}$; relays $\lambda_r = 0.00035 \times 10^{-3}$. The following basic circuits
were analyzed:  1) A single-shot, cathode coupled multivibrator with

Card 1/2

Reliability of some circuits ...

S/803/62/000/003/006/012
D201/D308

P(t) = 0.923-0.90.   2) A differential amplifier with P(t) = 0.926 - 0.904.   3) A diode and relay circuit with P(t) = 0.926 - 0.904. 4) A capacitive-relay circuit with P(t) = 0.9988, the most effective as a switching-over circuit.   5) A neon stabilizer circuit for positive and negative power supplies failure signalling with the same probability as 4.   There are 5 figures.

Card 2/2

PEREL', Yu.G.; POPOV, P.I.; MARTYNOV, D.Ya.; KUNITSKIY, R.V.;
VOROITSOV-VEL'YAMINOV, B.A.; BAZYKIN, V.V.; KULIKOV, K.A.;
SHISTOVSKIY, K.N.; TSVETOV, R.I.; BRONSHTEN, V.A.; DAGAYEV, M.M.;
MOGILKO, A.D.; SEMAKIN, N.K.; DMITRIYEV, L.S.; IZOTOV, A.A.

Mihail Evgen'evich Nabokov; obituray.  Buil.VAGO no.28:60-62
                                                    (MIRA 14:6)
'60.
            (Nabokov, Mikhail Evgen'evich, 1887-1960

VOLKOV, N.P.; POPOV, P.I.

Transfer function of a frequency discriminator. Avtom. i telem.;
(MIRA 15:9)
sbor. st. no.2:39-42 '62.
(Radio filters) (Electronic circuits) (Electric filters)

POPOV, P.I.; SAFONOV, N.Ye.

Some features of a ring modulator using silicon diodes. Avtom.
i telem.; sbor. st. no.2:34-38 '62. (MIRA 15:9)
(Electronic circuits) (Modulation (Electronics))

VOLKOV, N.P.; POPOV, P.I.

Problems concerning the design of FM galvanometer amplifiers.
Avtom. i telem.; sbor. st.  no.2:43-48  '62.          (MIRA 15:9)
(Amplifiers (Electronics))

POPOV, P.I. (Moskva)

Astronomical observations in schools in the 1962-1963 school
year. Fiz. v shkole  22  no.3:63-67  My-Je  '62.       (MIRA 15:7)
(Astronomy—Study and teaching)

POPOV, P.I.; TERENT'YEV, V.G.; FIKIPCHUK, Ye.V.

Reserve scram systems for nuclear reactors. Atom. energ. 12 no.6: 497-502 Je '62.          (MIRA 15:6)
(Radioactivity—Safety measures)

POPOV, P.I. (Moskva)

Astronomical observations at school between January and June, 1960,
Fiz.v shkole  20  no.1:56-59  Ja-F  '60.                    (MIRA 14:10)
                    (Astronomy--Observations)

POPOV, P.I., prof. (Moskva)

M.V.Lomonosov's works in the field of astronomy and their inter-
pretation in secondary schools. Fiz.v shkole  21  no.4:39-43  Jl-
Ag  '61.                                                    (MIRA 14:10)
          (Lomonosov, Mikhail Vasil'evich, 1711-1765)
               (Astronomy--Study and teaching)

S/089/62/012/006/007/019
B102/B104

$21.1000$
$26.2940$

AUTHORS:   Popov, P. I., Terent'yev, V. G., Filipchuk, Ye. V.

TITLE:   The safety factor of the emergency shielding system of nuclear reactors

PERIODICAL:   Atomnaya energiya, v. 12, no. 6, 1962, 497 - 502

TEXT:   Some principles of automatic reactor shielding systems and their reliability are considered.. The systems have to meet the following requirements:   (1) If the object to be shielded breaks down, the processes taking place therein must be stopped; (2) a breakdown of elements or connecting pieces of the shield must not affect the technical processes. The reliability of such automatic systems can be improved by increasing their safety factor. The reliability with and without reserve is studied simultaneously, using the following quantitative characteristics:   the probability P(t) of uninterrupted operation, the probability Q(t) of interruption, and the hazard $\lambda(t)$ of interruption.   Interruptions in the shielding systems are regarded as being accidental and independent, and the hazard is considered to be constant.   For the i-th element of the

Card (1/4)

S/089/62/012/006/007/019
B102/B104

The safety factor of the ...

system one finds $P_i(t) = \exp(-\lambda_i t)$. A distinction is made between danger-
ous and harmless interruptions in the shielding system. The latter are
caused by defects in this system, while the former are due to actual
breakdown. Simple shielding systems, shields with coincidence circuit,
the connection of spare channels, and systems with reserve are described.
The reliability of a system in the most favorable case (P', Q) and in the
most unfavorable case (P*, Q*) is characterized by P(1000), Q(1000),
P*(1000) and Q*(1000) for 1000 hours of operation each. These values are
numerically given for a shielding system with general reserves and for a
system with reserves for each element. These systems use electron tubes
and semiconductor elements. In addition, a system with increased relia-
bility (coincidence circuit) is described (Fig. 6), for which the fol-
lowing numerical values can be obtained:

|  | P(1000) | Q(1000) | P*(1000) | Q*(1000) |
|---|---|---|---|---|
| operation with electron tubes | 0.89 | 0.11 | 0.79 | 0.21 |
| operation with semiconductor elements | 0.994 | 0.006 | 0.97 | 0.03 |

There are 6 figures and 3 tables.

Card 2/2

306/007/019

The safety ... ... ...

SUBMITTED:    February 2, 1962

Legend to Fig. 6. (ИК) ionization chambers; (K) "contactless" switches; (ЛУ) logarithmic amplifiers; (AУ) differentiating amplifiers; (OH)break-down detector; (БСУ) trigger device unit; (ПУ) reversing switch; (CC) coincidence circuit; (ЭМ) electromagnet; ($K_n$) switch.

Card 3/4 3

POPOV, P.I.

Analysis of some systems for the automatic starting of nuclear
reactors. Avtor. i telem; sbor. st. no.1:5-15 '60.
(MIRA 14:11)

1. Kafedra avtomatiki i telemekhaniki Moskovskogo inzhenerno-
fizicheskogo instituta.
                    (Nuclear reactors)
                    (Automatic control)

POPOV, P.I. (Moskva)

Astronomic observations in schools for the 1961-1962 school year.
Fiz.v shkole  21   no.3:49-54   My-Je  '61.
(Astronomy—Observations)

(MIRA 14:8)

ASTAPOVICH,I.S.; BAKULIN ,P.I.; PAKHAREV,A.M.; BRONSHTEN,V.A.; IUGOSLAVSKAYA,
N.Ya.[deceased]; VASIL'YEV,O.B.; GRISHIN,N.I.; DAGAYEV,.M.M.;   . .:
DUBROVSKIY,K.K.[deceased]; ZAKHAROV,G.P.; ZOTKIN,I.T.; KRAMER,Ye.N.;
KRINOV,Ye.L.; KULIKOVSKII,P.G.; KUNITSKII,R.V.; KURCCHKIN,N.Ie.;
ORLOV,S.V.[deceased]; POPOV,P.I.; PUSHKOV, N.V.;
RYBAKOV, A.I.; RYABOV,Yu.A.; SYTINSKAYA, N.N.; TSESEVICH, V.P.;
SHCHIGOLEV,B.M.; VORONTSOV-VEL'YAMINOV,B.A.,red.; POTEMAREVA,G.A.,
red.; KRYUCHKOVA, V.N., tekhn. red.

