"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERMAN, V.G.; VAYNSHTEYN, E.Ye.; STARYY, I.B.

Use of monocrystalline CdS photoresistors in X-ray spectroscopy. Izv. SO AN SSSR no.3 Ser. khim. nauk no.1:96-105 '63. (MIRA 16:8)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR, Novosibirsk, i Odesskiy pedagogicheskiy institut.
(Electric resistors) (Cadmium sulfide crystals)
(X-ray spectroscopy)

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S/032/62/028/005/005/009
B163/B102

AUTHORS: Tsukerman, V. G., Staryy, I. B., and Vaynshteyn, E. Ye.

TITLE: Reduction of the time lag of cadmium sulfide photoresistors when weak X-ray intensities are recorded

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 5, 1962, 592-594

TEXT: The CdS photoresistor ФСКМ (FSKM) is a valuable tool for recording the radiation intensity in X-ray spectroscopy and dosimetry, but for low X-ray intensities time lags of several minutes may occur. The resistors are fed with direct current, and the dependence of the signal-to-noise ratio on the applied voltage and the intensity of irradiation is studied. It varies from resistor to resistor but there is always a distinct maximum at about 20-40 volts. The reduction of the time lag by pre-irradiation with X-rays is shown in Fig. 3. Before curve 1 was measured the resistor was kept in the dark for a long time. The following curves 2, 3, and 4 show the results of subsequent measurement series with the same resistor under the same conditions where after each series of measurements the resistor was kept in the dark for one hour. The pre-irradiation remains effective

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for about 5 to 6 hours. Pre-illumination with visible or ultraviolet light has a similar effect; with infrared pre-illumination sensitivity is lower. and the time-lag longer than without pre-irradiation. There are 4 figures.

ASSOCIATION: Institut neorganicheskoy khimii Sibirskogo otdeleniya Akademii nauk SSSR i Odesskiy pedagogicheskiy institut (Institute of Anorganic Chemistry of the Siberian Branch of the Academy of Sciences USSR and Odessa Pedagogical Institute)

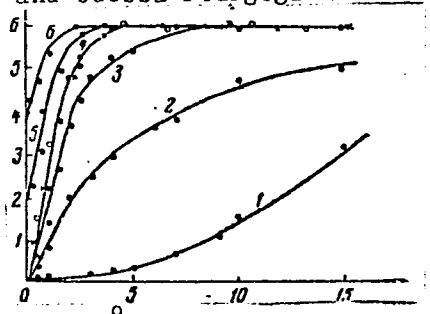

Fig. 3. Variation of the time Δt necessary for the establishment of a stationary value of the photocurrent with X-ray pre-irradiation of a photoresistor (Curves 1-4) and for different values of the dark current (Curves 4-6). For the curves 4-6: • - Δt = 45 min; x - Δt = 60 min; o - Δt = 120 min.

Legend: Abscissa t in minutes, ordinate $I_{phot} \cdot 10^8$ amp.

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VAYNSHTEYN, E.Ye.; STARYY, I.B.; TSUKERMAN, V.G.

Some characteristics of the use of CdS single crystals for recording weak intensities in X-ray spectroscopy. Izv. Sib. otd. AN SSSR no.7:48-54 '61. (MIRA 14:8)

1. Institut geokhimii i analiticheskoy khimii im. Vernadskogo AN SSSR; Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR i Odesskiy pedagogicheskiy institut im. K.D. Ushinskogo.
(Cadmium sulfide crystals) (X-ray spectroscopy)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERMAN, V.G.; STARYY, I.B.; VAYNSHTEYN, E.Ye.

Reduction of the inertness of cadmium sulfide photoresistances in the recording of low-intensity X rays. Zav.lab. 28 no.5: 592-594 '62. (MIRA 15:6)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR i Odesskiy pedagogicheskiy institut.
(X rays) (Cadmium sulfide crystals)
(Electric resistance)

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

25280

S/200/61/000/007/004/006
D238/D302

9,6150

AUTHORS: Vaynshteyn, E.Ye., Staryy, I.B., and Tsukerman, V.G.

TITLE: The use of CdS single crystals for low intensity X-ray spectral analysis

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Sibirskoye otdeleniye, no. 7, 1961, 48 - 54

TEXT: The aim was to study the use of photo-cell resistance of CdS single crystals in low intensity X-ray spectrum analysis. Previous work had revealed the sensitivity, durability, stability and convenience of these crystals but it had nearly all been carried out with high intensity radiation. The experiments reported here were carried out with standard photo-cell resistances, type FSKM2. Fig. 1 shows experimental scheme. A diagnostic X-ray tube, type 2-BDM-75, was placed 15 cm from the photo-cell resistance, and a roentgen quanta counter (nx 64 imp/min) 60 cm from the tube, thereby allowing direct and indirect measurement of intensity. The tube

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was fed from a high-voltage rectifier with a capacitive filter at a constant voltage of 30 kw. The current passing through the tube never exceeded 150 microamps, and copper and aluminum absorbers of various thicknesses were placed in the path of the rays. The voltage on the photo-cell was provided by a potentiometer and measured by a voltmeter. The current (I_F) passing through the photo-cell resistance was measured by a special vacuum tube apparatus, built on a bridge circuit which could measure to orders of 10^{-10} amps. All parts of the apparatus were carefully screened against interference. The photo-cell resistance voltage was determined experimentally for each data unit to guarantee the maximal signal background ratio (I_F/I_T) which gives the optimal feeding regime for each photo-cell resistance ($20 < U_F < 40$ v). This regime is distinct from that used to measure high intensity radiation or when these instruments are used in the visible portion of the spectrum and is independent of the radiation recorded by the photo-cell resistance. Results in these experiments agreed with previous reports and confirmed the li-

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near relation between photo current strength and the radiation intensity on the resistances for all specimen of CdS crystals studied. The volt-ampere curve of the photo-cell resistance did not obey Ohm's law the discrepancy growing with increase in voltage and photometric intensity. Important complicating factors in using photo-cell resistances for recording weak radiation are their sluggishness and the effect of the specimen's previous history on the photo-cell current, which factors become more important as intensity diminishes. It has been reported that brightening of CdS photo-cell resistance was useful and this was studied here. The photo current strength, evoked by the effect of the illumination, on the resistance was excluded. Illumination influences not only the sensitivity to X-rays, but also the time taken to reach a constant photo-cell current value. The exact nature of the influence depends on the spectral composition of the illumination, visible light of low intensity giving better results than ultra-violet light both as regards overcoming sluggishness and for decreasing the time for photo-cell current fall-off when radiation stops. For more accurate

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D238/D302

The use of CdS single ...

