KOTEL'NIKOV, V. A., akademik; GUS'KOV, G. Ya.; DUBROVIN, V. M.; DUBINSKIY, B. A.; KISLIK, M. D.; KORENBERG, Ye. B.; MINASHIN, V. P.; MOROZOV, V. A.; NIKITSKIY, N. I.; PETROV, G. M.; PODOPRIGORA, G. A.; RZHIGA, O. N.; FRANTSESSON, A. V.; SHAKHOVSKOY, A. M.

Radar tracking of the planet Mercury. Dokl. AN SSSR 147 no.6: 1320-1323 D '62. (MIRA 16:1)

1. Institut radiotekhniki i elektroniki AN SSSR.

(Mercury(Planet)) (Radar in astronomy)

KOTEL'NIK[illegible], V.A., akademik; D[illegible]R VIN, V.M.; [illegible]; [illegible], B.A.; KISLIK, M.D., KUZNETSOV, B.I., [illegible], I.V., MOROZOV, V.A.; PETROV, G.M.; R[illegible], O.N.; SYTS[illegible], [illegible].A.; SHAKH[illegible], A.M.

Radar observations of Venus in the Soviet Union during 1962.
Dokl. AN SSSR 151 no.3:532-535 Jl '63. (MIRA [illegible])

1. Institut radiotekhniki i elektroniki AN SSSR.
(Venus (Planet)) (Radar in astronomy)

L 24255-63 EWT(1)/FBD/FCC(w)/BDS/EEC-2/EED-2/ES(v) AFFTC/ASD/AEDC/...
FSD-3 Pe-4/Pi-4/Pj-4/Pk-4/Pl-4/Pm-4 PT-2/WR

ACCESSION NR: AP3004417 S/0020/63/151/004/0811/0814

AUTHOR: Kotel'nikov, V. A.; Dubrovin, V. M.; Dubinskiy, B. A.; Kislik, M. D.; Kuznetsov, B. I.; Petrov, G. M.; Rabotyagov, A. P.; Rzhiga, O. N.; Shakhovskoy, A. M.

TITLE: Radar observations of the planet Mars in the Soviet Union

SOURCE: AN SSSR. Doklady*, v. 151, no. 4, 1963, 811-814

TOPIC TAGS: Mars radar observations, Mars reflected-signal spectrum, Mars Doppler-frequency shift, Mars rotation time, Mars reflection coefficient

ABSTRACT: Radar observations of Mars' northern hemisphere from 14°30' to 14° latitude and from 310 to 360° and from 0 to 140° longitude were carried out in the Soviet Union on 6—10 February 1963 at a frequency of approximately 700 Mc. The polarization of radiated waves was circular, with antenna polarization changing to linear during reception. The energy of the signal incident on the visible surface of Mars was 1.2 w. Both transmission and reception lasted approximately 11 minutes. The signal had the shape of alternate rectangular transmissions and intervals of a duration of 4.096 sec each, at two frequencies

Card 1/2

L 14255-63

ACCESSION NR: AP3004417

differing by 62.5 cps. The signals were recorded on a magnetic tape together with a 2000-cps oscillation, which served as a scale. Receiver sensitivity was calibrated before and after operation on the basis of Cassiopeia-A discrete-source radiation. The correction for frequency shift due to the Doppler effect was regulated by an electronic digital frequency meter. In all, 99 observations were made, and the signal reflected from Mars was reliably detected on the nights of February 7—8 (28 observations) and February 8—9 (20 observations). The results of spectral analysis of these 48 observations, carried out with 4-cps filters and a storage time of 8.5 hr, are shown in Fig. 1 of the Enclosure. In the reflected signal spectrum, there is a narrowband component whose energy exceeded by 4 times the RMS measurement error caused by noise. The average reflection coefficient, determined as the ratio of the reflected-signal energy to received-signal energy under the assumption that Mars was an even, ideally conductive sphere, was found to be 7%. "The authors thank L. Y. Aprakein, V. O. Voytov, M. M. Dedlovskiy, G. A. Zhurkina, A. M. Lukin, M. M. Sinodkin, B. A. Stepanov, A. V. Frantsesson, D. M. Tsvetkov, and I. A. Sharabarin for their assistance." Orig. art. has: 3 figures, 1 table, and 1 formula.

Association: Inst. of Radio and Engineering and Electronics

Card 2/4

L 6975-65 EEO-2/FSP(h)/EWT(1)/EWG(v)/EEC(t) Pm-4/Pn-4/Po-4/Pe-5/Pac-4/Pae-2/
Pi-4/Pj-4/Pk-4/Pl-4 ASD(a)-5/SSD/AFWL/ARDC(a)/APGC(b)/AFETR/BSD/RAEM(1)/RAEM(a)/
ESD(ga)/ESD(t)/RAEM(t)/S/0026/64/000/009/0002/0012

ACCESSION NR: AP4045505 Pu-4 GW/WR

AUTHOR: Kotel'nikov, V. A.; Dubrovin, V. M.; Kuznetsov, B. I.; Petrov, G. M.; Bzhilga, O. N.; Shakhovskoy, A. M. B

TITLE: Advances in interplanetary radar

SOURCE: Priroda, no. 9, 1964, 2-12

TOPIC TAGS: radar, interplanetary radar, planet tracking, lunar radar, lunar surface, planetary orbit, radiowave reflection

ABSTRACT: The paper reviews past and present achievements in determining, by radar, the distance and the surface structure of the Moon and some planets as carried out in the SSSR, USA, and England. The experience gained in the radar study of the Moon, mainly in the USA, was applied to the study of Venus and then to Mercury, Mars, and Jupiter. The results obtained in the study of these planets in the three abovementioned countries are briefly summarized; the radar distances to these planets are tabulated. The method of measuring the distance using linear frequency modulation is briefly described; this method was used by the authors in 1962 in their investigation of Venus. The astronomical unit is discussed and its measurement by astronomical methods and by radar compared; the latter method gives much higher accuracy. It is noted that the apparent absence of any relationship

Card 1/3

L 6975-65
ACCESSION NR: AP4045505

between the values obtained for the astronomical unit and the radar frequency employed indicates that any effect of the interplanetary medium on the measurements is within the limits of experimental error. The more accurate determination of the orbit and size of Venus by prolonged radar probing (October-December, 1962) is discussed and the distances to this planet obtained by the authors are presented; the variation of the distance then observed was 40×10^6 km. The investigation of the surface of planets by measuring the reflection coefficient of the surface (albedo) is discussed and the results obtained for Venus in the SSSR (λ=40 cm) and in the USA (λ=68 and 12.6 cm) are discussed and compared. The effect of the distance, radar frequency, and the angle of incidence on the intensity of the reflected radar wave is discussed. Comparison of the data obtained has shown that for λ=40 cm the surfaces of Venus and of the Moon have inhomogeneities of about the same structure. The radar study of Mars in the USA and the SSSR in 1963 is also discussed. The mean reflection coefficient of Mars as found by the authors is 7% (the same as in the case of the Moon), while from the data obtained in the USA this coefficient is half the above value. This may be due to a change in the reflection coefficient of the planet's surface with frequency. The character of the spectrum of the reflected wave indicates the presence on Mars of large flat regions. Radar measurements of the period of rotation of Venus, made in the SSSR and USA in 1962, are then discussed; the good agreement in the periods of rotation (200-300 earth days) computed from the data obtained at different frequencies

Card 2/3

L 6975-65

ACCESSION NR: AP4045505

(λ=40 cm and 12.6 cm) indicates that at these frequencies the reflections are obtained directly from the planet's surface and not from its ionosphere as it was suggested to be the case for the longer wavelength (λ=40 cm). In the SSSR the radar measurements were made by the Institut radiotekhniki i elektroniki AN SSSR (Institute of Radio Engineering and Electronics of the SSSR Academy of Sciences). Orig. art. has: 11 figures, 2 tables and 1 formula.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: AA

NO REF SOV: 006 OTHER: 000

Card 3/3

ACC NR: AR6025335 SOURCE CODE: UR/0269/66/000/004/0011/0011

AUTHOR: Petrov, G.M.

TITLE: Meridional observation of the Sun and of the large planets

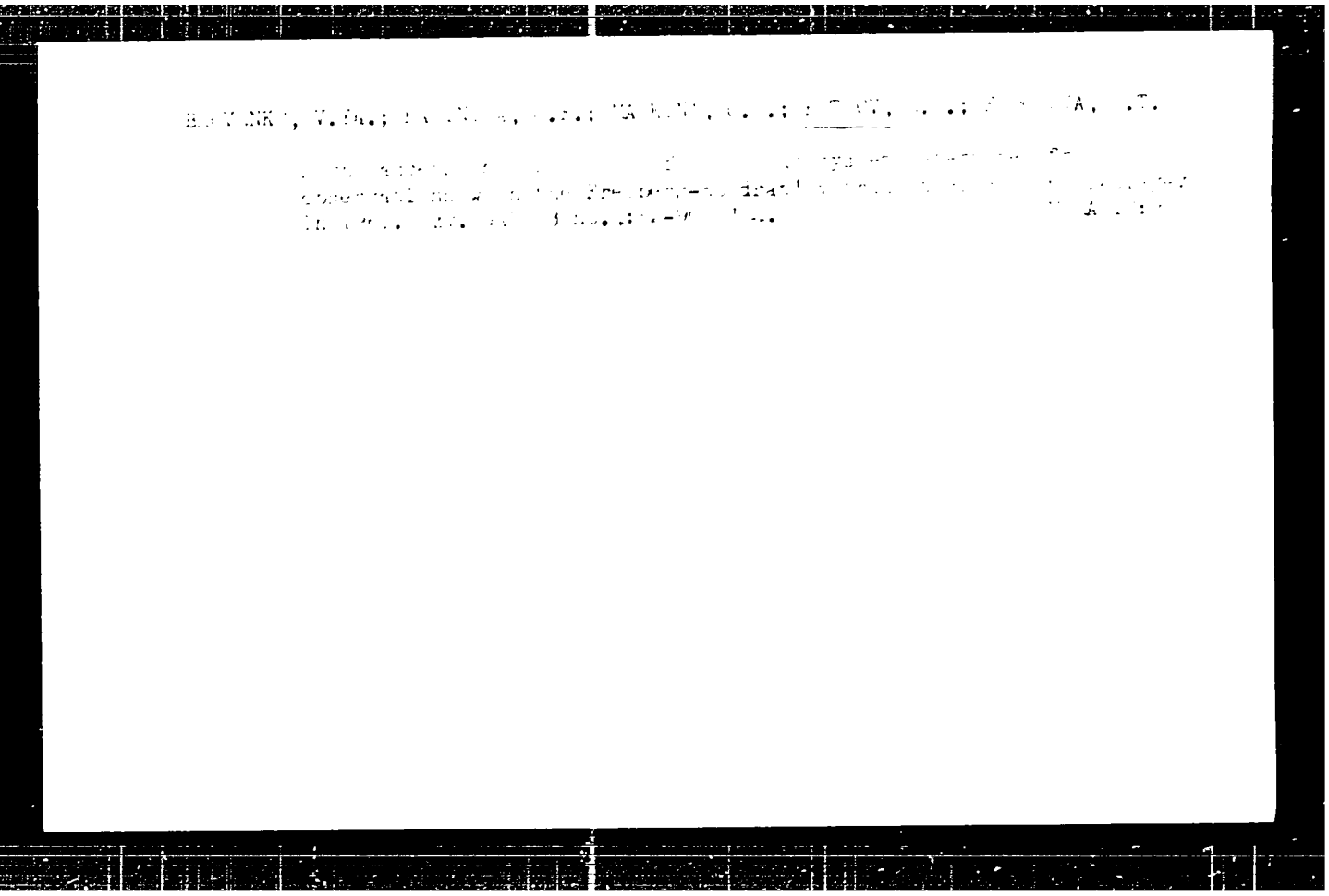
SOURCE: Ref. zh. Astronomiya, Abs. 4.51.97

