TURCHUK, A.A.; MEDVEDEV, N.V.; ORLOV, L.N.; TITOV, P.S.; BUBNOV, Ye.S., red.; FEDOROVA, L.N., red.izd-va; BYKOVA, V.V., tekhn.red.

[ZIF-650 A boring machine unit] Burovoi agregat ZIF-650 A. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geologii i okhrane nedr, 1959. 133 p. (MIRA 13:4)
(Boring machinery)

ORLOV, L.P.

Cleaning of castings by the hydroblast process and wet reclamation of molding sand. Lit. proizv. 5:23-26 My '64. (MIRA 18:3)

ORLOV, M. A.

Windbreak tree belts in the dry and irrigated agricultural areas of the Astrakhan Oblast. Astrakhan', Volga, 1948. 73 p.

ORLOV, M.A.

Geography and mapping of cultivated soils. Trudy SAGU no.18: 109-120 '50. (MLRA 9:5)
(Soil surveys)

ORLOV, M.A.

Soils of the Pamirs. Trudy SAGU no.25:51-81 '51. (MLRA 9:5)
(Pamirs--Soils)

ORLOV, M.A.; NAGORNAYA, V.I.; PUSTOVOYT, S.N.

Fertility of genetic horizons of cultivated oasis soils, virgin Sierozem soils and "duval" soils. Trudy SAGU no.60:69-86 '54. (MLRA 9:11)
(Soil fertility)

L 40204-66 EWT(d)/EWP(c)/EWP(v)/T/EWP(k)/EWP(l) IJP(c) RH
ACC NR: AP6030053 SOURCE CODE: UR/0114/66/000/004/0002/0008

AUTHOR: Polishchuk, V. L. (Engineer); Orlov, M. D. (Engineer); Chernin, Ye. N. (Engineer); Reznichenko, V. Ya. (Engineer); Kotov, Yu. V. (Engineer); Bodrov, I. C. (Engineer); Yamalutdinov, I. T. (Engineer); Ol'khovskiy, G. G. (Candidate of technical sciences)

ORG: none

TITLE: Results of testing first model and series examples of gas turbines GTN-9-750 of Leningrad Metallurgical Plant im. XXII CPSU Congress

SOURCE: Energomashinostroyeniye, no. 4, 1966, 2-8

TOPIC TAGS: gas turbine, pipeline, centrifugal pump, electric power production, turbine design, turbine compressor/GTN-9-750 gas turbine, NG-280-9 centrifugal pump

ABSTRACT: A description of the testing of the 9000 kw GTN-9-750 gas turbine, designed to drive the NG-280-9 centrifugal pipeline pump, used on the Bukhara-Ural gas pipeline. The tests showed that the actual power produced in operating conditions is 8,750 kw, efficiency 25%. The maximal power produced without additional equipment and regenerators is 9600-10,000 kw. The characteristics of the main elements of the turbine were found to be near the design characteristics: the adiabatic efficiency of the compressor is 89%, the low and high pressure turbine sections operate at 85% and 89-90% efficiency. Long-term testing with repeated stops and starts showed that the unit as modified from the prorotype is suitable for operation in the gas pipeline system. Orig. art. has: 5 figures, 7 formulas and 3 tables. [JPRS: 36,501]

SUB CODE: 13, 10 / SUBM DATE: none / ORIG REF: 002

UDC: 621.438.001.41

Card 1/1

ORLOV, M. F.

Bee Culture - Queen Rearing

Producing queens with a second transplanting of larvae. Pchelovodstvo, 29, No. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, October 1952, Uncl.

Q

USSR/Farm Animals. Honeybee.

Abs Jour: Ref Zhur-Biol., No 17, 1958, 78836.

Author : Orlov, M. F.
Inst :
Title : Depening the Method of Investigation of the Dances of the Bees.

Orig Pub: Pchelovodstvo, 1958, No 1, 29-32,

Abstract: The problem is posited of a deeper study of the regularity of the dances of bees with the purpose of their utilization for various organizational-productive considerations and actions. In the tests of Frish and others in the study of dances of the bees, directions to the source of the collection did not consider the effect of the wind,

Card : 1/2

USSR/Farm Animals. Honeybee. Q

Abs Jour: Ref Zhur-Biol., No 17, 1958, 78836.

which forces the bee to fly not in a straight line but a parabolic one (for example, bees fly from the beehive in a south-east direction but return from the north-west).

