"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTAY, N.

At the head of technological development. NTO 2 no.8:39-40 Ag '60.
(MIRA 13:10)

1. Predsedatel' soveta nauchno-tekhnicheskogo obshchestva pervichnoy organizatsii Taganrogskogo kombaynovogo zavoda imeni Stalina.
(Taganrog—Combines (Agricultural machinery))

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LUTAY, N.

Let us be prepared for the 22nd Party Congress. NTO 3 no.3:1-2 Mr '61.
(MIRA 14:3)

1. Glavnyy inzh. Taganrogskogo kombaynovgo zavoda imeni Stalina, predsedatel' soveta pervichnoy organizatsii nauchno-tekhnicheskikh obshchestv.
(Taganrog—Combines(Agricultural machinery)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

VYRYPAYEV, Aleksey Mikhaylovich, zhur.; LUTAY, Nikolay Vladimirovich; POPOV, A.S., red.; ZAYTSEVA, L.A., tekhn. red.

[Primary organization of a scientific and technical society] Pervichnaia organizatsiia nauchno-tekhnicheskogo obshchestva. Izd-vo Profizdat, 1962. 62 p. (Bibliotechka profsoiuznogo aktivista, no.20(44)) (MIRA 15:11)

1. Predsedatel' organizatsii Nauchno-tekhnicheskogo obshchestva Taganrogskogo kombaynovogo zavoda (for Lutay).
(Efficiency, Industrial)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUT

LUTAYENKO, V. [Lutaienko, V.]

Electron solder metals. Nauka i zhyttia 11 no.2:27 F '62. (MIRA 15:3)

(Electric welding)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

AUTHOR: Lutchenko, A.I., Candidate of Historical Sciences 3-7-8/29

TITLE: The Higher Schools in USSR During the First Five-Year Plan (Vysshaya shkola v SSSR v gody pervoy pyatiletki)

PERIODICAL: Vestnik Vysshey Shkoly, 1957, # 7, pp 33-43 (USSR)

ABSTRACT: The article describes the development of a new engineering and technical intelligentsia during the First Five-Year Plan. He also describes the organization of various institutions during this period. In this connection the following figures are mentioned: The Moscow Industrial Academy, the first of its kind, was founded in 1927. In 1931 the number of industrial academies was increased to six, and in 1933 to eleven. In 1929, there were only 57,000 specialists in the national economic field with a higher education, and 55,000 with a secondary education. These figures increased in 1932 to 216,000 and 288,000 respectively. Consequently tens of thousands of engineers and specialists have been added to the working cadres.

At the beginning of 1933 there were 358 industrial, agricultural and economic vuzes with a student body of 469,000 against an expected number of but 269,000 students.

The author concludes that no other country was able to

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produce such an acceleration in the development of higher school education.
There are 30 Russian references.

AVAILABLE: Library of Congress

Card 2/2

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

L 23089-66 EWT(1)/T WR

ACC NR: AT6002848 SOURCE CODE: UR/2754/65/000/004/0166/0181

AUTHOR: Lutchenko, L. N.; Krasil'nikov, V. N.

ORG: none

TITLE: Transient processes in a thin circular loop

SOURCE: Leningrad. Universitet. Problemy difraktsii i rasprostraneniya voln, no. 4, 1965. Difraktsiya i izlucheniye voln (Wave diffraction and radiation), no. 4, 166-181

TOPIC TAGS: loop antenna, antenna theory

ABSTRACT: Eighteen modern articles on dipole and loop-antenna theory written by Western and Soviet specialists are briefly reviewed. The present article studies transient phenomena in a thin perfect-conduction loop antenna with arbitrarily distributed emf and (in the general case) with several connected loads whose geometrical size is small enough to permit describing their inside processes in a quasistationary approximation. The problem is formulated in terms of the electric scalar potential Φ and the A_s component of the magnetic vector potential. A

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

L 23089-66

ACC NR: AT6002848

differential equation for the tangential component of the electric field strength is set up, and the conditions of its vanishing on the antenna surface are explored. Equations describing the transient process in an antenna are developed for (a) the general case, (b) transmitting loaded antenna, and (c) transmitting antenna with an allowance for radiation. Orig. art. has: 4 figures and 53 formulas.

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 014 / OTH REF: 004

Card 2/2 PB

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

L 21847-66 EWT(1)/T WR

ACC NR: AT6002849 SOURCE CODE: UR/2754/65/000/004/0182/0191

AUTHORS: Lutchenko, L. N.; Krasil'nikov, V. N.

39
B+1

ORG: none

TITLE: Transients in wire antennas

SOURCE: Leningrad. Universitet. Problemy difraktsii i rasprostraneniya voln, no. 4, 1965. Difraktsiya i izlucheniye voln (Wave diffraction and radiation), no. 4, 182-191

TOPIC TAGS: loop antenna, electronic transient radiation, distribution, electric potential, electric current, time constant

ABSTRACT: A method of studying transients in thin closed (single-turn) and open antennas is proposed, taking into account processes in the transmission lines. The problem is formulated in terms of an electric scaler potential ψ and the component A_s of a magnetic vector potential. It is assumed that the distribution functions of the current and potential on the surface are not functions of the coordinates:

$$\frac{\partial \Phi(s,t)}{\partial t} = -\frac{1}{4\pi}\int_V \frac{[\mathrm{div}\,\vec{j}]}{r}\,dV,$$

$$A_s(s,t) = \frac{\mu}{4\pi}\int_V \frac{|j_s|\cos(\nu - \nu')}{r}\,dV.$$

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The current distribution in the first approximation is determined from

$$\frac{\partial^2 J_1}{\partial s^2}-\frac{1}{c^2}\cdot\frac{\partial^2 J_1}{\partial t^2}=-\frac{1}{\chi}\cdot\frac{\partial J_0}{\partial s}\cdot\frac{\partial \chi}{\partial s}-\frac{2}{c\chi}\cdot\frac{\partial}{\partial t}\sum_{l=1}^{N}Z_l J_l(s,t)\,\delta(s-s_l)-$$

$$-\frac{1}{\chi}\cdot\frac{1}{2\pi}\sqrt{\frac{\mu}{\varepsilon}}\left[\frac{\partial}{\partial s}\int_{-L}^{L}\frac{\frac{\partial J_0\left(s',\ t-\frac{r}{c}\right)}{\partial s'}-\frac{\partial J_0(s,t)}{\partial s}\cos(\nu-\nu')}{r}ds'-\right.$$

$$\left.-\frac{1}{c^2}\cdot\frac{\partial^2}{\partial t^2}\int_{-L}^{L}\frac{\left[J_0\left(s',\ t-\frac{r}{c}\right)-J_0(s,t)\right]\cos(\nu-\nu')}{r}ds'\right].$$

From considerations similar to ones made earlier by L. N. Lutchenko and V. N. Krasil'nikov (Nestatsionarnyye protsessy v tonkoy krugloy ramke. Problemy difraktsii i rasprostraneniya voln, no. 4, 1965), a solution can be constructed for any time interval, and the transient period can be evaluated

$$\text{for time}\quad (2n-1)\frac{L}{c}<t<2n\frac{L}{c}$$

$$J(st)\simeq\frac{e^{-i\omega t}}{\chi(0)+R_l}\cdot\frac{A(s)\,e^{ihs}+B(s)\,e^{-ihs+2ihL}}{1-a_n^n a_l^n x^n e^{2ihL}}\left(1-a_n^n a_l^n x^n e^{2ihL}\right).$$

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ACC NR: AT6002849

O

The obtained formulas show that the resonant length of an antenna changes not only due to radiation but also due to local reflections. Orig. art. has: 23 formulas and 1 diagram.

SUB CODE: 09/ SUBM DATE: none/ ORIG REF: 003

Card 3/3 nst

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTCHENKO N. N.

Category : USSR/Optics - Optical Methods of Analysis. Instruments K-7

Abs Jour : Ref Zhur - Fizika, No 2, 1957, No 5184

Author : Zaychikova, L.B., Lutchenko, N.N.
Inst : State Scientific Research Institute for Nonferrous Metals.
Title : New Photo-Colorimetric Method for Determining Zinc with Rhodanide-Ion and Rodamine-C.

Orig Pub : Zavod. laboratoriya, 1955, 21, No 11, 1304-1307

Abstract : Description of a photo-colorimetric method for determining small amounts of zinc (from 0.2 to 1%) in poor ores, floatation tailings, and pyrite concentrates, using the color reaction between zinc and the rhodanide-ion and rhodamine-C. The effect of the tri-valent iron is eliminated by reducing it with hydroxyl-amine chloride, and the copper (up to 1%) is bound by thiourea into a colorless complex, which does not interfere with the zinc determination; if the copper content is high it is removed with sodium thiosulphate. The duration of the determination of zinc in one sample comprising two parallel batches is 45 -- 50 minutes. The reproducibility of the results was 25 -- 10% within a zinc concentration range of 0.02 -- 1.0%.

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

GUR'YEV, S.D.; LUTCHENKO, N.N.

Determining thallium in thallium concentrates. Sbor. nauch. trud. Gintsvetmeta no.19:718-721 '62. (MIRA 16:7)

(Thallium--Analysis)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

ZAYCHIKOVA, L.B.; LUTCHENKO, N.N.

Colorimetric determination of tin in molybdenum concentrates.
Sbor. nauch. trud. Gintsvetmeta no.18:45-47 '61. (MIRA 16:7)

(Tin—Analysis) (Molybdenum—Analysis)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

GUR'YEV, S.D.; BLYAKHMAN, A.A.; LUTCHENKO, N.N.

Colorimetric determination of selenium by its reaction with 3,3'-diaminobenzidine. Sbor. nauch. trud. Gintsvetmeta no.19: 661-668 '62. (MIRA 16:7)

(Selenium) (Colorimetry)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

GUR'YEV, S.D.; LUTCHENKO, N.N.