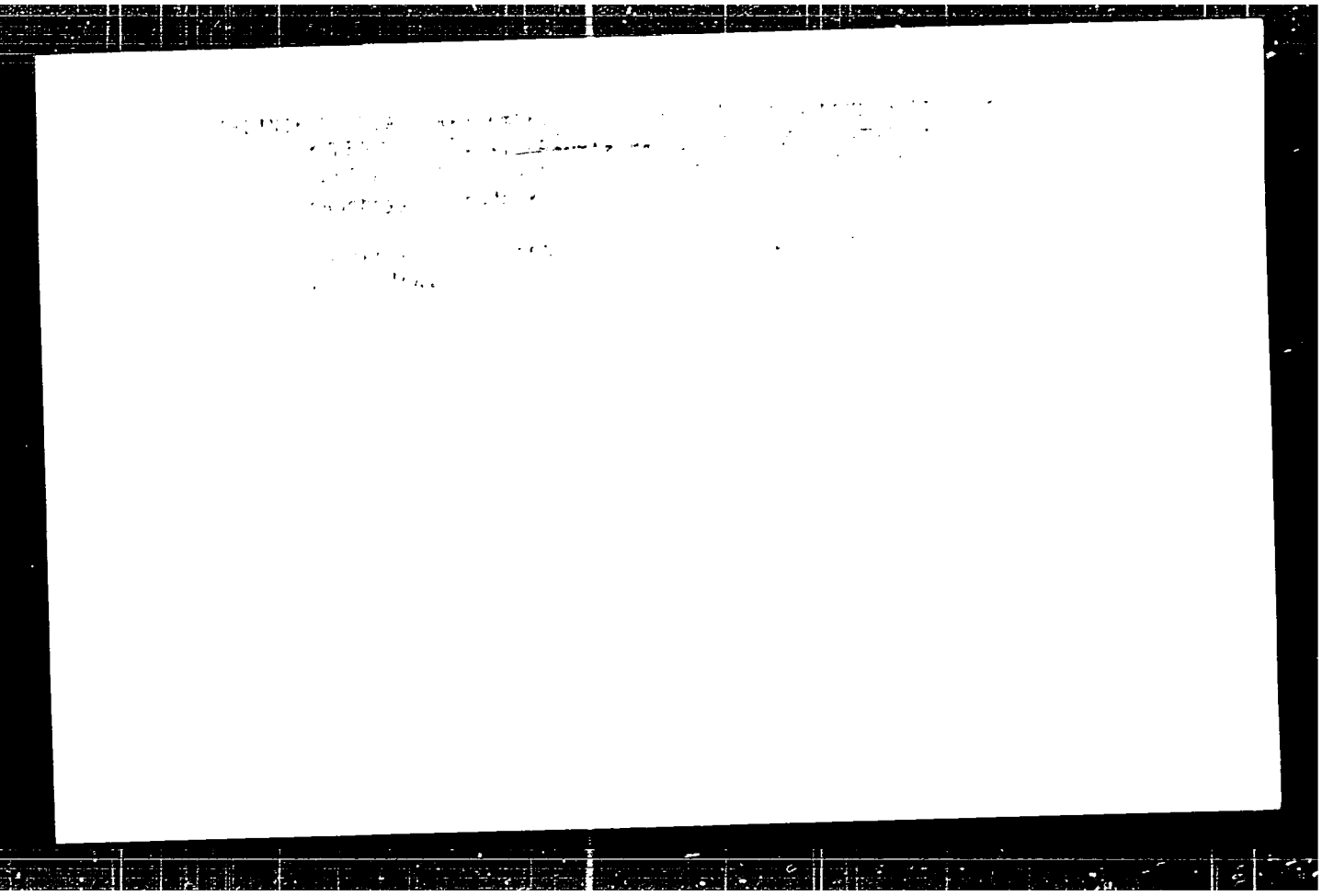
REF SOURCE: Tr. 16-y Astrometr. konferentsii SSSR, 1963. M.-L., Nauka, 196-, 55-62

TOPIC TAGS: astronomy, astronomic method, astrometrics, ~~Sukharev mirror filter~~ ASTRONOMICAL DATA, SUN, PLANET

ABSTRACT: Realization of the resolution of the 15th astrometric conference of the USSR on the observation of the Sun and the large planets in soviet observatories is analyzed. The results are evaluated. In Nikolaev, the Sukharev mirror filter is used for solar observations: the RMS error with this filter is 1.5 times less than with a dark filter on the eyepiece. It has been proposed to observe the Sun through narrow slits in front of the objective. To assure processing of the Sun and planets by all possible means, one should observe a maximum number of stars in the daytime, guarding the instrument from scattered light. Diurnal behaviour of the world line azimuth is an important problem. In Nikolaev, a difference of $-.027 \pm .004^s$ between night and day azimuth was found; at noon the azimuth changed, apparently by a step jump. This is to be verified on as large a number of instruments as possible. To increase observation homogenuity, it is proposed to make all day time observations thru a window in a screen. A most purposeful screen is described. [Translation of abstract].

Card 1/1 SUB CODE: 03 UDC 52.087.23:[523.4+523.7]





KOTEL'NIKOV, V.A., akademik; ARKAKSIN, L.V.; DOBROVIN, V.M.; KISLIK, M.D.; KUZNETSOV, B.I.; PETROV, D.M.; PIPIGA, G.N.; FRANTSESON, A.V.; SHAKHOVSKOY, A.M.

Radar contact with Jupiter. Dokl. AN SSSR 155 no. 5:1037-1038 Ap '64. (MIRA 17:5

1. Institut radiotekhniki i elektroniki AN SSSR.

PETROV, G.M., inzh.

Experience of A.M. Egorov in adjusting semiautomatic lathes.
Mashinostroitel' no.9: [illegible] S '59. (MIRA 13:2)

1.Otdel truda i zarplaty K[illegible]
(Lathes)

PETROV, G.M.

Work of lathe operator and adjuster A. Kurushkin. Mashinostroitel' no.10:26-28 O '59. (MIRA 13:2)

1.Inzhener otdela truda i zarplaty Kuybyshevskogo sovnarkhoza.
(Machine-shop practice)

RAKHLEYEV, G.I.; SIMOTIN, A.S.; Prinimali uchastiye: ADIGAMOV, Ya.M., inzh.; KISELEV, Yu.Ya., inzh.; MALYAREVICH, K.A., inzh.; PETROV, L.M., inzh.

Some problems in general mechanization and automatic control of the productions processes in the Zolotushinskiy Mine. Sbor. trud. VNIITSVETMET no.4:148-1[illegible] 1[illegible]. (MIRA 1[illegible])

(Mining machinery) (Automatic control)

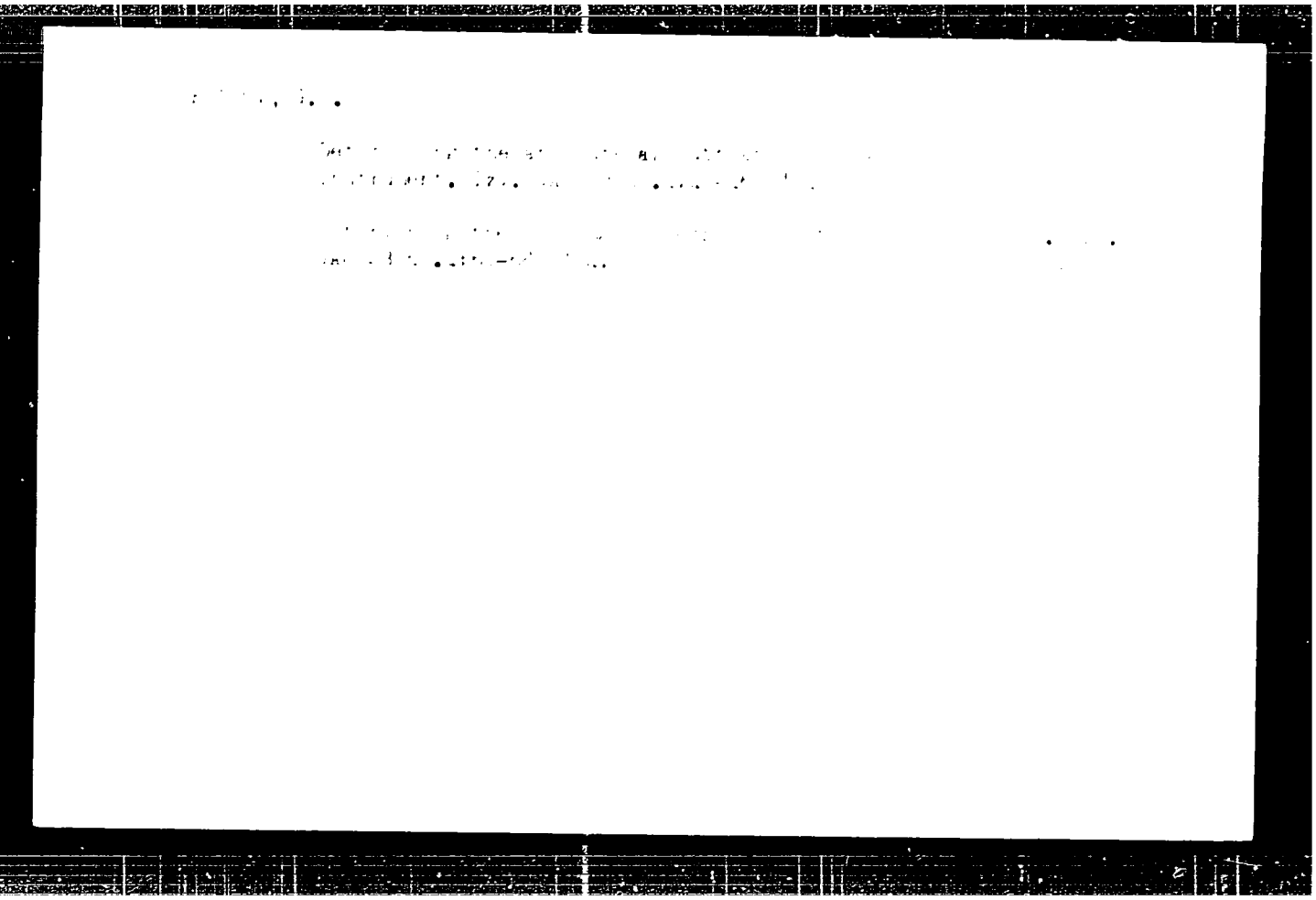
PETROV, G.M., inzh.