[Astronomical calender; permanent part] Astronomicheskii kalendar';
postoiannaia chast'. Izd.5., polnost'iu perer. Otv. red. P.I.Bakulin.
Red.kol.V.A.Bronshten i dr.  Moskva, Gos.izd-vo fiziko-matem.lit-ry,
1962.  771 p.                                            (MIRA 15:4)
                       (Astronomy—Yearbooks)

MARTYNOV, D.Ya., prof., otv. red.; DURNEV, A.I., red.; IZOTOV, A.A., red.; POPOV, P.I., red.; FEDYNSKIY, V.V., red.; BRONSHTEN, V.A., red.; RAKHLIN, I.Ye., red.izd-va; LAUT, V.G., tekhn. red.

[Transactions of the Congress of the All-Union Astronomical and Geodetic Society] Trudy tret'yego s"ezda Vsesoyuznogo astronomo-geodezicheskogo obshchestva. Moskva, Izd-vo Akad. nauk SSSR, 1962. 257 p. (MIRA 15:2)

1. S"yezd Vsesoyuznogo astronomo-geodezicheskogo obshchestva, 3rd, Kiev, 1960. 2. Prezident Vsesoyuznogo astronomo-geodezicheskogo obshchestva(for Martynov).

     (Astronomy—Congresses)    (Geodesy—Congresses)

POPCV, P.I.

Ethyl alcohol. Standartizatsiia 25 no.8:51-52 Ag '61.
(MIRA 14:7)

(Alcohol, Denatured--Standards)

S/058/61/000/009/006/050
A001/A101

*9,7000*

AUTHORS:     Volkov, N.P., Popov, P.I.

TITLE:     Analysis of time characteristics of logarithmic devices

PERIODICAL:  Referativnyy zhurnal. Fizika, no. 9, 1961, 31, abstract 9B61 (V sb. "Avtomatika i telemekhan.", no. 1, Moscow, Atomizdat, 1960, 59-55)

TEXT:     To increase the time constant of logarithmic devices based on vacuum diode, the diode is shunted in some cases with a complementary capacitor. The time constant of such a system is a non-linear function of the value of the current being integrated. For practical purposes it is convenient to use the mean value of the time constant at instantaneous changes of current from one known level to another. Three variants of formula derivation are presented for calculating the mean value of the time constant as a function of the ratio of the current change levels. All the formulae, represented also by graphs, are of hyperbolic shape, nearly coinciding with each other. At the current $\sim 10^{-10}$ amp and shunting capacitor of 1,000 picofarad, the time constant is 1 sec. The mean value of time constant at 10-fold current change is within the limits of 0.3 sec. [Abstracter's note:  Complete translation]

G. Mel'nikov

Card 1/1

KUNITSKIY, R.V., prof. (Moskva); POPOV, P.I., prof. (Moskva)

Contents of the astronomy course in school. Fiz. v shkole 20
no.2:53 Mr-Ap '60.                                          (MIRA 14:5)
(Astronomy—Study and teaching)
(Electric resistance)

PHASE I BOOK EXPLOITATION          SOV/5489

Moscow.   Inzhernerno-fizicheskiy institut.

Avtomatika i telemekhanika; sbornik statey (Automation and Remote
    Control; Collection of Articles)  no. 1. Moscow, Atomizdat, 1960.
    98 p.   8,000 copies printed.

Sponsoring agencies: Ministerstvo vysshego i srednego spetsial'nogo
    obrazovaniya RSFSR and Moskovskiy inzhenerno-fizicheskiy institut.

Resp. Ed.: B.M. Stepanov, Doctor of Physical and Mathematical Sci-
    ences, Professor; Ed.: A.F. Alyab'yev; Tech. Ed.: S.M. Popova.

PURPOSE: This collection of articles is intended for scientific and
    technical personnel working in the fields of automation and tele-
    mechanics, experimental physics, and other applied sciences.  It
    may be helpful to students in advanced courses in these fields at
    schools of higher education.

Card 1/4

Automation and Remote Control (Cont.)                    SOV/5489

COVERAGE:  The articles were written by staff members of the Kafedra avtomatiki i telemekhaniki Moskovskogo inzhenerno-fizicheskogo instituta (Automation and Telemechanics Department of the Moscow Engineering Physics Institute).  The following topics are discussed: basic problems in the designing and operation of automatic starting systems of nuclear reactors; a method for taking logarithms  of currents over a broader range than conventional methods, oased on utilizing the voltampere characteristic of vacuum tube diodes, permit; an analysis of the time characteristic of logarithmic devices; the possibility of obtaining relaxation operating conditions in circuits containing nonlinear capacitances; a study of the circuit of a passive four-terminal RC network; the description of a multichannel pulse-amplitude analyzer; and the possibility of utilizing a  two-phase induction machine with a squirrel-cage rotor under tachometer-generator conditions.  No personalities are mentioned.  References accompany most of the articles.

Card 2/4

Automation and Remote Control (Cont.)

TABLE OF CONTENTS:                                                    3

Card 3/4

Automation and Remote Control (Cont.)                SOV/5489

tric Relaxation-Oscillator Circuits
                                                                    56
Kuvshinnikov, B.A. Analysis of a Correcting Four-Terminal
Network Circuit
                                                                    67
Tsaregorodtsev, M.N. High-Speed Multichannel Analyzer With
Pulse Amplitude Storing in a Cathode-Ray Storage Tube              72

Armenskiy, Ye.V. Induction Tachometer-Generator With Squirrel-
Cage Rotor
                                                                    91
AVAILABLE: Library of Congress

Card 4/4

                                                        JP/dfk/bc
                                                        8-29-61

POPOV, P.I., prof. (Moskva)

        Total solar eclipse of the 15th of February, 1961.  Fiz. v shkole
20 no.5: 63-70 S-O '60.                                 (MIRA 13:11)
                    (Eclipses, Solar--1961)

MIKHAYLOV, A.A., otv.red.; MARTYNOV, D.Ya., doktor fiz.-mat.nauk, zam.otv.
red.; DURNEV, A.I., doktor tekhn.nauk, red.; SOLOV'YEV, M.D.,
doktor tekhn.nauk, red.; POPOV, P.I., prof., red.; PARENAGO, P.P.,
red. [deceased]; FEDYNSKIY, V.V., doktor fiz.-matem.nauk, red.;
BAZYKIN, V.V., red.; BRONSHTEN, V.A., red.; SAMSONENKO, L.V.,
red.izd-va; LEBEDEVA, L.A., tekhn.red.

[Proceedings of the Second Congress of the All-Union Astronomical
Geodetic Society] Trudy Vtorogo s"ezda Vsesoiuznogo astronomo-
geodezicheskogo obshchestva.  Moskva, Izd-vo Akad.nauk SSSR, 1960.
151 p.                                           (MIRA 14:2)

1. S"yezd Vsesoyuznogo astronomo-geodezicheskogo obshchestva. 2d,
Leningrad, 1955.  2. Chleny-korrespondenty AN SSSR (for Mikhaylov,
Parenago).       (Astronomy, Spherical and practical--Congresses)
                        (Geodesy--Congresses)

POPOV, P.I. (Moskva)

Astronomical observations in schools during the 1960/61 academic
year.  Fiz.v shkole  20  no.4:53-58  Jl-Ag  '60.       (MIRA 13:8)
            (Astronomy—Observations)

PHASE I BOOK EXPLOITATION   SOV/4636

Popov, Pavel Ivanovich.

Astronomiya; uchebnik dlya geograficheskikh fakul'tetov
(Astronomy; Manual for Geography Department) Moscow,
Uchpedgiz, 1959.  255 p.  8,500 copies printed.

Ed.:  S. A. Shorygin;  Tech. Ed.: N. N. Makhova.

PURPOSE:  This textbook is intended for students in geography
departments of pedagogical institutes.