Card : 2/2

SOV/51-7-3-

The Effect of Electrical Pre-History of an Electro-Phosphor on the Characteristics of its Emission when Excited with Short Voltage Pulses

at sufficiently small repetition periods of the voltage pulses and at moderate temperatures there will be a large number of ionized and [illegible] centres in the excitation region at the moment of application of the next voltage pulse (of the same polarity as that of the first pulse). The new voltage pulse liberates electrons which can recombine with those ionized centres. Such recombination may continue until the pulse spreads along the whole of the "old" excitation region, i.e. until it reaches its full amplitude. As a result of this recombination, the "[illegible]" of the light pulse is produced. There are 17 figures, 15 references, 1 of which is Soviet and 15 English.

SUBMITTED: November 12, 1958

24.2600
~~24 (3), 23 (5)~~

AUTHORS: Golovin, B. M., Zheludev, I. S., Kashukeyev, N. T., Orlov, I. N., Fridkin, V. M., Mogilevskaya, L. Ya., Antonova, A. S. SOV/20-129-5-13/64

TITLE: A New Electrophotographic Process, Which May Be Realized by Means of Combined Electret Layers

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 129, Nr 5, pp 1008-1011 (USSR)

ABSTRACT: The present paper deals with a new electrophotographic process in which combined electret layers are used in addition to "memory properties". In 1955 Fridkin et al. (Ref 8) described electric photography by means of photoelectrets on the basis of the constant internal photoelectric polarization in dielectrics discovered by G. Nadzhakov (Ref 9). A layer of a photoelectric conductor with relatively high photosensitivity and relatively low inertia is applied to the semi-transparent electrode. The dark resistance of this layer may be very low. Onto the layer of the photoelectric conductor, a layer of a dielectric with stable dark polarization is applied. The adjoint second electrode may then be opaque. The electrophotographic process is then realized as follows: A constant voltage is

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applied to the two electrodes. With $R_2 \gg R_3$ (R_2 dark resistance of the photoelectric conductor, R_3 - dark resistance of the dielectric) the voltage meeting the layer of the dielectric practically equals zero. Through the semi-transparent electrode an image is projected on to the surface of the photoelectric conductor. As a result of the internal photoelectric effect in the photoelectric conductor, the voltage in the corresponding exposed parts of the photoelectric conductor changes, and a stable electret state is then produced in the dielectric. The latent electrophotographic image may then be "read" by means of an electron beam. Ferroelectrics and thermoelectrets may be used as dielectrics. The characteristic curve of the combined electret layers may be determined by analyzing the kinetics of the photoelectric conductivity of the photoelectric conductor and of electret state formation. A law of mutual exchangeability of electrets is satisfied if the charge of the electret is a function of

A New Electrophotographic Process, Which May Be Realized by Means of Combined Electret Layers

$\int_0^\tau \mathcal{E}\,dt$ alone, where $\mathcal{E}$ denotes the field strength of the polarizing field and τ - the duration of polarization. The authors experimented with combined electret layers, in which cadmium sulfide (activated with copper and chlorine) were used as photoelectric conductors, and zinc sulfide (also activated with copper and chlorine) served as electret. A diagram shows the dependence of the charge of the ZnS-electret on the field strength of the polarizing field. In the interval under investigation this dependence is linear. The law of reciprocal exchangeability does not apply in the case of the combined electret layers investigated here. The authors thank Academician A. V. Shubnikov and Academician G. S. Nadzhakov for discussing the results obtained by the present paper. There are 3 figures and 17 references, 13 of which are Soviet.

67907

A New Electrophotographic Process, Which May Be Realized by Means of Combined Electret Layers

SOV/20-129-5-13/64

ASSOCIATION: Institut kristallografii Akademii nauk SSSR (Institute of Crystallography of the Academy of Sciences of the USSR). Institut fiziki Bolgarskoy Akademii nauk (Institute of Physics of the Bulgarian Academy of Sciences). Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

PRESENTED: July 15, 1959, by A. V. Shubnikov, Academician

SUBMITTED: July 9, 1959

4

Card 4/4

Orlov, I. N.

81893

S/181/60/002/05/37/041
B004/B056

24.7700

AUTHORS: Golovin, B. M., Kashukeyev, N. T., Orlov, I. N., Fridkin, V. M.

TITLE: The Photoelectric State in ZnS and Two New Electrophotographic Processes

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 5, pp. 1004 - 1010

TEXT: The authors investigated polycrystalline ZnS which had been activated by Cu and Cl, and which showed electroluminescence. A voltage of 300 v was applied to the samples which were shaped in the form of tablets and bound with polystyrene. This was followed by ultraviolet irradiation (320-500 mμ) of varying duration by means of a UFK-4 (PRK-4) lamp. The experimental apparatus and the measuring techniques are described in Ref. 1. Measurements were carried out of the short-circuit current of the photoelectret and its depolarization by repeated exposure. Fig. 1 shows the decrease of the dark polarization at 300 v, which was at first rapid and then slow, of photopolarization, and of total polarization. The course taken by the curves is explained by localization of

