

KUNITSKIY, N., kand.tekhn.nauk (Kaunas)

Transmitter with plate self-modulation operating on 28 Mc.  
Radio no.4:21-23 Ap '65. (MIRA 18:5)

NIKITIN, V.P., Academician, KUNITSKIY, N.P.

"Stability of the Operation of a DC Shunt Motor, "Iz. Ak. Nauk SSSR, Otdel. Tekh. Nauk, No. 9, 1940. Submitted 5 Aug. 1940.

Report U-1530, 25 Oct. 1951

NIKITIN, V.P., Academician, KUNITSKIY, N.P.

Stability of Operation of a DC Shunt Motor, "Iz. Ak. Nauk SSSR, Otdel, Tekh, Nauk  
No. 10, 1940. Submitted 5 Aug. 1940

Report U-1530, 25 Oct 1951

NIKITIN, V.P., Academician, KUNITSKIY, N.P.

"Diagram of Operational Stability of a Direct Current Shunt Motor," Iz Ak. Nauk SSSR, Otdel, Tekh. Nauk, No. 7-8, 1941. Submitted 17 May 1941.

Report U-1530, 25 Oct 1951

NIKITIN, V.P., Academician, KUNITSKIY, N.P.

"Operation Stability of the Leonard System," Izv. Ak. Nauk SSR, Otdel. Tekh. Nauk,  
No. 9, 1941.

~~Report~~ Report U-1530, 25 Oct 1951

KUNITSKIY, N. P.

"Stable Work Diagram of a D.C. Shunt Motor," Dokl. AN SSSR, 33, No.6, 1941



KUNITSKIY, N. P., TURKIN, V. K. and NIKITIN, V. P. Acad.

"An Analytical Method for Studying the Work of a D.C. Shunt Motor with Rotation Speed Controlled by Excitation Flux," Dokl. AN SSSR, 39, No.4, 1943

same article in Iz. Ak. Nauk SSSR, Otdel. Tekh. Nauk, Nos. 9-10, 1943



KUNITSKIY, N. P.

"Stability of Operation and Transient Processes in the Leonard System," Dokl.  
AN SSSR, 42, No.1, 1943

NIKITIN, V. P.; KUMITSKIY, N. P. Academicians

"Theory of a Power Follower Electric Drive with Shunt Wound Direct Current Motor,  
Fed from Ionic Rectifier (Without Calculation of Inductance of Motor Armature)."  
Iz. Ak. Nauk SSSR, Otdel. Tekh. Nauk, No. 6, 1944. Submitted 24 Dec 1943.

Report U-1556, 14 Nov 1951.

KUNITSKIY, N. P.

"An Analytical Method for the Investigation of the Work of a D.C. Shunt Motor with Allowance for Saturation when the Speed of Revolution is Controlled by the Excitation Flux," Dokl. AN SSSR, 45, No.4, 1944

KUNITSEIY, N. P.

USSR/Electricity  
Drives, Electric  
Mathematics, Applied

Dec 1946

"The Stability of Operation of the Amplidyne Electric Drive," V. P. Nikitin, Academician, V. K. Turkin, N. P. Kunitskiy, 14 pp

"Iz Ak Nauk, Otd Tekh Nauk" No 10

Preliminary theoretical research on the question of stability and aperiodicity of an amplidyne electric drive with diagrams for studying the transitional processes which are described by series of a differential equation of the fourth degree.

Pa 27130

KUNITSKII, N. P.

RT-124 (The stability of performance of an amplidyne drive). Ob ustcichivosti raboty  
amplidinnogo elektroprivoda.  
Izvestiia Akademii Nauk SSSR. Otdelenie Tekhnicheskikh Nauk, (11): 1567-1580, 1946.

*D. E. S.*

*winning, Operation, Shipping*

744. ELECTRIC DRIVE OF EXCAVATORS WITH AMPLIDYNE EXCITER -  
V. P. Nikitin and N. P. Kunitsky (*Dokl. Acad. Sci., U.R.S.S.*, No. 12, 1737, 1946).

**TSELIKOV, A.I., professor, doktor tekhnicheskikh nauk; KUNITSKIY, N.P.,  
dotsent, kandidat tekhnicheskikh nauk.**

Selecting the gear ratio for the electric drives of auxiliary mechanisms  
of rolling mills. Vest.elektroprom. 18 no.9:8-10 S '47. (MLBA 6:12)

1. Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashino-  
stroyeniya (for Tselikov). 2. Moskovskoye vyssheye tekhnicheskoye uchili-  
shche im. Bauma (for Kunit'skiy).  
(Electric driving) (Rolling-mill machinery)

KUNITSKIY, N. P.

PA-38756

USSR/Mathematics - Series  
Mathematics - Applied

Nov 1947

"Stability Diagrams for Systems of the Fifth Series," Academician V. P. Tsenov,  
Pokrovskoye Village, Sverdlovsk Oblast, 4 pp

"Mathematicheskii Sbornik" Vol XXI (63), No 3

PA-38756



1. UNITS: N. P.

USM/Electrical Equipment  
Motors, Electric

"Leonard's System with an Amplidyne Exciter in Limited Moment of a Motor in an Idle State,"  
V. P. Nikitin, N. P. Funitskiy, 5 pp

"Elektrichestvo" Vol LXVII, No 7

Gives brief description of the hook-up and the basic equations pertaining to the electric instrument according to Leonard's system as above. A method is derived for computing ampere-turns. Mathematical discussion with formulae.

PA 17790

KUNITSKIY, N. P. and LEVITANSKIY, B. A.

"Electric Equipment of Metallurgical Shops," 1948

KUNITSKIY, N. P.

May 1948

USSR/Electricity  
Generators, Electric  
Systems, Electric

"Dynamic Equilibrium of the Magnetic State of an Electrical Machine in a Leonard System,"  
Acad V. P. Nikitin, N. P. Kunitskiy, 13 $\frac{1}{4}$  pp

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 5

Expands conditions for the stability of dynamic equilibrium of electrical systems, as presented by V. P. Nikitin and which he applied to operation of an electric arc in 1925, so that they can also be applied to excitation and damping of electrical generators and Leonard system machines. Submitted 15 Jan 1948.

PA76T14

GTRSP, Vol. 2, No. 6

Nikitin, V.P. and Kuvitski, N.P., Transitory process of a constant current electric drive during the weakening of the current of the driver, 823-34.

Izvestiya Akademii Nauk, S.S.S.R., Otdelenie Tekhnicheskikh Nauk, 1948, No. 6 (June)

ASIA-SLA METALLURGICAL LITERATURE CLASSIFICATION

KUNITSKIY, N. P.

Sep 48

USSR/Electricity  
Motors, Electric

"Optimum Variation in the Current of a DC Shunt Motor Being Regulated at Faster Than Average Rates," V. P. Nikitin, Acad and N. P. Kunitskiy, 15 $\frac{1}{4}$  pp

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 9

Explains practical applications of subject in reversible rolling-mill design. Discusses problem and illustrates results by graphs. Concludes that when regulating speed of motor above average rates, dynamic current equals speed of flux alteration divided by cube of flux, excluding voltage drops in motor armature. To make full use of commutation properties of motor, flux should alter rapidly at high values and slowly at low values. Explains how electromotive force should be varied. Submitted 21 Feb 48.

PA 14/49T13

KUNITSKIY, N. P.