COVERAGE:  Since this textbook on basic astronomy is written
for students of geography, the material is presented
without recourse to advanced mathematics and physics.
The text has been compiled on the basis of teaching ex-
perience gained by the author at the Moskovskiy gosudar-
tvennyy pedagogicheskiy institut imeni V. I. Lenina
(Moscow State Pedagogical Institute imeni V. I. Lenin).
Emphasis is placed on those topics in astronomy which
may be of particular interest to the geographer.  The

Card 1/9

Astronomy; Manual for Geography Department   SOV/4636

chapters on spherical and practical astronomy, the sea-
sons, planetary motion, and sun are presented in con-
siderable detail.  A chapter on cosmogony presents the
views of Soviet astronomers on the origin of the Earth
and celestial bodies.  Two astronomical maps are included.
The bibliography and name and subject indexes were com-
piled by S. A. Shorygin.  There are 73 references, all
Soviet.

TABLE OF CONTENTS:

Foreword

S/047/60/000/005/001/001
B013/B067

AUTHOR:      Popov, P. I., Professor (Moscow)

TITLE:       Total Solar Eclipse on February 15, 1961

PERIODICAL:  Fizika v shkole, 1960, No. 5, pp. 63-70

TEXT:  The author reports on the solar eclipse to be expected on
February 15, 1961. This report is based on the calculations made under the
supervision of A. A. Mikhaylov, Director of the Pulkovskaya observatoriya
(Pulkovo Observatory), and on the map which he compiled (p.67). In the
introduction, the author gives a general description of the processes
leading to a solar eclipse (Fig. 2) and of their phases (Fig. 1). The last
total solar eclipse in the USSR was observed on June 30, 1954. On June 15,
1961, a total as well as a partial solar eclipse are expected. Table 1
(p. 66) gives the cities, from West to East, which will be hit by the
lunar umbra. In the Soviet Union this umbra will cover a distance of
5000 km within 1 hour and 9 min. The map (p. 67) shows the area of the
USSR where the forthcoming solar eclipse will be seen. The author gives

Card 1/2

POPOV, P.I., prof.

Technical education in the light of the resolutions of the 20th
Congress of the CPAU.  Uch.zap.MGPI  118:3-15  '57.  (MIRA 13:5)
                    (Technical education)

POPOV, Pavel Ivanovich, prof.; SUMNIK, Z.A., red.; ATROSHCHENKO, L.Ye.,
tekhn.red.

[Solar eclipse in 1961] Solnechnoe zatmenie v 1961 godu.  Moskva,
Izd-vo "Znanie," 1960.  30 p. (Vsesoiuznoe obshchestvo po raspro-
straneniiu politicheskikh i nauchnykh znanii.  Ser.9, Fizika i
khimiia, no.13).                                    (MIRA 13:8)
                    (Eclipses, Solar--1961)

POPOV, P.I.

Aleksei Andreevich Ignatov; obituary. Binl.VAGO no.24:77-78
'59.                                              (MIRA 13:4)
      (Ignatov, Aleksei Andreevich, 1878-1957)

Popov, P.I.

PHASE I BOOK EXPLOITATION     SOV/2808

28(1)

Moscow. Inzhenerno-fizicheskiy institut

Avtomatika i telemekhanika; Collection of Articles) Moscow, Izd-vo P. 3,000 copies printed.

Resp. Ed.: Ye. V. Pilipchuk, Candidate of Technical Sciences, Dosent; Tech. Ed.: R. A. Negrisorovnya.

PURPOSE: This collection of articles is intended for engineers and scientific personnel employed in the field of automatic and remote control and other related areas.

COVERAGE: This collection contains articles by the staff of the Chair of Automatic and Remote Control, Moscow Institute of Engineering and Physics. The subject of each article is explicitly indicated in the Table of Contents. According to the editor, these works have a definite scientific and practical value. No personalities are mentioned. References after each article.

Popov, P. I. Logarithmic Characteristics of Certain Components and Methods     85
The author describes certain circuit components and methods of switching them on, which make it possible to obtain output values proportional to the logarithm of input values. The limits of the applicability of logarithms in relation to circuit parameters and to the voltage of the power source are explained. The author presents experimentally obtained characteristics of the investigated circuits, in which Soviet-made vacuum tubes, germanium diodes, and selenium rectifiers are used. There are 2 references: 1 Soviet, and 1 English. There are 7 diagrams. No personalities are mentioned.

Plushnikov, V. M.     Dynamic Characteristics of Ferroelectric     95
Materials
The author examines some characteristic curves obtained for a various of the VKI-1 type, representing reversible and capacitance as a function of the controlling d-c voltage. This "static" characteristic is well-known for several ferroelectric materials; however, if instead of a d-c signal, a rapidly changing voltage is applied at the input of the dielectric amplifier, what the author calls a "dynamic" characteristic is obtained. The author describes a method used to obtain the dynamic characteristics of the VKI-1 type various and of other ferroelectrics and attempts to explain the physical nature of the obtained "dynamic effect". There are 6 references: 3 Soviet and 3 English. There are 8 illustrations, oscillograms and diagrams. No personalities are mentioned.

Plushnikov, V. M. Grapho-analytical Method of Design of     106
Dielectric Amplifiers
The author studies dielectric amplifiers in which ferroelectric capacitors are utilized for their nonlinear properties useful in amplifying electric signals. According to the author, there are very few satisfactory methods for calculating dielectric amplifiers. Considering the well-known analogy between dielectric and magnetic amplifiers, the author applies some of the problems of calculating magnetic amplifiers. He also describes a grapho-analytical method for calculating single-cycle dielectric amplifiers. This method was first suggested according to the author, by the Soviet scientist P. L. Kalantarov and was further developed by Other Soviet scientists. The method utilizes the volt-ampere characteristics of ferroelectrics for obtaining optimum operation of dielectric amplifiers. There are 9 Soviet references are mentioned.

Card 7/8

POPOV, P.I., inzh.

Perfecting mining systems without transportation as applied
to the Cheremkhovo coal deposit. Izv. vys. ucheb. zav.; gor.
zhur. no.12:3-10 '58.                                    (MIRA 12:8)

1.Irkutskiy gornometallurgicheskiy institut.
            (Cheremkhovo Basin--Coal mines and mining)
            (Strip mining)

21(9)                                                     SOV/89-6-6-12/27
AUTHORS:        Popov, P. I., Filipchuk, Ye. V.

TITLE:          Devices for Measuring the Stable Period of Nuclear Reactors
                (Pribory dlya izmereniya ustanovivshegosya perioda yadernykh
                reaktorov)

ABSTRACT:       In the present "Letter to the Editor" the authors describe two
                devices for measuring and recording the stable period of re-
                actors. The first device is based on the logarithmic method.
                Figure 1 shows the circuit diagram which is then described in
                detail. The diode 6D4Zh denoted with $L_1$ in the diagram serves
                as logarithmic element; furthermore, the tubes 6Zh1Zh, 6N2P,
                6P1P, and 6N1P are used. The second device dealt with in detail
                measures the period according to the potentiometric method the
                precise circuit diagram is shown by figure 4. First, the
                functioning of the measuring scheme (Fig 2) is discussed and
                then that of the measuring device of reactivity (Fig 3). The
                device for measuring the reactor period itself is based on
                the application of the autopotentiometer EPP-09. A comparison

Card 1/2

Devices for Measuring the Stable Period of Nuclear
Reactors

SOV/89-6-6-12/27

of the properties and the characteristic of the two devices
described here shows that the device based on the potentio-
metric method may operate in a smaller neutron flux measuring
range. The main drawbacks of these devices consist in their considerable
inertia. There are 4 figures and 4 references, 3 of which are
Soviet.

SUBMITTED:     October 28, 1958

Card 2/2

POPOV, P.I.; KUNITSKIY, R.V.