Experience of V.E. Kaledin in adjusting automatic turning and cutting-off machines. Mashinostroitel' no.11:31 N '59.
(MIRA 13:3)

1.Otdel truda i zarplaty Kuybyshevskogo sovnarkhoza.
(Lathes)

PETROV, G.M.

Workers themselves guarantee the quality of production.
Mashinost oitel' no.5:36 My '60. (MIRA 14:5)
(Kuybyshev--Bearing industry)



ACCESSION NR: AT3012141 S/2967/63/000/[illegible]/0264/0275

AUTHORS: Ushakov, V. B.; Petrov, G. M.

TITLE: Analog mathematical machine MN-14 with input and output information in digital form

SOURCE: Voprosy* vy*chislitel'noy matematiki i vy*chislitel'noy tekhniki. Moscow, 1963, 264-275

TOPIC TAGS: analog computer, digital input, digital output, high stability, constant current amplifier, stabilized zero, nonlinear differential equations

ABSTRACT: The authors describe the MN-14 analog computer in some detail. The machine is extremely stable due to the constant current amplifiers with stabilized zeros. The mathematical and logical operations of which the machine is capable are designed for solution of systems of ordinary nonlinear differential equations containing a large quantity of various nonlinear dependencies. The setup of blocks in the MN-14 makes it possible to solve complicated systems of nonlinear ordinary differential equations of up to 30th order. With two such machines working in parallel, still more complicated problems can be solved. The basic machine

Card 1/2

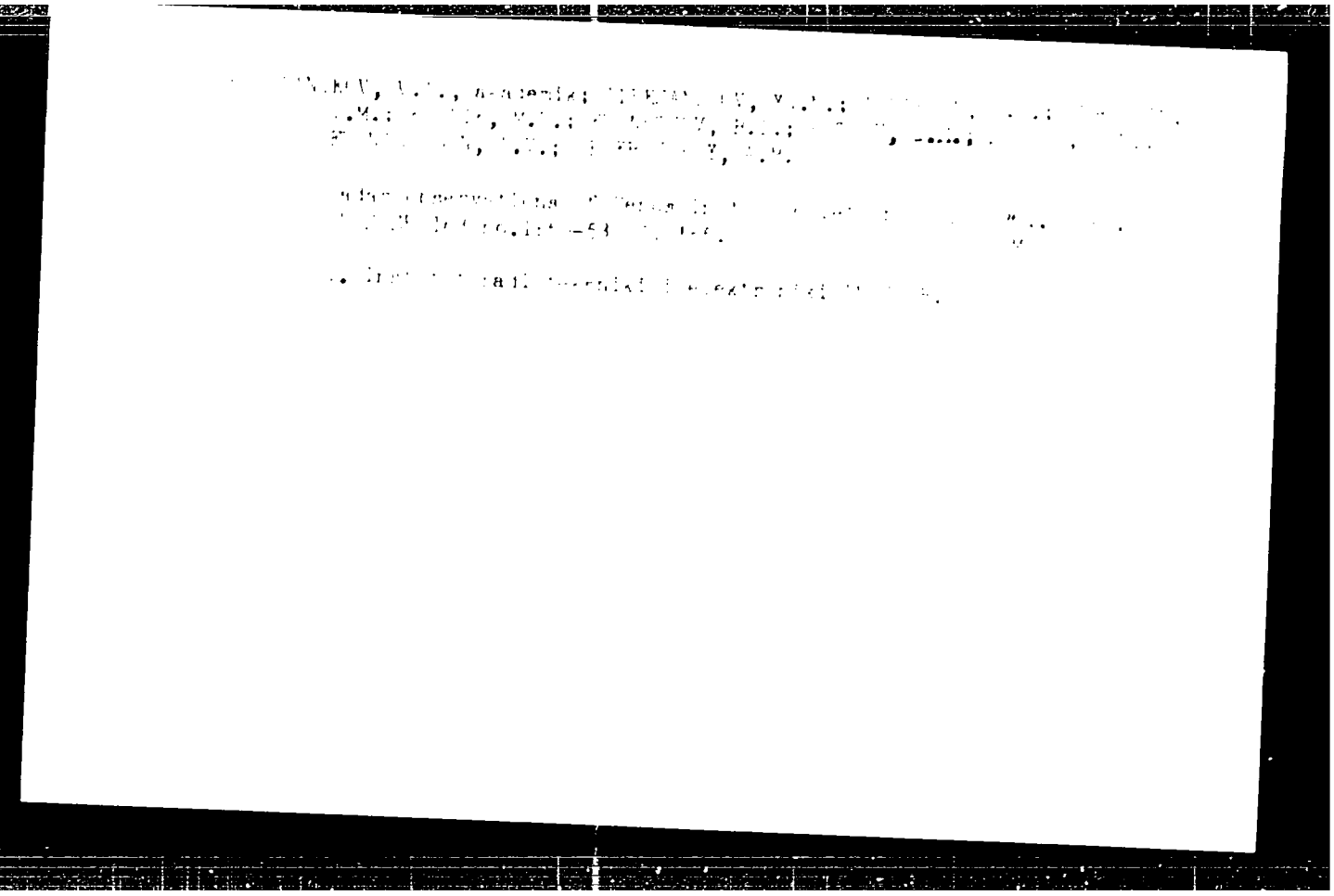
ACCESSION NR: AT3012141

operations are summation, multiplication by a constant coefficient, integration, multiplication of two dependent variables, reproduction of a nonlinear function of one variable, and use of the logical operation of conditional jump. The machine has provision for introducing low-frequency random inputs and for oscillograph viewing of the output. Some pertinent data are given:

Number of removable type blocks (including 178 matched constant current amplifiers)	372
Number of vacuum tubes	3 100
Number of semiconducting diodes (germanium and silicon)	7 000
Number of semiconducting triodes	120
Number of resistors	about 33 000
Number of condensors	7 020
Length of wiring, in meters	about 45 000
Electrical capacity, required of a three-phase network of 220 v, 50 cps, in kva	12
General area occupied by machine, in m^2	10

In comparing the MN-14 with the best American machines, the authors claim that the MN-14 yields nothing to the others. Orig. art. has: 2 figures, 1 table and 1 formula.

Card 2/3



L 10415-66 EWT(d)/EWT(m)/EWP(w)/EWP(v)/T/EWP(k)/EWP(h)/EWP(l)/EWA(h)/ETC(m) IJP(c)
AM5023898 BB/WW/EM/GG/JXT Monograph UR/

Vitenberg, I. M.; Petrov, G. M.; Pukhov, G. Ye., eds.

Problems of theory and application of mathematical modeling (Voprosy teorii i primeneniya matematicheskogo modelirovaniya). Moscow, Izd-vo "Sovetskoye radio," 1965. 646 p. illus., biblio. 5800 copies printed.

TOPIC TAGS: analog computer, simulation, mathematical modeling

PURPOSE AND COVERAGE: This book presents the present state and development of Soviet analog computer technology and its significance in various brances of Soviet science and national economy. Problems of the theory of analog computers and mathematical modeling of systems described by partial differential equations and ordinary differential equations are discussed. Readers are familiarized with experience gained in operating modern computers. The book contains articles by several well-known specialists in computer technology which are based on material from the First All-Union Conference on Analog Computer Technology. This book is

Card 1/9

UDC: 681.142.1.01

intended for a wide range of specialists engaged in designing and operating analog and digital computers, also teachers and students in engineering institutes and State universities.

TABLE OF CONTENTS:

L 10415-66
AM5023898

L 10415-66
AM5023898

Card 4/9

L 10415-66
AM5023898

Card 5/9

L 10415-66
AM5023898

Card 6/9

L 10415-66
AM5023898

Card 7/9

L 10415-66
AM5023898

17

calculating systems for forming an electron beam (V. A. Kochegurov, N. V. Trikhanova, and P. M. Shchanin) -- 552
The solution of certain problems with the aid of analog computers (L. S. Gamkhitashvili, N. P. Kandelaki, A. M. Kvavilashvili, T. I. Maruashvili, and G. G. Okroashvili) -- 560
Analog models for investigating "man-and-machine" systems (V. F. Venda) -- 570
Experience gained in applying electronic analog computers to scientific and engineering investigations (G. M. Zhdanov, I. M. Tetel'baum, and N. I. Chelnokov) -- 579
Experience in operating MN-7 and EMU-8 electronic computers (N. G. Vintizenko, V. Ya. Durnovtsev, A. V. Kozhevnikov, and V. V. Tsygankov) -- 587
The application of analog computers to investigations of thermal processes in a cutting tool (A. N. Reznikov, A. V. Temnikov, and V. V. Basov) -- 592
An attachment to an RC-network for periodization, measuring, and formulating boundary conditions when modeling nonstationary thermal processes in a cutting tool (A. V. Temnikov, M. Ya. Likhttsinder, and V. M. Gavrilov) -- 611

Card 8/9

L 10415-66
AM5023898

Electrical modeling of problems of the dynamics of certain mechanical structures (A. G. Levin) -- 615
The application of analog computers to investigating processes in a main gas pipeline (M. A. Zhidkova) -- 628

SUB CODE: DP, MA/ SUBM DATE: 19Feb65/ ORIG REF: 355/ OTH REF: 033

Card 9/9

L 60859-65 EEC-4/EWG(v)/EWT(1)/FBD GW/WS-4
ACCESSION NR: AP5018071 UR/0020/65/163/001/0050/0053

AUTHOR: Kotel'nikov, V. A.; Aleksandrov, Yu. N.; Apraksin, L. V.; Dubrovin, V. M.; Kislik, M. D.; Kuznetsov, B. I.; Petrov, G. M.; Rzhiga, O. N.; Frantsesson, A. V.; Shakovskoy, A. M.

TITLE: Radar observations of Venus in the Soviet Union in 1964

SOURCE: AN SSSR. Doklady, v. 163, no. 1, 1965, 50-53

TOPIC TAGS: radio wave reflection, Venus radar observation, radio emission measurement, radar observation, radio astronomy

ABSTRACT: Radar observations of Venus at 40 cm were conducted between 11 and 30 June 1964 by the Institute of Radio Engineering and Electronics of the Academy of Sciences USSR. Frequency modulation and periodic linear frequency modulation of radiated signals were employed. Paramagnetic and parametric amplifiers were used at the receiver output. Signal analysis was performed by means of a 20-channel analyzer with a filter bandwidth of 1.2 cps for each channel. The reflected signal spectrum and measurements of the radial velocity of the motion of Venus were determined on the basis of the Doppler shift of the signal spectrum of the central frequency in relation to the radiation frequency. Frequency manipulation

Card 1/5

L 60859-65

ACCESSION NR: AP5018071

ASSOCIATION: Institut radiotekhniki i radioelektroniki Akademii nauk SSSR (Institute of Radio Engineering and Electronics, Academy of Sciences SSSR)

SUBMITTED: 12Apr65	ENCL: 02	SUB CODE: DC, AA
NO REF SOV: 003	OTHER: 000	ATD PRESS: 4063

Card 3/5

S/169/63/000/002/074/127
D263/D307

AUTHOR: Petrov, G. M.