Sep 48

USSR/Electronics  
Regulators, Voltage  
Systems, Electronic

"Amplidyne Voltage Regulator in a Leonard-Ilgner System," Acad V. P. Nikitin,  
N. P. Kunitskiy, 14 pp

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 9

Amplidyne regulators are replacing contact regulators in Leonard-Ilgner systems for controlling reversible rolling mills. Amplidyne method is described in detail and characteristics are reproduced. Calculation procedure is illustrated by numerical examples. Submitted 28 Feb 48.

PA 14/49 TL4

KUNITSKIY, N. P.

IA 27/4948

USSR/Electricity  
Motors, Electric  
Mathematics, Applied

Nov 48

"Maximum Current of a Shunt Motor While Its Field Is Collapsing," Acad V. P. Nikitin, Dr N. P. Kunitskiy, Cand Tech Sci, 2 pp

"Elektrichestvo" No 11

Introduces simplified formula for calculating motor's maximum current during collapsing field. It was simplified by taking the value of the voltage drop in the armature to be zero, in the equation for electric drive during a change in the field.

27/49T48

B 64  
1

SA

2712. Field weakening with simultaneous generator voltage increase in the [Ward] Leonard system. NIKITIN, V. P. AND KUNTISKI, N. P. *Dokl. Akad. Nauk*, 60 (No. 8) 1339-41 (1948) *In Russian*.-- In order to reduce the running-up time of a motor in a Leonard system, it is sometimes convenient to increase the generator voltage, whilst simultaneously reducing the motor excitation. The application of this method is limited by the motor max. current. An equation is derived for the peak current under these conditions, and also for the time taken to reach a certain speed, with a fixed peak current. The error in assuming main supply voltage constant results in the calculated current being 10-15% higher than occurs in practice. M. R.

ASST. SIA METALLURGICAL LITERATURE CLASSIFICATION



KUNITSKIY, N. P.

Vol 48

USSR/Electricity  
Drives, Electric  
Mathematics, Applied

"Generalized Equations of Transition Processes of an Electric Drive With Amplidyne Control," Acad V. P. Nikitin, N. P. Kunitskiy, V. K. Turkin, 3 pp

"Dok Ak Nauk SSSR" Vol LXI, No 1

State and discuss the general equation for a cubic electric drive system with regulated generator voltage and amplidyne control at constant motor operation, two stabilizing and antioscillation transformers being included in the circuit. (The equation has approximately 80 terms.) Submitted 24 Apr 1948.

P. 8/49772

Jul 48

USSR/Electricity  
Servo Systems  
Mathematics, Applied

"Comparative Analysis of Sequence Systems," Acad  
V. P. Nikitin, N. P. Kunitskiy, 3 1/2 PP

"Dok Ak Nauk SSSR" Vol III, No 3

Divides systems into four classes, according to  
angle of divergence  $\theta$ : (1) systems with increasing  
static  $\theta$ ; (2) systems with constant static  $\theta$ ;  
(3) systems without static  $\theta$ ; (4) systems without  
static  $\theta$  with regularly alternating movement of  
the leading axis. Analyzes case of electric

11/49T37

Jul 48

USSR/Electricity (Contd)

sequence systems with amplidyne generator feeding  
auxiliary motor. Submitted 29 May 48.

11/49T37

КНИЖНИК, N. P.

PA 11/49T37

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

PROCESSES AND PROPERTIES INDEX

GTRSPL, Vol. 1 No. 6

Nikitin, V.P. and Kunitski, N.P., Precision of amplitude regulation of the potential of a generator, 645-7.

Akademiya Nauk, SSSR, Doklady, Vol. 61, No. 4 (1948)

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

FROM SOURCE

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

KUNITSKIY, N. P.

USSR/Electronics  
Voltage Regulators  
Generators - Regulators

Aug 48

"Dynamics of Regulating the Voltage of a Generator and the Current of the Exciting Motor in a Leonard System Having Amplidyne Regulation,"  
V. P. Nikitin, N. P. Kunitskiy, V. K. Turkin, 4 pp

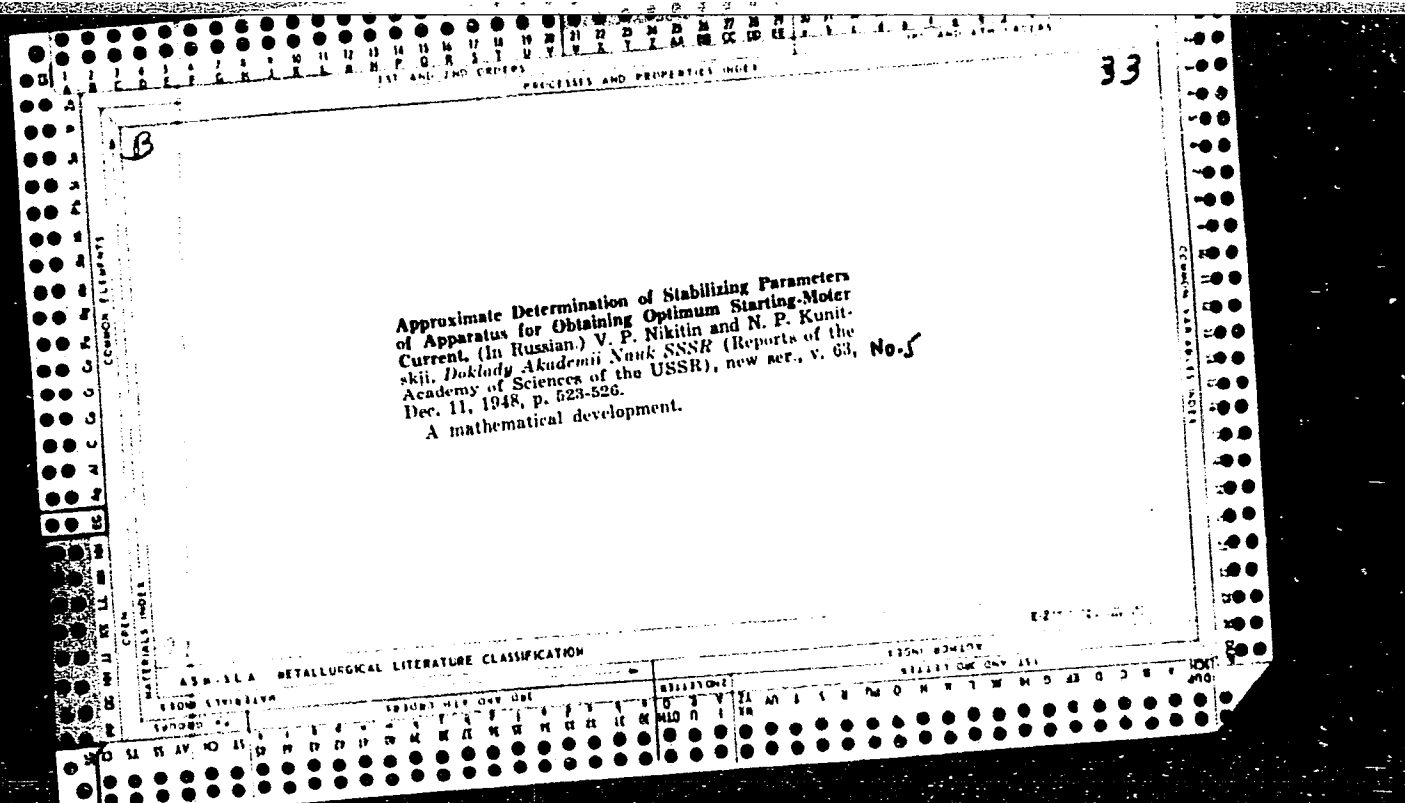
"Dok Ak Nauk SSSR" Vol LXI, No 5

Describes subject dynamics with long equations depicting processes for regulating electromotive force of the generator and the current of the exciting motor with two, one, and no stabilizing transformers.