N.IA. Bugoslavskaia; obituary. Biul.VAGO  no.23:66-67  '58.
(MIRA 11:11)
(Bugoslavskaia, Natal'ia Iakovlevna, 1897-1958)

POPOV, Pavel Ivanovich; SHORYGIN, S.A., red.; MAKHOVA, N.N., tekhn.red.

[Astronomy] Astronomiia; uchebnik dlia geograficheskikh fa-
kul'tetov. Moskva, Gos.uchebno-pedagog.izd-vo M-va prosv.RSFSR,
1959. 255 p.                                              (MIRA 13:10)
                           (Astronomy)

POPOV, Pavel Ivanovich, prof.; SUMNIK, Z.A., red.; ATROSHCHENKO, L.Ye.,
                tekhn.red.

[Solar eclipse in 1961]  Solnechnoe zatmenie v 1961 godu.  Moskva,
Izd-vo "Znanie," 1960.  30 p. (Vsesoiuznoe obshchestvo po raspro-
straneniiu politicheskikh i nauchnykh znanii.  Ser.12, Bibliotechka
sel'skogo lektora, no.14).                        (MIRA 13:10)
                (Eclipses, Solar--1961)

POPOV, Pavel Ivanovich, prof.; BUGOSLAVSKAYA, Natal'ya Yakovlevna, dotsent
[deceased]; DAGAYEV, M.M., red.; FEDOTOVA, A.F., tekhn.red.

[Practical work in astronomy; a textbook for students of pedagogical
institutes] Praktikum po astronomii; uchebnoe posobie dlia studentov
pedagogicheskikh institutov. Izd.2., perer. i dop. Moskva. Gos.
uchebno-pedagog.izd-vo M-va prosv. RSFSR, 1959.  122 p.  (MIRA 12:5)
        (Astronomy--Problems, exercises, etc.)

3(1)                    PHASE I BOOK EXPLOITATION                    SOV/1968

Popov, Pavel Ivanovich, Kosntantin L'vovich Bayev, Boris Aleksandrovich
    VorOnisov-Vel'yaminov, and Rostislav Vladimirovich Kunitskiy

Astronomiya; uchebnik dlya fiziko-matematicheskikh fakul'tetov peda-
    gogicheskikh institutov (Astronomy; a Textbook for Physics and Math-
    ematics Faculties of Pedagogical Institutes) 4th ed., rev.  Moscow,
    Uchpedgiz, 1958, 461 p. 16,000 copias printed.

Ed. (Title page); P.I. Popov; Ed. (Inside book):  S.A. Shorygin; Tech.
    Ed.:  N.P. Tsirul'nitskiy.

PURPOSE:  This book, a manual on general astronomy, is intended for
    students and teachers.  It is particularly useful in dealing with
    the practical aspects of astronomy.

COVERAGE:  This book represents the fourth edition of the work and
    has been rewritten along lines proposed by its users and on the

Card 1/18

—POPOV, P.I., prof. (g. Moskva).

Astronomic observations from January to June of 1959. Fiz. v shkole
18 no.6:50-53 N-D '58.                                    (MIRA 11:12)
            (Astronomy--Observations)

BAKULIN, P.I., otvetstvennyy redaktor; DUBROVSKIY, K.K.; MASEVICH, A.G.,
redaktor; PARENAGO, P.P., redaktor; POPOV, P.I., redaktor; RAKHLIN,
I.Ye., redaktor; AKHLAMOV, S.N., tekhnicheskiy redaktor.

[Astronomical calendar; yearbook. Variable part 1955] Astronomiche-
skii kalendar'. Ezhegodnik. Peremennaia chast' 1955. Red. kol. P.I.Ba-
kulin, K.K.Dubrovskii i dr. Moskva, Gos. izd-vo tekhniko-teoret. lit-
ry, 1954. 231 p. (Vsesoiuznoe astronomo-geodezicheskoe obshchestvo,
no.58) [Microfilm]                                              (MLRA 8:1)
        (Ephemerides)

Popov, P.I.
)
P.D

PHASE I  BOOK  EXPLOITATION     SOV/3556

Moscow.  Inzhenerno-fizicheskiy institut

Nekotoryye voprosy eksperimental'noy fiziki; [sbornik] vyp. 2
   (Some Problems in Experimental Physics;  Collection of Articles.
   Nr. 2)  Moscow, Atomizdat, 1959.  123 p.  3,200 copies printed.

Sponsoring Agency:  RSFSR.  Ministerstvo vysshego i srednego
   spetsial'nogo obrazovaniya.

Ed.:  B.M. Stepanov, Doctor of Physical and Mathematical Sciences,
   Professor;  Tech. Ed.:  S.M. Popova.

PURPOSE:  This collection of articles is intended for graduate
   engineers and physicists engaged in the design of physics
   (laboratory) apparatus, and automatic and telemechanic equipment.

COVERAGE:  This collection of articles on experimental physics was
   written by members of the Moscow Physics and Engineering Insti-
   tute.  Each article is accompanied by drawings and references.

Card 1/5

SOV/3556

Some Problems (Cont.)

TABLE OF CONTENTS:                                                         3

Card 2/5

SOV/3556

Some Problems (Cont.)

was used to register period signs

Dolgoshein, B.A., B.I. Luchkov, and V.I. Ushakov.  Operation of          32
Gas-Discharge Counters During Over-Loading Pulses
    The authors deal with the results of a study of the operation
of the MS-9, GS-9, and GS-30 standard counters under controlled
pulse feed operating conditions.  The dependence of "ionization
memory" on pulse feed conditions was studied and a simple
method of measuring discharge propagation speed along the coun-
ter electrode is described.

Vlasov, A D.  Lenses Compensating the Effect of Intersection             40
Gaps in a Linear Proton Accelerator
    The problem of compensating the unfavorable effect of inter-
section gaps on radial oscillations of particles in a linear
proton accelerator is discussed.

Irodov, I.Ye.  Calculating the Profiles of Magnetic Poles               50
    The article describes a method of computing profiles of the
poles of magnetic analyzers of charged particles for a given
field distribution in the plane of symmetry  (the fringe effect

Card 3/5

SOV/3556

Some Problems (Cont.)

   is not taken into account).

Card 4/5

Some Problems (Cont.)                                    SOV/3556

inside diameter (1.42 and 1.77). A constant heat load was applied
to the exterior wall of the tube. The author gives a possible method
of computing heat transfer based on ordinary formulae for round
smooth pipes.

Repkova, O.N., D.A. Vasil'kov, and R.L. Grechnyuk, Determining the
Specific Surface of Powders by the Electron Microscopy Method     106

Vakhina, V.V. and V.P. Semenov. Balancing Device of a Radio Spec-
troscope of Electron Paramagnetic Resonance                       117
    The authors describe a new design of the balancing device of
    a radio spectroscope for electron paramagnetic resonance.

AVAILABLE: Library of Congress

                                                         TM/jb
Card 5/5                                                 5-26-60

NANCY, P...; HOTCH, P.J.

Analysis of the time characteristics of logarithmic devices.
Avtom. i telem.; sbor. st. no.1:40 55 '60.     (MIRA 14:11)

1. Kafedra avtomatiki i telemekhaniki Moskogo inzhenerno-fizi-
cheskogo instituta.
                (Automatic control)
                (Nuclear reactors)
                (Electric measurements)

BORISOV, Konstantin Ivanovich; GRECHISHKIN, Petr Borisovich; POPOV,
    Petr Konstantinovich; KUZNETSOVA, N.I., red.; KOROBOVA, N.D.,
    tekhn. red.

[Trade-union work in the organization of the masses; collec-
tion of guiding materials]Organizatsionno-massovaia rabota
profsoiuzov; sbornik rukovodiashchikh materialov.  Moskva,
Profizdat, 1962.  270 p.                              (MIRA 15:8)
        (Trade unions—Handbooks, manuals, etc.)