TITLE: Some characteristics of the methods of exploration of skarn orebodies

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 2, 1963, 11, abstract 2D69 (Razvedka i okhrana nedr., 1962, no. 7, 49-50)

TEXT: Cold ore deposits in skarns are generally small, and the orebodies are in the shape of nests and pockets. They occur in the zone of limestone or non-ore-bearing skarns, without apparent regularity. During exploration of such deposits, drilling from specially inspected holes was successfully employed. Holes were made at distances of 100 - 150 m from each other, to depths of 3 - 4 m, in relatively dense rocks. ГП-1 (GP-1) machines were placed in special chambers. Horizontal 50 - 70 m wells were first drilled. When orebodies were located, their exact position was ascertained by drilling further wells. To confirm the sides of the mineralized areas,

Card 1/2

Some characteristics of ...

S/169/63/000/002/074/127
D263/D307

the ЭИФ-300 (EIF-300) equipment is used in place of GP-1, allowing 200 m deep wells to be drilled. Drill bits armored with ВК-8 (VK-8) and Г-53 (G-53) pobedites [Abstracter's note: composition unknown] were used, allowing drilling of rocks up to X-th category. [Abstracter's note: Complete translation.]

Card 2/2

TOLKACHEV, G.M.; PETROV, G.M.

Practice of an integrated drilling crew. Razved.i okh.nedr 28 no.1:47-48 Ja '62. (MIRA 15:1)

1. Trest "Zapsibzoloto".

(Boring)

VI.ENBE.G, I.M., doktor tekhn. nauk, red.; PETR.V, G.V., kand. tekhn. nauk, red.; P'KH V, G.Ye., red.; [illegible], N.Ya., red.

(Problems of the theory and application of mathematical modeling) Voprosy teorii i primeneniia matematicheskogo modelirovaniia. Moskva, Sovetskoe radio, 1965. 64[illegible] p.

(MIRA 18:4)

1. Chlen-korrespondent AN Ukr.SSR (for Pukhov).

ARABADZHYAN, A.Z., kand.ekon.nauk; BADI, Sh.M., kand.ekon.nauk; BAROYAN, O.V., doktor med.nauk; BASHKIROV, A.V., kand.ekon.nauk; BUSHEV, P.P., kand. ist.nauk; GLUKHOZED, V.S.; DOROFEYEVA, L.N., kand.filol.nauk; DOROSHENKO, Ye.A., kand.ist.nauk; ZAVISTOVICH, A.A.; IVANOVA, M.N., kand. ist.nauk; IVANOV, M.S., doktor ist.nauk; IL'INSKIY, G.N., kand.ist. nauk; KISLYAKOV, N.A., doktor ist.nauk; KOMISSAROV, B.S., kand.filol. nauk; KURDOYEV, K.K., kand.filol.nauk; MOISEYEV, P.P., kand.ekon. nauk; PAKHALINA, T.N., kand.filol.nauk; PETROV, M.P., doktor geograficheskikh nauk, prof.; PETROV, G.M., kand.ist.nauk; SOKOLOVA, V.S., doktor filol.nauk; TRUBETSKOY, V.V.; FARKHADIYAN, A.I., kand.ist. nauk; SHOYTOV, A.M., kand.filol.nauk; ZAKHODER, B.N., doktor istoricheskikh nauk, prof., otvetstvennyy red.; AKHRAMOVICH, R.T., kand. ist.nauk, red.; FALINA, A.I., kand.ist.nauk, red.; KUZNETSOVA, N.A., red. izd-va; SHVEYKOVSKAYA, V.R., red. izd-va; PRUSAKOVA, T.A., tekhn. red.

[Present-day Iran: a manual] Sovremennyi Iran; spravochnik. Moskva, 1957. 715 p. (MIRA 11:2)

1. Akademiya nauk SSSR. Institut vostokovedeniya. (Iran)

GRABOVSKIY, M.A.; PETROVA, G.N.

Stability of residual magnetized rocks. Izv.AN SSSR Ser.geofiz. no.3 290-296 Mr '56. (MLRA 9:7)

1.Akademiya nauk SSSR, Geofizicheskiy institut.
(Rocks--Magnetic properties)

PETROV, S.N.

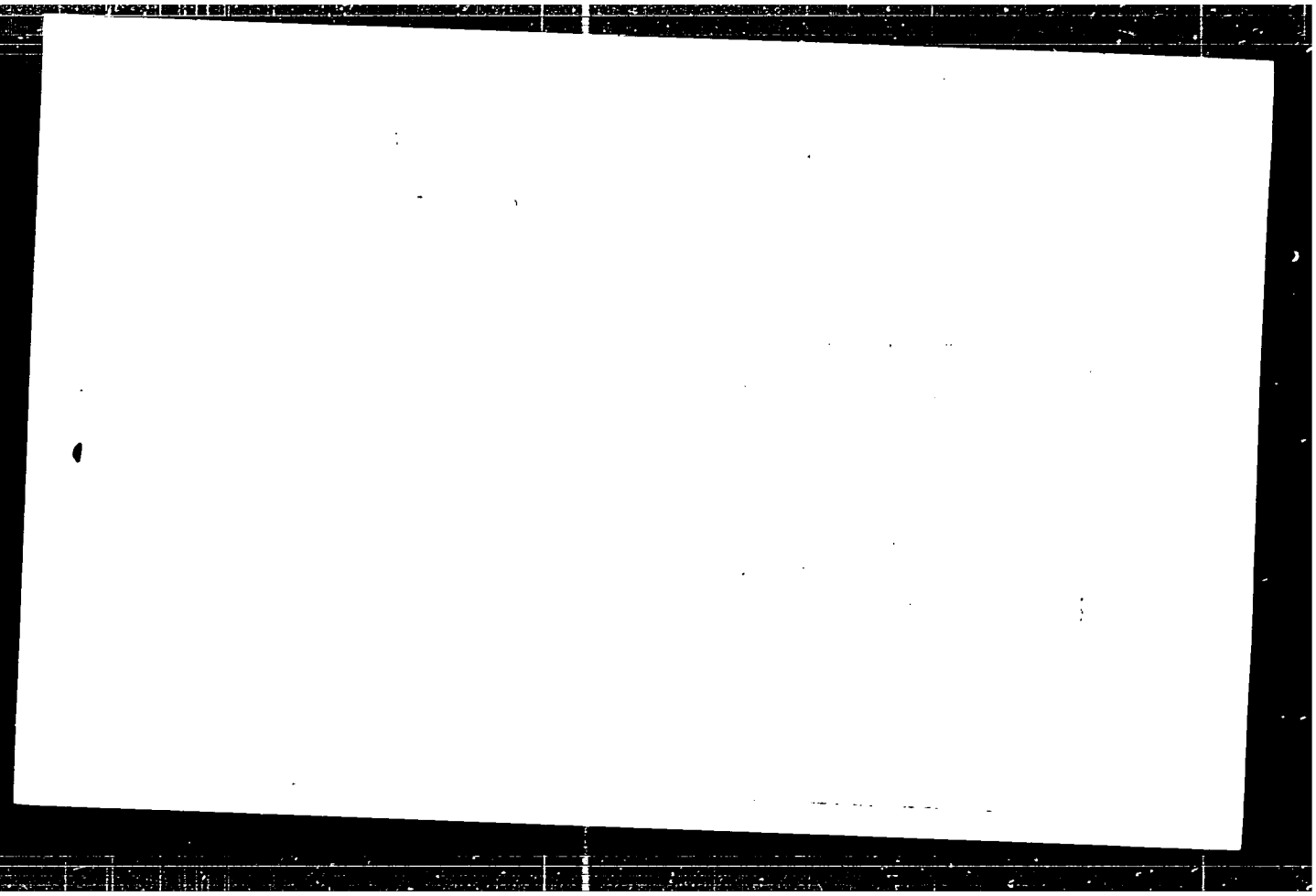
Fertilization and first stages of cleavage of human egg in vitro [with summary in English]. Arkh.anat.gist. i embr. 35 no.1:88-91 Ja-F '58. (MIRA 11:4)

1. Iz kafedry gistologii i embriologii (zav. - prof. B.P.Khvatov) Krymskogo gosudarstvennogo meditsinskogo instituta. Adres avtora: Simferopol', bul'var Lenina, d. 5/7, Meditsinskiy institut, kafedra gistologii.

(FERTILIZATION,
first stages of cleavage of fertilized human egg in vitro (Rus))

PETROV, G.N.

Survey of methods for producing relief maps. Geod. i kart. no.3: 40-47 My '56. (MLRA 9:10)
(Cartography) (Relief maps)



APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001240420017-0"

PETROV, G.N.

State of the hydrological study of small rivers in the middle Volga Valley and further patsh of streamflow investigation. Trudy Kazan. fil. AN SSSR. Ser. energ. i vod. khoz. no.4:5-11 '59. (MIRA 13:8)

1. Otdel energetiki i vodnogo khozyaystva Kazanskogo filiala AN SSSR.

(Volga Valley--Hydrology--Research)

PASHKEYEVA, S. I.; PETROV, G. N.

Methodological problems in studying the role of climatic factors in runoff formation. Trudy Kazan. fil. AN SSSR. Ser. energ. i vod. khoz. no.4:112-125 '59. (MIRA 13:8)

1. Otdel energetiki i vodnogo khozyaystva Kazanskogo filiala Akademii nauk SSSR.
(Volga Valley—Runoff)

PETROV, G.N., kand.tekhn.nauk, dotsent

Mechanics of the motion of parts in a vibrating mill. Izv.vys. ucheb.zav.; mashinostr. no.5:3-10 '60. (MIRA 13:7)

1. Moskovskoye vysshoye tekhnicheskoye uchilishche im. Baumana.
(Milling machinery)

PETROV, G.N.

We protect the track against drifts. Put' i p.t.c.e. no.11:14-16 N '59. (MIRA 13:2)

1. Zamestitel' nachal'nika Ber-Chogurskoy [illegible], stantsiya Ber-Chogur, Kazakhskoy dorogi.
(Ber-Chogur--Railroads--Snow protection and removal)

AVER'YANOVA, G.A.; PETROV, G.N.

Density of the hydrographic network in the middle Volga Valley. Izv. Kazan. fil. AN SSSR. Ser. energ. i vod. khoz. [illegible] vol. [illegible]

(Volga Valley--Hydrography)

AVER'YANOVA, G.A.; PETROV, G.N.

Prevailing slopes of the earth's surface and their distribution over the basins of small rivers of the middle Volga Valley. Izv. Kazan. fil. AN SSSR. Ser. energ. i vod. khoz. [illegible] vol.