24/49T19

KUNITSKIY, N. P.

"Nomographs of Stability," Dokl. AN SSSR, 63, No.2, 1948



GT 2L, Vol. 2, No. 9

Kunitaki, H.P. (Central Scientific Research Institute of Heavy Metals),  
The calculation of shunt rheostats for direct current motors based on  
the dynamics of the process, 396-406.

Izvestiya Akademii Nauk, S.S.S.R., Otdelenie Tekhnicheskikh Nauk,  
1949, No. 3 (March)

430 11A METALLURGICAL LITERATURE CLASSIFICATION

KUNITSKIY, N. P.

May 49

USSR/Electricity Motors Regulation

"Optimum Flux Transition Processes in a Shunt Motor for Regulation Above Basic Speed," Acad V. P. Nikitin, N. P. Kunitskiy, Cand Tech Sci, 2 pp

"Elektrichestvo" No 5

Brief article presents optimum curves of variation in magnetic flux while regulating a shunt motor above its basic speed. Submitted 10 Apr 48.

PA 55/49T41



USSR/Electricity - Regulation  
Transformer

1 Aug 49

"Approximate Calculation of a Control Transformer's Parameters in Current Regulation to Obtain the Optimum Starting Current," Acad V. P. Nikitin, N. P. Kunitzkiy, 4 pp

"Dok Ak Nauk SSSR" Vol LXVII, No 4

Mathematically determines necessary conditions for obtaining optimum starting current in electric drive systems with an amplidyne regulator where this starting current is obtained by demagnetizing ampere-turns of control transformer and current

3/50T19

USSR/Electricity - Regulation  
(Contd)

1 Aug 49

winding of amplidyne exciter-regulator, and with the quadrature field. Submitted 4 Jun 49.

3/50T19

PA 3/50T19

KUNITZKIY, N. P.

GTRSP, Vol. 4, No. 3

Elec. Eng.

Vikitin, V. P. and Kunitaki, N. P. (Section in scientific development of the problems of arc welding and electrothermy, U.S.S.R. Academy of Sciences), Current regulation in an electrical conductor with variable motor voltage and electro-machine amplifier (with transverse field), 64-78.

Izvestiya Akademii Nauk, S.S.S.R., Otdelenie Tekhnicheskikh Nauk, 1950, No. 1 (January)

ASB-11A METALLURGICAL LITERATURE CLASSIFICATION

1201 60101

1201 60101

KUNITSKIY, N.P.

How to obtain the optimum current curve for a motor when the flux is weakened. Elektrichestvo '53, No.1, 26-30. (MLRA 6:2)  
(EEA 56 no.670:3926 '53)

KUNITSKY, N. P.

B. T. R.  
Vol. 3 No. 3  
Mar. 1954  
Electrical  
Engineering

3189- Production of Optimum Current by Parametric Means During Starting of a Motor-Generator System. (Russian) N. P. Kunitzki. *Izvestia Akademi Nauk SSSR Otdelnie Tekhnicheskikh Nauk*, 1953, no. 8, Aug., p. 1443-1456. Presents a theoretical and experimental investigation. Comprehensive starting diagrams confirm theoretical assumptions. Diagrams.

KUNITSKIY, N.P.

Determination of optimum parameters of electric control systems  
by reducing the motor current. Dokl. AN SSSR 95 no.2:261-263 Mr  
'54. (MLEA 7:3)

*All-Union Correspondence*  
1. Vsesoyuznyy zaochnyy politekhnicheskii institut.  
(Electric motors)

KUNITSKIY, N.P.

Effect of the regenerative coupling on motor current in  
electric controllers of reduction motor circuit. Dokl. AN  
SSSR 95 no.6:1073-1074 F '54. (MLRA 7:2)  
(Electric controllers)

KUNITSKIY, N.P.

Parameter calculations in a three-stage electric meter control system operated by generator current regulation (taking into account the time constant of the exciter and the amplifier).  
Dokl.AN SSSR 105 no.6:1244-1247 D '55. (MIRA 9:4)

1. Predstavlene akademikem V.P.Nikitinym.  
(Electric meters--Design and construction)

KUNITSKIY, N.P., kandidat tekhnicheskikh nauk, dotsent (Moskva)

Calculation of the parameters of a three-stage electromechanical system  
of control which employs weakening of meter flux. Elektrichestvo no.4:  
32-37 Ap '56. (MLRA 9:7)

(Electric meters)



~~KUNITSKIY, Nikolay Petrovich; FIBIKH, V.V., red.; SIDOROV, V.N., red.izd-va;  
EVENSON, I.M., tekhn.red.~~

[Controlling electric machinery in reversing rolling mills] Elektro-  
mashinnoe upravlenie reversivnymi prokatnymi stanami; uchebnoe pose-  
bie dlia shkol i kursov masterov. Moskva, Gos.nauchno-tekhn.izd-vo  
lit-ry po chernoi i tsvetnoi metallurgii, 1957. 325 p. (MIRA 11:3)  
(Rolling mills)

~~KUNITSKIY, N.P.~~, kandidat tekhnicheskikh nauk, dotsent.

An optimal current characteristic for a motor with flux amplification in an amplidyne controlled electric drive. Elektrichestvo no.10:34-39 0 '57. (MLRA 10:9)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.

(Electric motors)

SOV/1869

PHASE I BOOK EXPLOITATION

8(5)

Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii

Elektroprivod reversivnykh prokatnykh stanov s electromashinnym upravleniyem (Electric Drive of Reversing Rolling Mills With Dynamoelectric Control) Moscow, Metallurgizdat, 1958. 257 p. (Series: Its: Sbornik trudov, vyp. 14) Errata slip inserted. 3,800 copies printed.

Additional Sponsoring Agency: Institut proizvodstva stali.

Ed.: N.P. Kunitakiy; Ed. of Publishing House: A.A. Vagin; Tech. Ed.: O.G. Bekker.

PURPOSE: This book is intended for scientific workers, process engineers, setup men, and designers, whose work is connected with electric drives of rolling mills. It may also be useful for students in advanced courses at polytechnical and power institutes who are specializing in the field of electric drives for rolling mills.

COVERAGE: The book deals with theoretical and experimental research being done on electric drives for reversing rolling mills. Optimum regimes for motors, the control of tension in rolling very thin band, control of the thermal load

Card 1/4

## Electric Drive of Reversing (Cont.).

SOV/1869

of d-c rolling mill motors, and the stability of electronic time relay are discussed. Recommendations are made for the selection and determination of electric drive parameters of reversing rolling mills. The following personalities, all engineers, are mentioned: F.F. Olifer, B.Z. Zaytsev, V.L. Kalyazhnov, V.A. Kovtunovich, Sh.N. Kupershmit, and M.D. Kochenenko. There are 10 Soviet references.

## TABLE OF CONTENTS:

Preface

3

Makeyev, I.F. [Candidate of Technical Sciences].  
Tension Control as the Function of Power in Rolling Band  
on a Cluster Mill

5

The Problem of accuracy in maintaining the uniformity of tension in winding a band on the drum of a coiler at constant speed is discussed, as well as the effect of single factors, such as tension, speed of rolling, power in idling, etc., on the accuracy of tension control.