Determining germanium in germanium concentrates. Sbor. nauch. trud. Gintsvetmeta no.19:722-726 '62. (MIRA 16:7)

(Germanium--Analysis)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTCHENKO, N. N.

AUTHORS: Zaychikova, L.B., Lutchenko, N. N. ,Ioffe, V.P., 32-8-7/61

TITLE: The Complexometric Determination of the Lead Content in Lead Concentrations (Kompleksometricheskoye opredeleniye svintsa v svintsovykh kontsentratakh)

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 8, pp. 910-911,(USSR)

ABSTRACT: For determining the lead content in lead concentrations the already known method of complex titration after previous elimination of lead-concomitant elements according to the sulfate method is employed. It is known that lead concentrates often contain various additions in considerable quantities: up to 26% silicic acid, up to 30% pyrite, up to 15% of the oxides of calcium, copper, aluminum etc. and nearly always also barium in the form of baryte. By treatment of the sample with sulfuric acid the lead is separated from the majority of the other elements with the exception of barium and calcium, if they are present in certain quantities which exceed the solubility of their sulfates in the solution to be investigated. Therefore a precise investigation has to be made of the influence of the barium and calcium content on the complexometric determination. According to existing data barium reduces the results due to the formation of ammonium acetate which is difficult to dissolve. Calcium, however, increases the results. Up to 2% the baryte content is of no influence, but above that it effects a reduction of the results, which

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

SOV/137-58-8-18102

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 270 (USSR)

AUTHORS: Gur'yev, S. D., Zaychikova, L. G., Ioffe, V. P., Sarayeva, N. F., Lutchenko, N. N.

TITLE: Increasing the Precision of the Methods of Determination of Lead in Lead Concentrates (Utochneniye metodov opredeleniya svintsa v svintsovykh kontsentratakh)

PERIODICAL: Sb. nauchn. tr. Gos. n.-i. in-t tsvetn. met, 1958, Nr 14, pp 9-20

ABSTRACT: The results of experiments in the study of the effect of Ba, Ca, SiO_2, and SO_4 impurities on the determination of large quantities of Pb in Pb concentrates are described. The optimum analytical conditions are described. Methods for the determination of Pb by the molybdate method in Pb concentrates containing $\leq 3\%$ of barite, also the determination of Pb by the chromate method with $< 4\%$ SO_4 in the concentrate are adduced.

1. Lead ores--Impurities 2. Lead--Determination P. K.

Card 1/1

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTCHENKO, V.A.

Utilization of the potentials for the growth of labor productivity. Leh.prom.no.1:16-19 Ja-Mr '64.
(MIRA 19:1)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

ANCHUGOV, Mikhail Aleksandrovich; LUTCHEV, Veniamin Alekseyevich; MAKHLMSON, V.A., red.izd-va; EL'KIND, V.D., tekhn.red.; GORDEYEVA, L.P., tekhn.red.

[Operation and repair of motor vehicles for invalids] Ekspluatatsiia i remont motornykh koliasok. Moskva, Gos. nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 267 p. (MIRA 14:4)

(Motor vehicles--Maintenance and repair)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

ZUBAREVA, M.I. [Zubarieva, M.I.]; GOLOVUSHKINA, A.B. [Holovushkina, A.B.]; LUTCHENKO, V.A.

Determining the degree of mechanization of the operations in the knit goods industry. Leh. prom. no.3:44-47 Jl-S '64. (MIRA 17:10)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTCHEVA, YE. S.

Dissertation: "Determination of the Type and Group of Blood Stains on Wooden Objects." Cand Med Sci, Second Moscow Medical Inst imeni I. V. Stalin, Moscow, 28 Jun 54. (Meditsinskiy Rabotnik, Moscow, 18 Jun 54)

SO: SUM 318, 23 Dec 1954

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

ARZHELAS, L.K.; LUTCHEVA, Ye.S.

Determination of Rh-agglutinogen C^w in the blood of Moscow donors. Sud.-med.ekspert. 7 no. 2:30-31 Ap Je '64.
(MIRA 17:7)

1. Nauchno-issledovatel'skiy institut sudebnoy meditsiny (dir.- prof. V.I.Prozorovskiy) Ministerstva zdravookhraneniya SSSR, Moskva.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

ARZHELAS, L.K.; LUTCHEVA, Ye.S.; REZNIKOVA, M.N.; POTAPOV, M.I.; SOLOV'YEVA, N.A.

Detection and investigation in human sera of antibodies to the agglutinogens P, S, Le, Lu, K, Fy. Sud-med.ekspert. 3 no.1:27-32 Ja-Mr '60. (MIRA 13:5)

1. Nauchno-issledovatel'skiy institut sudebnoy meditsiny (dir. - prof. V.I. Prozorovskiy) Ministerstva zdravookhraneniya SSSR.
(AGGLUTINOGENS) (ANTIGENS AND ANTIBODIES)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

G. G. SHAFER, V. D. SOKOLOV, N. G. SKRYABIN, V. F. LUTENKO

Distribution of Cosmic Ray Intensity in the Atmosphere upto the Altitude 500 km.

Report submitted for the 8th Intl. Conf. on Cosmic Rays (IUPAP), Jaipur India, 2-14 Dec 1963

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

[illegible], L.; [illegible], [illegible].

"More on Coating Bearings and [illegible] Motors", p. [illegible]; "An Engine for [illegible] Treads from Tires", p. 51; "A Device for Grinding Brake Shoes of the Chausson Bus", p. 51, ([illegible], Vol. 10, No. 2, Feb. 1955, [illegible], Poland)

[illegible]: Monthly List of East European Accessions, ([illegible]), [illegible], Vol. 4, No. 5, May 1955, Uncl.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTEREK, R.

DDT and the combat with ants. Wszechswiat no.1:22-23 Ja '63.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTEREK, Robert

A tentative analysis of the course of mass occurrence of selected insects pests of pines in the Gniewkowo Forest District for the period 1945-1960 as based on materials from autumn searches. Prace nauk roln i lesn 17 no.3:417-455 '65.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTERSEK, D.

Dr. Zeljko Krovacevic's Primijenjena entomologija. Knjiga treca. Sumski stetnici (Applied Entomology. Vol. III. Forest Pests); a bood review. p. 389.

NARODNI SUMAR. (Drustvo sumarskih inzenjera i tehnicara Bosne i Hercegovine) Sarajevo, Yugoslavia. Vol. 12, no. 4/6, Apr./June 1958.

Monthly List of East European Accessions (EEAI) LC Vol. 9, no. 2, Feb. 1960.

Uncl.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

MARIN, Gheorghe; LUTESCU, Adrian

Laboratory methods and installations for measuring the oil discharge and temperature in the bearings. Metalurgia constr mas 13 no.9: 833-836 S '61.

(Gas and oil engines)
(Bearings(Machinery))

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

RUMANIA/Human and Animal Physiology (Normal and Pathological).
Internal Secretion. Gonads.

Abs Jour: Ref Zhur-Biol , No 17, 1958, 79886.

Author : Mandache, Fl.; Prodescu, V.; Lutescu, I.; Bejan, Z.
Inst :
Title : Appendicular Discinesia of Ovarian Origin.
(Gonad-Appendicular Syndrome in Woman. I. Experimental
Investigation.

Orig Pub: Studii si cercetari endocrinol. Acad. RPR, 1956,
7, No 1, 85-90.

Abstract: No abstract.

Card : 1/1

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

MANDACHE, Fl.; PRODESCU, V.; LUTESCU, I.; BEJAN, Z.

Appendicular dyskinesia of ovarian origin; the gonado-appendicular syndrome in the female. Rumanian M. Rev. 2 no.2:75-78 Apr-June 58.

(APPENDICITIS, etiol. & pathogen.
ovarian dysfunct. causing appendicular dyskinesia)
(OVARIES, dis.
funct. disord. causing dyskinesia & appendicitis)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

[illegible], Given Name
LUTESCU, I.

Country: Rumania

Academic Degrees: -not given-

Affiliation: *)

Source: Timisoara, Timisoara Medicala, Vol VI, No 1, Jan-Jun 1961, pp 33-37.

Data: "Reanimation in Terminal Collapse State With Transfusions of Oxygenated Blood Through Artificial Heart-Lungs."

Authors:

MANDACHE, F.	ROSCA, S.	LUTESCU, I.
MATEESCU, D.	CIOPALA, E.	CANTARGIU, Sofia
PRODESCU, V.	MATEICA, Monica	TANCIU, I.
KOVER, Gh.	CONSTANTINESCU, S.	

*) Work performed at the Surgical Clinic of "Brincovenesc" Hospital (Clinica de Chirurgie a Spitalului "Brincovenesc"), Director: F. MANDACHE.

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APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTFULIN, I.Z.

Compilation of AT700 charts at intermediate periods. Meteor. i gidrol.no.2:21-24 F '56. (MLRA 9:6)
(Weather forecasting)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTFULIN, I.Z.

Effect of eddy flux and heterogeneous advection on the formation and dissipation of cloud layers. Trudy TSIP no.121:31-52 '63. (MIRA 16:8)

(Clouds)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

L 19392-66 EWT(1)/FCC GW/GS

ACCESSION NR: AT5008054 S/0000/64/000/000/0063/0074

AUTHOR: Lutfulin, I. Z.