(Volga Valley--Slopes (Physical geography

BACHURIN, N.I., inzh.; VOLKOV, V.S., inzh.; GORODETSKIY, P.S., prof., doktor tekhn. nauk; GUSEV, S.A., dotsent, kand. tekhn. nauk; ZHUKOVITSKIY, M.Ya., dots., kand. tekhn. nauk; IVANOV-SMOLENSKIY, A.V., dots., kand. tekhn. nauk; KIREYEV, I.I., dots., kand. tekhn.nauk; KOSYTIN, A.A., starshiy prepodavatel'; KULIKOV, F.V., dots.; NIKULIN, N.V., dots., kand. tekhn. nauk; PODNAR'KOV, A.N., dots.; PRIVEZENTSEV, V.A., prof., doktor tekhn. nauk; RUMSHINSKIY, L.A., dots., kand. fiz.-mat. nauk; SOBOLEV, V.D., dots., kand. tekhn.nauk; SOLAPOVA, K.K., inzh.; TIKHOMIROV, P.M., dots., kand. tekhn. nauk; FEDOROV, A.A., dots., kand. tekhn. nauk; CHUNIKHIN, A.A., dots., kand. tekhn. nauk; CHILIKIN, M.G., prof., glav. red.; GOLOVAN, A.T., prof., red.; GRUDINSKIY, P.G., prof., red.; PETROV, G.N., prof., doktor tekhn. nauk, red.; FEDOSEYEV, A.M., prof., red.; ARTIK, I.V., inzh., red.; BORISOV, N.I., tekhn. red.

[Electrical engineering handbook] Elektrotekhnicheskii spravochnik. 3., perer. i dop. izd. Pod obshchei red. A.T. Golovana i dr. Moskva, Gosenergoizdat. Vol.1. 1961. 732 p. (MIRA 15:10)

1. Moskovskiy energeticheskiy institut (for Golovan, Grudinskiy, Petrov, Fedoseyev, Chilikin, Artik).
(Electric engineering--Handbooks, manuals, etc.)

LIFSHITS, V.S., inzh.; PETROV, G.N., inzh.

Evaluating the quality of pipeline butt joints made by resistance welding. Svar. proizv. no.4:22-24 Ap '63. (MCRA 16:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po stroitel'stvu magistral'nykh truboprovodov.
(Pipelines--Welding) (Welding--Testing)

MALYSHEVA, Z.S., st. prepod.; GLUKHOV, N.A., kand. tekhn. nauk, dots.; MINUT, S.B., dots.; PETROV, G.N., kand.tekhn.nauk, dots.; RESHETOV, L.N., doktor tekhn.nauk, prof., red.;

[Theory of mechanisms and machines] Teoriia mekhanizmov i mashin; kurs lektsii [By]Z.S.Malysheva i dr. Pod red. L.N. Reshetova. Moskva, No.4.[Dynamics of mechanisms and machines] Dinamika mekhanizmov i mashin. 1959. 91 p. (MIRA 16:7)

1. Moscow. Moskovskoye vyssheye tekhnicheskoye uchilishche. (Mechanisms) (Machinery, Kinematics of)

PETROV, G.N.

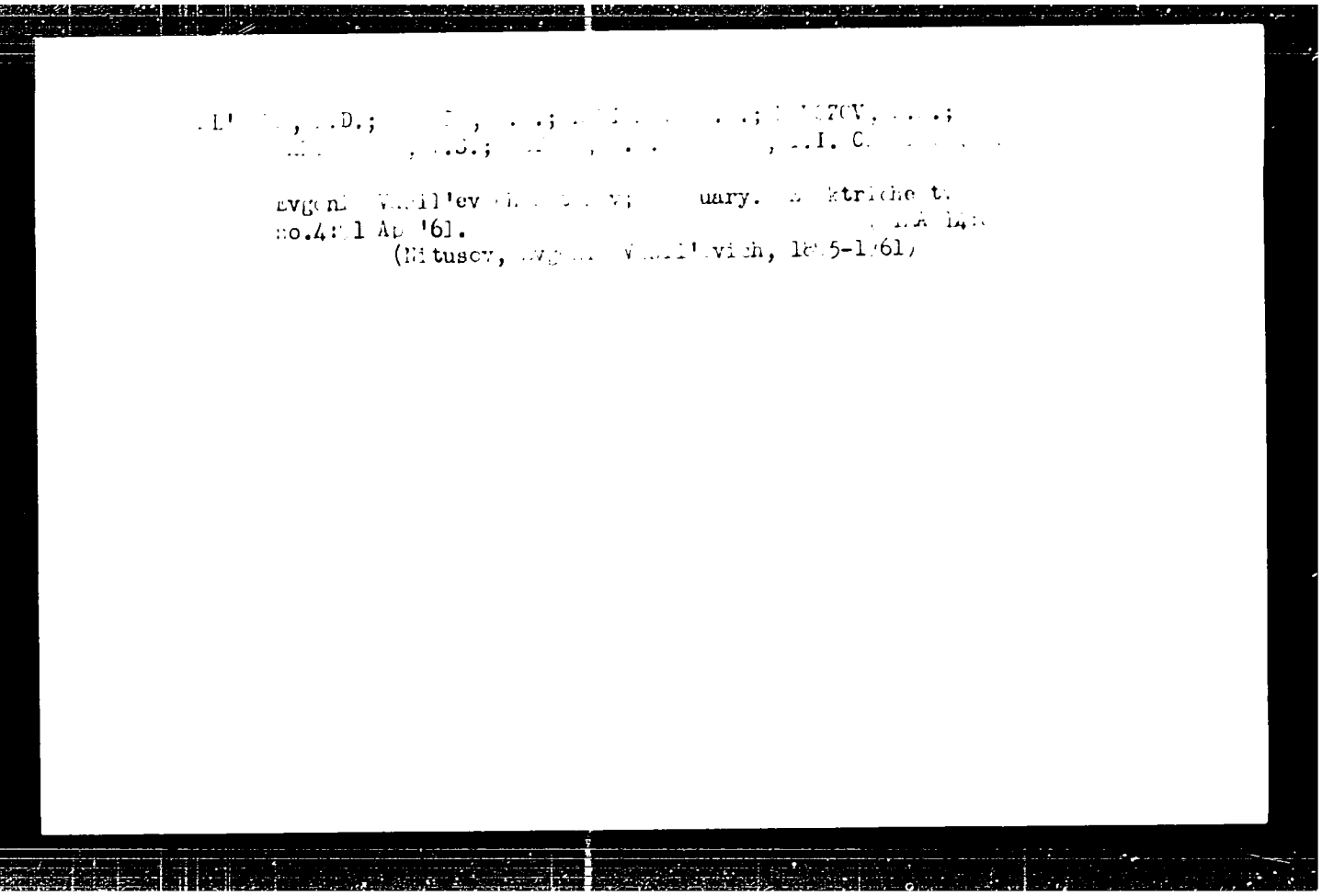
Geographical zonality and hydrological problems in [illegible] mapping. Izv. Kazan. fil. AN SSSR. Ser. energ. [illegible] no.2:5-26 '61. (MIRA 15:

(Hydrography)

PETROV, G.N.

Roughness coefficient of small rivers and its characteristics during low-water periods in connection with the filling of the stream channel with aquatic vegetation and the discharge measurement technique. Izv. Kazan. fil. AN SSSR. Ser. energ. i vod. khoz. no.2:67-78 '61. MIRA 15:1

(Stream measurements)



PETROV, G.N.; KOROTKOV, A.A.

Composition of the reaction products of vanadium oxytrichloride with triethylaluminum. Dokl. AN SSSR 141 no.3:632-635 N '61.
(MIRA 14:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S.V. Lebedeva. 2. Chlen-korrespondent AN SSSR (for Korotkov).

(Vanadium chloride)
(Aluminum)

KOVALEV, Mikhail Prokhorovich; MORZHAKOV, Sergey Petrovich; TEREKHOVA, Klavdiya Sergeyevna; PETROV, G.N., kand.tekhn.nauk, dotsent, retsenzent; GORTSUYEVA, N.A., red.; NOVIK, A.Ya., tekhn.red.

[Dynamic balancing of the wheels of gyro systems] Dinamicheskoe uravnoveshivanie rotorov giroskopicheskikh sistem. Moskva, Oborongiz, 1962. 257 p. (MIRA 15:5)
(Balancing of machinery) (Gyroscope)

AUTHORS: [illegible]
AS USSR

TITLE: Study [illegible]

PERIODICAL: Akademiya nauk SSSR. [illegible]

TEXT: The work presented was undertaken with a view to establishing rules which enable an advance [illegible] of the quantitative composition of the reaction products obtained from $TiCl_4$ and $Al(C_2H_5)_3$. 0.1 M benzene solution of $Al(C_2H_5)_3$ was added [illegible] M $TiCl_4$ solution at [illegible] under strict exclusion of moisture. [illegible] were: (1) The precipitate was filtered off, washed several times with benzene and dissolved in [illegible]. The titanium content of Y was determined volumetrically with 0.1 N permanganate [illegible]. Then the precipitate and the filtrate were analyzed quantitatively for Cl, Al, and Ti. (2) The ethane, ethylene, and butane by [illegible]

Card 1/6

Study of the composition ...

quantity of CO_2 formed was used as a ... determining the amount ... ethyl groups of $Al(C_2H_5)_3$ which had ... gases. According to Ref. ... organovanadium intermediate ... quantitatively, and that the ... In this case the quantity of reacted ... amount of $AlCl(C_2H_5)_2$ formed. After ... the reaction mixture was treated with ... unreacted ethyl groups calculated ... From these data, the quantities of ... $Al(C_2H_5)_3$ were calculated. It was ... decreases with increasing molar ratio ... (Fig. 1). The quantity of $AlCl(C_2H_5)_2$ ... simultaneously. At ... reacts simultaneously ... according to ... see ... at the ...

Card 2/6

Study of the composition ...

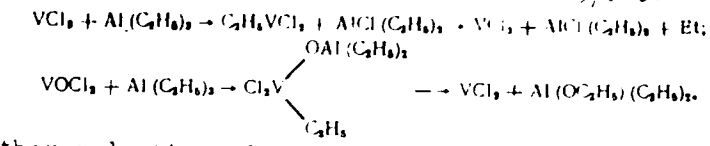
$VOCl_3 + Al(C_2H_5)_3 \rightarrow C_2H_5VOCl_2 \cdot [illegible] \rightarrow VOCl_2 + Et$, where Et are the ethyl groups determined as gaseous hydrocarbons; (2) at the V = C bond:

$$VOCl_3 + Al(C_2H_5)_3 \rightarrow Cl_2V(OAl(C_2H_5)_2)(C_2H_5) \longrightarrow VCl_3 + Al(OC_2H_5)(C_2H_5)_2$$

Thus the valency of V drops by one unit due to the formation of 1 mole $AlCl(C_2H_5)_2$, and by 2 units due to the formation of $Al(OC_2H_5)(C_2H_5)_2$. The mean values of the V valency, calculated for both reactions are in good agreement. The present paper describes the simplest system formed at $n > 2$. The insoluble complex compounds formed during the reduction are composed of equimolar amounts of vanadium chlorides and alkyl aluminum compounds, which are able to undergo an equilibrium exchange with the alkyl aluminum in solution. At $n > 2$, the Cl content of the solution above the precipitate increases. With excess $Al(C_2H_5)_3$, the trivalent and tetravalent V compounds formed are further reduced.