Kunitskiy, N.P. [Candidate of Technical Sciences]. Optimum  
Regimes for Acceleration of Motors Driving Reversing Rolling  
Mechanisms at Constant Field

27

Card 2/4

Electric Drive of Reversing (Cont.)

SOV/1869

The author states that there is certain optimum value of additional resistance in the field circuit of the exciter, at which time motor acceleration is at a minimum, and there is no need for a large e.m.f. for an amplidyne. He also discusses the problem of obtaining an optimum current for motors driving reversing rolling mechanisms by selecting the necessary e.m.f. curve of the amplidyne, particularly its minimum value.

Kalinskiy, D.N., [Engineer]. Multiple-winding Exciter of a Generator 61  
The use of a multiple-winding exciter for a self-excited generator is discussed, and the expediency in using parallel self-excitation is shown.

Kunitskiy, N.P. [Candidate of Technical Sciences]. Optimum Regimes of a Motor Driving a Reversing Rolling Mill at Speeds Above Normal With Three-stage Dynamoelectric Control 75

The theory design, method, and adjustment of parametric three-stage dynamoelectric control of the motor driving a reversing rolling mill at speeds above normal are discussed.

Card 3/4

SOV/1869

Electric Drive of Reversing (Cont.)

Kunitskiy, N.P. [Candidate of Technical Sciences]. Optimum Regime for Acceleration of the Motor Driving a Reversing Rolling Mill at Speeds Above Normal With Two-stage Dynamoelectric Control 204

The theory, design, method, and adjustment of two-stage dynamoelectric control of the motor driving a reversing rolling mill at speeds above normal are discussed. This system has been used for driving rolling mills put into operation during the last two or three years.

Lur'ye, B.B. [Candidate of Technical Sciences]. Stabilization of Electronic Time-relay Performance 233

A method of improving the stability of an electronic time-relay for use in circuits for the automation of processes in the metallurgical industry is discussed.

Zhilko, E.I. [Engineer]. Use of Logic Circuits for Controlling Manufacturing Processes 246

This approach, claimed by the author to be new, increases the possibility of automatic control of processes which were formerly considered inaccessible for automation because of their lack of mathematical interpretation.

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GO/gmp  
7-28-59

Card 4/4

NIKITIN, V.P.; TURKIN, V.K.; KUNITSKIY, N.P.

Diagrams for third-order systems. Nauch.dokl.vys.shkoly;  
energ. no.4:91-97 '58. (MIRA 12:5)

1. Rekomendovana kafedroy vysshoy matematiki Moskovskogo  
khimiko-tekhnologicheskogo instituta im. D.I. Mendeleyeva.  
(Stability) (Transients (Electricity))

KUNITSKIY, N.P., kand.tekhn.nauk

Optimum accelerating conditions for engines of reversing  
rolling mill mechanisms operating with constant current.  
Shor.trud.TSNIICHM no.14:27-60 '58. (MIRA 12:5)  
(Rolling mills--Electric driving)



KUNITSKIY, N.P., kand. tekhn. nauk

Optimum operating conditions for reversing rolling mill  
engines running with over-basic speed and having three-  
stage dynamoelectric control. Sbor.trud.TSNIICRM no.14:  
75-203 '58. (MIRA 12:5)  
(Rolling mills--Electric driving)

KUNITSKIY, N.P., kand. tekhn. nauk

Optimum accelerating conditions for reversing rolling mill engines to higher than basic speeds in the presence of two-stage dynamoelectric control. Sbor.trud.TSNIICM no.14:204-232 '58. (MIRA 12:5)

(Rolling mills--Electric driving)

8(6)

SOV/105-59-5-28/29

AUTHOR:

Kunitskiy, N. P., Candidate of Technical Sciences

TITLE:

Yu. M. Borisov and M. M. Sokolov. Electrical Equipment of Elevators and Conveying Machinery. 400 Pages, Price 10 Rubles 85 Kopecks, Mashgiz Publishing House, 1958 (Yu. M. Borisov i M. M. Sokolov. Elektrooborudovaniye pod"yemno-transportnykh mashin. 400 str., ts. 10 r. 85 k., Mashgiz, 1958)

PERIODICAL: Elektrichestvo, 1959, Nr 5, pp 94-95 (USSR)

ABSTRACT:

A book review. It is a textbook for machine-building and poly-technic institutes. The 11 chapters of the book deal with the principles of the theory of electric drive and electric-drive control, as well as the electrical equipment of cranes, elevators, conveying machinery and dredges. A short survey of the contents of individual chapters is given here. Advantages of the book are the well-chosen calculation examples. The book is clearly written and carefully edited by Editor E. F. Silayev.

Card 1/1

8(5)

AUTHOR:

Kunitskiy, N. P., Candidate of Technical Sciences SOV/105-59-6-2/28

TITLE:

Determination of the Characteristic Data of a Thermionic Exciter System Under Reduced Motor Flux (Opredeleniye parametrov sistemy ionnogo vozbuzhdeniya pri oslablenii potoka dvigatelya)

PERIODICAL:

Elektrichestvo, 1959, Nr 6, pp 9 - 13 (USSR)

ABSTRACT:

In this article a method for the calculation of the engineering data of thermionic exciter systems (TE) of reversing mills, which have been developed recently, is presented. The system consists, apart from the rectifiers, of a magnetic amplifier (MA) with a bias magnetization-, a differential-, and a stabilization winding and of a phase shifter (PS). The total emf of the MA is composed of the bias magnetization, of the differential emf, which is proportional to the exciter current, and of the stabilization mmf, which is proportional to the time derivative of the exciter current. If the inertia of the MA and of the PS is ignored, the relationship between the emf of the TE and the mmf of the MA can be represented as a function of the control angle. This characteristic curve is linearized and the formula for the emf of the TE is thus derived. The optimum values for the emf of the MA and for the amplification factor

Card 1/2

Determination of the Characteristic Data of a Thermionic SOV/105-59-6-2/28  
Exciter System Under Reduced Motor Flux

of the differential winding are obtained by using the fluxes  $\varphi_1$  at starting speed and  $\varphi_2$  at final speed. These formulas can under certain assumptions also be used for exciter machines. The errors introduced by the substitution of algebraic equations for differential equations do not exceed 5-10%. In order to check the method of calculation, a TE for a motor of the type MP-8 was investigated experimentally. The results are presented in five oscillograms. That oscillogram, which corresponds to optimum performance, and the respective engineering data are given. The influence of the variation of several engineering data upon the performance of the motor is discussed. The difference between the calculated and the experimental motor currents varies between 2.3 and 35%, which is an indication of the fact, that it is certainly possible to use formula (14) (at no-load operation) as well as the formulas from reference 7 (at a given load at the motor shaft) for practical calculation. There are 7 figures and 8 Soviet references.