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the electrons on low energy levels. Fig. 2 shows the dependence of polarization on the field voltage, and Fig. 3 the dependence of the charging of ZnS on the radiation energy. With a maximum radiation energy of 400.10^{-6} w/cm^2 an exposure of 2.10^{-3} sec is sufficient to cause a noticeable photopolarization. As may be seen from Fig. 4, the dependence of photopolarization on the time of exposure does not follow an exponential law. Further experiments were carried out with ZnS, which was first exposed and then charged (Fig. 6). Also in this case, the law of interchangeability is maintained, but, as shown in Fig. 7, there is no exponential dependence. The authors produced electrophotographic layers from ZnS + ZnO (description in Ref. 7), which were exposed to the light of a mercury lamp through a negative. After polarization in the capacitor, the image could be made visible by means of an electrophotographic developer (Ref. 7). Electroluminescence is effected by depolarization in an alternating-current field, whereby the image becomes visible on the ZnS + ZnO layer. A. I. Delova and L. Ya. Mogilevskaya took part in the experiments. The authors thank Academician A. V. Shubnikov, Academician G. Nadzhakov, and Professor V.P. Dzhelepov

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81893

The Photoelectric State in ZnS and Two New Electrophotographic Processes

S/181/60/002/05/37/041
B004/B056

for their interest in this investigation. There are 7 figures and 7 references: 6 Soviet and 1 British.

ASSOCIATION: Institut kristallografii AN SSSR, Moskva (Institute of Crystallography of the AS USSR, Moscow)

SUBMITTED: May 15, 1959

Card 3/3

84687

9.4160 (3201, 1105, 1137)
24.3600 2209 only

S/051/60/009/005/008/019
E201/E191

AUTHORS: Orlov, I.N., and Taborko, N.I.

TITLE: An Experimental Study of Amplification of Light Using a Device Consisting of a Photoresistor, a Ferroelectric and an Electroluminescent Phosphor

PERIODICAL: Optika i spektroskopiya, 1960, Vol.9, No.5, pp 626-630

TEXT: The authors describe the circuit (Fig.1) and the performance of an electroluminescent image (light) amplifier in which a phosphor (ZnS, with green electroluminescence, shown as $C_{ф}$ in Fig.1) is connected in series with a ferroelectric (a monocrystal of triglycine sulphate, $C_{с}$). The phosphor and the ferroelectric act as capacitors. In parallel with them there is a photoresistor (made of CdS powder, $R_{ф}$), which receives the incident light. Fig. 1a gives the actual circuit (similar to dielectric amplifier circuits) and Fig. 1 gives the equivalent circuit; $U_{\sim}$ is an a.c. source, V is a d.c. source, R_a is an ohmic resistance and $C_э$ is a linear capacitance. Figs 2 and 3 show the phosphor emission brightness as a function of a constant bias across the ferroelectric (Fig. 2) and as a function of

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84687

S/051/60/009/005/008/019
E201/E191

An Experimental Study of Amplification of Light Using a Device Consisting of a Photoresistor, a Ferroelectric and an Electroluminescent Phosphor

illumination of the photoresistor (Fig. 3). The amplification factor (K) of the photoresistor—ferroelectric—phosphor system is shown in Fig. 4 as a function of illumination (E, in lux) of the photoresistor. For weak light fluxes K was 5×10^5, falling with increasing light fluxes to about 100 at 100 lux. There are 4 figures and 11 references: 8 English, 2 Dutch and 1 translation from English into Russian.

SUBMITTED: February 22, 1960

Card 2/2

25962
S/187/60/[illegible]
D053/D113

24.3500 (1137, 1138, 1385)

AUTHORS: Lyamichev, I.Ya., and Orlov, I.N.

TITLE: Luminance control in the "electroluminophor - ferroelectric" circuit using triglycine sulfate (TGS) monocrystals

PERIODICAL: Tekhnika kino i televideniya, no. 11, 1960, 26-36

TEXT: The application of ferroelectric materials to control the image brightness in a nonvacuum electroluminescent device of the television-screen type is studied. The study is primarily concerned with the investigation of those properties of ferroelectric capacitors made of triglycine sulfate (TGS) monocrystals which are related to the luminance control of the luminophor in accordance with the magnitude of the applied signal. The principle of ferroelectric control action in the "electroluminophor - ferroelectric" circuit lies in the steep capacity change in the ferroelectric capacitor when a control voltage is superposed across it. This capacity change causes a redistribution of the alternating voltage among the circuit elements and a corresponding change in the electroluminophor luminance. The basic characteristics of the control action of a ferroelectric capacitor are (1) the coupling between the ferroelectric capacitance, or the alter-

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

Luminance control...