Card 3/8

Study of the composition ...



$$VCl_3 + Al(C_2H_5)_3 \rightarrow C_2H_5VCl_2 + AlCl(C_2H_5)_2 \cdot VCl_3 + AlCl(C_2H_5)_2 + Et;$$

$$VOCl_3 + Al(C_2H_5)_3 \rightarrow Cl_2V(OAl(C_2H_5)_2)(C_2H_5) \rightarrow VCl_3 + Al(OC_2H_5)(C_2H_5)_2.$$

Since no further reduction of V occurs, this Cl increase is probably due to an equilibrium:
$VCl_2 \cdot AlCl(C_2H_5)_2 + Al(C_2H_5)_3 \rightleftharpoons VCl_3 \cdot Al(C_2H_5)_3 + AlCl(C_2H_5)_2$. A similar reaction is assumed for $Al(OC_2H_5)(C_2H_5)_2$. The following designations are used: m_o = total content of $AlCl(C_2H_5)_2$, l_o = total content of $Al(OC_2H_5)(C_2H_5)_2$ in the reaction products; m and l, respectively, the content of these compounds in the solution; m_1 and l_1 the quantities of these compounds which are chemosorbed by the surface of the precipitate. It is assumed that $m_o = m + m_1$; and $l_o = l + l_1$. From the results obtained and the equation of the equilibrium constants of the respective reactions the following equations are derived: $m_1 = m_o/n$, $l_1 = l_o/n$. Thus the quantity of $AlCl(C_2H_5)_2$ chemisorbed on the surface of the reduced vanadium

Card 4/6

Study of the composition ... B/[illegible]/61/141/003/008/021
B101

chlorides is inversely proportional to the quantity of $Al(C_2H_5)_3$ introduced into the reaction. The decrease of activity of this type of catalyst, connected with an increase of the ratio $AlR_3/VOCl_3$, has been mentioned severally in publications. This effect may be explained by the decrease in the content of complexed $AlCl(C_2H_5)_2$, if one assumes that this compound represents an active center initiating polymerization. The question is subject to further study. There are 3 figures, 1 table, and 10 references: 1 Soviet and 9 non-Soviet. The three references to English-language publications read as follows: Ref. 8: P. V. Paulson, J. F. Murphy. Anal. Chem., 28, No. 7, 1182 (1956); Ref. 9: F. Cotton, Chem. Rev., 55, No. 3, 551 (1955); Ref. 10: H. Jilman, R. Jones, L. Woods, J. Am. Chem. Soc., 76, 3615 (1954).

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S. V. Lebedeva (All-Union Scientific Research Institute of Synthetic Rubber imeni S. V. Lebedev)

Card 5/6

PETROV, G.N., kand.tekhn.nauk

Seminar on problems of engineering protection for towns and villages and the study of the water cycle in areas where the water level has risen. Gidr. stroi. 31 no.3:61-62 Mr '61. (MIRA 14:4)

(Hydraulic engineering)

SKOBEL'TSYN, Yu.V., prof., otv.red.; PETROV, G.N., red.; SHAKHTIROV, M.Z., tekhn.red

[Areas of catchment basins and density of the drainage network of small rivers in the middle Volga Valley] Ploshchadi vodosbornykh basseinov i plotnost' rechnoi seti malykh rek Srednego Povolzh'ia. Kazan', 1960. 274 p. (Akademiia nauk SSSR. Kazanskii filial. Trudy, no. 5). (MIRA 14:2)
(Volga Valley--Hydrography)

PETROV, G.N., kand.tekhn.nauk; SAVELOVA, A.A., kand.tekhn.nauk

Balancing unit for checking the unbalance of assembled electric motors. Izv.vys.ucheb. zav.; machinostr. no.3:82-96 '60. (MIRA 14:3)

1. Moskovskoye vysshaye tekhnicheskoye uchilishche imeni Baumana.
(Balancing of machinery)

PETROVA, R. S.; PETROV, [illegible] Kazan')

Studying local water resources [illegible]
Mr-ap '[illegible]

(Water supply)

[illegible] 3005

[illegible] Dorofeyev, A. [illegible] Petrov, S. A.; Boyko, [illegible],
[illegible]; Lebedeva, L. A.

ORG: [illegible] Scientific Research Institute of Synthetic Rubber im. [illegible] Lebedev (Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauch[illegible]

TITLE: [illegible]ation and properties of butadiene-isoprene block polymers

SOURCE: [illegible] 1, no. 12, 1965, 1-5

TOPIC TAGS: [illegible]ation, isoprene, block copolymer, polymer physical property

ABSTRACT: A method was developed for preparing butadiene-isoprene block polymers in [illegible] and studied their basic physicomechanical properties. The block [illegible] and carried out in a 50% isopentane solution in the presence of an [illegible] and the properties of the polymers were studied as functions [illegible] quantity of blocks in the polymer chain. From the standpoint [illegible], the blocks of polyisoprene and polybutadiene are practically analo[illegible] of isoprene-butadiene homopolymers obtained on the organolithium cat[illegible]. From the standpoint of the properties of the vulcanizates, the synthesized block [illegible] practically do not differ from the properties of mechanical mixtures of the homopolymers and are entirely determined by the butadiene-to-isoprene ratio.

Card 1/[illegible] UDC: (678.762.2+678.762.3):678.[illegible].24.004.12

PETROV, G. N.

"Transformers," Vol. I, Moscow-Leningrad, 1934

PETROV, GEORGII NIKOLAEVICH.

Ob ustoichivosti vikhrevykh sloev. Moskva, 1937. 24., illus., table, diagrs. (TSAGI. Trudy, no. 304)

Summary in English.

Bibliographical footnotes.

Title tr.: Stability of vortex sheets.

QA911.M65 no.304

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955

PETROV, GEORGIĬ NIKOLAEVICH.

O rasprostranenii kolebanii v viazkoi zhidkosti i vozniknovenii turbulentnosti. Moskva, 1938. 27 -., diagrs. (TSAGI. Trudy, no. 345

Bibligoraphy: p. 26-47.

Title tr.: Propagation of oscillations in a viscous fluid and the origin of turbulence.

QA911. M65 no. 345

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955

PETROV, G. N.

"Electrical Machinery," edited by G. N. Petrov, Parts 1 and 2, Moscow-Leningrad, 1940-47

PETROV, G. N. PROF.

47T31

USSR/Electricity
Transformers
Mathematics, Applied

Mar 1948

"Theory of Calculation of Leakage Inductance of Transformers," Prof G. N. Petrov, Dr Tech Sci, 6 pp

"Elektrichestvo" No 3

Method known as the mean geometric distance permits determination of leakage inductance of transformer coils. Method of calculation very simple. Petrov gives further and more detailed description of subject.

47T31

PETROV, G. N. Prof

PA 20/49T22

USSR/Electricity
Asynchronous Machines
Currents, Electric - Recording
Dec 48

"Effect of Saturation on the Characteristics and Current Diagram of an Asynchronous Machine," Prof G. N. Petrov, Dr Tech Sci, Moscow Power Eng Inst imeni Molotov, 6 pp

"Elektrichestvo" No 12

In modern heavily used machines inductances of windings of stator and rotor in semishielded grooves depend on current in windings and vary in a wide range. This is explained by changes of the cam-layer saturation. Points out practical and theoretical

20/49T22

USSR/Electricity (Contd)
Dec 48

interests in problem of effect of saturation on working characteristics of asynchronous machines, particularly with short-circuited rotor. Attempts to develop a theory of asynchronous machines from the calculation of their saturation.

20/49T22

PETROV, G. N., PROF

USSR/Electricity Electric Power Scientists May 49

"Professor L. I. Sirotinskiy (Seventieth Birthday Anniversary)," Prof P. C. Zhlanov, Dr Tech Sci, Prof V. V. Meshkov, Dr Tech Sci, Prof G. N. Petrov, Dr Tech Sci, Docent, A. S. Sergeyev, 1 p

"Elektrichestvo" No 5

Gives details, in brief, of Prof Sirotinskiy's early education and his part in setting up various electrical engineering laboratories. Most of his activities, in high-voltage techniques, took place at Moscow Power Inst imeni Molotov. Lists most important projects (Dneprostroy, etc.) in which he participated.

PA 55/49T29

USSR/Electricity - Transformers, Current Measuring Instruments May 50

PA 167T2

"Negative Resistance of a Secondary Transformer Winding," Prof G. N. Petrov, Dr Tech Sci, S. S. Okun', Cand Tech Sci, Moscow Power Eng Inst imeni Molotov

"Elektrichestvo" No 5, pp 3-5

In current transformers, whose characteristics are chiefly determined by parameters of secondary winding, it is possible to use effect of double magnetic leakage to alter active resistance and inductance of this winding. Under certain conditions,

167T2

USSR/Electricity - Transformers, Current (Contd) May 50

negative values can be attained for these parameters. This phenomenon can be used to compensate for errors of current transformer. Analyzes and experimentally investigates problem. Submitted 27 Feb 50.

167T2

PETROV, G. N. Prof

PETROV, G. N. Dec 51

USSR/Electricity - Personalities

"Academician V. S. Kulebakin (His 60th Birthday)," V. A. Trapeznikov, M. P. Kostenko, B. N. Petrov, N. V. Gorokhov, V. L. Lossiyevskiy, D. S. Sotskov, M. G. Chilikin, G. N. Petrov, A. N. Larionov, A. G. Iosif'yan, K. S. Bobov, D. A. Gorodetskiy

"Elektrichestvo" No 12, p 88

Kulebakin is very well known in the fields of elec machines, elec equipment, automatic control, and illuminating engineering and has specialized for many years in aviation elec equipment. A major general in the aviation engineering service, he was one of the founders of the All-Union Elec Eng Inst and the Inst of Automatics and Telemechan and has headed chairs at the Moscow Power Eng Inst imeni Molotov and the Air Force Eng Acad imeni Zhukovskiy.

201T87

PETROV, G.N., redaktor; BABOCHKIN, S.M., tekhnicheskiy redaktor.

[Calendar-manual for 1952; supplement to the periodical "Elektrichestvo"] Kalendar'-spravochnik na 1952 god; prilozhenie k zhurnalu "Elektrichestvo." Moskva, Gos.energ.izd-vo 1952. 239 p. (MLRA 8:10)
'Electric engineering-- Tables, calculations, etc.

GUSEV, S.A., inzh.; ZHUKHOVITSKIY, B.Ye., kand.tekhn.nauk; ZARIN, D.D., kand.tekhn.nauk; IVANOV-SMOLENSKIY, A.V., kand.tekhn.nauk; KNYAZEVSKIY, B.A., kand.tekhn.nauk; KUZNETSOV, A.I., inzh.; KOZIS, V.L., kand.tekhn.nauk; KORYTIN, A.A., inzh.; LASHKOV, F.P., inzh.; L'VOV, Ye.L., kand.tekhn.nauk; MELESHKINA, L.P., kand.tekhn.nauk; NEKRASOVA, N.M., kand.tekhn.nauk; NIKULIN, N.V., kand.tekhn.nauk; POLEVOY, V.A., kand.tekhnicheskikh nauk; RAZEVIG, D.V., kand.tekhn.nauk; ROZANOV, G.M., kand.tekhn. nauk; RUMSHISKIY, L.Z., kand.fiz.-matem.nauk; SVISTOV, N.K., kand.tekhn.nauk; SIROTINSKIY, Ye.L., kand.tekhn.nauk; SOKOLOV, M.M., kand.tekhn.nauk; TALITSKIY, A.V., prof.; TREMBACH, V.V., inzh.; FEDOROV, A.A., kand.tekhn.nauk; CHUDINSKIY, P.G., prof.; PRYTKOV, V.T., kand.tekhn.nauk; CHILIKIN, M.G., prof., glavnyy red.; GOLOVAN, A.T., prof., red.; PETROV, G.N., prof., red.; FEDOSEYEV, A.M., prof., red.; ANTIK, I.V., red.; SKVORTSOV, I.M., tekhn.red.