TITLE: Operational scheme for forecasting the pressure field for 24 and 48 hours ahead, with utilization of the initial data on geopotential and surface isallobars

SOURCE: Simpozium po chislennym metodam prognoza pogody. Moscow, 1963. Trudy. Leningrad, Gidrometeoizdat, 1964, 63-74

TOPIC TAGS: weather forecasting, numerical method, pressure field, geopotential, atmospheric pressure

ABSTRACT: The article describes methods for calculating prognostic pressure fields at sea level, and geopotentials at 850, 700, 500 and 300 mb. This method is used now in operational practice, the calculations are done on the "Ural-2" computer. The initial data used in forecast calculations are the geopotentials for 850 and 500 mb at 3 a.m., and the surface pressure change between 3 and 6 a.m. The data for 700 mb are interpolated from values for 800 and 500 mb. The first distinctive characteristic of this method is the original way of calculating the plane divergence

$$D = \frac{\partial u}{\partial x} + \frac{\partial v}{\partial y},$$

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ACCESSION NR: AT5008054

which becomes a member of the vorticity equation in the quasi-geostrophic approximation, $\Delta \frac{\partial H}{\partial t} = -\frac{g}{l}(H, B) - \beta \frac{\partial H}{\partial x} - \frac{l^2}{g} D.$

Sources of errors in hydrodynamic forecasting are discussed, and ways of eliminating them are suggested. Forecast equations and examples of solutions are presented. During 1961-1963 the method was improved in the following ways: 1) a new factor was introduced--heat flux; 2) the calculation of the contour integral in solving the Poisson equation was refined; 3) a new method was developed for numerically forecasting the pressure at sea level on the basis of forecasts for 850 mb and the 850-1000 mb thickness pattern; 4) a new method for calculating the 300 mb charts was introduced; 5) a new method for calculating the 3 hour pressure changes was developed. Preliminary results of pressure field calculations are discussed and illustrated with pressure maps covering Europe and the western part of the Soviet Union. The mean relative errors in forecasts of changes in geopotential are shown in a graph, comparing the errors for four different forecasting methods. The method developed in 1963 shows the smallest errors for all levels. Orig. art. has: 6 figures, 28 formulas.

Card 2/3

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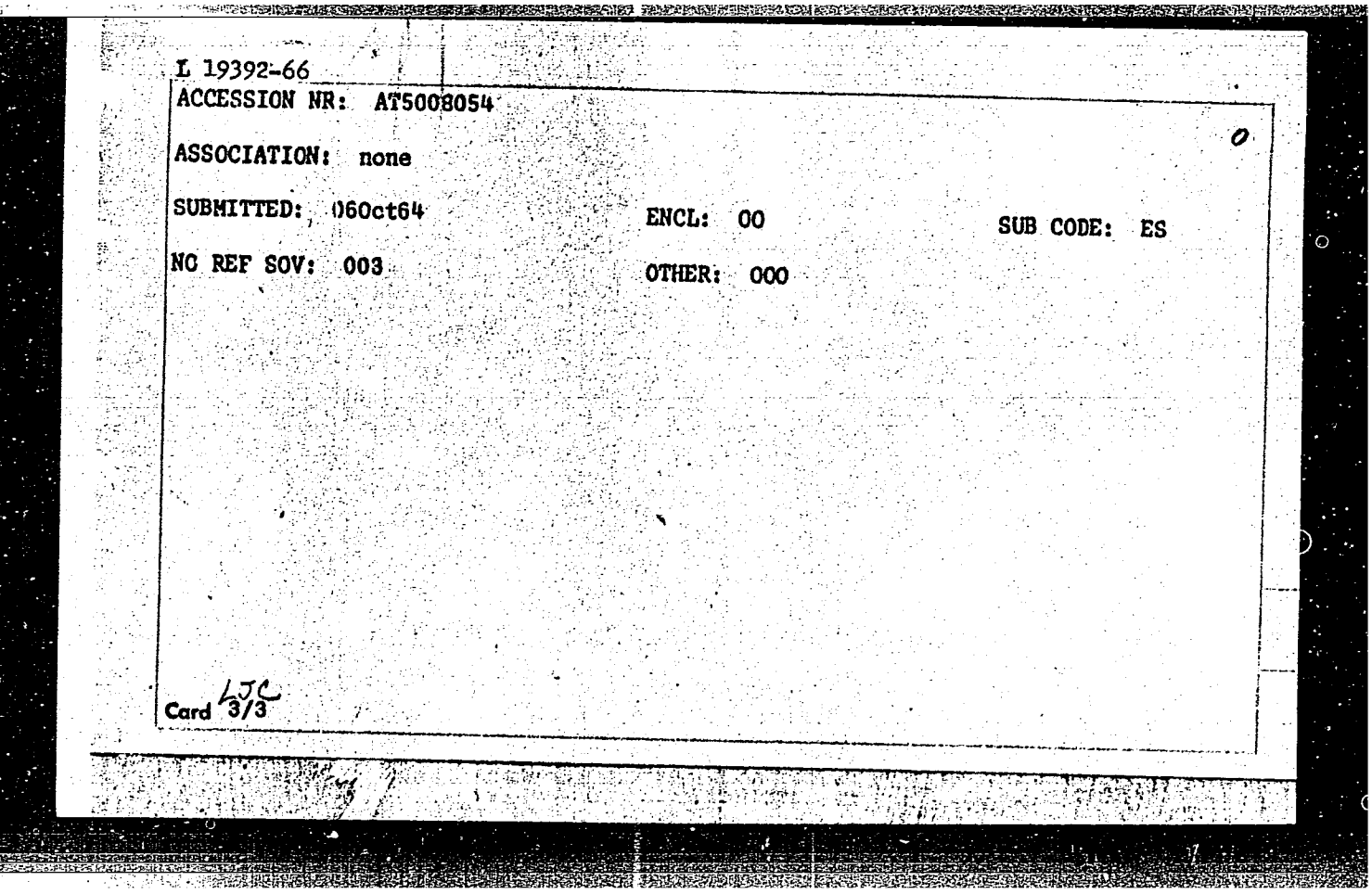

L 19392-66

ACCESSION NR: AT5008054

ASSOCIATION: none

SUBMITTED: 06Oct64 ENCL: 00 SUB CODE: ES

NO REF SOV: 003 OTHER: 000

Card 3/3

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

L 12986-66 EWT(1)/FCC GW

ACC NR: AR6000804 SOURCE CODE: UR/0169/65/000/009/B039/B039

SOURCE: Ref. zh. Geofizika, Abs. 9B294

AUTHOR: Lutfulin, I. Z.

TITLE: Some problems in the use of hydrodynamic equations for analysis and forecasting of atmospheric processes

CITED SOURCE: Sb. rabot po regional'n. sinoptike, no. 9, 1964, 48-54

TOPIC TAGS: weather forecasting, cyclone, geostrophic wind, atmospheric pressure

TRANSLATION: The author considers rules and methods for approximate evaluation of the ageostrophic wind component in the free atmosphere using equations of motion. Use is made of the relationship between ageostrophic deviation and horizontal acceleration of air particles as expressed by equations of horizontal motion. For instance, deviation with respect to the x-u' axis may be found from the equation of motion referred to the y-axis:

$$u' = -\frac{1}{f}\frac{dv}{dt}.$$

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This requires only the evaluation of dv/dt in conformity with the synoptic situation. For example, in regions with standing high altitude crests and troughs, motion is assumed to be approximately stationary so that the acceleration may be calculated from wind variation along the flow using map data for a single observation. Under these conditions, the winds in spurs are super-geostrophic, while these in troughs are sub-geostrophic. This is especially noticeable on the axes of troughs and crests. Data are given from calculations for 50 slow moving high altitude crests and troughs at the 300 mb level. The difference between the velocities for actual and geostrophic winds varies from -3 to -15 m/sec for troughs and from 2 to 12 m/sec for crests. Rapidly moving crests and troughs give a different pattern; in this case, the actual wind velocity is close to geostrophic near the axes of the crests and troughs. This is explained by the low acceleration, $dv/dt=0$. In addition to these examples, there are synoptic situations where it may be assumed that the main contribution to acceleration is due to local wind variation. This is the case in well defined isallobaric foci and in the centers of migratory baric formations. Therefore, the (ageostrophic) wind in the center of a cyclone should blow in the general direction of motion, while that in the center of a moving high altitude anticyclone should blow in the opposite direction.

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

L 04207-67 EWT(1) GW

ACC NR: AR6000715 SOURCE CODE: UR/0124/65/000/009/B101/B102

29
B

AUTHOR: Lutfulin, I. Z.

TITLE: An operational scheme for 24-hr and 48-hr forecasting of the pressure field using initial data on the geopotential and ground isallobars

10

SOURCE: Ref. zh. Mekhanika, Abs. 9B680

REF SOURCE: Tr. Simpoziuma po chislen. metodam prognoza pogody, 1963. L., Gidrometeoizdat, 1964, 63-74

TOPIC TAGS: weather forecasting, atmospheric geopotential, weather map, isobar, troposphere

ABSTRACT: A method of forecasting the ground pressure field and the AT_{850}, AT_{700}, AT_{500}, and AT_{300} geopotential for 24 hrs is discussed. The calculations were made with the Ural-2 electronic computer. The grid region for which the forecast is made consists of 18 x 24 points. The spacing of the grid is 300 km and the time step is one hour. An important aspect of the scheme is the use of the initial field of ground isallobars as the starting data. Coarse errors often arise in hydrodynamic forecasting because the atmospheric processes above 300 mb are not taken into account and also because of inaccurate representation of the two-dimensional divergence $D = \partial u/\partial x + \partial v/\partial y$, which enters the vorticity equation in the quasi-geostrophic

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approximation

$$\Delta\frac{\partial H}{\partial t}=-\frac{g}{l}(H,\ B)-\beta\frac{\partial H}{\partial x}-\frac{l^2}{g}D.$$

In order that values of D that are close to the actual values are used in the calculations, the two-dimensional divergence was calculated for the pressure and isallobaric fields near the earth

$$D_P=\frac{g}{l^2}\left[-\frac{g}{l}(H,\ B)-\beta\frac{\partial H}{\partial x}-\frac{1}{g\rho}\frac{\partial P}{\partial l}\right]_P.$$

It was found that the divergences near the earth and at a level of 850 mbar are closely connected: $D_{850} = 0.38\ D_P$. As a result, the forecasting equation for the 850-mb surface is written as

$$\Delta\frac{\partial H}{\partial t}=-\frac{g}{l}(H,\ B)-\beta\frac{\partial H}{\partial x}-0.38\frac{l^2}{g}D_P.$$

The equation for the 500-mb level is obtained similarly. A method for calculating ΔT_{300} maps is developed using the empirical relationship between ΔT_{500}^{300} and ΔT_{850}^{500}: $H_{300} = 1.792\ H_{500} - 0.792\ H_{850} + 32$ dm. The formula $H_{700} = 0.6243\ H_{850} + 0.3757\ H_{500}$ was used to calculate ΔT_{700}. A method was also developed for calculating the baric tendency at the boundary of the forecast region, and the heat flux is introduced into the examination. All of this made it possible to increase the quality of forecasting of the geopotential fields. Tests of the scheme for 16 cases showed that the mean relative error is 0.46 in the lower and 0.55--0.58 in the middle and

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ACC NR: AR6000715

upper troposphere, which indicates better results than with synoptic forecasting. Comparison of the forecast and actual maps showed that the main details of the pressure field, including its abrupt reorganization, were correctly forecast. S. I. Rudenko [Translation of abstract]

SUB CODE: 04

Card 3/3 pla

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

L 08468-67 EWT(1) GW

ACC NR: AR6016471 SOURCE CODE: UR/0124/65/000/012/B138/B138

AUTHOR: Lutfulin, I. Z.