ASSOCIATION:

Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii  
(Central Scientific Research Institute of Ferrous Metallurgy)

SUBMITTED:  
Card 2/2

January 19, 1959

06540

SOV/144-59-10-12/20

16.9500

AUTHOR: Kunitskiy, N.P., Candidate of Technical Sciences, Docent

TITLE: The Investigation of Transient Processes in the Ion Excitation System of the Motor and the Calculation of the Stabilisation

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Elektromekhanika, 1959, Nr 10, pp 100 - 112 (USSR)

ABSTRACT: Under certain conditions, oscillations can arise in the system of the title. The influence of the system parameters on the characteristics of the transient process of the excitation current for linear working characteristics of the magnetic amplifier, phase regulator and motor is given. By making various assumptions and replacing a cosine term by a linear approximation in the operating range, a third-order differential equation for the excitation current of the motor is derived. It is then assumed that the excitation is so small that the system does not leave the domain of linear variation of its parameters. For simplicity of analysis the differential equation is replaced by one in which the deviation from the initial value of the excitation current is the independent variable. In the

Card1/4

4

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SOV/144-59-10-12/20

The Investigation of Transient Processes in the Ion Excitation System of the Motor and the Calculation of the Stabilisation

case when the characteristic equation has real roots, it follows that for zero initial conditions the excitation current is determined solely by the values of the roots of the characteristic equation. The deviation of the excitation current from its initially established value decreases (1) as the intensity of the differential of the winding (? see definition of  $\eta_{ov}$  on p 100) and the

shunt coefficient of the control winding of the phase-regulator increase; (2) as the reduced curvature of the amplifier characteristic decreases and (3) as the curvature of the phase regulator and the number of turns in the winding of the control choking coil increases and as the maximum rectified e.m.f. and the number  $B'$ , which appears as the coefficient of the angle in the linear approximation for the cosine, decrease. The influence of the intensity of stabilisation and its choice are discussed. The effect is illustrated by an example. As the intensity

Card 2/4

4

66540

SOV/144-59-10-12/20

The Investigation of Transient Processes in the System of an Ion  
Excitation Motor and the Calculation of the Stabilisation

$\eta_{ov}$  increases the transient process changes from an aperiodic one to an oscillatory one and for large values of  $\eta_{ov}$  becomes unstable. The application of stabilisation reduces the oscillation. The smaller the intensity of stabilisation the sooner for small values of  $\eta_{ov}$  the unstable process begins. Next, the influence of the time constants of the amplifier and the phase regulator is discussed. The presence or absence of stabilisation is discussed and three cases are considered: 1) taking into account both time constants: 2) neglecting the time constant of the phase regulator and 3) neglecting both time constants. If there is no stabilisation and the inertia of the amplifier and the phase regulator are assumed to be zero, and the transient process monotonic, then the amplifier time constant causes oscillations which grow more strongly when there is also a phase regulator time constant. In the absence of stabilisation an increase

Card 3/4

4



66540

SOV/144-59-10-12/20

The Investigation of Transient Processes in the System of an Ion  
Excitation Motor and the Calculation of the Stabilisation

of the amplifier time constant causes larger oscillations.  
The aperiodic case is also considered. In this case,  
when the time constants of the amplifier and the phase  
regulator are non-zero, the increase of the excitation  
current is slowed down.

There are 12 figures and 3 Soviet references

ASSOCIATION: Kafedra elektrifikatsii promyshlennykh predpriyatiy,  
Vsesoyuznyy zaochnyy politekhnicheskii institut (Chair of  
the Electrification of Industrial Enterprises, All-Union  
Correspondence Polytechnical Institute)

SUBMITTED: June 9, 1959

Card 4/4

Вещоруноро об'ядиненого совещания по автоматизации производств в  
профессор в машиностроении и автоматизированном электроприводе в высшем  
пост. 34, Moscow, 1959

Электрификация автоматизация промышленности устанорои; труды совещания  
в области электрических приводе и автоматизации в промышленности, Transactions of the Com-  
ference Moscow, Gosenergoizdat, 1960. 470 p. 11,000 copies printed.

General Eds.: I.I. Petrov, A.A. Sirovkin, and N.G. Gillebin; Eds.: I.I. Sed, and  
E.P. Silayev; Tech. Eds.: E.P. Veroina, and G.G. Larionov.

**PURPOSE:** The collection of reports is intended for the scientific and technical  
personnel of scientific research institutes, plants and schools of higher  
education.

**CONTENTS:** The book is a collection of reports submitted by scientific workers at  
technical and scientific institutes and schools of higher education at the third  
Joint All-Union Conference on the Automation of Industrial Processes in Machine  
Building and Automated Electric Drives in Industry held in Moscow on  
May 12-16, 1959. The Conference was called by the Academy of Sciences USSR, the  
Central USSR (State Planning Commission USSR), the GBTI USSR, the Gosplan USSR,  
Committee for Automation of Machine Building (State Committee on Automation and  
Machine Building) and the National Party Committee for Automation of Machine Building  
USSR (USSR National Committee on Automatic Control), and prepared by the Scientific  
and Technical Committee on Automated Electric Drives, the USSR (USSR Committee  
on Automation of Machine Building, the USSR Committee on Automation of Machine Building  
and the USSR Committee on Automation of Machine Building). The USSR Committee on  
Automation of Machine Building is the central body for the organization of work in the  
field of automation of machine building in the USSR. It is also responsible for the  
organization of work in the field of automation of machine building in the USSR.  
It was the purpose of the Editorial Board to arrange the reports in a way which  
would ensure a relatively systematic presentation of theoretical and practical  
problems relating to electric drives and automatic controls of industrial mechan-  
isms used in various branches of industry. Main problems of automated electric  
drives and their solution are outlined. The book also contains articles on elec-  
tric machinery and means of automation. Considerable attention is paid to non-  
contact automatic control systems, including systems with semiconductor devices,  
and magnetic amplifiers, and to computers intended for such systems. The  
analysis of linear and nonlinear automatic control systems and methods of their  
design are given. The book contains also official publications which have been con-  
sidered in the journal "Elektricheskaya" and which are marked with an asterisk. No personalities  
are mentioned. References accompany some of the papers.

**PART I. GENERAL PRINCIPLES CONCERNING THE THEORY AND  
PRACTICE OF ELECTRIC DRIVES AND AUTOMATION OF CONTROL**

22b	22c	27	24D	24J	24V	24W	24X	24Y	27a	28	
Fislik, M.A., and L.M. Kabanova. Engineers. Electronic Limitation Systems of Blowing Mill Main Drives at Alchovsky, Charyovskiy and Khalilovskiy (at Voroshilovsk), Charyovskiy, and Kralai (India) Metallurgical Plants	Flemer, V.I., Doomi. Utilization of Gas-Tube Converters for Reversing Electric Drives	Kmitshvili, E.P., Doctor. Candidate of Technical Sciences. Electronic Re- gulation of Reversing Mill Drives	Dvalruik, B.M., and G.V. Sinyavskiy, Engineers. "Enough" Regulation System for Sheet Thickness on a Continuous High-Speed Cold-Rolling Mill	Chaimov, I.A., Candidate of Technical Sciences. Automatic Stop Systems of the Cold-Rolling Reversing Mill 1200"	Menger, V.K., Doctor. Candidate of Technical Sciences. Electric Drives of Flying Shears	Dzmitryev, S.M., Candidate of Technical Sciences. Problem of Designing an Optimum Control System for Flying Shears	Alibabov, K.M., Engineer. Electric Drive of a Cold-Rolling Mill Roll With an Astatic Tension Regulator	Kozlov, S.S., Candidate of Technical Sciences. Stabilizing Devices of Rolling Mill Electric Drives With Magnetic Amplifiers	Chelustukhin, A.S., Candidate of Technical Sciences. Roughing Shop Automation With the Use of a Control Computer	Sokolov, I.A., Engineer. Automatic Control of Milling at Reversing Mills With the Use of Computers	Chelustukhin, I.B., Engineer. Automation of Mill 900 at the Ball-Structural Shop of the Machine-Building Metallurgical Kombinat (Kombinat Metallurg- icheskoye)

*Kritskiy, V.P.*

KUNITSKIY, Nikolay Petrovich, kand.tekhn.nauk, dotsent; IVANOV, Geliy  
Mikhaylovich, starshiy nauchnyy sotrudnik

Transient processes in an ionic generator excitation system.