results it is better to use a special measuring cell in which the photo-cell resistance is mounted with some fluorescent material both being irradiated simultaneously. Work with such a cell is to be reported. Conclusions: 1) CdS photo-cell resistance can be used to register low intensity radiation. 2) The sluggishness of the photo-cell resistance rises as the radiation intensity falls and may be counteracted by preliminary irradiation of the resistance. 3) The effect of brightening on sensitivity and inertia depends on the spectral composition of the illumination. As a supplementary means of decreasing inertia low intensity visible light is most effective. There are 10 figures, 1 table and 9 references: 7 Soviet-bloc and 2 non-Soviet-bloc. The references to English-language publications read as follows: J. Fassbender, Annd. Phys. 5, 33, 1949; H. Simon, Annd. Phys. 12, 45, 1958.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. Vernadskogo AN SSSR; Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR; Odesskiy pedagogicheskiy institut im. K.D. Ushinskogo (Institute of Geochemistry

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The use of CdS single ... 25280 S/200/61/000/007/004/006
D238/D302

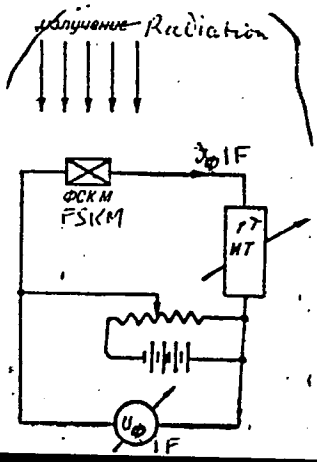
and Analytical Chemistry im. Vernadskiy, AS USSR; Institute of Inorganic Chemistry of the Siberian Branch, AS USSR; Odessa Pedagogical Institute im. K.D. Ushinskiy)

SUBMITTED: December 29, 1960

Fig. 1. Scheme of apparatus.

Legend: FSKM - photocell resistance; IT - to measure current I_F - voltmeter.

Рис. 1. Схема экспериментальной установки.
ФСКМ — фотосопротивление; ИТ — измеритель тока $U_ф$ — вольтметр.



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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

L 04603-67 EWT(1)/EWP(e)/EWT(m)/T/EWP(t)/ETI IJP(c) JD/GG/AT/WH

ACC NR: AP6033819 (N) SOURCE CODE: UR/0289/66/000/002/0051/0058

AUTHOR: Tsukerman, V. G.; Lyubin, V. M.; Vaynshteyn, E. Ye.; Fedorova, G. A.

ORG: Institute of Inorganic Chemistry, Siberian Department, AN SSSR, Novosibirsk (Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR)

TITLE: Photoelectric property of the selenium-arsenic-thallium semiconductor films in the x-ray spectral region

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya khimicheskikh nauk, no. 2, 1966, 51-58

TOPIC TAGS: semiconductor film, arsenic selenide, thallium, arsenic, photoconductive film, x ray photography, TV tube, PHOTOELECTRIC PROPERTY, X RAY SPECTRUM, SELENIUM

ABSTRACT: The effect of thallium addition on the photoconductivity of amorphous selenium-arsenic semiconductor films, 0.3—7 μ thick, has been studied extensively in view of the expected improvement in photoelectric property of Se—As films. The first experimental data of the authors on the Se—As—Tl films were published elsewhere [FTT, 1965]. The films of $Tl_2Se \cdot 10As_2Se_3$; $Tl_2Se \cdot 2As_2Se_3$; $Tl_2Se \cdot As_2Se_3$; $2Tl_2Se \cdot As_2Se_3$; and $3Tl_2Se \cdot As_2Se_3$ were deposited on various substrates by vacuum vaporization. The $Tl_2Se \cdot As_2Se_3$ films were found to be the most promising in application in the x-ray spectral region and displayed greater photoeffect than the best thallium-free films in the visible spectral region. Radiosensitivity of the

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L 04603-67

ACC NR: AP6033819

$Tl_2Se \cdot As_2Se_3$ films versus thickness and preparation technique, x-ray dosimetric and volt-ampere characteristics, kinetics and spectral distribution in the 0.5—1.5 A range of x-ray conductivity of the films were determined, as well as the quantum yield of the photoconductive effect and the energy of formation of a single electron-hole pair. A vidicon-type camera tube, photoconductive in the visible and x-ray spectral regions, was constructed with a $Tl_2Se \cdot As_2Se_3$ film deposited on a beryllium face plate as a target. The first experiments with such a vidicon tube showed a short rise time (of the order of tenths of a second) of the system and the feasibility of visualization of the x-ray pictures and of measurement of the radiation intensity in different areas of the target. Orig. art. has: 8 figures and 2 tables.

SUB CODE: 11/ SUBM DATE: 30Jul65/ ORIG REF: 017/ ATD PRESS: 5100

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L 13011-63 EWT(1)/EWP(q)/EWT(m)/BDS AFFTC/ASD WW/JD

ACCESSION NR: AP3002906 S/0289/63/000/001/0096/0105

59
57

AUTHOR: Tsukerman, V. G.; Vaynshteyn, E. Ye.; Stary*y, I. B.

TITLE: Utilization of monocrystalline photoresistance of CdS in x-ray spectral analysis

27

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya khimicheskikh nauk, no. 1, 1963, 96-105

TOPIC TAGS: CdS photoresistance, x-ray spectroscopy, x-ray dose measurement, x-ray irradiation

ABSTRACT: The present study is a continuation of the investigation of the peculiarity of CdS monocrystal. The results of analysis of the photo-resistance of CdS during its subjection to a variable voltage of a varied frequency is described, and the description of a special dosimetric construction used in the measurement of the intensity and the dose of x-ray irradiation is given. The effect of various factors such as the frequency of variable voltage which is fed into the photoresistance, the dose of preliminary x-ray irradiation, the size of crystals and the automatic illumination with a visible light were studied. These factors were compared with the sensitivity and inertness of the monocrystalline CdS-

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ACCESSION NR: AP3002906

photoresistance during its use in the spectral analysis for the registration of the weak intensities of the x-ray radiation. An experimental model for measuring the photoresistance has been proposed which has been experimentally tested and which allows the increase of sensitivity of the apparatus up to 20 to 40 times as compared to the existing ones. A method is given for the improvement of the transmitter. The dosimetric construction described in this paper can also be used successfully as a monitor and as a discriminator in the devices for measuring impulses. Orig. art. has: 12 figures, 7 formulas, and 1 table.

ASSOCIATION: Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR, Novosibirsk (Institute of Inorganic Chemistry, Siberian Department AN SSSR); Odesskiy pedagogicheskiy institut (Odessa Pedagogical Institute)

SUBMITTED: 14Feb62 DATE ACQ: 24Jul63 ENCL: 00

SUB CODE: 00 NO REF SOV: 004 OTHER: 000

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

L 23991-66

ACC NR: AP6007831 SOURCE CODE: UR/0120/66/000/001/0168/0174

AUTHORS: Tsukerman, V. G.; Gerasimov, V. A.; Granitskiy, L. V.; Neyermolov, A. F.