POPOV, P.K.

From the pages of information bulletins of the Economic Councils.
Sakh.prom. 34 no.6:78-79 Je '60.      (MIRA 13:7)
        (Sugar industry)

POPOV, P.K.

Lowering production costs in the sugar industry. Sakh. prom. 35
no.11:46-49 N '61.
(MIRA 15:1)

1. Vsesoyuznyy Sovet Narodnogo Khozyaystva.
(Sugar industry--Costs)

POPOV, P.K.

Economic efficiency of the processing of unrefined cane sugar.
Sakh. prom. 36 no.12:23-24  D '62.                    (MIRA 16:6)

1. Vserossiyskiy sovet narodnogo khozyaystva.
                    (Sugar industry)

POPOV, P.K.

Conference on the improvement of the cost indices of the volume of industrial production. Ferm. i spirt. prom. 30 no.6:45-46 '64.

(MIRA 17:11)

POPOV, P.K., inzh.

Information bulletins of economic councils.  Masl.-zhir. prom.
29 no.8:33-36 Ag '63.    (MIRA 16:10)

POPOV, P.K.

Cost of production of refined molded sugar and ways to reduce it.
Sakh.prom. 36 no.9:43-45  S  '62.

From pages of information bulletins of economic councils.  75-76
(MIRA 16:11)

POPOV, P.K.

From the pages of information bulletins published by the Councils of the National Economy. Kons.i ov.prom. 15 no.7:40-43 Jl '60. (MIRA 13:6)

(Canning and preserving)

POPOV, F.K.

Transportation of refined sugar in containers. Sakh.prom. 31 no.7:46
(MIRA 10:8)
Jl '57.

1.Gosplan RSFSR.

(Sugar--Transportation)

POPOV, P.K.

Methods of bulk transportation and storage of sugar. Sakh. prom.
32 no.12:43-46 D '58.
(MIRA 11:12)

1.Gosplan RSFSR.
(Sugar--Transportation)

POPOV, P.K.

Management reorganization in the sugar industry. Sakh. prom. 31 no.4:
1-4 Ap '57.                                                    (MLRA 10:6)

1. Rosglavsakhar.
        (Sugar industry)

POPOV, P.K.; POPOV, N.G.; REZNIKOV, Z.O.; BOROVICH, I.L.; MOREYNIS, Ya.I.;
RESH, G.S., red.; SOKOLOVA, I.A., tekhn. red.

[Technical, industrial, and financial plan for sugar plants;
principles and methods of drawing them up] Tekhpromfinplan sakharnykh
zavodov; printsipy i metodika sostavleniia. Moskva, Pishchepromizdat,
1958. 147 p.                                                    (MIRA 11:12)

                        (Sugar industry)

POPOV, P.K.

Improve the geographical distribution of the sugar refining
industry. Sakh. prom. 32 no. 7:40-43 Jy '58.     (MIRA 11:8)

1. Gosplan RSFSR.          (Sugar industry)

POPOV, P.K.

Integration of seasonal operations of the sugar and other
industries. Sakh. prom. 32 no. 6:40-41 Je '58.          (MIRA 11:7)

1. Gosplan RSFSR.          (Sugar industry)

POPOV, P.K.

From pages of information bulletins of economic councils. Sakh.
prom. 37 no.3:78-79 Mr '63.
(Bibliography—Sugar industry)

(MIRA 16:4)

POPOV, P.K.

From information bulletins.  Kons. i ov.prom. 18 no.4:40-44 Ap '63.
(MIRA 16:3)

(Bibliography—Canning industry)

POPOV, P.K.

Increase the production of refined sugar. Sakh. prom. 31 no.5:34-
38 My '57.
(MIRA 10:6)

1. Gosudarstvennyy institut po proyektirovaniyu novogo stroitel'-
stva i rekonstruktsii predpriyatiy sakharnoy promyshlennosti.
(Sugar industry)

POPOV, P.K.

Some problems of economics; Where should the packaging of granulated
sugar be organized? Reconstruction of The Deryugino Citric Acid
Plant. Sakh.prom. 30 no.12:35-36 D '56.                (MLRA 10:1)

1. Resglaveakhar.
                (Sugar industry) (Citric acid)

POPOV, P.M.

Treatment with andaxin of the reactive states in cerebral atheriosclerosis patients; a clinicoelectroencephalographic study. Trudy Gos.nauch.-issl.inst.psikh. 35:275-287 '62.

(MIRA 16:2)

1. Otdeleniye vrachebno-trudovoy ekspertizy (zav. otdeleniyem - doktor med.nauk D.Ye. Melekhov) i otdeleniye elektrofiziologii (zav. otdeleniyem - prof. E.S. Tolmasskaya) Gosudarstvennogo nauchno-issledovatel'skogo instituta psikhiatrii.
          (MEPROBAMATE)  (CEREBRAL ARTERIOSCLEROSIS)
                    (ELECTROENCEPHALOGRAPHY)

POPOV, P.M.

Clinical electroencephalographic study of reactive states in
patients suffering from cerebral atherosclerosis. Trudy 1-go
MMI 21;308-321'63.                                   (MIRA 16:9)

1. Elektrofiziologicheskaya laboratoriya (zav. - prof. E.S.
Tolmabskaya) i klinika ekspertizy trudosposobnosti (zav. -
doktor med. nauk D.Ye.Molekhov) Instituta psikhiatrii Mini-
sterstva zdravookhraneniya RSFSR i kafedra psikhiatrii (zav.
prof. V.M.Banshchikov) 1-go Moskovskogo ordena Lenina medi-
tsinskogo instituta imeni Sechenova.
          (ELECTROENCEPHALOGRAPHY)  (CEREBRAL ARTERIOSCLEROSIS)
                         (PSYCHOSES)

POPOV, P.M.

Clinical aspects and work capacity of patients with reactive
states in cerebral atherosclerosis. Trudy 1-go MMI 21:174-183'63.
(MIRA 16:9)

1. Klinika ekspertizy trudosposobnosti (zav. - doktor med.nauk
D.Ye.Melekhov) i kafedra psikhiatrii (zav. - prof. V.M.Banshchikov)
1-go Moskovskogo ordena Lenina meditsinskogo instituta imeni
Sechenova.
(CEREBRAL ARTERIOSCLEROSIS)    (PSYCHOSES)
(DISABILITY EVALUATION)

*Popov, P. M.*

USSR/ Miscellaneous

Card    1/1     Pub. 138 - 8/13

Authors      : Popov, P. M., Memb. Corresp. of the Acad. of Sc. Ukr. SSR

Title        : The unknown letter of G. S. Skovorodi

Periodical   : Visnik AN URSR 4, 61-62, Apr 1954

Abstract     : It is reported that the publication of the works of G. S. Skovorodi,
               prominent Ukrainian philosopher and writer of the 18th century,
               cannot be realized because of a certain letter (missing) which he
               presumable wrote in November 1774, without which the publication
               would be incomplete. Three USSR references (1912-1950).

Institution:     .....

Submitted:       .....

1. POPOV, P. M.

2. USSR (600)

4. Lenin In Literature and Art

7. V. I. Lenin and I. V. Stalin as portrayed in Ukrainian folk poetry. Visnyk
   AN URSR 24, No. 1, 1953.

9. **Monthly List of Russian Accessions**, Library of Congress, _____May_____ 1953. Unclassified.

MENYAYLOV, A.A., doktor geol.-min.nauk; POPOV, P.N.

Artificial diamonds.  Priroda 49 no.9:90-91 S '60.     (MIRA 13:10)

1. Yakutskiy filial AN SSSR (for Popov).
                        (Diamonds, Artificial)

POPOV, P. N.