Izv. vys. ucheb. zav.; elektromekh. 3 no.12:3-13 '60.

(MIRA 14:5)

1. Kafedra elektrifikatsii promyshlennykh predpriyatiy Vsesoyuznogo  
zapchnogo politekhnicheskogo instituta (for Kunitskiy). 2. TSentral'-  
nyy nauchno-issledovatel'skiy institut chernoy metallurgii (for  
Ivanov).

(Electric generators)

(Magnetic amplifiers)

(Electric current rectifiers)

KUNITSKIY, N. P.

Doc Tech Sci - (diss) "Foundations of the theory of performance of reversible rolled prokatnyye electric motors in the control of excitation currents." Moscow, 1961. 34 pp with diagrams; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Order of Lenin Power Inst); 150 copies; free; list of author's works on pp 32-34 (21 entries); (KL, 6-61 sup, 211)

KUNITSKIY, N.P., dotsent, kand.tekhn.nauk

Determination of the parameters of the current regulator in the ionic excitation system of a rolling mill motor. Elektrichestvo no.1:34-39 Ja '61. (MIRA 14:4)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. (Rolling mills—Electric driving)

S/196/61/000/011/035/042  
E194/E155

AUTHOR: Kunitskiy, N.P.

TITLE: Optimum motor current during field forcing in an electrical drive with ionic excitation

PERIODICAL: Referativnyy zhurnal, Elektrotehnika i energetika, no.11, 1961, 7-8, abstract 11K 59. (Vestn. elektroprom-sti, no.5, 1961, 44-49)

TEXT: The conditions are considered under which the current is maintained constant in a d.c. motor with ionic excitation under braking conditions with field-forcing. The optimum parameters of a field-forcing system with positive feedback from a separate amplifier winding are considered. Results are given of an experimental investigation of the behaviour of such a system applied to a motor of 350 kW, 220 V, 150/300 r.p.m. with ionic excitation, used to reverse a rolling mill. Oscillograms show that the optimum current value of the motor is obtained when the positive feedback is applied at a definite instant of time. 3 literature references.



[Abstractor's note: Complete translation.]

Card 1/1

KUNITSKIY, Nikolay Petrovich; OL'KHOVIK, I.L., red.; BORUNOV, N.I.,  
tekhn. red.

[Electronic excitation of the generators and motors of  
reversing mills] Ionnoe возбуждение генераторов и двигателей  
реверсивных прокатных станков. Moskva, Gosenergoizdat,  
1962. 190 p. (Biblioteka po avtomatike, no.54)

(MIRA 15:9)

(Rolling mills--Electric driving) (Electric driving)

KUNITSKIY, Nikolay Petrovich, doktor tekhn.nauk, dotsent; IVANOV, Geliy  
Mikhaylovich, aspirant

Selection of the parameters of a static phase regulator. Izv.vys.  
ucheb.zav.; elektromekh. 5 no.10:1145-1159 '62. (MIRA 15:11)

1. Kafedra elektrooborudovaniya promyshlennykh predpriyatiy  
Vsesoyuznogo zachnogo politekhnicheskogo instituta (for  
Kunitskiy). 2. Vsesoyuznyy zachnyy politekhnicheskii institut  
(for Ivanov).

(Phase converters) (Mercury-arc rectifiers)



KUNITSKIY, N.P.; IVANOV, G.M.

Transient processes in reversing-mill motors with ionic excitation  
of generators. Sbor. trud TSNIICHM no.30:39-57 '63.

(Rolling mills--Electric driving)

(MIRA 16:10)

KUNITSKIY, N.P.; IVANOV, G.M.

Effect of various current patterns on the heating of motors of  
necessary mechanisms of reversing rolling mills. Sbor. trud  
TSNIICHM no.30:57-71 '63. (MIRA 16:10)

(Rolling mills--Electric driving)

KUNITSKIY, N.P.; IVANOV, G.M.

Analysis of various operating conditions of the electric drive  
for live roll tables of the KMK blooming mill. Sbor. trud  
TSNIICHM no.30:102-107 '63. (MIRA 16:10)

(Rolling mills--Electric driving)

KUNITSKIY, N.P., doktor tekhn.nauk; IVANOV, G.M., kand.tekhn.nauk; KONONOV,  
N.G., inzh.

Transient processes in systems with reversive ionic electric  
drives. Elektrichestvo no.11:33-37 N '64.

(MIRA 18:2)

1. Tsentral'nyy nauchno-issledovatel'skiy institut Chernoy  
metallurgii imeni Bardina.

KUNITSKIY, N.P.; IVANOV, G.M.

Current regulator in the electric drive of a reversible rolling mill with electronic generator excitation. Izv. vys. ucheb. zav.; elektromekh. 7 no.6:714-723 '64. (MIRA 17:7)

L 21981-66 EWA(h)/EWT(1) G3

ACC NR: AP6007869

SOURCE CODE: UR/0103/66/000/002/0129/0133

AUTHOR: Kunitskiy, N. P. (Moscow); Knutoretzkiy, V. M. (Moscow)

ORG: none

56  
B

TITLE: Nonlinearity considerations of diode volt-ampere characteristics in the accurate design of semiconductor switching circuits

SOURCE: Avtomatika i telemekhanika, no. 2, 1966, 129-133

TOPIC TAGS: volt ampere characteristic, diode, semiconductor diode, switching circuit, logic element

ABSTRACT: The authors use the example of the calculation of a logic element of a number in an arithmetic unit with a prescribed binary number to determine the need to consider the nonlinearity of the volt-ampere characteristic of diodes. A procedure for accurate calculations is given. According to the present authors, the work of W. A. Evans (Tolerancing the Transistor NOR Circuit. Electr. Engng., v. 35, No. 428, 1963) is the foreign work that is the closest to the present work in character. The logic element is constructed on a semiconductor triode, operating in a switching circuit, and semiconductor diodes with

Card 1/2

UDC: 681.142.67

L 21981-66

ACC NR: AP6007869

nonlinear volt-ampere characteristics. The calculation of this element employing the  
piecewise-linear approximation of the diode volt-ampere characteristics produces results  
which yield no physical meaning. In the accurate calculation of semiconductor switching  
circuits in industrial automation with nonlinear elements such as the logic element de-  
scribed, it is expedient to use graph-analytic methods which account for the non-linearity  
of element volt-ampere characteristics. Orig. art. has: 4 figures and 16 formulas.

SUB CODE: 09 / SUBM DATE: 27Jul65 / ORIG REF: 002 / OTH REF: 004

Card 2/2 nst

L 27948-66

ACC NR: AP6017708

SOURCE CODE: UR/0105/66/000/001/0085/0086

AUTHOR: Bertinov, A. I.; Voronetskiy, B. B.; Gendel'man, B. R.; Girshberg, V. V.;  
Gromov, V. I.; Druzhinin, N. N.; Kunitskiy, N. P.; Naumenko, I. Ya.; Petrov, I. I.;  
Vetrov, G. N.; Rusakov, V. G.; Silayev, E. F.; Slezhanovskiy, O. V.;  
Syromyatnikov, I. A.; Tulin, V. S.; Filin, N. M.; Tselikov, A. I.; Chilikin, M. G.;  
Yun'kov, M. G.