ORG: Institute of Inorganic Chemistry, SO AN SSSR, Novosibirsk (Institut neorganicheskoy khimii SO AN SSSR)

TITLE: Three-electrode x ray tube with automatic stabilization of radiation intensity

SOURCE: Pribory i tekhnika eksperimenta, no. 1, 1966, 168-174

TOPIC TAGS: x ray equipment, radiation intensity, stabilizer /ZER-1

ABSTRACT: The authors present the results of development of an experimental model of a three-electrode x ray tube (ZER-1) with a special power supply and with a third electrode introduced to control the x ray intensity (Fig. 1). A special power supply, which comprises a modification of standard x ray-tube supply, makes it possible to operate the tube with the anode current stabilized, with the x ray emission intensity stabilized, under pulsed conditions, and with

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ACC NR: AP6007831

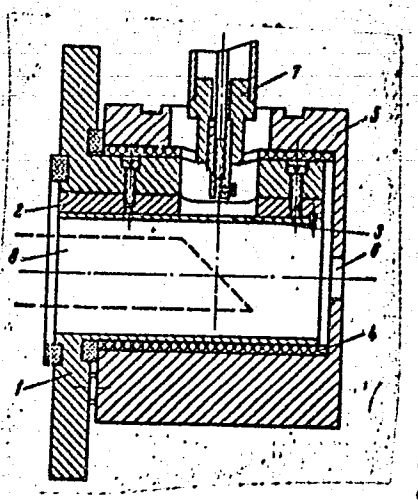

Fig. 1. Diagram of ZER-1 three-electrode x ray tube. 1 -- Base of control electrode, 2 -- segment, 3 -- guides, 4 -- ebonite ring, 5 -- x ray tube body, 6 -- opening for emergence for x rays, 7 -- tube cathode, 8 -- tube anode.

automatic control of the x ray dose. The ways of effecting the four different automatic-control operations are described in detail. A study was made of the influence of the interelectrode distance, the supply voltage, the magnitude and the shape of the control-electrode diagram on the dimensions of the focal spot, and also on the plate-grid characteristics of the tube. The authors thank E. Ye. Vaynshteyn for continuous interest in the work and a discussion of the results. Orig. art. has: 8 figures.

SUB CODE: 20/ SUBM DATE: 30Dec64/ ORIG REF: 008/ OTH REF: 007

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

BABICHEV, S.I., prof.; TSUKERMAN, V.M.

Cysts of the mesenterium tenue. Khirurgiia 40 no.1:116-119 Ja '64. (MIRA 17:11)

1. Kafedra gospital'noy khirurgii (zav. - deystvitel'nyy chlen AMN SSSR prof. B.V. Petrovskiy) I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova i khirurgicheskoye otdeleniye (nauchnyy rukoveditel' - prof. S.I. Babichev) 67-y gorodskoy klinicheskoy bol'nitsy.

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TSUKERMAN, V.V. (Moskva)

Expansion of Gegenbauer polynomials. Zhur. vych. mat. i mat. fiz. 5 no.2:338-340 Mr-Ap '65. (MIRA 18:5)

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERMAN, V.B.

Successful therapy with penicillin of generalized progressive scleroderma. Vest. vener., Moskva No.1:51 Jan-Feb 52. (CLML 21:4)

1. Of the Clinic for Skin-Venereal Diseases of Leningrad State Institute.

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERMAN, Ya.B.

Rope overload and loosening relay. Sbor.Novo-Kram.mashinostr.zav. no.1:145-151 '59. (MIRA 16:12)

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERMAN, Ye. A.

The Syr Darya breeding area of the migratory locust (Locusta migratoria migratoria L.) and its peculiarities. Ent. oboz. 39 no.1:59-69 '60. (MIRA 13:6)

1. Kafedra obshchey entomologii Leningradskogo sel'skokhozyaystvennogo instituta, g. Pushkin.
(Kzyl-Orda Province--Locusts)

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TSUKERMAN, Ye. A., Cand Agric Sci (diss) -- "The Asiatic grasshopper in the Syr-Dar'ya focus and the principles of developing measures to combat it". Leningrad, 1960. 19 pp (Min Agric RSFSR, Leningrad Agric Inst), 300 copies (KL, No 14, 1960, 135)

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

FRIDMAN, Isidor Mironovich; Prinimal uchastiye: TSUKERMAN, Ya.P.
PANFILOV, N.D., red.; MALEK, Z.N., tekhn.red.

[Use of motion-picture prints] Ekspluatatsiia fil'mokopii.
Moskva, Gos.izd-vo "Iskusstvo," 1959. 285 p. (MIRA 12:9)
(Motion-pictures)

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P

USSR / General and Specialized Zoology - Insects.

Abs Jour : Ref Zhur - Biologiya, No 5, 1959, No. 20931

Author : Borovkov, Ye. A.; Tsukerman, Ye. A.
Inst : Not given
Title : Survival of the Caterpillars of the Leaf-Roller Moths in Apple Storage

Orig Pub : Zashchita rast. ot vredit. i bolezney, 1958, No 2, 48-50

Abstract : On Sept. 30, 1955 apples of the Kuo-Kuang and Hung-Yu varieties were placed in cold storage; they had been infected with caterpillars (9 or 38% of IV generation and 4 or 34% of V generation) of the most widespread in China, and unknown in the USSR, leaf-roller moths, Carposina sasakii and Grapholitha inopinata. The temperature

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USSR / General and Specialized Zoology - Insects. P

Abs Jour : Ref Zhur - Biologiya, No 5, 1959, No. 20931

in storage was 0-1.5°, and the relative humidity of the air was 85-90%. On Oct. 1st, Nov. 1st and Dec. 1st, 50 apples each were taken for analysis. 88 caterpillars were found. All 18 caterpillars of the I generation and 2 out of 17 of the II generation had perished, but 14 out of 24 caterpillars of the II, 17 out of 20 of the IV and 8 out of 9 of the V generation were alive. 5 and 6 months after placing in storage, 370 apples were taken for analysis. 117 dead caterpillars were found. (I generation - 4; II - 40; III - 61; IV - 10; V - 2). Simultaneously, apples of the same varieties were placed in storage in a cold semi-basement (average semi-monthly temperature from 0.4 to 2°), and

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TSUKERMAN, Ye.A., aspirant

Tasks in controlling sparsely distributed solitary migratory locusts on the Syr-Darya breeding grounds. Zashch. rast. ot vred. i bol. 4 no.5:33-35 S-O '59. (MIRA 16:1)

1. Leningradskiy sel'skokhozyaystvennyy institut.
(Syr-Darya Valley--Locusts--Extermination)

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERMAN, Ye.A., aspirant

Soviet expedition on locust control in Iran. Zashch.rast.ot vred. i bol. 4 no.1:55-56 Ja-F '59. (MIRA 12:2)

1. Rukovoditel' Sovetskoy protivosaranchovoy ekspeditsii v Irane, Leningradskiy sel'skokhozyaystvennyy institut.
(Iran--Desert locust)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

Tsukerman, Ye.A

BOROVKOV, Ye.A., agronom-entomolog; TSUKERMAN, Ye.A., agronom-entomolog

Survival of codling moth larvae during the storage of apples. Zashch. rast.ot vred. i bol. 3 no.2:48-50 Mr-Ap '58. (MIRA 11:4)
(Codling moth)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERMAN, Yu.V.; RAKITSKIY, E.I.