USSR/Engineering - Furnaces, High Temperature                    Oct 49
                    Furnaces, Oil

"High-Temperature Laboratory Furnace," D. B. Ginzburg, Dr Tech Sci, A. T.
Gel'man, Cand Tech Sci, 4 pp

"Ogneupory" No 10

Describes high-temperature oil-injections furnace, developed in State Electroceramic
Res Inst by P. N. Popov, A. Ye. Fradkin, N. V. Dobrovol'skiy, and M. S. Kuznetsoya.
Furnace has low-pressure burner and saves 10% on fuel by using preheated air. It
is recommended for research and experimental operations. Diagrams and table show
construction details and complete test data.

PA 153T28

POPOV, P.P.

Marek's method of finding centers of geodetic points.  Geod. i
kart.  no.2:61-63  F '59.                              (MIRA 12:4)
                    (Surveying)

POPOV, I. I.

"Products of Condensation of Halides of Arsenic
with Hydrohalide Salts of Piridine and Quinoline"
Zhur. Obshch. Khim., 9, No. 14, 1939. Tomsk
State University imeni V. V. Kuybyshev.  Rec'd
20 Dec 1938

◼ Report U-1614, 3 Jan 1952.

POPOV, P. P.

"Produits de la condensation des halogenures de l'arsenic avec les sels halogenehydriques
de la pyridine et de la quinoleine."  Popov, P. P. (p. 1265)

SO:  Journal of General Chemistry
     (Zhurnal Obshchei Khimii)  1939, Volume 9, #14

PROCESSES AND PROPERTIES INDEX

CA

Condensation of arsenic halides with pyridine and quino-line hydrohalides. P. P. Popov. J. Gen. Chem. (U. S. S. R.) 9, 1265–73(1939).—The complexes formed may be divided into 5 types: $5RHX.2MX_3$, $2RHX.MX_3$, $3RHX.2MX_3$, $RHX.MX_3$, and $RHX.2MX_3$ ($R = C_5H_5N$ or $C_9H_7N$, $X = Cl$, Br or I and $M = As$). $AsCl_3$ (I) (10.82 g.) in 100 cc. $CHCl_3$ (II) with 5.90 g. $C_5H_5N.HCl$ in 75 cc. II gave $2C_5H_5NHCl.AsCl_3.CHCl_3$. $AsBr_3$ (III) (8.00 g.) with 3.80 g. $C_5H_5NHBr$ (IV) in II gave IV.III, which re-crystd. from hot II gave $3IV.2III.II$ (V), needles, and this on standing gave $2IV.III.II$ (VI), yellow, also obtained directly from 6.80 g. IV and 6.60 g. III. VI dried in a vacuum at 60–5° gave $2IV.III$, pale yellow. V under the same conditions underwent only partial loss of II. VI in boiling benzene for 20 min. gave $5IV.2III$ (VII), also ob-tained from 6.58 g. IV and 2.14 g. III in II by refluxing the mixt. for 10 min. VII heated with a large excess of II for 10 min. and allowed to stand several days gave VI. $C_5H_5N.HI$ (VIII) (0.288 g.) with 2.416 g. $AsI_3$ (IX) in II gave $VIII.2IX$ (X), red, which, refluxed with II, gave $VIII.IX$ (XI), bright orange. Both X and XI are less hygroscopic than the extremely hygroscopic Cl- and Br-contg. complexes. I (5.5 g.) with 4.9 g. $C_9H_7N.HCl$ (XII) in II gave XII.I, extremely hygroscopic, m. 122–3°. III (4.6 g.) with 3.0 g. $C_9H_7N.HBr$ (XIII) gave XIII.III, yellow-green, hygroscopic, m. 147–8°. IX (1.20 g.) with 0.34 g. $C_9H_7N.HI$ (XIV) in II at 40–50° gave XIV.2IX, bright orange, decomps. with darkening when heated, which, refluxed with II for 30 min., gave XIV.IX, golden yellow. All of the complexes undergo decompn. when dissolved in water.

John Livak

SOV/6-59-2-14/22

3(4)
AUTHOR:     Popov, P. P.

TITLE:      Location of the Center of a Geodetical Point According to Marek's Method (Razyskaniye tsentra geodezicheskogo punkta po sposobu Mareka)

PERIODICAL:  Geodeziya i kartografiya, 1959, Nr 2, pp 61-63 (USSR)

ABSTRACT:   In textbooks the theory of Marek's method is described in detail, but no formulas and schemes are given for calculation. In this paper the author gives such a scheme. The location of the center according to Marek's method can be applied in any case where one knows the directions from the desired center to three fixed points, or two adjacent angles - measured in this center - between the directions to any projecting things in the area the coordinates of which need not be known. The method is based on the following principles: in the area in which the center is supposed to be the length of the base $s = MN$ is assumed to be 30 - 50 m. At the ends of that base one measures the horizontal angles between the directions to the points to which the center is bound. In point M the angles $\alpha_1$, $\beta_1$ $\gamma_1$, and in point N the

Card 1/2

Location of the Center of a Geodetical Point According to Marck's Method       SOV/6-59-2-14/22

angles $\alpha_2$, $\beta_2$, $\gamma_2$ are measured. The author gives the formula for calculating the sections $\xi$ and $\eta$. The position of the desired center in the area is determined by calculating the sections $\xi$ (= MP') and $\eta$ (= PP') which are vertical to one another. The mode of calculation is illustrated by an example. There are 1 figure and 1 table.

Card 2/2

89419

S/006/61/000/001/002/G02
B116/B202

3,4000

AUTHOR:      Popov, P. P.

TITLE:       Determination of the coordinates of individual points under
             difficult terrain conditions

PERIODICAL:  Geodeziya i kartografiya, no. 1, 1961, 23-28

TEXT:  In continuation of studies made by N. S. Starkov (Ref., footnote
on p. 23) and A. I. Bolotin (Ref., footnote on p. 23) the author sub-
stantiates resection under difficult terrain conditions by two charac-
teristic practical cases..First case: Fig. 1. From the point $P_1$ to be
determined only 2 points A and B can be seen. From the additional
point $P_2$ a third point C can be seen, whereas A or B become invisible.
In this case the coordinates of both points $P_1$ and $P_2$ can be determined
as follows: One circle each is drawn through A, B, $P_1$ and through B, C,
$P_2$. $P_1$ and $P_2$ are connected by a straight line which is extended to the
points of intersection $K_1$ and $K_2$. To determine the coordinates of
$P_1$ and $P_2$ only the angles $\alpha_1$ and $\beta_1$, and $\alpha_2$ and $\beta_2$, respectively, must be
Card 1/12

89419

Determination of the coordinates...

S/006/61/000/001/002/002
B116/B202

known. First, the coordinates of $K_1$ and $K_2$ are determined using the fact that the interior angles above the same arc of the circle are equal: $K_1AB = BP_1K_1 = \beta_1$, $ABK_1 = 180° - AP_1K_1 = 180° - \alpha_1$, $BCK_2 = 180° - BP_2K_2 = \beta_2$, $CBK_2 = CP_2K_2 = 180° - \alpha_2$. The coordinates of $K_1$ are determined from the formulas of intersection by using the given coordinates of A and B as well as the angles at these points ($\beta_1$ and $(180° - \alpha_1)$. The coordinates of $K_2$ are calculated analogously. The bearing angle of the straight line $K_1K_2(P_1P_2)$ is then determined from the coordinates of $K_1$ and $K_2$. From this value and $\alpha_1$, $\beta_1$; and $\alpha_2$, $\beta_2$ the bearing angles of $AP_1$, $BP_1$, $BP_2$, and $CP_2$ are then calculated. The coordinates of $P_1$ and $P_2$ are determined from the following formulas:

$$y_{P_1} = y_B + \frac{(y_B - y_A)\,\text{ctg}\,T_{AP_1} + (x_A - x_B)}{\text{ctg}\,T_{BP_1} - \text{ctg}\,T_{AP_1}};$$

Card 2/ 12

$$x_{P_1} = x_A + (y_{P_1} - y_A)\text{ctg}\,T_{AP_1}. \tag{1}$$

Determination of the coordinates...