TITLE: Some problems in using hydrodynamic equations for analysis and forecasting of atmospheric processes

SOURCE: Ref. zh. Mekhanika, Abs. 12B977

REF SOURCE: Sb. rabot po regional'n. sinoptike, no. 9, 1964, 48-54

TOPIC TAGS: hydrodynamic theory, weather forecasting, atmospheric phenomenon, atmospheric pressure

ABSTRACT: Examination of the relationship for the ageostrophic component of wind in the form $u'=-(1/l)(dv/dt)$ may produce a number of conclusions of practical importance in weather forecasting. If the actual wind v is greater than the geostrophic wind v_g, it will rotate for the period of the next 3-6 hours toward the right and back again. The relationship between v and v_g in quiet troughs is such that $v<v_g$, while on crests $v>v_g$; however, if the trough is moving together with the flow, $v=v_g$. Another rule states that $v<v_g$ in the leading section of deepening troughs and collapsing crests as well as in the trailing section of leveling troughs and rising crests; in the

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opposite situations, $v>v_g$. In moving cyclones, v coincides in direction with the motion of the very center, while the wind in anitcyclones has the reverse direction. Some known empirical rules are also discussed which may be derived from the Buleyev-F'ortoft rule, where it is pointed out that the function *B* which is derived by averaging the pressure field which moves along its isolines is best found as the average over a circle with a radius of 900 km. The relative error of forecasts made by the author was lowest in this case. V. M. Kadyshnikov. [Translation of abstract]

SUB CODE: 04

Card 2/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTFULLIN, K.L.; YULDASHEV, P.Kh.; YUNUSOV, S.Yu.

Study of the alkaloids of Pedicularis olgae. Structure of plantagonin and indicain. Khim. prirod. soed. no.5:365-366 '65.
(MIRA 18:12)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR. Submitted August 6, 1965.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

NABIYEV, K.A.; MANSUROV, B.I.; TASHPULATOV, I.T. [illegible], S.L.

Find of bauxite rocks in the Aktau (central Kyzyl Kum). Uzb. geol. zhur. 9 no.3:87-89 '65. (MIRA 18:8)

1. KGSPE.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTFULLINA, M.S.

USSR/Agriculture - Livestock

Card 1/1 : Pub. 123 - 4/17

Authors : Bazanova, P. U.; Stepankina, M. K., and Lutfullina, M. S.

Title : Physiological bases for increasing the production of farm animals

Periodical : Vest. AN Kaz. SSR 11/3 (108), 19-29, Mar 1954

Abstract : The lag in livestock raising, as compared with the program outlined by the Communist Party, was found to be due to insufficient attention paid to the physiology of the animals. Study of physiological processes and experiments accompanying the study, which was conducted by various agricultural institutes of Kazakhstan, are described. Tables.

Institution : ...

Submitted : ...

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTFULLINA, M.S.

Studying the over-all activity of main digestive glands in camels.
Trudy Inst.eksp.biol. AN Kazakh.SSR 3:40-47 '56. (MLRA 10:1)
(CAMELS) (DIGESTION)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTFULLINA, M.S.

Water exchange in camels. Trudy Inst.eksp.biol. AN Kazakh.SSR 3: 104-108 '56. (MLRA 10:1)
(CAMELS) (WATER IN THE BODY)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTH, Heinz, okl.kozgazdasz (Berlin, Germany)

Organizational setup of the innovation movement in the German Democratic Republic. Ujit lap 14 no.7:12 10 Ap '62.

1. "Ujitok Lapja" berlini tudositoja.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTH, Heinz, okleveles kozgazdasz

Wiesner and deep hole drilling. Ujit lap 12 no.2:7-8 25 Ja '60.

1. "Erfindung und Vorschlagswesen" foszerkesztoje.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTHAR, Indar S. (Chandigarh)

On an application of uniform distribution of sequences. Col math 8 no.1:89-93 '61. (EEAI 10:5)
(Aggregates) (Numbers, Theory of)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIDZE, Sh. I.

"Investigation of the Electronic Excitation of Synchro-Generators According to the Scheme with Independent Excitation Using Buffer Valves,"

Dissertation for the Degree of Candidate of Technical Sciences, defended at Institute for Power Engineering imeni Krzhizhanovskiy AS USSR, 29 April 1954, (Elektrichestvo, 1958, Nr 4, 86-87).

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

Lutidze SH.I.

14(6),8(0) PHASE I BOOK EXPLOITATION SOV/3071

Akademiya nauk SSSR. Energeticheskiy institut

Elektroenergetika, vyp. 1 (Electric Power Engineering, Nr 1) Moscow, Izd-vo AN SSSR, 1959. 159 p. Errata slip inserted. 2,800 copies printed.

Ed.: P. P. Ogarkov and Ye. M. Grigor'yev; Tech. Ed.: Ye. V. Zelenkova; Editorial Board: Yu. G. Tolstov, Doctor of Technical Sciences (Resp. Ed.), I. M. Markovich, Doctor of Technical Sciences, I. S. Stekol'nikov, Doctor of Technical Sciences, P. I. Zubkov, Candidate of Technical Sciences, G. V. Klimovich, Candidate of Technical Sciences, V. I. Levitov, Candidate of Technical Sciences, and M. D. Bol'shov (Secretary)

PURPOSE: This collection of articles is intended for specialists in the various fields of electric power engineering treated in it.

COVERAGE: The first issue of the collection of articles, Elektroenergetika, appeared in April 1959. It is published by ENIN imeni G. M. Krzhizhanovskiy of the Academy of Sciences, USSR. The articles in this issue are based on research and work by the authors under the auspices of ENIN. The articles are on a high theoretical and technical level and represent original contributions to various present-day problems in electrical engineering. References are given after most of the articles.

Perkin, V. V. Problem of Designing Saturable Reactors for Low-Voltage Contact Rectifiers 31

The author considers the problem of designing saturable reactors for d-c low-voltage supply for electrochemical and electrometallurgical industries, which has not been adequately treated in the current literature. He aims at presenting a systematic survey of existing methods and suggests certain concrete recommendations on methods of calculating saturable reactors. There are 10 references: 2 Soviet, 6 German and 2 English.

Uteshkin, A. F. Theory and Method of Designing Voltage-Doubling Rectifiers With a Capacitive Filter 44

The method suggested by the author was tested experimentally and found to satisfy engineering requirements. There are 11 references: 7 Soviet, 2 German and 2 English.

Gorelkin, N. V., Sh. I. Lutidze and R. M. Shpilera. Electronic Excitation of Synchronous Generators Using a Six-phase Circuit With a Buffer Rectifier 54

The authors credit Academician M. I. Shanfer with the first studies in 1933 on the problems of electronic excitation. Recent theoretical investigations on this subject were conducted in the USSR by D. A. Zavalishin, L. Ye. L. Ettinger and by the electromechanics laboratory of ENIN. The authors made a number of investigations of electronic excitation on laboratory models using different circuit combinations. All of the models using buffer rectifiers were introduced by the laboratory. The methods and results of investigations are presented. There are 3 references, all Soviet.

Lutidze, Sh. I. Analysis of an Electronic Exciter Connected Through a Three-phase Circuit With a Buffer Rectifier. 67

The author investigates simple and reliable three-phase electronic exciter systems with buffer rectifiers and expressions for currents and voltages. This article is a continuation of the previous one. There are 3 references, all Soviet.

Gorelkin, N. V. and R. M. Shpilera. Application of Germanium Rectifiers in Excitation Circuits of Synchronous Generators 93

The electromechanics laboratory of ENIN developed in 1954 an experimental installation of a synchronous generator equipped with a rotating germanium rectifier in a bridge circuit with germanium diodes of the DG-2A type. Results of experiments are presented. There are 5 references: 4 Soviet and 1 English.

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

S/024/60/000/02/028/031
E194/E155

AUTHOR: Lutidze, Sh.I. (Moscow)

TITLE: The e.m.f. of Commutator Machines

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Energetika i avtomatika, 1960,Nr 2,pp 202-204 (USSR)

ABSTRACT: In commutator machines the system of e.m.f.'s induced in the armature winding is converted during the process of commutation and appears at the brushes as a second system of e.m.f.'s which in the general case differs from the first in frequency, amplitude, phase angle and number of phases. In most published work only individual particular cases of this conversion are considered, but the present article gives a general relationship between the e.m.f. at the brushes and the distribution of magnetic induction in the air gap. Expression (1) is then written for the air-gap induction, using the principle of superposition. Expression (2) relates to the e.m.f. across the brushes when the armature is rotating. When there are a number of brushes located symmetrically round the commutator the system of e.m.f.'s set up across the brushes is given by expression (3).