Semiautomatic machine tool for machining the piston skirt of the T-38 tractor engine. Stan.i instr. 33 no.8:25-26 Ag '62. (MIRA 15:8)

(Machine tools)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERMAN, Yu.V.

Multi-spindle drilling in serial production. Stan. i instr. 26 no.2:31 Fe '55. (MLRA 8:6)
(Drilling and boring)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERMAN, Yu.V.

Automatic dividing attachment for rough broaching of teeth of bevel gear wheels. Stan. i instr. 36 no.9:40 S '65. (MIRA 18:10)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERMAN, Yu.V.

A feed cam mechanism for milling operations. Stan.i instr. 26 no.12:34 D '55. (MIRA 9:2)
(Milling machines)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERMAN, YU. V.

USSR/ Engineering - Industrial processes

Card 1/1 Pub. 103 - 10/19

Authors : Tsukerman, Yu. V.

Title : Multispindle boring of parts

Periodical : Stan. i instr. 2, page 31, Feb 1955

Abstract : A new method of multispindle boring of series production parts is briefly described. The operational and economical advantages derived from the application of the new method are listed. Drawing.

Institution: .....

Submitted: .....

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

EXCERPTA MEDICA Sec.3 Vol.12/4 Endocrinology April 58

Tsukernik, A.

709. OXIDATION PROCESSES AND ADRENALINE METABOLISM IN ADRENALS AND KIDNEYS AND NERVOUS REGULATION OF THESE PROCESSES. I. OXIDATION PROCESSES AND ADRENALINE OXIDATION IN ADRENALS AND KIDNEYS OF RABBITS IN NORMAL CONDITIONS AND AFTER INHIBITION OF CNS (ANAESTHESIA). II. INFLUENCE OF UREA AND TYRAMINE ON ADRENALINE OXIDATION PROCESSES (Russian text) - Tsukernik A. Dept. of Biochem., Med. Inst., Kharkov - UKRAINSK. BIOKH. ZH. 1956, 28/1 (56-68) and 28/3 (339-352)

Oxidation processes in minced tissues of rabbit adrenals and kidneys at pH 7.17 were investigated manometrically by the method of Warburg. Adrenaline contents in these tissues were determined before and after incubation by the fluorescence method. In the adrenals oxidation of both preformed adrenaline and of added (0.5 mg.) adrenaline was studied, and in the kidneys of added adrenaline only. From the data obtained it is concluded that in the adrenals respiration involves low oxygen consumption. In these glands, both preformed and added adrenaline disappear in the process of respiration. Adrenaline added to kidney tissue is oxidized in the process of respiration and forms coloured products of chinoid nature both in control and in anaesthetized animals. Inhibition of the CNS in rabbits was induced with ether or chloral hydrate. The animals were under anaesthesia for 2-3 hr. and were sacrificed during deep sleep. Anaesthesia did not influence oxygen consumption or oxidation of preformed and added adrenaline in the adrenal tissue. There was no change in the oxygen consumption in the presence of large quantities of adrenaline. In kidney

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

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tissue ether anaesthesia increased respiration, while chloral hydrate did not influence it. Addition of adrenaline increased oxygen consumption in the renal tissue; this effect was more pronounced in the control than in the anaesthetized animals.

Lebedeva - Moscow (S)

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSIKERNIK, A. B.

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

Tsukernik, A. B.

[illegible] result of the action of [illegible] the oxidation [illegible] and I oxidation in [illegible] of narcotized rabbits [illegible] of I in adrenal tissue [illegible] the same time it raises the content of NH_3. This serves as a confirmation of the participation of II in the oxidation of I in the adrenal tissue. The Shuller and Wiedeman discovered (cf. *Z. physiol. chem.* 233, 235, 1945) [illegible] in the content of I in adrenals in the process of respiration and in the presence of tyramine was due to the [illegible] protect I against oxidation and [illegible]

B. S. Levine 2/2.

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, A. V.

Oxidative processes and adrenaline metabolism in the suprarenals and in the kidneys and their neuroregulation. I. Oxidative processes and adrenaline oxidation in the suprarenals and in the kidneys of rabbits under normal conditions and in instances of central nervous arrest by narcotic drugs. A. V. Tsukernik (Med. Inst., Kharkov). *Ukrain. Biokhim. Zhur.* 28, 58-67 (Russian summary, 67-8) (1956).—Expts. were performed with rabbits. Ether and chloral hydrate were used as the narcotic drugs for the retardation of the central nervous system activity. The oxidative processes were studied using tissue homogenates of adrenals and of the kidneys at pH 7.17. Oxidative detns. were made by means of the Warburg manometric app. Adrenaline detns. were made before and after oxidation by a modified Frenkel fluorescent procedure. In the case of the adrenals detns. were made of preformed and of added (0.5 mg.) adrenaline. In the case of the kidney tissues only added adrenaline was detd. (0.5 mg.). Rabbits were administered ether or chloral hydrate and 2 hrs. later, while in deep sleep, they were sacrificed. Adrenal respira-

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

OXIDATIVE PROCESSES

tion is characterized by a low O consumption. In adrenal tissue homogenate respiration, both the preformed and the added adrenaline disappeared. Adrenaline added to the kidney tissue homogenate was oxidized by the respiratory processes with the formation of colored substances of the quinoid type. Ether and chloral hydrate narcosis do not in any way affect the O consumption by the adrenal tissue and the consequent oxidation of preformed and added adrenaline. The addition of large quantities of adrenaline does not affect the O consumption by adrenal homogenates as compared with the control tests. Ether augments the respiration of kidney tissue, but chloral hydrate exerts no effects. The addition of adrenaline to kidney tissue homogenates raised the oxidative activity of both the control and the narcotized animals. Such increased tissue oxidative function is exerted upon the added adrenaline of both the control and narcotized tissue expts. B. S. Levine

2/2

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, A.V.

Oxidation and metabolism of adrenaline in the adrenals and kidneys and the nervous regulation of thses processes. Reoprt no.1: Oxidation processes and oxidation of adrenaline in the adrenals and kidneys of rabbits under normal conditions and with inhibition of the central nervous system (anesthesia). Ukr.biokhim.zhur. 28 no.1: 56-68 '56. (MLRA 9:7)

1. Kafedra biokhimii Kharkivs'kogo medichnogo institutu.
(ADRENALINE) (NERVOUS SYSTEM)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, A.V.