89419

S/006/61/000/001/002/002
B116/B202

Check: $(x_{P_1} - x_B) = (y_P - y_B)$ cot $T_{BP_1}$. The coordinates of $P_2$ are obtained from analogous formulas. Figs. 2 and 3 show the variants of the case described. The case of indeterminacy where $K_1K_2 = 0$ which is shown in Fig. 4 forms an exception. Hence, this fact has to be taken into consideration when selecting point $P_2$. A favorable result is obtained if $K_1K_2$ is almost equal to the distances between $P_1$ and $P_2$ on the one hand and the fixed points A, B, C, and D on the other. If it is possible to obtain an alignment between $P_1$ and $P_2$ and one of the fixed points (Fig. 5), calculations in this case can be reduced. The coordinates of an auxiliary point $K_1$ (or $K_2$) are determined. The bearing angle $P_1P_2$ is calculated from the coordinates of $K_1$ (or $K_2$) and from the fixed point lying on the $P_1P_2$ straight line. The remaining calculations are analogous to those described earlier. Second case: Figs. 6 and 7. From the point $P_0$ to be determined only one fixed point can be seen. From

Card 3/12

89419

Determination of the coordinates...

S/006/61/000/001/002/002
B116/B202

$P_1$ and $P_2$, however, 2 fixed points are visible. In this case the co-ordinates of $P_0$ can be determined from the coordinates of $P_1$ and $P_2$. When determining coordinates of other points in the area of $P_0$ it is expedient to let them coincide with $P_1$ and $P_2$. The problem is solved in the fol-lowing manner: Circles are drawn through $ABP_1$ and $EDP_2$. From $P_0$ two straight lines are drawn to the points of intersection $K_1$ and $K_2$ (through $P_1$ and $P_2$). $\alpha_0$ and $\beta_0$, $\alpha_1$ and $\beta_1$, $\alpha_2$ and $\beta_2$ are measured. It is re-commended to measure $\gamma$ and $\delta$ for field control. When calculating the co-ordinates of the points, the following order is recommended: 1) the coordinates of $K_1$ and $K_2$ are calculated from the formulas of intersection. 2) The coordinates of the point $P_0$ are calculated from the coordinates of $K_1$, $K_2$ and the coordinates of the fixed point C and the measured angles $\alpha_0$, $\beta_0$ by means of the formulas of the three-point problem. 3) The co-ordinates of $P_1$ and $P_2$ are calculated by the intersection method using Gauss' formula. For this purpose the bearing

Card 4/12

✗

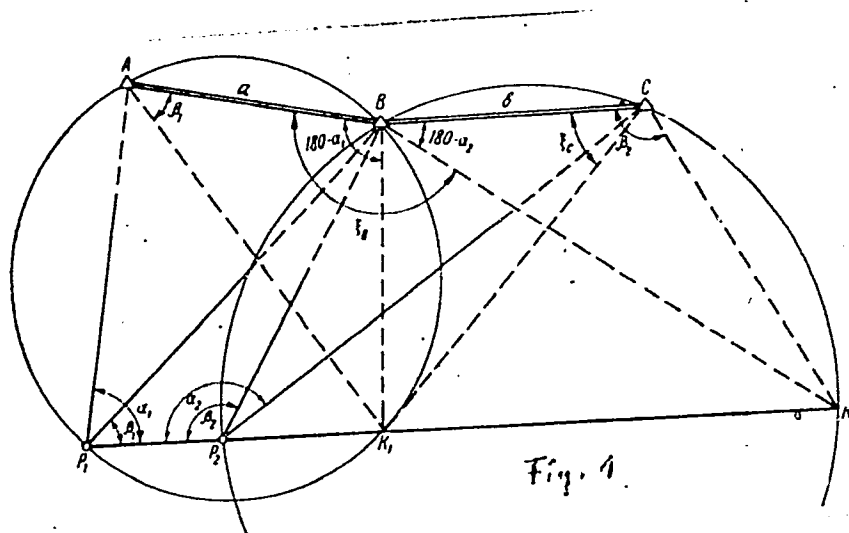Determination of the coordinates...

09419

S/006/61/000/001/002/002
B116/B202

angle of side $CP_0$ is determined from the coordinates of C and $P_0$ and then the directions of $P_0P_1$, $BP_1$, $AP_1$, $P_0P_2$, $EP_2$, and $DP_2$. For.checking purposes the bearing angle of $P_1P_2$ and the angles $\gamma$ and $\delta$ are calculated from the coordinates of $P_1$ and $P_2$ and compared with the measured angles. .

·There are 7 figures and 2 Soviet-bloc references.

Card 5/12

89419

Determination of the coordinates...

S/006/61/000/001/002/002
B116/B202



Fig. 1.

Card 6/12

Determination of the coordinates...
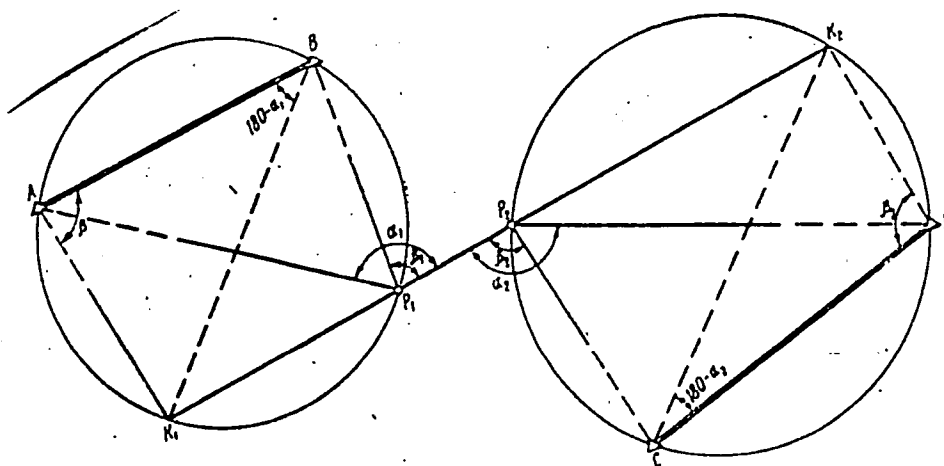


Рис. 2.

Card 7/12

Determination of the coordinates...
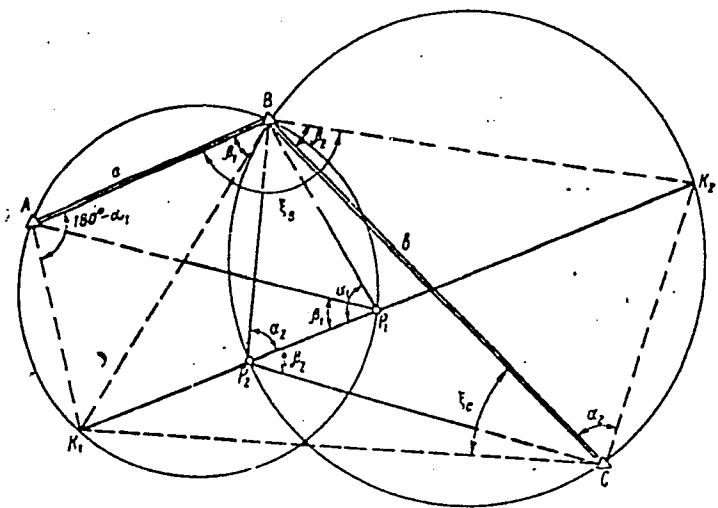
89419
S/006/61/000/001/002/002
B116/B202



Рис. 3.