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

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The e.m.f. of Commutator Machines

The significance of various terms in these equations is explained. The following particular cases are then considered, both for d.c. and a.c. commutator machines: stationary field; rotating field; and pulsating field. In each case expressions are given for the e.m.f. across the brushes.

Card 2/2 There is 1 figure.

SUBMITTED: August 5, 1959

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIDZE, Sh. I.

Problems of the static stability of synchronous generator with ionic self-excitation. Elektroenergetika no.2:15-25 '60. (MIRA 14:3)

(Electric power distribution)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIDZE, Sh. I.; GORELKIN, N.V.

Elektromagnetic processes in collectorless machines with semiconductor rectifiers. Elektroenergetika no.2:46-54 '60.
(MIRA 14:3)

(Electric generators)

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E194/E155

26.2351

AUTHORS: Lutidze, Sh.I., and Maglaperidze, O.K.

TITLE: Steady-state conditions of an alternator with ionic excitation

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.12, 1961, 18, abstract 12E 114. (Elektroenergetika, no.2, 1960, 94-104)

TEXT: Determination of the steady-state conditions of an alternator with ionic excitation is based on the equations of the external characteristics of a rectifier and of the no-load characteristics of the generator, which lead to the following expressions, respectively:

$$i_B = \frac{AE}{1 + B} \quad (1), \qquad E_d = \frac{\beta}{\xi} i_B \quad (2), \qquad \varepsilon = \frac{E_d}{E} \quad (3),$$

where: i_B - the field current (relative to that giving rated voltage at no-load); E - the relative designed e.m.f. of the secondary winding of the series voltage booster transformer;

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Steady-state conditions of an ...

A and B - parameters of the rectifier circuit (A depends on the control angle α with a known transformation ratio k_T of the rectifier transformer and known circuit rectification coefficient; B depends on the total inductive impedance of the anode circuit allowing for zero phase-sequence impedance when the buffer valves operate, according to the corresponding circuit coefficient); β and ξ are, respectively, the tangent of the angle of slope of the tangent and the saturation factor at the given point on the no-load characteristic of the generator. The condition of existence of a steady-state condition corresponds to i_B being equal in expressions (1) and (2);

$$\varepsilon = \frac{\beta A}{\xi(1 + B)} \qquad (4)$$

which corresponds graphically to the point of intersection between the straight line $E_d = \frac{\varepsilon(1 + B)}{A} i_B$

with the no-load characteristic of the generator, observing the

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Steady-state conditions of an ...

requirement $\frac{\varepsilon(1 + B)}{A} > B$ (it is necessary that $\xi < 1$, i.e. it is necessary that the no-load characteristic should differ from a straight line). For the generator operating conditions under consideration, the control angle α is determined from expression (4) for known values of ε, β, ξ and B. Thereby, for calculating $\dot{E} = |\dot{U} + j\dot{x}_M I|$, in the function E_d the equations interrelating the stator values and the voltage of the receiving system U_1 are applied for the general case of the generator being connected to the system through a quadripole. This yields (in the general form): $E = f(U_1, E_d, \delta)$. The valve commutation angle γ is determined from an equation between α and γ:

$$\cos(\alpha + \gamma) = \frac{1 - B}{1 + B} \cos \alpha \qquad (5)$$

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Steady-state conditions of an ...

Expressions (1) and (5) are obtained without allowing for voltage drop in the valve arc or the change in the field winding resistance with temperature.
2 literature references.
see also Ref.Zh. E, no.12, 1959, 24365.
[Abstractor's note: Complete translation.]

Card 4/4

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIDZE, Sh.I.

Ionic excitation of synchronous generators using a six-phase network with an equalizing reactor and buffer rectifiers. Elektroenergetika no.4:28-41 '61. (MIRA 14:8)
(Electric current converters) (Electric generators)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIDZE, Sh.I.; MAGLAPERIDZE, O.K.

Ionic exciter in asymmetrical operations. Elektroenergetika no.4:42-48 '61. (MIRA 14:8)
(Electric current rectifiers) (Electric generators)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIDZE, Sh.I.; BLINKOV, Ye.L.

Calculation of a network with a saturable reactor feeding an inducive load. Elektroenergetika no.4:49-54 '61. (MIRA 14:8)
(Electric coils) (Magnetic circuits)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIDZE, Sh.I.; MAGLAPERIDZE, O.K.

Ionic self-excitation of synchronous generators using a three-phase staggered circuit with a buffer-type rectifier.
Elektroenergetika no.4:149-162 '61. (MIRA 14:8)
(Turbogenerators)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

S/196/62/000/004/002/023
E194/E155

AUTHORS: Lutidze, Sh.I., and Blinkov, Ye.L.

TITLE: Calculation of a circuit with saturated choke operating on an inductive load

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.4, 1962, 12, abstract 4 A64. (Elektroenergetika, no.4, 49-54)

TEXT: Calculation of a three-phase circuit with a saturating choke operating under conditions of forced pre-magnetisation is considered. Instantaneous values of current and voltage are determined and also the relationship between the direct component of magnetic induction in the saturating choke and the alternating component. The calculation reduces to calculation of a single-phase circuit (see sketch). This circuit consists of a reactance X and the saturating choke with d.c. pre-magnetisation connected in series. Using linear segments to represent the magnetisation curve of the saturating choke, expressions are derived for the direct component of the magnetic field of the saturating choke when the alternating induction

Card 1/2

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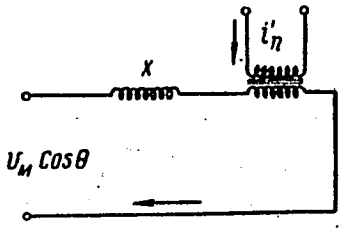
Calculation of a circuit with ... S/196/62/000/004/002/023
E194/E155

component is altered. Voltage and current oscillograms are compared with curves calculated by the formula. 3 lit.refs.

[Abstractor's note: Complete translation.]

Figure



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APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIDZE, Sh.I.

Electric machinery with controlled transistor commutators. Elektroenergetika no.5:110-119 '62. (MIRA 15:4)
(Electric machinery) (Commutation (Electricity))

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

GORUSHKIN, V.I.; KOVAL'KOV, G.A.; KOZLOVSKIY, G.F.; LUTIDZE, Sh.I.; MARKOVICH, I.M.; MEYEROVICH, E.A.; MIKHNEVICH, G.I.; POPKOV, V.I.; STEKOL'NIKOV, I.S.; TAFT, V.A.; TOLSTOV, Yu.G.

Sixtieth anniversary of the birth of A.I. Moskvitin. Elektrichestvo no.4:94 Ap '62. (MIRA 15:5)
(Moskvitin, Anatolii Ivanovich, 1902-)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIDZE, Sh. I.; MISYULIN, A. V.

Single-phase transistor converter circuit. Elektroenergetika no.6:73-81 '62. (MIRA 16:4)

(Pulse circuits) (Electric relays)
(Switching theory)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIDZE, Sh. I.; CHURSIN, V. I.

Contactless asynchronous exciter for synchronous machines.
Elektroenergetika no.6:82-96 '62. (MIRA 16:4)

(Electric machinery)
(Commutation(Electricity))

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIDZE, Sh.I.

Commutational voltage drop in d.c. machines with a regulated semiconductor commutator. Elektroenergetika no.7:91-95 '63. (MIRA 16:9)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIDZE, Sh.I. (Moskva)

Equations and networks of electrical machines with regulated semiconductor commutators. Izv. AN SSSR Energ. i transp. 6:680-690 N-D '64. (MIRA 18:3)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIDZE, Sh.I. (Moskva)

Transformation of variables for an electrical machine with nonsymmetrical windings. Izv. AN SSSR.Energ. i transp. no.3:43-48 My-Je '65. (MIRA 18:12)

1. Submitted November 23, 1964.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

L 49025-66

ACC NR: AP6029599 SOURCE CODE: UR/0281/66/000/003/0029/0046

AUTHOR: Lutidze, Sh. I. (Moscow)

ORG: none

TITLE: Methodology of investigating commutation processes in electrical machines with controlled semiconductor commutators

SOURCE: AN SSSR. Izvestiya. Energetika i transport, no. 3, 1966, 29-46

TOPIC TAGS: electronic commutator, electronic circuit

ABSTRACT: The article presents a general method of analyzing commutation in an electrical machine where switching is done by means of controlled semiconductor elements. The basic equations describing the processes of commutation are derived for a line-to-neutral circuit, a two-line bridge circuit and a three-phase circuit in the armature. Expressions for flux linkages, mutual inductances, voltages and currents are set up first in matrix form and then in the form of closed equations. Particular attention is devoted to asynchronous machines (exciters, induction motors, frequency converters) with controlled semiconductor elements on the stator or on the rotor. As an example, specific equations are derived for the case of a frequency converter with a three-phase stator and a poly (3,4,5,6,7,8)-phase rotor; the transients during closing and opening of a winding are calculated numerically for given values of machine parameters. Computed results are then compared with actual oscillographs of stator and rotor currents after the machine has been connected across a load. Orig. art. has: 5 figures and 36 formulas. [JPRS: 37,061]

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

L 10024-67 EWT(1)

ACC NR: AP6023611 SOURCE CODE: UR/0105/66/000/007/0039/0044

AUTHOR: Lutidze, Sh. I. (Candidate of technical sciences)

ORG: Power-Engineering Institute im. G. M. Krzhizhanovskiy (Energeticheskiy institut)

TITLE: Transients in induction motors with controllable semiconductor switch

SOURCE: Elektrichestvo, no. 7, 1966, 39-44

TOPIC TAGS: electric motor, induction motor, transient phenomenon, electric rotating equipment

ABSTRACT: An analysis is conducted and a method of calculation is suggested of single- and two-phase asymmetrical transient conditions in induction machines with a controllable semiconductor switch (exciters, frequency changers, etc.). The induction machine is assumed to have a 3-phase-wound stator and an open multiphase-wound semiconductor-switched rotor; the semiconductor switch is connected

Card 1/2 UDC: 621.1.313.33:621.3.064

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

L 10024-67

ACC NR: AP6023611

4

to an RL-load. Differential equations describing successive transient currents are set up; their solution yields formulas for complex stator and rotor currents which permit calculating a succession of numerical values of currents. Thus, the entire transient process can be followed. The single-phase regime is considered as a particular case of the two-phase regime. Applicability of the formulas to the case of ac/dc converter (or dc-ac inverter) with core-type transformer is demonstrated. Comparison between calculated transients and those obtained from a laboratory model shows that the real rotor current contains an additional slow-decaying fundamental-frequency component. "Calculations and experiments were carried out by I. V. Yakimets, Ye. V. Makarova, V. I. Chursin, and V. M. Serebryakov." Orig. art. has: 2 figures and 41 formulas.