Oxidation and metabolism of adrenaline in the adrenals and kidneys and the neural regulation of these processes. Report no.2: Effect of urea and tyramine on the oxidation of adrenaline. Ukr.biokhim. zhur. 28 no.3:338-353 '56. (MLRA 9:10)

1. Kafedra biokhimii Khar'kovskogo meditsinskogo instituta.
(UREA) (TYRAMINE) (ADRENALINE)
(OXIDATION, PHYSIOLOGICAL)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

UTEVSKIY, A.M.; BARTS, M.P.; BUTOM, M.L.; GAYSINSKAYA, M.Yu.; OSINSKAYA, V.O.; TSUKERNIK, A.V.; EYDEL'MAN, M.M.

Research on neural regulation of the metabolism of adrenaline and adrenalinelike substances. Sbor. nauch. trud. Ukr. nauch.-issl. inst. eksper. endok. 15:62-72 '59. (MIRA 14:11)
(ADRENALINE IN THE BODY) (NERVOUS SYSTEM)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, B.

An automatic machine takes the orders. Mest.prom.i khud.promys. 3 no.4:29 Ap '62. (MIRA 15:5)
(Boots and shoes--Repairing)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, D.Ya.

Geographic concepts of Christopher Columbus. Izv.Vses. geog.ob-va 88 no.6:513-525 N-D '56. (MLRA 10:2)

(Colombo, Cristoforo) (Geography--History)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, I.

How we use analysis of the sick rate. Okhr.truda i sots.strakh. no.3:54-57 Mr '59. (MIRA 12:4)

1. Nachal'nik mediko-sanitarnoy chasti Moskovskogo zavoda malolitrazhnykh avtomobiley.
(Moscow--Industrial hygiene)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

VERBITSKIY, M.Ye., inzh.; TSUKERNIK, I.A.

Assembling the TP-70 boiler. Energ. stroi. no.1:58-63 '59. (MIRA 13:2)

1.Trest "Teploenergomontazh".
(Boilers)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TOLKACHEVSKAYA, Nadezhda Filippovna; KAPLANSKIY, S.Ya., prof., otv. red.; CHERKASOVA, V.I., red.; TSUKERNIK, I.A., red.; TIKHOMIROVA, S.G., tekhn. red.; GUS'KOVA, O.M., tekhn.red.

[Development of the biochemistry of animals; a short historical outline] Razvitie biokhimii zhivotnykh; kratkii istoricheskii ocherk. Moskva, Izd-vo AN SSSR, 1963. 96 p. (MIRA 17:1)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, I.B.

TSUKERNIK, I.B. (Moskva)

Medical department and its organizational role in controlling morbidity. Sov.zdrav. 17 no.1:5-11 Ja '58. (MIRA 11:2)
(INDUSTRIAL HYGIENE
in Russia, in automobile factory)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.M.

DEMIN,A.V.; YELISEYEV,N.N.; KREYNIN,G.V.; MOROZOV,Ye.A.; TSUKERNIK,L.M.; CHERKASSKIY,A.Kh.; KOBYLYANOV,L.M., redaktor; BALLOD,A.I., tekh. red.

[Steam power plant LPU-1] Parosilovaia ustanovka LPU-1. Moskva, Gos.izd-vo selkhoz. lit-ry, 1955. 246 p. (MLRA 9:2)
(Steam power plants) (Rural electrification)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.M., kandidat tekhnicheskikh nauk.

Thermal balance of modern high-speed steam engines. [Trudy] MVTU no.56: 33-37 '55. (Steam engines) (MLRA 9:6)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

SOV/112-58

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1958, Nr 1, p 27 (US

AUTHOR: Bemin, A. V., and Tsukernik, L. M.

TITLE: The LPU-1 Steam-Power Installation Constructed by VIM, and Its Tentative Operation in Kolkhozes (Parosilovaya ustanovka LPU-1 konstruktsii VIM i opyt yeye primeneniya v kolkhozakh)

PERIODICAL: V sb.: Teplosnabzheniye i teploenerg. ustanovki s. kh. Minsk, AN BSSR, 1956, pp 92-104

ABSTRACT: The LPU-1 steam plant has a capacity of 40 hp, a steam pressure 22 gauge atm and superheat temperature 370° C. The steam boiler is a water-tube type with 2 vertical drums, equipped with a thermal softening plant. The boiler furnace's rocking grates permit burning coal, peat, or firewood. Artificial forced-cone draft and fan-type blowers are provided. The vertical single-cylinder steam engine has slide-valve steam distribution. The high-speed engine (1,000 rpm) permits use of many tractor motor parts. Slide valves have a labyrinth-type seal. The type SG-35/6 generator has a capacity

AVAI

Z. M. M.

Card 1/2

nce 2. Steam power plants--Equipment

Card 2/2

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.M., kand.tekhn.nauk

Inertia point of flat figures. Rasch.na prochn. no.11: 107-113 '65.

(MIRA 19:1)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

KOSTYUK, O.M.; TSUKERNIK, L.V.

Automatic electromagnetic semiconductor regulators of the excitation of synchronous generators. Elek. sta. 36 no.2:76-78 F '65. (MIRA 18:4)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

KOSTYUK, O.M., kand. tekhn. nauk; RYBINSKIY, V. Ye., inzh.; TSUKERNIK, L.V., doktor tekhn. nauk

Wider use of electromagnetic automatic voltage regulators. Energ. i elektrotekh. prom. no.4:47-52 Oct '63. (MIRA 17:10)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

KOSTYUK, O.M.; RYBINSKIY, V.Ye.; TSUKERNIK, L.V.

Improved automatic excitation controller of large synchronous motors. Trudy Inst. elektrotekh. AN URSR 20:100-108 '63.

(MIRA 17:11)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

L 41100-66 EWT(m)/EWP(e) WH

ACC NR: AP6025970 SOURCE CODE: UR/0051/66/021/001/0126/0128

AUTHOR: Petrovskiy, G. T.; Tolstoy, M. N.; Feofilov, P. P.; Tsurikova, G. A.; Shapovalov, V. N.

59B

ORG: none

15

TITLE: Luminescence and stimulated emission of neodymium in fluoberyllate glasses

SOURCE: Optika i spektroskopiya, v. 21, no. 1, 1966, 126-128

TOPIC TAGS: stimulated emission, luminescence spectrum, neodymium, fluoberyllate glass, BERYLLIUM COMPOUND, GLASS

ABSTRACT: The luminescence and stimulated emission of the Nd^{3+} ion were studied in fluoberyllate glasses of the following compositions:

1) BeF_2 — 60; AlF_3 — 10; CaF_2 — 10; KF — 15; MF — 5% (M = Li, Na, K, Rb, Cs, Tl).
2) BeF_2 — 70; AlF_3 — 10; MF — 20% (M = Li, Na, K, Rb, Cs).
3) BeF_2 — 60; AlF_3 — 10; KF — 20; CaF_2 — 5; MF_2 — 5% (M = Mg, Ca, Sr, Ba, Zn, Cd, Pb).