ORG: none

TITLE: Engineer N. A. Tishchenko (on his 60th birthday)

SOURCE: Elektrichestvo, no. 1, 1966, 85-86

TOPIC TAGS: electric engineering personnel, metallurgic furnace, electric equipment

ABSTRACT: Nikolay Afanas'yevich Tishchenko completed the Khar'kov Electrotechnical Institute in 1930, after working as an electrician in a Metallurgical plant from 1923-1926. He was active in the development of domestically produced electrical equipment for rolling mills and metallurgical furnace works. He was active during WWII in restoring electrical equipment damaged by the Germans. After the war, he was active in developing electrical drive equipment for both domestic and foreign metallurgical plants. He has been active in scientific work, publishing over 45 works in such varied fields as electric drives, equipment reliability and productivity of labor. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 09, 13 / SUBM DATE: none

Card 1/1 BKG

UDC: 621.34



9(8)

SOV/112-59-2-3782

Translation from: Referativnyy zhurnal, Elektrotehnika, 1959, Nr 2, p 223 (USSR)

AUTHOR: Kunitskiy, N. R.

TITLE: Modulation Characteristic of a Screen-Grid-Tube Oscillator With Auto-Anodic Modulation (Modulyatsionnaya kharakteristika generatora na ekranirovannoy lampe pri avtoanodnoy modulyatsii)

PERIODICAL: Tr. Leningr. politekhn. in-ta, 1958, Nr 194, pp 210-222

ABSTRACT: Auto-anodic modulation is considered for the case of a self-biased screen-grid tube in a common-cathode amplification scheme. Two methods are considered for designing the modulation characteristic on the basis of the cathode-current characteristics that have the form of a family of parallel straight lines with the conductance  $S$ : (1) a method based on the parallel idealization of  $i_{g2}(e_g)$  characteristics, and (2) a method based on the idealization of  $i_{g2}(e_g)$  characteristics that have the form of a pencil of straight lines. An experimental check with a GU-50 pentode showed that the

Card 1/2

SOV/112-59-2-3782

Modulation Characteristic of a Screen-Grid-Tube Oscillator With Auto-Anodic . . . .

characteristics computed by the pencil-of-lines idealization method agree better with experimental data (curves computed by both methods and experimental curves are presented). The experimental characteristics show that with a percentage modulation of  $m = 0.85$ , the nonlinear-distortion factor is 5-6%,  $\eta_{sr} \approx 52\%$ , and  $\eta_{maks} \approx 72\%$ . Bibliography: 6 items.

V . M . L.

Card 2/2

KUNITSKIY, N.Ya.

Modulation characteristics of an oscillator equipped with a screen-grid  
tetrode and subjected to plate modulation. Trudy LPI no.194:210-222  
' 58. (MIRA 11:11)

(Oscillators, Electron-tube) (Modulation (Electronics))

KUNITSKIY, N. Ya., Candidate Tech Sci (diss) -- "Autoanode modulation in tubes with a shielded plate". Kaunas, 1959. 15 pp (Min Higher Educ USSR, Kaunas Polytech Inst)m 150 copies (KL, No 25, 1959, 134)

KUNITSKIY, P., inzhener.

Storage of wooden airplanes and gliders in fall and winter. Kryl.rod. 4 no.  
10:20 0 '53. (MLRA 6:10)

(Airplanes--Maintenance and repair)

AID P - 3796

Subject : USSR/Aeronautics

Card 1/1 Pub. 58 - 9/25

Author : Kunitskiy, P., Chief of the Administration of the  
Central Committee of the DOSAAF

Title : What mass-produced glider do we need?

Periodical : Kryl. rod., 12, 8-9, D 1955

Abstract : This is one of several articles published under the  
above title in this periodical. The author summarizes  
various views on the choice of a glider for mass-pro-  
duction. He briefly describes training in glider  
flying and gives some characteristics of existing  
gliders. Names of glider designers are given.

Institution : None

Submitted : No date

KUNITSKIY, R.V.

Averaging the measured altitudes of celestial bodies. Astron.zhur.  
40 no.4:767-770 J1-Ag '63. (MIRA 16:8)

1. Moskovskiy gosudarstvennyy pedagogicheskiy institut im.  
V.I.Lenina.

(Geographical positions)

KUNITSKIY, R.V.

Improving the accuracy of the determination of spatial star densities, "Astron. Zhur.", 16, No. 3, 1939

Report U-1518, 23 Oct. 1951



KUNITSKIY, R. V.

Development of viewpoints on the structure of the solar system; short historical sketch  
Izd.3. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1944. 62 p.  
(54-46122)

QB501.K76 1944

KUNITSKIĭ, R. V.

Seasons of the year.

Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1946. 31 p. (Nauchno-populiarnaia biblioteka. Seria: Nachatki znaniia) (50-38764)

QB633.K8

CU WaU

PHASE I

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 719 - I

BOOK

Call No.: AF666791

Author: KUNITSKIY, R. V., Eng. Col.

Full Title: AVIATION ASTRONOMY. 2d ed., supp. and rev.

Transliterated Title: Aviatsionnaya astronomiya. Izd. 2-e, per. 1 dop.

PUBLISHING DATA

Originating Agency: None

Publishing House: Military Publishing House of the Ministry of  
Armed Forces of the USSR

Date: 1947

No. pp.: 160

No. of copies: Not given

Editorial Staff: None

PURPOSE: Textbook for navigators of the Soviet Air Force.

TEXT DATA

Coverage: This is a textbook in practical celestial navigation. The following problems are considered by the author: methods and computations used in aviation celestial navigation, measurement of celestial altitude of stars by an aviation sextant, Somers' method of determination of the relation of longitude and latitude, celestial navigation in flight, and the celestial chart. Diagrams, graphs, tables and formulae.

No. of References: None

Facilities: None

1/1

KUNITSKIY, R.V.

PHASE I

TREASURE ISLAND BIBLIOGRAPHIC REPORT

Call No.: AF212569  
AID 124 - I

BOOK

Author: KUNITSKIY, R. V., Colonel-Engineer

Full Title: COURSE OF AVIATION ASTRONOMY

Transliterated Title: Kurs aviatsionnoy astronomii

Publishing Data

Originating Agency: None

Publishing House: Military Publishing House of the Ministry of Armed Forces, USSR

Date: 1949

No. pp.: 375

No. of copies: 46,000

Editorial Staff

Editor: None

Tech. Ed.: None

Editor-in-Chief: None

Appraiser: None

Text Data

Coverage: A textbook covering the theory and practice of astronomical methods of air navigation, with references to descriptive, spherical and practical astronomy. In its practical part the book covers only the astronomical instruments and calculation manuals used in Soviet aviation.

Comments: A good textbook, plainly written and giving adequate information, based upon the use of standard methods and instruments.

Purpose: A textbook for pilots and navigators.

Facilities: None

No. of Russian and Slavic References: None

Available: A.I.D., Library of Congress.

KUNITSKIY, R.V.

[Development of views on the structure of the solar system; brief historical outline] Razvitie vzgliadov na stroenie solnechnoi sistemy; kratkii isto-  
richeskii ocherk. Izd.5. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1952.  
80 p. (MLRA 6:5)  
(Solar system)

Астрономия / А.П.