SUB CODE: 09 / SUBM DATE: 05Feb66 / ORIG REF: 002

Card 2/2 egk

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

L'TINOV, I. Ye

Sunflowers

Care of sunflower seedings. Kolkh. proiz. 12 no. 5, 1952.

Monthly List of Russian Accessions, Library of Congress. November, 1952. UNCLASSIFIED.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIKOV, I.

High yiels of peanuts. Moskva, Gos. izd-vo sel'khoz. Lit-ry, 1953. 39 p.
(Peredovoi opyt v sel'skom khoziaistve)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIKOV, I. E.

Cultivation methods in obtaining high sunflower yields. Moskva, Gos. izd-vo selkhoz. lit-ry, 1954. 62 p.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIKOV, I. Ye.

KOVUN, P.K., NEVZOROV, A.P., ANTONENKO, G.P.,; BUDINA,L.V.; VORONINA, Ye.P.; GUSEV, P.I.: YELAGIN, M.N., ZHURAVLEV, M.A., ZALOZNYY, K.D.: KOMKOV,V.N.; KOROBOV, A.S.;KORCHAGIN, V.N.; LAVROV, V.N.; LAPSHINA, O.V.; LUTIKOV,I.Ye.; MAKEVNIN, A.Ya.;MOROZOVA, F.I.;NEVZOROV, A.P.;PONOMARCHUK, M.K.;PUCHKOV, A.M.; RAZMOLOGOVA, A.M.;RUBIN, S.M.; SELEZNEVA, O.V.;SEMENOVA, F.I.; SPIRIDONOVA, A.I.;SUSHCHEVSKIY, M.G.;USOV, M.P.; TARKOVSKIY, M.I.; CHENYKAYEVA, Ye.A.;SHENDRIKOV, G.L.; SHUL'GIN, G.T.;TSITSIN, N.V.,akademik, redaktor;REVENKOVA, A.I.,redaktor; KHOKHRINA, N.M., khudozhestvennyy redaktor; VESKOVA, Ye.I., tekhnicheskiy redaktor; PEVZNERV.B.I., tekhnicheskiy redaktor.

[Plant breeding at the 1955 All-Union Agricultureal Exhibition] Rastenievodstvo na Vsesoiuznoi sel'skokhoziaistvennoi vystavke 1955 goda. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1956. 687 p. (MLRA 10:4)
(Moscow--Plant breeding--Exhibitions)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIKOV, I.Ye.

LUTIKOV, I.Ye.

Oilseed crops in the U.S.S.R. Zemledelie 5 no.11:47-51 N '57.
(Oilseed plants) (MLRA 10:11)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIKOV, K. M.

"Inbreeding and the role in farm animal breeding." (p. 413) by Lutikov, K. M.

SO: Advances in Modern Biology (Uspekhi Sovremennoi Biologie) Vol. XXII, No. 3, 1946.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIKOV, K. M.

"The Results of Inbreeding and Outbreeding on Example of Bestuscheff's Stock of Heavy Corn-Cattle." (p. 140) by Lutikov, K. M.

SO: Journal of General Biology (Zhurnal Obshchey Biologii) Vol.XIV, No.2, March-April, 1953.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

Country	: USSR
Category	: Farm Animals. Cattle. Q
Abs. Jour	: Ref Zur-Biol., No 21, 1958, 96835
Author	: Lutikov, K.M.
Institut.	: -
Title	: Obtaining Beef Cattle Yearlings in Dairy Cattle Herds.
Orig Pub.	: Molochn. i myasn. zhivotnovodstvo, 1958, No 1, 51-56
Abstract	: As a result of cross-breeding of dairy cattle with beef cattle bulls (Red Swedish x Hereford) hybrid yearlings were obtained which, when slaughtered at an early age, yield increased quantities of high-quality meat and heavy-sole leather.
Card:	1/1

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L 11239-66 EWT(d)/EWT(l)/EWT(m)/EWP(w)/EPF(n)-2/EWP(v)/T-2/EWP(t)/EWP(k)/EWP(b)/
ACC NR: AP5024912 EWA(h)/ETC(m)-6 JD/WW/JG/EM UR/0382/65/000/003/0121/0126

AUTHOR: Avilova, E.M.; Doktorova, T.V.; Lutikov, V.K.; Marin, N.I.; Povsten', V.A.; Turchin, N.M.

ORG: None

34
B

TITLE: Design features and test results of conductional pumps

SOURCE: Magnitnaya gidrodinamika, no. 3, 1965, 121-126

TOPIC TAGS: magnetohydrodynamic pump, electromagnetic pump design, unipolar generator

26,2344 5

ABSTRACT: Design features of several conductional (direct current electromagnetic induction) pumps developed by the authors are described. Results of tests and comments on actual use are also given. A unipolar direct current generator developed as a better power source for one of the pump types is also described. The larger electromagnetic induction pump operating on the principle of DC current conductance in a perpendicular steady magnetic field was designed to pump liquid metals, such as Na and the NaK alloy at temperatures of 850 - 1050°K. It delivers a metal flow of 7,000 cubic centimeters per second. The pump requires 10000 amperes at .6 volt, and has a winding of two turns of an (80x80)mm^2 cross-section. Details of the working section, pressure dependence upon flow at various current magnitudes, and the efficiency variation data are given. A maximum efficiency of 36% was attained at 6000 amperes and 6000 cm^3/sec.

UDC 538.4:621.689

Card 1/2

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L 11239-66

ACC NR: AP5024912

The rectifiers usually used as power supply for these pumps (type ND 10000/5000 and ANG 5000/2500) require an exorbitantly large floor space; this led to the development of a compact unipolar generator of 11 kw d.c. power (15,000 amperes, .7 volt), with liquid metal (mercury) brushes. A description and a schematic drawing of the generator is given. In tests, the generator achieved an efficiency of 76%. For smaller liquid metal flows, of several cubic centimeters per second, - helical channel conductional pumps are quite appropriate. They have been designed to deliver e.g. 2 cm^3/sec. of liquid metal at 800°K, using a current of only 100 - 200 amperes. Therefore, their power requirements can be supplied by small compact rectifiers. The simplicity and reliability of these pumps recommend them for use e.g. in laboratories. Orig. art. has 7 figures.

SUB CODE: 13, 09/ SUBM DATE: 26Jan65/

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APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

L 23128-66 EWT(m) DIAAP
ACC NR: AP6001568 (A) SOURCE CODE: UR/0120/65/000/006/0051/0057

AUTHOR: Serbinov, A. N.; Yakushev, V. P.; Rezvykh, K. A.; Marin, N. I.; Povsten', V. A.; Lutikov, V. K.; Doktorova, T. V.

ORG: Institute of Physics and Power Engineering, GKAE, Obninsk (Fiziko-energeticheskiy institut GKAE)

TITLE: Pulsed neutron generator

SOURCE: Pribory i tekhnika eksperimenta, no. 6, 1965, 51-57

TOPIC TAGS: neutron generator, pulsed neutron generator, pulse generator, deuteron, ion source, neutron

ABSTRACT: A new pulsed neutron generator constructed for physical studies is described in detail. Deuteron pulses are generated by a h-f type ion source which has a honeycomb extraction system. Both the source and its power supply are placed under an accelerating potential of 300 kv. Vacuum in the accelerating tube, 5×10^{-6} to 2×10^{-5} torr; for an average ion current of 14 ma at the target, the h-v source load current was 250 ma; repetition frequency, 3—1000 cps; neutron yield intensity, 10^{12} neutrons/sec in dT reaction; the highest observed target temperature, 100C.

Card 1/2 UDC: 621.039.555:539.125.5

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L 23128-66
ACC NR: AP6001568

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A pulse ion current of 21 ma was obtained under the following conditions: accelerating voltage, 270 kv; repetition frequency, 1000 cps; h-f generator consumption, about 100 w; extracting-pulse amplitude, 11—13 kv; extraction delay, 6 μsec; discharge-pulse time, 8 μsec; extraction-pulse time, 1.4 μsec; target-current time, 1 μsec. "M. V. Sokolov took part in development and alignment; L. A. Kiseleva, L. I. Pashchenko, G. I. Abakumov, N. I. Ushakova, Ye. M. Avilova, Yu. P. Basov, and N. V. Volkov took part in designing. The authors wish to thank B. S. Novikovskiy and V. A. Romanov for their advice; and V. I. Maroke, I. S. Belomyttsev, M. V. Krivenkov, A. I. Malygin, Ye. F. Semenov, V. I. Burlaka, and L. A. Shimkevich for their help in alignment." Orig. art. has: 5 figures.