Since the absorption and luminescence characteristics of all the glasses were found to be very similar (only glasses containing Li had substantially wider emission bands), the data obtained in the study are considered typical for fluoberyllate glasses of the most diverse compositions. The luminescence spectrum of Nd^{3+} is shown in Fig. 1. Its

Card 1/3 UDC: 535.37:546.657:666.1/2

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ACC NR: AP6025970

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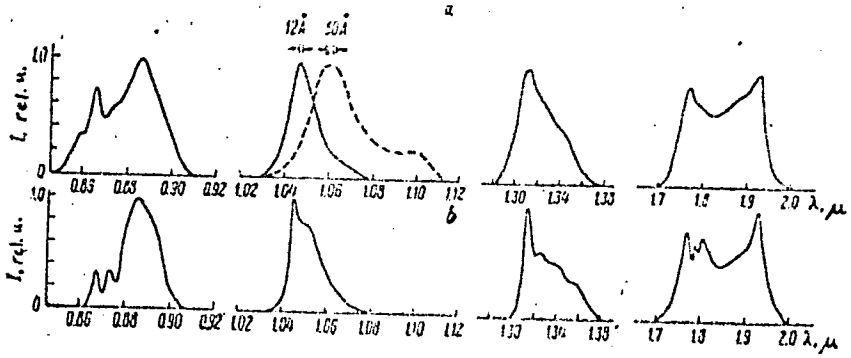

Fig. 1. Luminescence spectra of Nd^{3+} in fluoberyllate glasses at 300 (a) and 77°K (b). Intensity maxima in the various groups are normalized to unity. Broken line indicates the luminescence spectrum of Nd in silicate glass. The regions of generation of stimulated emission are marked.

comparison with spectra of Nd^{3+} in other matrices shows that although in fluoberyllate glasses the half-width of bands corresponding to transitions between the individual splitting components of the terms substantially exceeds that observed in crystals, the bands in these glasses are nevertheless much narrower than in oxygen-containing (for example, silicate) glasses. A second characteristic feature of Nd spectra (and other

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ACC NR: AP6025970

rare earth ions) in fluoberyllate glasses is the relatively small "crystalline" splitting of terms, as a result of which the groups of luminescence bands are more compact. The force of the field acting on Nd^{3+} ion in fluoberyllate glasses was found to be small. Generation of stimulated emission was observed at room temperature in cylindrical specimens 40 mm long and 3.5-5.0 mm in diameter, prepared from glass containing 2 mole % NdF_3. The spectrum of this emission consists of a large number of close narrow lines. The center of the region of generation corresponds to 10,473 Å, i. e., it is located near the maximum of the luminescence band. Thus, the region of generation in fluoberyllate glasses is shifted by more than 100 Å toward the shortwave side as compared to silicate glasses. Orig. art. has: 2 figures. [27]

SUB CODE: 20/ SUBM DATE: 12Jan66/ ORIG REF: 004/ OTH REF: 005/ ATD PRESS: 5055

Card 3/3 hs

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L. V.

Tsukernik, L. V. - "On the theory of vibrating voltage regulators," Sbornik nauch.-tekhn. statey (Akad. nauk Ukr. SSR, In-t elektrotekhniki), Issue 2, 1948, p. 78-84

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L. V.

PA 153T30

USSR/Engineering - Generators, Synochronous

Sept 49

"Compounding of High-Power Synchronous Grnerators With an Electromagnetic Voltage Corrector," V. L. Inosov, L. V. Tsukernik, Candidates Tech Sci, Inst of Elec Eng, Acad Sci USSR, 8 pp

"Elektrichestvo" No 9

Discusses excitation system for synchronous generators, combining stator current compounding of the exciter with electromagnetic voltage corrector which uses saturated transformer as nonlinear element in the measuring device and magnetic amplifier for increasing the reaction on the excitation circuit. Voltage corrector is fed from voltage transformers of the generator. Device as a whole does not have any breaking contracts or moving parts. It is reliable and easy to operate and maintains constant voltage with about 1% variation.

PA 153T30

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L. V.

37316. Skhemy kompaundirovaniya sinkhronnykh generatorov i elektromekhanicheskiy vibratsionnyi korrektor napryazheniya. Sbornik naych-tekhn Statey (Akad. Nauk UKR. SSR. in-t Elektrotekhniki). VYP. 3, 1949, s. 117-25

SO: LETOPIS' Zhurnal'nykh Statey, Vol. 7, 1949

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, I. V.

USSR/Electricity - Power Plants Voltage Regulators

Apr 50

"Experimental Compounding Onstallation With an Electromagnetic Voltage Corrector on a 25,000-kilowatt Turbogenerator," V. I. Inosov, Cand Tech Sci, V. Ye. Krutikova, Engr, I. V. Tsukernik, Cand Tech Sci, 4 pp

"Elek Stants" No 4

Describes installation and gives results of trials. Designed by Inst of Elec Eng, Acad Sci of Ukrainian SSR, and fitted to T2-25-2 turbogenerator made by "Elektrosila" Plant imeni S. M. Kirov. Concludes corrector is simple and reliable, since it has no moving parts or electronic components. Should be widely used at USSR power stations.

PA 158T19

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.V.

Steady-state stability of power transmission in connection with a complex automatic voltage regulation system for synchronous generators. Sbor.trud.Inst.elektrotekh.AN URSR no.8:48-62 '52.
(Electric power distribution) (MLRA 10:2)
(Voltage regulators)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.V.

INOSOV, V.L.; KRUTIKOVA, V.Ye.; TSUKERNIK, L.V.

Electromagnetic duplex voltage corrector. Sbor.trud.Inst.elektrotekh.AN URSR no.8:139-147 '52. (MLRA 10:2)
(Voltage regulators)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

1. TSUKERNIK, L.V.; INOSOV, V.M.; KRUTIKOVA, V.YE.

2. USSR (600)

4. Water Wheels

7. Self-braking of hydro turbines by decreasing the pitch of their blades. Gidr.stroi. 21 no.9, 1952.

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

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

1. TSUKERNIK, L. V.

2. USSR (600)

4. Dolivo-Dobrovol'skii, M. O.

7. M. O. Dolivo-Dobrovol'skiy's role in creating compounding schemes for synchronous machines. Elektrichestvo no.11 1952.

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

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.V., kandidat tekhnicheskikh nauk, laureat Stalinskoy premii

Research and development of a system of automatic excitation of electric power plant generators operating over long distance transmission lines. Trudy Inst. tepl. AN URSR no.8:42-54 '52. (MLRA 8:7)
(Electric generators)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L. V.

USSR/Electricity - Generators Jan 52

"Soviet System of Automatic Excitation Regulation in Synchronous Generators," V. L. Inosov, L. V. Tsukernik, Engineers

"Rabochiy Energetik" No 1, pp 15-20

Describes construction and discusses performance of devices for compounding synchronous generators with electromagnetic corrector of voltage. System has following advantages: Necessary increase in excitation occurs in cases of large or small overloading of generator and voltage decreases; required voltage is maintained with ± 0.5% precision; device has no

206T47

USSR/Electricity - Generators (Contd) Jan 52

zone of insensitivity and functions at slightest deviations of current and voltage; simplicity and dependability due to absence of moving parts, contacts and electron-ionic devices.