[Handbook for electric engineering] Elektrotekhnicheskii spravochnik. Moskva, Gos.energ.izd-vo, 1952. 640 p. (MIRA 13:2)

1. Prepodavateli Moskovskogo energeticheskogo instituta imeni V.M. Molotova (for all except Antik, Skvortsov).
(Electric engineering)

231T22

USSR/Electricity - Hydroelectric Generators Oct 52

"Hydroelectric Generators," N. P. Ivanov, Engr, Prof G. N. Petrov

"Elektrichestvo" No 10, pp 11-24

Characteristics of modern high power hydroelec generators are discussed and the main structural units of various machines are described. Authors state that the largest hydroelec generators in the world have been built in USSR and are being used at Shcherbakov and Dnepr stations, even though the power of the Grand Coulee generator is 108,000 kva while that of the Shcherbakov and Dnepr generators are 70,000 kva and 90,000 kva, resp. The characteristic upon which authors base claim is kva rpm.

231T22

PETROV, G. N.

USSR/Electricity - Transformers Dec 52

"Instrument Transformers (Current) With Error Compensation by the Method of Proportional Parts," Prof P. P. Petrov, Dr Tech Sci, and Docent S. S. Obukhov, Cand Tech Sci, Moscow Power Engr Inst imeni M. Molotov

"Elektrichestvo" No 12, pp 17-21

Examines theory of instrument transformers (current), which have recently come into widespread use in electrification. In these transformers special magnetic shunts are used and secondary windings are placed on

24T22

two legs to produce wide variation of secondary winding leakage emf in order to obtain optimum compensation conditions while retaining small size of xfmr. Submitted 18 Apr 52.

24T22

Subject : USSR/Electricity

Card 1/1 Pub. 27 - 5/34

Author : Petrov, G. N., Dr. Tech. Sci., Prof., and Abramov, A. I., Kand. Tech. Sci.

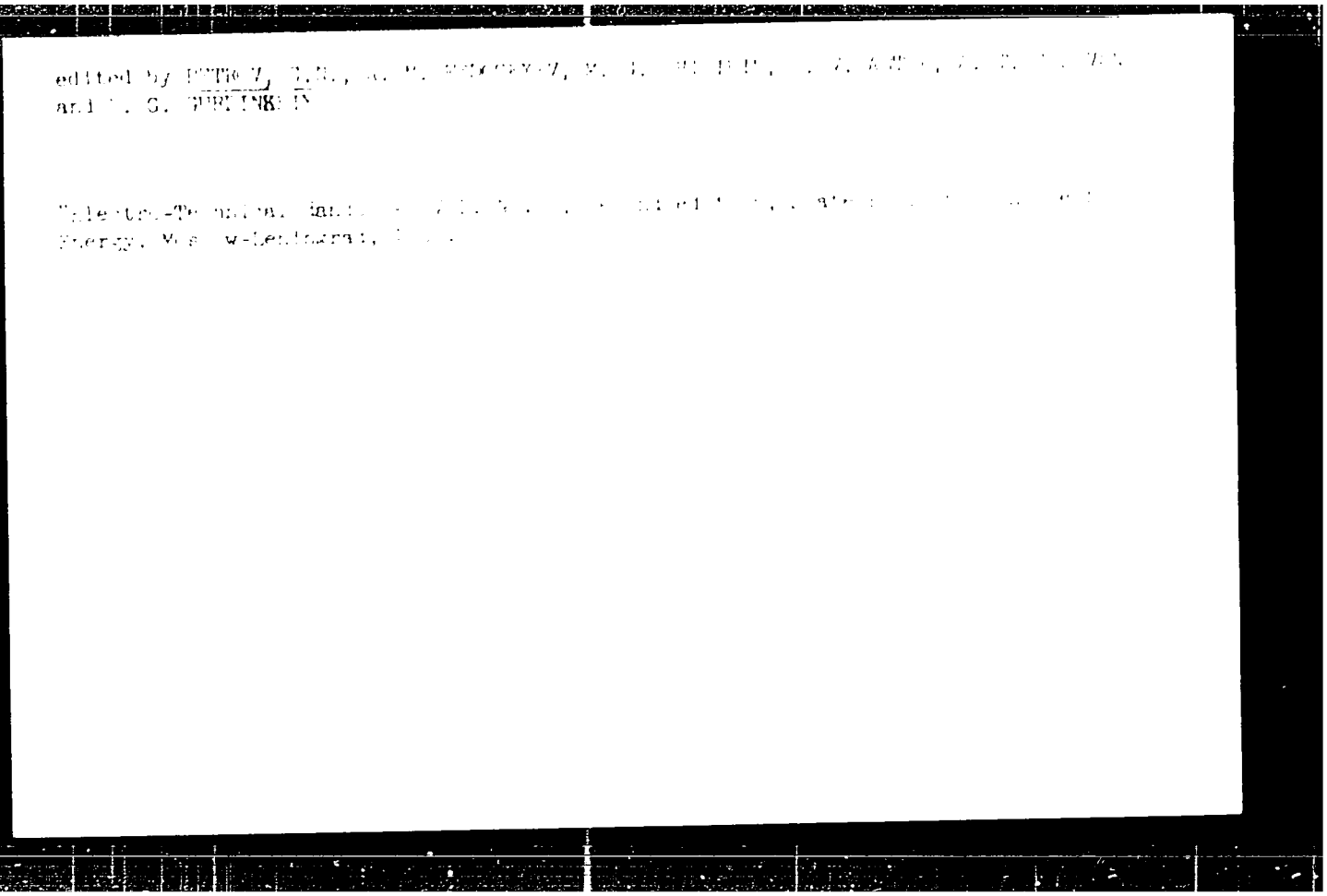
Title : Voltages between Windings of Electric Machines caused by Transient Phenomena

Periodical : Elektrichestvo, 7, 24-31, Jl 1954

Abstract : Transient phenomena occurring in windings of high voltage motors with multi-turn coils are discussed on the basis of experimental studies. The character and distribution of surge voltages across the coils and turns are explained and transient phenomena occurring at the switching of the motors are analysed. Results obtained are extended to high voltage motors and high voltage generators. 12 diagrams, 3 Russian references (1948-1950).

Institution : Moscow Power Institute im. Molotov

Submitted : Mr 20, 1954



GOLOVAN,A.T., professor, redaktor; GRUDINSKIY,P.G. professor, redaktor; PETROV,G.N., professor, redaktor; FEDOSEYEV,A.M., professor, redaktor; CHILIKIN,M.G., professor, redaktor; ANTIK,I.V., inzhener, redaktor; SKVORTSOV,I.M., tekhnicheskiy redaktor

[Electric engineering handbook] Elektrotekhnicheskiy spravochnik. Izd. 2-oe, perer. Pod obshchei red. V.M.Molotova, i dr. Moskva, Gos.energ. Vol.1. 1955. 527 p. Vol.2. 1955. 624 p. (MIRA 9:1)

1. Moskovskiy energeticheskiy institut imeni V.M.Molotova (for all except Skvortsov)

(Electric engineering--Handbooks, manuals, etc.)

Subject : USSR/Electricity AID P - 2827

Card 1/1 Pub. 27 - 16/30

Author : Petrov, G. N., Prof., Distinguished Worker in Science and Technology, Moscow

Title : Academician K. I. Shenfer. On the 70th anniversary of his birthday

Periodical : Elektrichestvo, 6, 71-73, Je 1955

Abstract : The author describes the activities of K. I. Shenfer in the educational and scientific fields and his contributions to the advancement of electrical engineering. One photograph.

Institution : Moscow Power Engineering Institute im. Molotov

Submitted : No date

Subject : USSR/Electricity AID P - 2941

Card 1/2 Pub. 27 - 6/15

Authors : Petrov, G. N., Doc. of Tech. Sci., and I. S. Nayashkov, Kand. of Tech. Sci.

Periodical : Elektrichestvo, 8, 39-46, Ag 1955

Abstract : The authors present a method of calculating electrodynamic forces rising in transformers during breakdowns. The method is based on the investigation of the magnetic field and calculation of the radial and axial components of the induction vector within the limits of the area enclosed by the windings. The influence of the steel core is accounted for with the help of mirror reflection diagrams. It was found that the generally applied method of determining radial components of the magnetic field with the non-compensated magnetizing force of the windings gives incorrect results. The authors calculated electrodynamic forces rising with back-fire in transformers of rectifying installations and found that these forces may attain

SHATELEN, M.A.; MESHKOV, V.V.; PETROV, G.N.; KISELEV, A.S.; BEL'KIND, L.D.

S.O. Maizel'. Elektrichestvo no.10:85 O'55. (MLRA 8:12)
(Maizel', Sergei Osipovich, 1882-1955)

PETROV, G. N.

USSR/ Engineering - Machine construction

Card 1/1 Pub. 128 - 8/31

Authors : Petrov, G. N., Cand. Tech. Sc., Assist. Prof.

Title : Dynamic balancing of machine parts during their mass production

Periodical : Vest. mash. 35/5, 18-24, May 1955

Abstract : Various aspects of dynamic balancing - the determination of the unbalance and elimination of same - as applied to practices of mass production of machine parts are discussed. Different types of Soviet and foreign made balancing machines, employed by the machine construction industry, are described. The balancing tolerances which may effect the labor output and the analogous tolerances for geometrical dimensions of parts and surface purity are explained. Ten USSR references (1938-1954). Graphs; drawings; illustrations.

Institution : .....

Submitted : .....

PETROV, G.N., kandidat tekhnicheskikh nauk, dotsent.

Work of the Theory of Mechanisms and Machines Department of Moscow Technical College in designing high-production tools for balancing of parts. [Trudy] M V T U no.65:11-16 '55. (MLRA 9:8)
(Balancing of machinery)

PETROV, G.N., kandidat tekhnicheskikh nauk, dotsent.