SUB CODE: 18 / SUBM DATE: 02Nov64 / ORIG REF: 002 / OTH REF: 001

Card 2/2 PB

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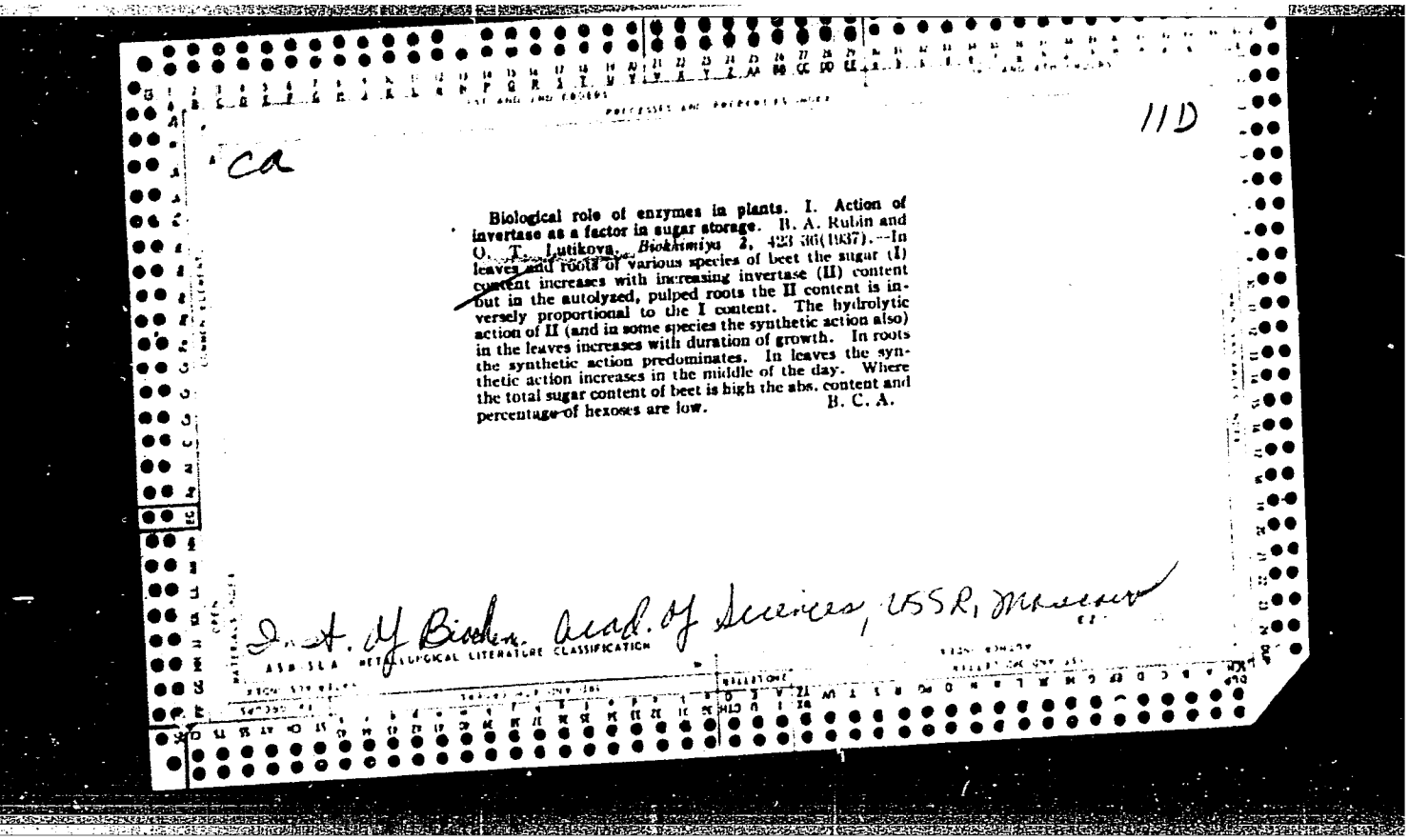

IID

ca

Biological role of enzymes in plants. I. Action of invertase as a factor in sugar storage. B. A. Rubin and O. T. Lutikova. *Biokhimiya* 2, 423-36(1937).—In leaves and roots of various species of beet the sugar (I) content increases with increasing invertase (II) content but in the autolyzed, pulped roots the II content is inversely proportional to the I content. The hydrolytic action of II (and in some species the synthetic action also) in the leaves increases with duration of growth. In roots the synthetic action predominates. In leaves the synthetic action increases in the middle of the day. Where the total sugar content of beet is high the abs. content and percentage of hexoses are low. B. C. A.

Inst. of Biochem. Acad. of Sciences, USSR, Moscow

ASB-SLA BIOLOGICAL LITERATURE CLASSIFICATION

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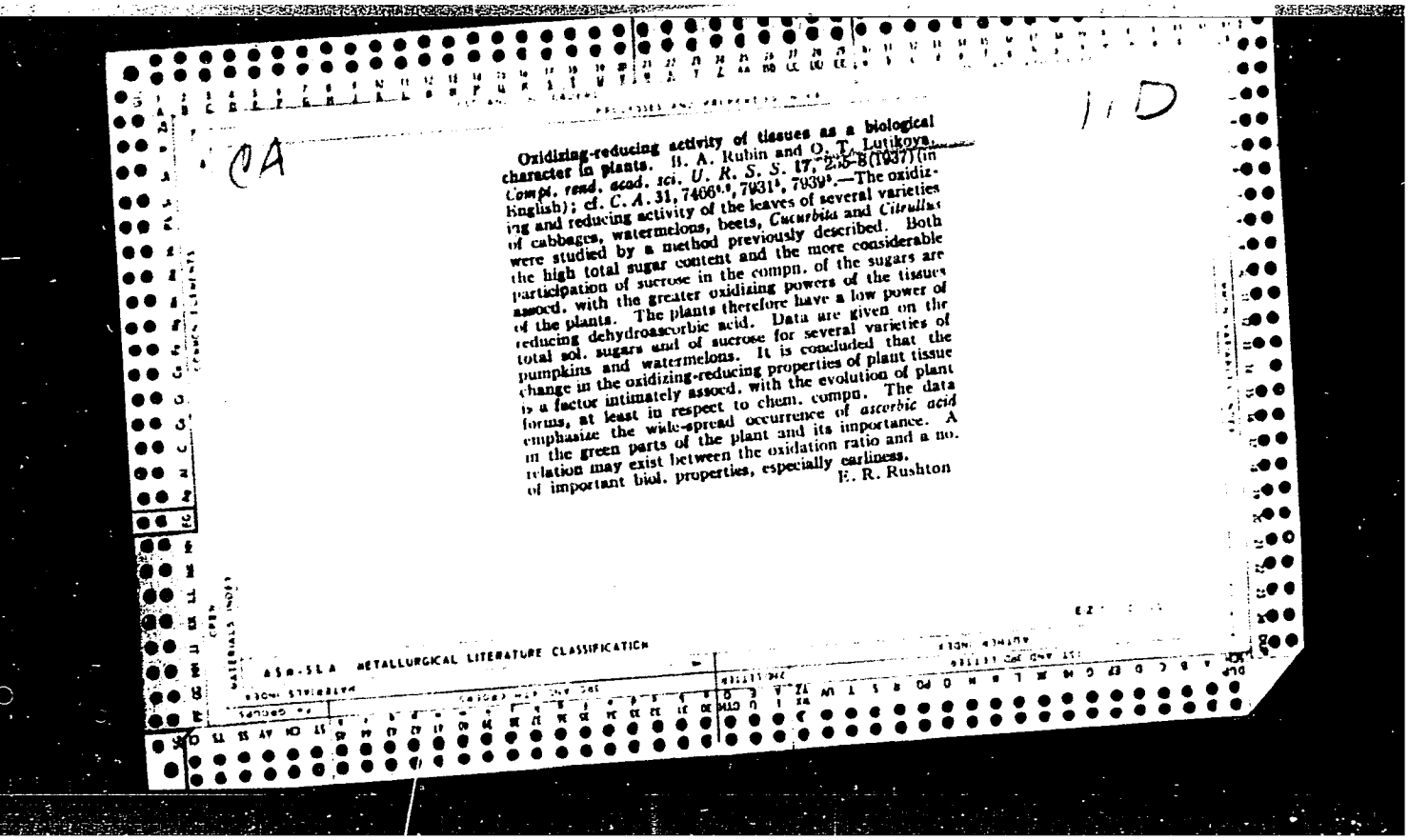

CA

11D

Oxidizing-reducing activity of tissues as a biological character in plants. B. A. Rubin and O. T. Lutikova. *Compt. rend. acad. sci. U. R. S. S.* 17, 235-8(1937)(in English); cf. *C. A.* 31, 7466[8], 7931[1], 7939[3].—The oxidizing and reducing activity of the leaves of several varieties of cabbages, watermelons, beets, *Cucurbita* and *Citrullus* were studied by a method previously described. Both the high total sugar content and the more considerable participation of sucrose in the compn. of the sugars are assocd. with the greater oxidizing powers of the tissues of the plants. The plants therefore have a low power of reducing dehydroascorbic acid. Data are given on the total sol. sugars and of sucrose for several varieties of pumpkins and watermelons. It is concluded that the change in the oxidizing-reducing properties of plant tissue is a factor intimately assocd. with the evolution of plant forms, at least in respect to chem. compn. The data emphasize the wide-spread occurrence of *ascorbic acid* in the green parts of the plant and its importance. A relation may exist between the oxidation ratio and a no. of important biol. properties, especially earliness.

E. R. Rushton

A58-5LA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIKOVA, O. T.

Biochemistry.