Card 8/12

89419

Determination of the coordinates...
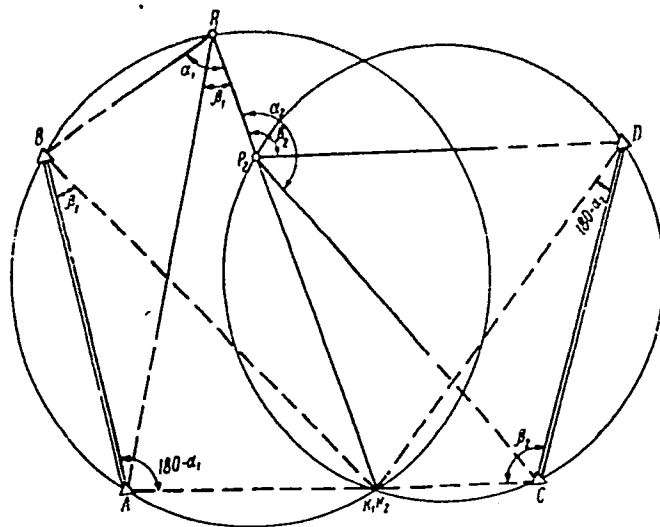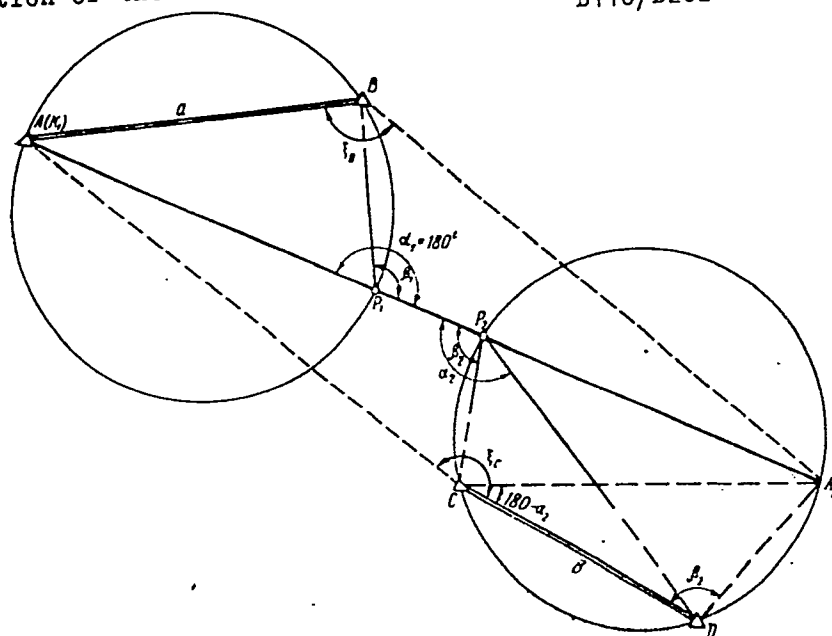
S/006/61/000/001/002/002
B116/B202



Рис. 4.
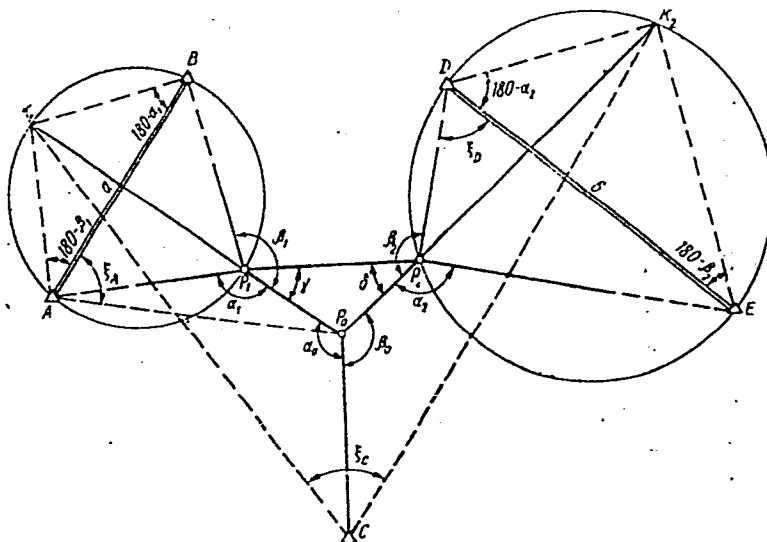
Card 9/12

Determination of the coordinates...

89419
S/006/61/000/001/002/002
B116/B202



Card 10/12

Рис. 5.

Determination of the coordinates...

89419
S/006/61/000/001/002/002
B116/B202



Рис. 6.

Card 11/12

89419

S/006/61/000/001/002/002
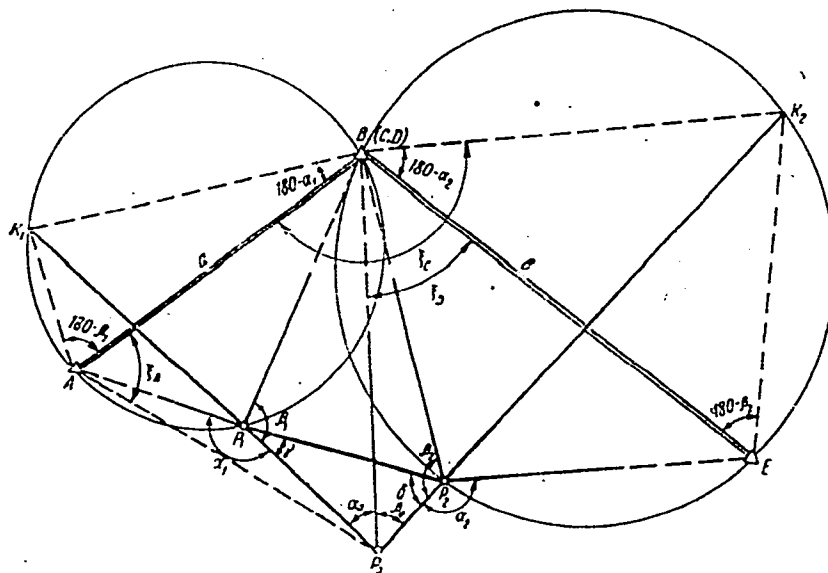B116/B202

Determination of the coordinates...



Рис. 7.

Card 12/12

POPOV, Pavel, akad.; DIMITROV, Dimitur

Studies on the sowing time and productive possibilities of the IUbileina II and IUbileina III wheat varieties in central northern Bulgaria. Selskostop nauka 2 no. 3/4 345-358 '63.

1. Chlen na Redaktsionnata kolegiia, "Selskostopanska nauka" (for Popov).

POPOV, Petr Petrovich, 1888-   jt. ed.

Zakavkazskii.  Transactions of the 3rd Transcaucasian Congress on the Control of Malaria
and other Tropical Diseases.  Tbilisi, Gruzmedgiz, 1939.  557 p.  (43-22237)

POPOV, P.P., professor

"Borovskii's disease." [Cutaneous leishmaniasis] N.I.Latyshev,
P.V.Kozhevnikov, T.P.Povalishina, Reviewed by P.P.Popov. Vest.
ven. i derm. no.3:59 My-Je '54.                    (MLRA 7:8)
      (LEISHMANIOSIS)     (SKIN--DISEASES)

POPOV, P.P.

Physical enviromnent of natural reservoirs of the tick spirochaete in the Azerbaijan S.S.R.  Izv.AN Azerb.SSR no.5:35-42 My '55.
(MLRA 9:5)

(AZERBAIJAN--TICKS AS CARRIERS OF DISEASE)(AZERBAIJAN--SPIROCHETOSIS)