206T47

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.V.

"New Systems of Automatic Control for the Excitation of Synchronous Machines," Report submitted at the Second All-Union Conference on Automatic Control Theory, Moscow, 1953

Sum 1467

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L., kandidat tekhnicheskikh nauk.

Central heat and electric power plant on the collective farm. Tekh.molod. 21 no.11:19-21 N '53. (MIRA 6:11)
(Steam heating) (Steam power plants) (Electricity in agriculture)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.V.

3
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B. T. R.
Vol. 3 No. 4
Apr. 1954
Electrical Engineering

4771* Calculation of Currents and Voltages in Exciter Circuits During Forcing and De-Excitation. (Russian.) V. L. Inosov and L. V. Tsukernik. *Elektrichestvo*, 1953, no. 12, Dec., p. 20-26.

Discusses use of excitations with compounding devices and electromagnetic voltage correctors in high voltage generators. Diagrams, graphs, tables.

10-3-54

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

Tsukernik, Lev.

INOSOV, Viktor Leont'yevich; TSUKERNIK, Lev Veniaminovich; SAPAROVA, A.L., redaktor; LARIONOV, G.Ye., tekhnicheskiy redaktor.

[Compounding and electromagnetic voltage corrector in synchronous generators] Kompaundirovanie i elektromagnitnyi korrektor napriazheniia sinkhronnykh generatorov. Moskva, Gos. energeticheskoe izd-vo, 1954. 149 p. (MLRA 8:1)

(Electric generators)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L. V.

AID P - 638

Subject : USSR/Electricity

Card 1/1 Pub. 27 - 7/34

Authors : Kachanova, N. A., Kand. of Tech. Sci., and Tsukernik, L. V., Kand. of Tech. Sci.

Title : Increase of efficiency of intermediate synchronous condensers

Periodical : Elektrichestvo, 9, 30-34, S 1954

Abstract : Research was conducted on a laboratory model representing the 400-kv double-circuit transmiss.on line Kuybyshev - Moscow. The task consisted in finding methods of increasing the efficiency of the synchronous condenser to be used to improve the stability of super-power transmission lines. 3 diagrams, 4 references (1940-1953).

Institution : Institute of Electrical Engineering of the Ukrainian Academy of Sciences

Submitted : F 20, 1954

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

Tsukernik, L. V.

AID P - 933

Subject : USSR/Electricity

Card 1/1 Pub. 27 - 2/25

Author : Tsukernik, L. V., Kand. of Tech. Sci.

Title : Transient phenomena within the synchronous generator and exciter circuit

Periodical : Elektrichestvo, 10, 7-15, O 1954

Abstract : Simultaneous solution of equations applied to the synchronous generator and to the transient phenomena in its exciter is presented. Compounding of synchronous generators favorably influences the transient state by preventing demagnetization or magnetic reversal of exciters. It improves conditions of dynamic stability and reestablishment of voltage. Seven diagrams, 9 Russian references (1934-1952).

Institution : Institute of Electrical Engineering of the Academy of Sciences, U.S.S.R.

Submitted : My 27, 1954

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.V.

AID P - 1617

Subject : USSR/Electricity

Card 1/2 Pub. 27 - 26/27

Authors : Berkovich, M. A., Vinogradov, N. V., and Semenov, V.A., Engineers, Moscow

Title : V. L. Inosov and L. V. Tsukernik. Compounding and the Electromagnetic Voltage Regulator of Synchronous Generators, Gosenergoizdat, 1954, 152 pp.

Periodical : Elektrichestvo, 3, 86-87, Mr 1955

Abstract : The authors summarize the table of contents of the book which describes various arrangements for compounding with the application of electromagnetic voltage regulation. These arrangements are used in the USSR as the basic methods of automatic regulation and field forcing of the excitation of synchronous generators. The authors point to the merits of the book as well as to several deficiencies, many of them consisting in poor proof-reading.

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

AID P - 1617

Elektrichestvo, 3, 86-87, Mr 1955

Card 2/2 Pub. 27 - 26/27

Institution: None

Submitted : No date

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.V.

AID P - 3697

Subject : USSR/Electricity

Card 1/1 Pub. 29 - 2/25

Authors : Tsukernik, L. V., Kand. Tech. Sci., and V. Ye. Rybinskiy, Eng.

Title : Automatic excitation regulator for low and medium capacity generators

Periodical : Energetik, 12, 3-7, D 1955

Abstract : The authors describe an automatic excitation regulator for low and medium capacity synchronous generators designed at the Electric Engineering Institute of the Academy of Sciences, USSR. This regulator consists of a compounding arrangement and an electromagnetic voltage corrector of the EMK-M type. One connection diagram, 2 diagrams, 2 oscillograms, 1 photograph and 2 tables.

Institution : None

Submitted : No date

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.V.

Introduction of new automatic equipment to control the operation cycles of power, relay protection, and signal systems. Visnyk AN URSR 26 no.10:67-69 O '55. (MLRA 9:1)
(Electric controllers)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

SIROTA, Igor' Molseyevich; TSUKERNIK, L.V., kandidat tekhnicheskikh nauk, redaktor; ZIL'BAN, M.S., redaktor; RAKHLINA, N.P., tekhnicheskiy redaktor

[Protection against grounding in electric power systems] Zashchita ot zamykanii na zemliu v elektricheskikh sistemakh. Kiev, Izd-vo Akademii nauk USSR, 1955. 207 p. (MLRA 9:3)
(Electric currents--Grounding) (Electric power distribution--High tension)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.V., kandidat tekhnicheskikh nauk; RYBINSKIY, V.Ye., inzhener.

Automatic excitation control for small and medium generators.
Energetik 3 no.12:3-7 D '55. (MIRA 9:2)
(Voltage regulators) (Electric generators)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.V.

Analysis of steady-state stability in a complex power system. Sbor.trud. Inst.elektrotekh.AN URSR no.13:5-34 '56. (MLRA 9:10)

(Electric power distribution) (Electric power plants)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.V.

TSUKERNIK, L.V.; RYBINSKIY, V.Ye.

Method for calculating a system for group regulation of the excitation of generators in a power station with a number of units and the basic technical elements of the system. Sbor. trud. Inst.elektrotekh.AN URSR no.13:122-133 '56. (MLRA 9:10)

(Electric generators)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L. V., CAnd. in Tech. Sci.

"Analysis of Stability of Dynamic Systems when Using Electronic Computing Machines (With Power Systems as an Example)" a paper presented at the Conference on Methods of Development of Soviet Mathematical Machine-Building and Instrument-Building, 12-17 March 1956.

Translation No. 596, 8 Oct 56

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.V. (Kiyev)

Differential equations in the analysis of the static stability of perturbed motions in a complex power system. Izv.AN SSSR Otd.tekh.nauk no.3: 3-14 Mr '56. (MIRA 9:7)

1.Institut elektrotekhniki AN USSR.
(Electric power distribution)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.V.; RIBINS'KIY, V.Ye.