"On the Sources of Vitamin C Formation in the Living Plant Cell,"

SO: Biokhim., 4, No. 3, 1939; Institute of Biochemistry of the Academy of Sciences of the USSR, -1939-. Mbr., Inst. Biochemistry, of A. N. Bakh, Dept. Biol. Sci., Acad. Sci., -1939-42.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

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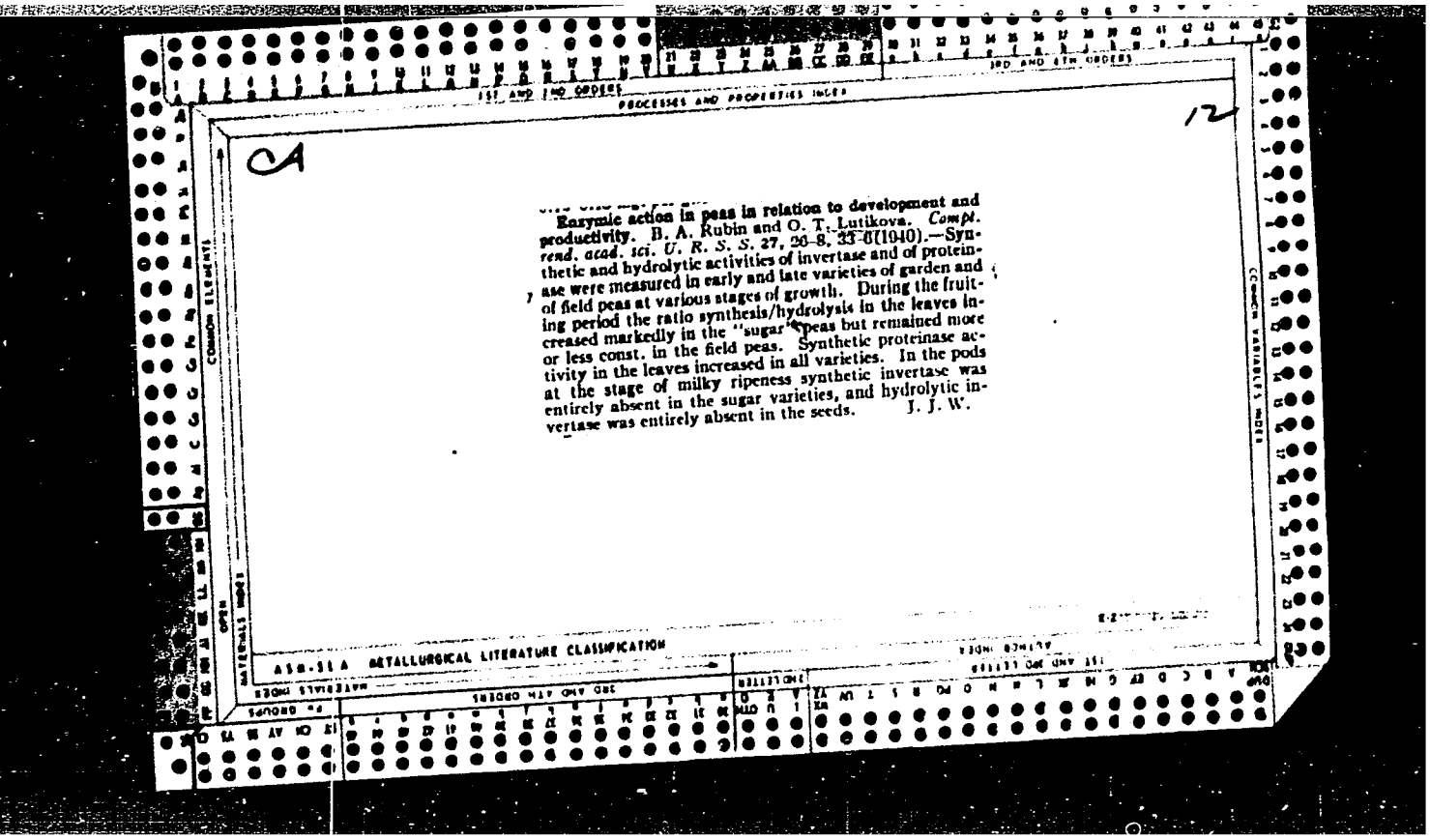

CA

12

Enzymic action in peas in relation to development and productivity. B. A. Rubin and O. T. Lutikova. *Compt. rend. acad. sci. U. R. S. S.* 27, 26–8, 33–6(1940).—Synthetic and hydrolytic activities of invertase and of proteinase were measured in early and late varieties of garden and of field peas at various stages of growth. During the fruiting period the ratio synthesis/hydrolysis in the leaves increased markedly in the "sugar" peas but remained more or less const. in the field peas. Synthetic proteinase activity in the leaves increased in all varieties. In the pods at the stage of milky ripeness synthetic invertase was entirely absent in the sugar varieties, and hydrolytic invertase was entirely absent in the seeds. J. J. W.

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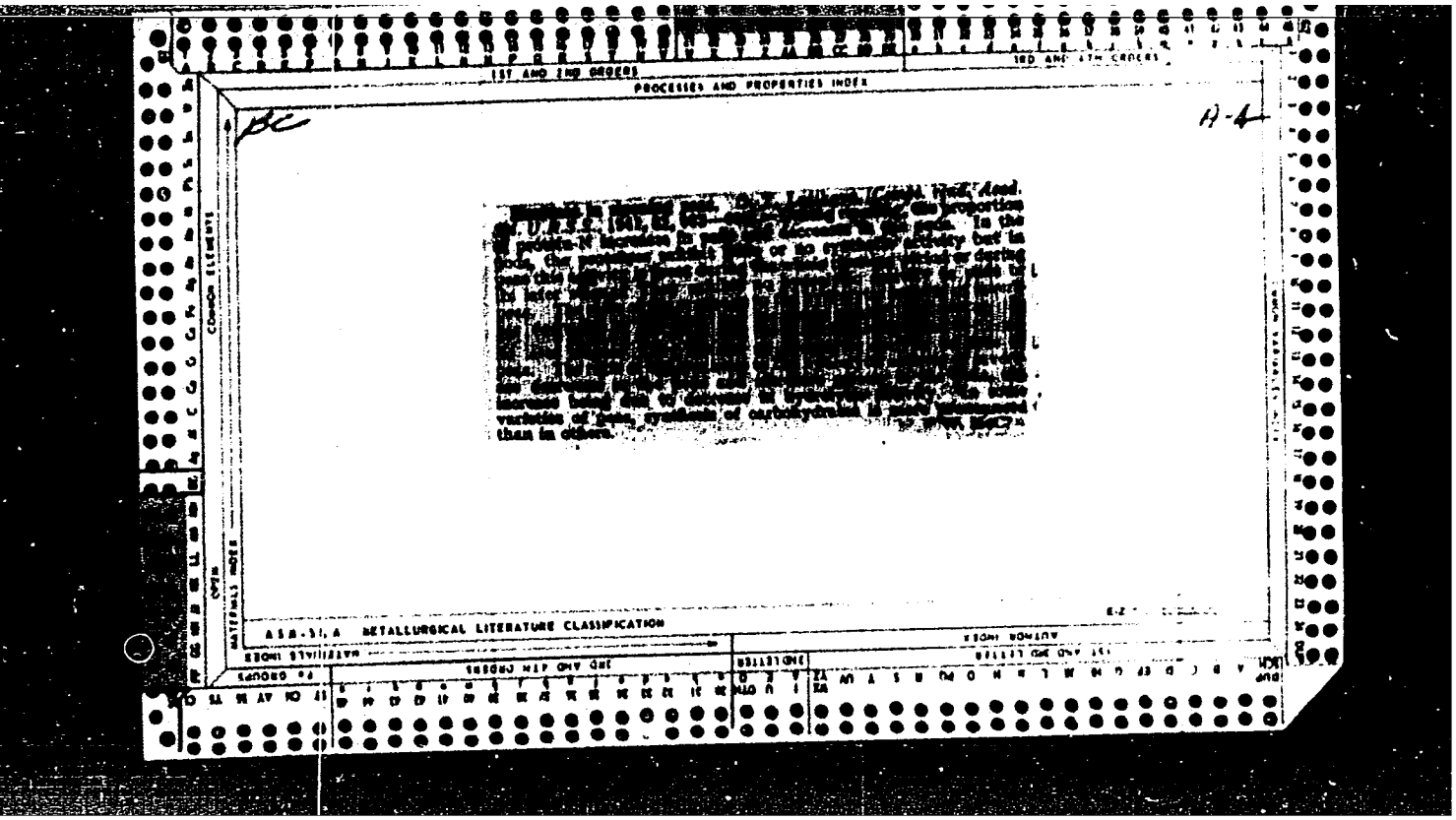

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIKOVA, O. T.

"Periodicity of Certain Processes in Plants,"

SO: Biokhim., 10, No. 1, 1945; Institute of Biochemistry, Academy of Sciences, USSR, Moscow, -1945-.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIKOVA, O. T.

"Peculiarities of the Interchange in a Round Grain and Wrinkled Pea in the Period of Germination of the Grain"

SO: Dok. AN, 59, No. 1, 1948.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIKOVA, O.T.

Nitrogen and phosphorus content of tumor tissues during the cultivation of viruses. Vop.virus 2 no.6:347-351 N-D '57.
(MIRA 13:5)

1. Institut virusologii imeni D.I. Ivanovskogo AMN SSSR, Moskva.
(TUMORS)
(NITROGEN METABOLISM)
(PHOSPHORUS METABOLISM)
(VIRUSES)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9

LUTIKOVA, O.T.

Absorption of oxygen by chick embryo tissue infected with influenza virus. Vop. virus 3 no.2:108-109 Mr-Ap '58 (MIRA 11:5)

1. Institut virusologii imeni D. I. Ivanovskogo AMN SSSR, Moskva.
(OZYGEN, metabolism
uptake by chick embryo tissue infected with influenza virus (Rus))
(INFLUENZA VIRUS,
eff. on oxygen uptake by infected chick embryo tissue (Rus))

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001030920016-9"