POPOV, P.I.; Bayev, K.L. [deceased]; VORONTSOV-VEL'YAMINOV, B.A.;  
KUNITSKIY, R.V.; SHORYGIN, S.A., redaktor; TSIRUL'NITSKIY, N.P.,  
tekhnicheskiy redaktor

[Astronomy; textbook for physics-mathematics faculties] Astronomiya.  
Uchebnik dlia fiziko-matematicheskikh fakul'tetov pedagogicheskikh  
institutov. Pod obshchei red. P.I.Popova. Izd. 3-e, vnov' perer.  
Moskva, Gos. uchebno-pedagog. izd-vo Ministerstva prosveshchenia  
RSFSR, 1953. 543 p. (MLRA 7:9)  
(Astronomy)

PEREL', Yu.G.

"Development of views on the structure of the solar system." R.V. Kunitzki  
Reviewed by Yu.G. Perel'. Astron.zhur. 30 no.3:368-369 My-Je '53.  
(MIRA 6:5)

(Kunitzki, R.V.) (Solar system)

KUNITSKIY, R.V., Professor; MEZENTSEV, V.A., redaktor; GAVRILOV, S.S., tekhnicheskiiy redaktor.

[Was there a beginning to the world?] Bylo li nachalo mira. Izd.4-e. Moskva, Gos.izd-vo tekhniko-teoret.lit-ry, 1954. 30 p. (Nauchno-prosvetitel'naya biblioteka, no.1). (MLRA 8:4)  
(Cosmogony)



KUNITSKIY, R.V., professor; MEZENTSEV, V.A., redaktor; GAVRILOV, S.S.,  
tehnicheskii redaktor

[Day and night; the seasons] Den' i noch'; vremena goda. Izd. 3-e.  
Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1954. 31 p. (Nauchno-  
prosvetitel'naya biblioteka, no. 3). (MLRA 8:7)  
(Earth--Rotation)

KUNITSKY, R. V.

PHASE X TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 752 - X

BOOK

Call No.: AF657727

Authors: SOKOLOV, V.I., Maj. Gen. of Aviation, KUDRYAVTSEV, N. F., GORSHKOV, M. F.,  
KUNITSKIY, R. V., TORGMAN, A. I.

Full Title: AIRCRAFT NAVIGATION (Textbook)

Transliterated Title: Samoletovozhdeniye

PUBLISHING DATA

Originating Agency: None

Publishing House: State Publishing House of the Ministry of Defense of the USSR

Date: 1955 No. pp.: 367 No. of copies: Not given

Editorial Staff: Sokolov, V. I., Maj. Gen. of Aviation

PURPOSE AND EVALUATION: A textbook for aviation schools and for the flying personnel  
of the Air Force. The text is easy to follow. Its value is only instructional.

TEXT DATA

Coverage: The book is presented in an easily accessible form, and is provided with  
200 diagrams and 16 tables. The instruments are shown mostly schematically, and  
are not identified by trademarks. A number of examples of calculation of  
navigational data are given.

NOTE: See card for SOKOLOV, V. I. for pages 2-4 of the report.

BAYEV, Konstantin L'vovich, professor; ~~KUNITSKIY, P.V.~~, professor, redaktor;  
GAVRILOV, S.S., tekhnicheskiiy redaktor

[The earth and the planets] Zemlia i planety. Izd. 2-oe, perer.  
Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1956. 46 p. (Nauchno-  
prosvetitel'naiia biblioteka, no.12)  
(Earth) (Planets)

KUNITSKIY, R.V.

3(1)

PHASE I BOOK EXPLOITATION

SOV/1968

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

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

Astronomy; a Textbook for Physics (Cont.)

SOV/1968

basis of new findings in the field. This edition of the book was subjected to a complete reexamination by the Educational-Methodological Section of the Central Council of the All-Union Astronomical Geodetic Society and the Moscow Astronomical Section on the basis of reports by Corresponding Member of the AS, USSR, E.P. Rarenago and the chairman of the Astronomical Section P.I. Bakulin. Further advice on improving the work were received from Professors K.A. Kulikov, Eynasto, and O.V. Golubeva. This edition of the work has been made more compact than its predecessors. Material which might be found in related fields has been omitted, as has purely descriptive material which has now been made available in popular science type booklets. The book includes material on celestial mechanics, astrophysics, cosmogony, and astrometry. There are 150 Soviet references.

TABLE OF CONTENTS:

From the Forewords to Previous Editions	3
Foreword to the 4th Edition	-
Card 2/ 18	

3(1)

PHASE I BOOK EXPLOITATION

SOV/3428

Kunitskiy, Rostislav Vladimirovich

Stroyeniye vselennoy (Structure of the Universe) Moscow, Fizmatgiz, 1959.  
63 p. 50,000 copies printed.

Ed.: L. V. Samsonenko; Tech. Ed.: V. N. Kryuchkova.

PURPOSE: The booklet is intended for the general public. It may be used for the orientation of secondary school students in concepts of astronomy and interplanetary space.

COVERAGE: The booklet gives, in popular form, basic information on the modern concept of universe, the solar system, the Sun, the Earth and Moon, the main characteristics of other planets in the solar system, the Galaxy, and interstellar space. The author expresses the opinion that the universe is infinite and exists in a state of continuous change. No names are mentioned and no references given.

Card 1/2

Structure of the Universe

SOV/3428

TABLE OF CONTENTS:

- 1. How People have Learned the Universe is Infinite 3
- 2. The Family of Planets 15
- 3. The Earth and its Eternal Satellite, the Moon 31
- 4. The Sun 41
- 5. The World of the Stars 47
- 6. Our Gigantic Stellar System 53
- 7. The Infinity of the Universe 60

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PEREL', Yu.G.; POPOV, P.I.; MARTYNOV, D.Ya.; KUNITSKIY, R.V.;  
VORONTSOV-VEL'YAMINOV, B.A.; BAZYKIN, V.V.; KULIKOV, K.A.;  
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Teaching the problems of spherical astronomy in the high school.  
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AUTHOR: Kunitskiy, R. V.

TITLE: Simultaneous Determination of Latitude and Longitude of a Locality from Absolute Measurements of the Altitude of Two Celestial Bodies

PERIODICAL: Astronomicheskii zhurnal, 1960, Vol.37, No.6, pp.1114-1121

TEXT: Latitude and longitude determinations based on absolute measurements of altitudes of celestial bodies are said to be not as accurate as methods based on the observation of celestial bodies at equal altitudes. They do, however, have the advantage that they can be used in the presence of even relatively small cloud clearances and do not require special ephemerids. Moreover, for latitudes greater than 70 deg, observations of celestial bodies at equal zenith distances become very prolonged and lead to considerably lower accuracy. These remarks hold both for separate and simultaneous determinations of the latitude and longitude of a locality. A semigraphical method for the determination of the position of the observer on a chart, which is based on two measured altitudes of celestial bodies, is widely used in navigation. This Card 1/5

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Simultaneous Determination of Latitude and Longitude of a Locality from Absolute Measurements of the Altitude of Two Celestial Bodies method, which is designated as "the method of lines of equal altitudes", is also being used in a somewhat modified form to determine the geographical coordinates to a greater accuracy than is required for navigational purposes. In this method the altitudes of a number of stars, whose azimuths differ appreciably, are measured. Equations containing two unknown are then set up, the unknowns being the correction to the approximate value of the latitude and the correction to the approximate value of the longitude. The set of equations thus obtained is then solved by the method of least squares and a calculation is made not only of the values of the unknown corrections but also the mean square errors in them. This method of simultaneous determination of longitude and latitude is said to have important shortcomings. Firstly, the measurement of the altitudes of a number of stars complicates the work of the observer. Secondly, calculations of mean square errors in the corrections are relatively laborious and, thirdly, no account is taken of the fact that the formula on which



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