Device for automatic calculation of the value of disbalance in six planes of rotation. [Trudy] M V T U no.65:91-99 '55.
(MLRA 9:8)

(Balancing of machinery)

LEVIT, Grigoriy Osipovich, inzhener; BEL'KIND, L.D.,doktor tekhnicheskikh nauk, redaktor; GLAZUNOV, A.A.,doktor tekhnicheskikh nauk, redaktor; GOLUBTSOVA, V.A.,kandidat tekhnicheskikh nauk, redaktor; ZOLOTAREV, T.L.,doktor tekhnicheskikh nauk, redaktor; IZRASH, S.V., doktor tekhnicheskikh nauk, redaktor; KIRILLIN, V.A.,redaktor; KONFEDERATOV, I.Ya.,doktor tekhnicheskikh nauk, redaktor; PETROV, G.N.,doktor tekhnicheskikh nauk, redaktor; SIROTINSKIY, L.I., doktor tekhnicheskikh nauk, redaktor; SOLOV'YEV, I.I.,professor, redaktor; STYRIKOVICH, M.A.,redaktor; SHNEYBERG, Ya.A.,kandidat tekhnicheskikh nauk, redaktor; SHCHEGLYAYEV,A.V.,redaktor; ANTIK, I.V.,redaktor; FREDKIN, A.M.,tekhnicheskiy redaktor

[Outline history of power engineering in the U.S.S.R.] Ocherki po istorii energeticheskoi tekhniki SSSR. Red. komissiia L.D. Bel'kind i dr. Moskva, Gos. energ. izd-vo. No. 3. [Power congresses and conferences] Energeticheskiy s"ezdy i konferentsii. 1956. 98 p. (MLRA 10:4)

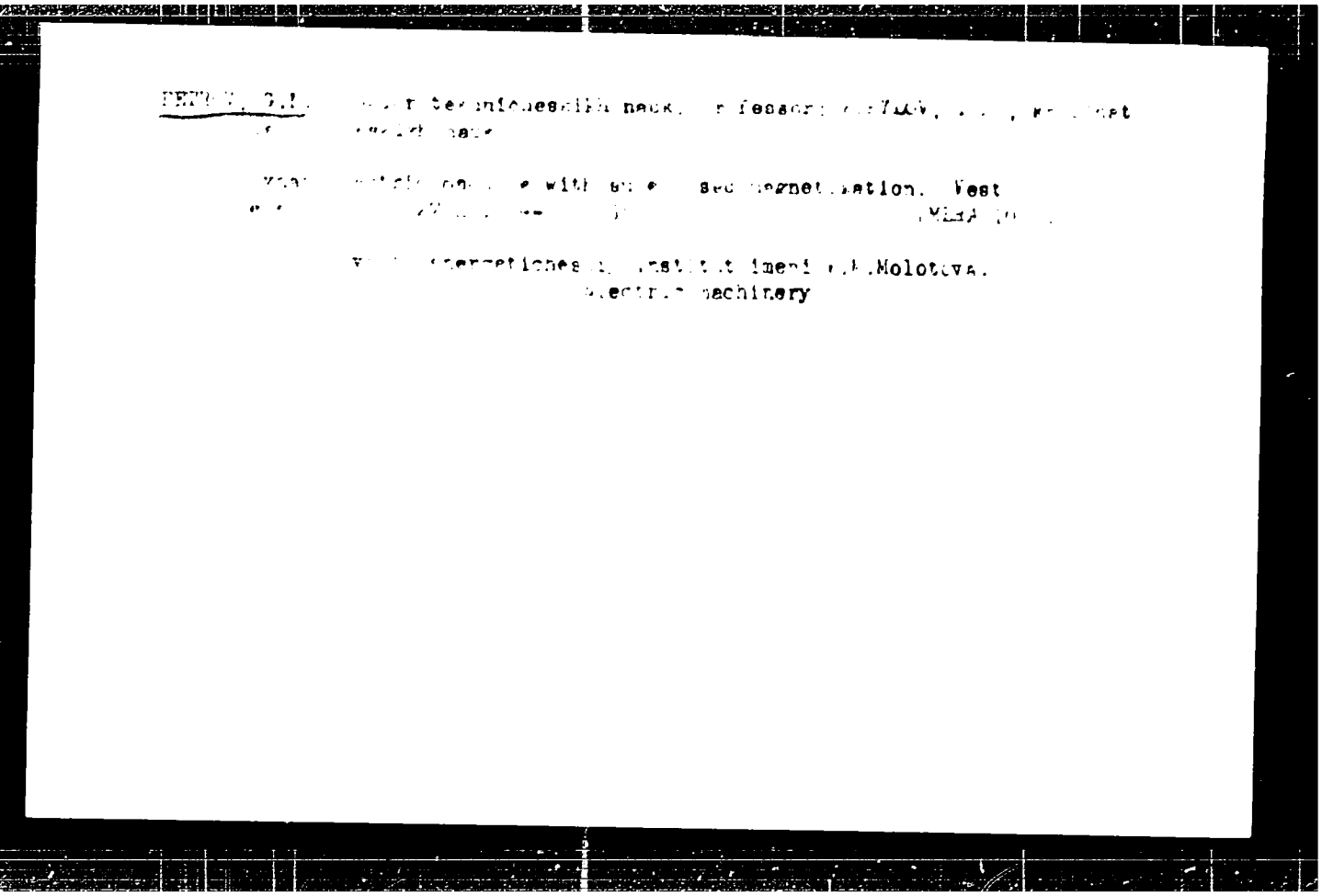
1. Moscow. Moskovskiy energeticheskiy institut. 2.Chlen korrespondent AN SSSR.(for Kirillin, Styrikovich, Shcheglyayev)
(Power engineering--Congresses)

PETROV, Georgiy Nikolayevich; KRAYZ, A.G., redaktor; SKVORTSOV, I.M., tekhnicheskiy redaktor

[Electric machines; in three parts] Elektricheskie mashiny; v trekh chastiakh. Izd. 2-oe, perer. Moskva, Gos. energ. izd-vo. Pt.1. [Introduction. Transformers] Vvedenie. Transformatory. 1956. 224 p. (Electric transformers) (MLRA 9:11)

KOSTENKO, M.P.; KULEBAKIN, V.S.; LARIONOV, A.N.; PETROV, G.N.; MITUSOV, Ye.V.; BOGOYAVLENSKIY, V.N.; RUDAKOV, V.V.; KOLBASNIKOV, M.V.

N.V. Gorokhov; obituary. Elektrichestvo no.1:95 Ja '56.(MLRA 9:3)
(Gorokhov, Nikolai Vladimirovich, 1896-1955)



AUTHORS: Petrov, S.N. and Chilikin, M.G., Professors

TITLE: When Will the Higher School Obtain a New Standard Code of Regulations? (Kogda zhe vysshaya shkola poluchit novyy tipovyy ustav?)

PERIODICAL: Vestnik Vysshey Shkoly, 19[illegible], # 9, [illegible] - [illegible] USSR

ABSTRACT: The existing standard code of Regulations for Higher Schools originates from 1936. Projects for a new code were announced two years ago but the authors state, no new code has yet been established. This creates a strange situation, as the old code is still in force but a number of regulations is no longer applicable.

The authors consider that this document must reflect all sides of higher school life. At the same time it has to be very compact and typical. It is not necessary to regulate strictly the periods of training vacation periods, and the number of examinations; this may differ in various vuzes

The authors suggest that the Dean be elected for a three year period; the vuz council should be confirmed every three years and should be formed of members of the vuz, the party, the syndicate and the komsomol The authors do not think it necessary that the students take part in the elections

Card 1/2

When Will the Higher School Obtain a New Standard Code of Regulations?

The authors reject the idea of a special administrative vuz presidium. Regular sessions of deans and vuz directors are suggested. One deputy is proposed if the number of students is 500; two for 500 - 1,000 students; three for 1,000 - 1,500 students

ASSOCIATION: The Moskva Institute of Energetics (Moskovskiy energeticheskiy institut)

AVAILABLE: Library of Congress

Card 2/2

PETROV, G.N., doktor tekhn.nauk, prof.

Scientific investigations in the field of electric machines in Czechoslovakia. Elektrichestvo no.12:79-81 D '57. (MIRA 10:12)

1.Moskovskiy energeticheskiy institut.
(Czechoslovakia--Electric machines)

PETROV, G.N., prof.

Review of Professor M. Vidmar's book "Transformers." G.N. Petrov. Vest. elektroprom. 28 no.11:78-79 N '57. (MIRA 10:12)

1. Moskovskiy energeticheskiy institut.
(Electric transformers)
(Vidmar, M.)

PHASE I BOOK EXPLOITATION 1201

Moscow. Vyssheye tekhnicheskoye uchilishche

Voprosy teorii mekhanizmov i mashin (Problems of Theory of Mechanisms and Machines) Moscow, Mashgiz, 1958. 141 p. (Series: Its: [Sbornik] 77) 3,600 copies printed.

Ed. (Title page): Reshetov, L.N., Doctor of Technical Sciences, Professor; Ed. (Inside book): Martens, S.L., Engineer; Tech. Ed.: Tikhanov, A.Ya.; Managing Ed. for Literature on General Technical and Transport Machine Building (Mashgiz): Ponomareva, K.A., Engineer.

PURPOSE: This collection of articles is intended for personnel of engineering departments of machine-building plants.

COVERAGE: Articles in the collection discuss problems of the efficient design of machines and the investigation of machine dynamics. It is recommended that good machine operation be assured by means of proper design rather than by increasing production accuracy. The types of basic mechanisms meeting this requirement are described. The theory is given for approximate shaping of mechanisms with higher

Card 1/3

kinematic pairs — cams and cogwheels for large size transmissions. The use of electric methods for measuring mechanical quantities is discussed (balancing and measuring angular velocity oscillations and stresses in a piston connecting rod).

TABLE OF CONTENTS:

AUTHOR: Petrov, Georgiy Nikolayevich, 307/161-58-1-1-13
Doctor of Technical Sciences, Professor,
Head of the Department of Electrical Machines at the
Moscow Institute of Power Engineering

TITLE: Equivalent Circuit Diagrams of Multi-Winding Transformers (Skhemy zameshcheniya mnogoobmotochnykh transformatorov)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Elektromekhanika i avtomatika, 1958, Nr 1, pp. 69 - 73 (USSR)

ABSTRACT: A principally new method is shown for the elaboration of multi-winding transformer equivalent circuits. The interaction of the windings is taken into account in the circuit diagram in another way as it was done in reference 2. The diagram is simplified, thus extending the applicability of the method to the case of an arbitrary number of windings. The theory of a multi-winding transformer is based upon the system of equations (1) and (2). They hold under the assumption, that all windings are reduced to the total number of spires and that the magnetization current is zero. The common solution of equations (1) and (2) permits to

Card 1/3

[redacted] 161 [redacted]

[redacted] (The [redacted] Moscow Institute of Power Engineering)

[redacted]

AUTHORS: Zinov'yeva, Ye. M., Petrov, G.N., Candidate of Technical Sciences SOV/6-58-6-12/21

TITLE: On the Problem of the Construction of the Hydrographic Network on Topographic Maps (K voprosu ob izobrazhenii gidrograficheskoy seti na topograficheskikh kartakh)

PERIODICAL: Geodeziya i kartografiya, 1958, Nr 6, pp. 54 - 55 (USSR)

ABSTRACT: The hydrologic expedition of the Kazan' Branch of the AS USSR made hydrometric measurements of the small rivers of the Mariyskaya ASSR in 1951 and of the river Ryksha in the Chuvashskaya ASSR, a left tributary of the Tsivil', in 1952. On this occasion certain deficiencies in their representation were found. Also in the investigation of the rivers of the central Volga area considerable deficiencies were found in 1955. The investigations showed that in the course of the last ten years the number of dried-up rivers in some areas of the central Volga area has increased considerably. The reason for this phenomenon is the incorrect execution of some agricultural measures. The analysis of the deficiencies in the representation of the hydrographic network showed

Card 1/2