Automatic excitation controller for generators in low and medium duty electric power plants. Avtomatyka no.3:58-63 '56. (MLRA 9:11)

1. Institut elektrotekhniki Akademii nauk URSR.
(Electric generators) (Automatic control)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

NESTERENKO, A.D.; TSUKERNIK, L.V.; KHURSHCHOVA, Ye.V.; ROZHANSKIY, L.L.; NAYASHKOVA, Ye.F.; RASHKOVSKIY, Yu.A.

A.L. Matveev. Elektrichestvo no.7:94 Jl '56. (MLRA 9:10)

(Matveev, Arkadii L'vovich, d. 1956)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.V.

Performance of selenium rectifiers in apparatus for automatic excitation control. Elek.sta. 27 no.3:37-40 Mr '56. (MLRA 9:8)
(Electric current rectifiers)
(Automatic control)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

SOV/124-58-10-10784

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 10, p 9 (USSR)

AUTHOR: Tsukernik [Tsukernyk, L. V.]

TITLE: Development of the Stability Theory of Power Systems in USSR (Razvitiye v SSSR teorii ustoychivosti energeticheskikh sistem) in Ukrainian

PERIODICAL: Avtomatika, AN UkrRSR, 1957, Nr 3, pp 9-20

ABSTRACT: A concise characteristic is given of the importance of works by A. M. Lyapunov on the theory of stability. Theoretical problems of synchronous machines and the regimes of power systems are examined in the light of the general theory of stability. A brief historical survey is given on the development of the stability problems of power systems. A systematized list of fundamental works published in USSR on the stability problems of synchronous machines and power systems is given.

M. Ye. Temchenko

Card 1/1

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.V.

Development of the theory of stability of power systems in the U.S.S.R. Avtomatyka no.3:9-20 '57. (MIRA 10:10)

1. Institut elektrotekhniki Akademii nauk UkSR.
(Electric machines)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, [illegible], kandidat tekhnicheskikh nauk, dotsent; KACHANOVA, N.A., kandidat tekhnicheskikh nauk.

Analyzing the steady-state stability of complex power systems using electronic computers. Elektrichestvo no.7:39-45 Jl '59. (MIRA 12:8)

(Electric power plants)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.V.

105-7-9/29

AUTHOR TSUKERNIK, L.V., cand. tech. sc., KACHANOVA, N.A., cand. techn. sc.

TITLE Analyzing the Steady State Stability of Complex Power Systems Using Electronic Computors (Analiz staticheskoy ustoychivosti slozhnykh energosistem pri pomoshchi elektronnykh schetnykh mashin. Russian)

PERIODICAL Elektrichestvo, 1957, Nr 7, pp 39 - 45 (U.S.S.R.)

ABSTRACT At first the principles of such a computation are given, which can be carried out in the following stages: 1.) Computation of the coefficients of the characteristic equation of the system. 2.) Computation of the stability criterion, and 3.) Determination of the boundaries of the stability domain within the space of the given parameters.

Next, a short characteristic is given of the computations of static stability carried out on an electronic computor in the years 1954 - 1956 by the Electrotechnical and Mathematical Institute of the Academy of Science of the U.S.S.R. Three types of an automatic control of the generator-exciter in the Hydraulic Powerworks Kuybyshev have been investigated:

1.) According to voltage- and current deviations as well as according to the first and second deflection of the current, 2.) According to the voltage- and current deviations, as well as according to the slip and acceleration in regard to the axis rotating with the synchronous veloci

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APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.V., kandidat tekhnicheskikh nauk; RYBINSKIY, V.Ye., inzhener; KOSTYUK, O.M., inzhener.

Automatic control of excitation in small capacity synchronous generators. Energetik 5 no.3:7-11 Mr '57. (MIRA 10:3)
(Electric generators) (Automatic control)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.V. (Kiyev)

Generalization of differential equations of a complicated power system and application of an electronic digital computer to stability analysis. Avtom. i telem. 18 no.1:47-58 Ja '57. (MIRA 10:3)
(Electronic calculating machines)
(Servomechanisms)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

TSUKERNIK, L.V., kand. tekhn. nauk; KSTYUK, O.M., inzh.; RYBINSKIY, V.Ye., inzh.

Controlled phase compounding of synchronous motors with voltage correction. Elektrichestvo no.2:27-34 F '58. (MIRA 11:2)

1. Institut elektrotekhniki AN USSR.
(Electric motors, Synchronous) (Voltage regulators)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

SOV/105-58-7-19/32

AUTHORS: 1) Matyukhin, V. M., Candidate of Technical Sciences
2) Tsukernik, L. V., Candidate of Technical Sciences
3) Chesachenko, V. F., Candidate of Technical Sciences

TITLE: On Dynamic Models of Energy Systems (O dinamicheskikh modelyakh energosistem)

PERIODICAL: Elektrichestvo, 1958, Nr 7, pp. 74 - 76 (USSR)

ABSTRACT: This work comments upon the article written by I. S. Bruk in Elektrichestvo, 1958, Nr 2. 1) The suitability of approximated molding on noncomplex models is not denied. However, in the modelling of complicated energy systems, the situation is different. All fineness of control and of corresponding transition processes in the equivalent generator disappear in this case. There are innumerable possibilities of improving computers. Electrodynamical models, however, are to certain extent "a chapter for themselves" and therefore the money spent for their improvement will hardly be worth-while. Bruk does not mention the rôle played by theory. It is just by mathematical analysis that results may be ob-

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tained which cannot be obtained either on a dynamical model or by means of a calculating machine. 2) Tsukernik is of the opinion that both life and experience have already solved the problem. The technique of calculating will increasingly extend in the case of scientific- and projecting work, whereas dynamic modelling with respect to its nature is similar to experimenting in laboratories. Instead of comparing the two, it would be better to use them together. The Institute of Electro-Engineering AS UkrainianSSR established an industrial plant in collaboration with the Kiyevenergo which produces an approximate model of the line of the Hydroelectric Generating Station Kuybyshev - Moscow - with 1750 kW. 3) When a great number of calculating machines for the investigation of complicated energy-systems will be available for operation and projection, investigations will be carried out on machines actually available and on electron-analyzers. As long as this is not the case, dynamic models will have to be used. There are 6 references, 5 of which are Soviet.

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3

On Dynamic Models of Energy Systems SOV/ 105-58-7-19/32

ASSOCIATION: 1) i 3) Energeticheskiy institut im. Krzhizhanovskogo Akademii nauk SSSR (1) and 3) Institute of Power Engineering imeni Krzhizhanovskiy AS USSR)
2) Institut elektrotekhniki Akademii nauk USSR (2) Institute of Electro-Engineering, AS UkrSSR)

1. Power plants--Design 2. Mathematical computers--Applications

Card 3/3

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210005-3"