nating current flowing across it, and the magnitude of the control voltage; and (2) the effect of the alternating voltage on the ferroelectric capacitance. Experiments were conducted with the TGS capacitors supplied by the Laboratoriya I.S. Reza (I.S. Rez Laboratory) where the triglycine sulfate was also developed. TGS capacitors were connected in series or in parallel with the electroluminophor in the screen element and then tested at various values of the dc control voltage. The results obtained indicated that the problem of the image brightness in a multi-element electroluminescent screen can be solved by using TGS monocrystals. The ferroelectrics of the barium titanate type can also be utilized in electroluminescent indicators with reduced requirements for image brightness and brilliancy. At the present time, the use of ferroelectrics in electroluminescent screens can be based only on the electric storage, for which special switching circuits must be designed. This complicates the design and the manufacture of a multi-element screen. A "physical storage" would have simplified the design but, unfortunately, the phenomenon itself and the ways of its utilization are still unknown. There are 13 figures and 6 references: 4 Soviet-bloc and

Card 2/3

Luminance control...

2 non-Soviet-bloc. The two references to English language publications read as follows: Rajchman, J.A., Briggs, G.R., Lo, A.W., Transfluxor Controlled Electroluminescent Display Panels. Proc. IRE, 1958, 46. No. 11, 1808-1824; Sack, E.A., ELF a New Electroluminescent Display. IRE National Convention Record., part 3, Electron Devices, 1958, pp. 31-39.

Card 3/3

22170

S/048/61/025/004/011/015
B104/B201

6.4760
24.3500 (1137, 1138, 1395, 1153)

AUTHORS: Lyamichev, I. Ya., Grigor'yev, I. N., Pershin, G. G. and Taborko, N. I.

TITLE: Experimental study of the possibility of applying multicomponent electroluminescent apparatus using ferroelectric materials

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25, no. 4, 1961, 492-500

TEXT: The present paper has been read at the 9th Conference on Luminescence (Crystal Phosphors), Kiyev, June 20-25, 1960. The authors studied apparatus for the reproduction of pictures and for image intensifiers using photosemiconductors. They examined the possibility of applying ferroelectric materials (single crystals of triglycine sulfate and ferroelectric ceramics of the type "Variketi" for electroluminescence apparatus. Circuits for the measurement of the characteristics of ferroelectric materials are presented in Fig. 1. The diagrams constructed therewith are shown in Figs. 2, 3, and 4. The "storing effect" arising with larger

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amplitudes of the control signal may be seen from the diagram of Fig. 4. As is shown by 4a, the depolarization curve does not coincide with the polarization curve of the ferroelectric material. A loop is formed, whose width is the larger, the larger the control signal amplitude. In the authors' opinion it is quite possible that an accurate study may show this "storing effect" to be usable for the production of apparatus with information storage; constructions of this kind could then be considerably simplified. Fig. 1 presents a circuit for the reproduction of images, which is free from the deficiencies of the circuit shown in Fig. 1a (precise and durable tuning of the capacity of the ferroelectric material; no disturbance of the control signal, thanks to separation of the alternating-current circuit from the control circuit; no negative feedback between control voltage and brightness of the electroluminophore) Fig. 5 presents the scheme of a multicomponent apparatus in which, using a nonlinear resistor or a diode layer, one may work out a compact screen, to which all of its elements are connected already in the course of production. Fig. 6, finally, gives a circuit of a light amplifier, for which a ferroelectric material is used. Here, the photosemiconductor is connected to a direct-current circuit, whereby its sensitivity is

L 26488-66 EWT(1)/EWA(h)

ACC NR: AP6013067 SOURCE CODE: UR/0048/66/030/004/0620/0627

AUTHOR: Kylasov,V.A.; Lyamichev,I.Ya.; Orlov,I.N.; Pershin,G.G.; Peterimov,S.V.; Taborko,N.I.; Fok,M.V.

ORG: None

TITLE: Problems involved in the development of electroluminescent indicators and image converters /Report, Fourteenth Conference on Luminescence held in Rina, 16-23 September 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 4, 1966, 620-627

TOPIC TAGS: real time data display, image converter, electroluminescence, phosphor, information storage and retrieval, control circuit

ABSTRACT: The paper is devoted to a general discussion of the problems involved in development of electroluminescent display screens (matrix screens) and electroluminescent converters of visible and x-ray images. In conjunction with the screens it is indicated that current research is aimed at increasing the peak brightness of electroluminescent phosphors (important because the average viewing brightness is a function of the maximum brightness multiplied by the excitation time of a screen element and divided by the interval between successive activations) and development of means for realization of information storage on or for the screen. Approaches to enhancement of brightness are improvement of the composition of phosphors and electroforming, which involves application of an ac or dc potential to the electroluminescent

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L 26488-66

ACC NR: AP6013067

capacitor while the binder (paraffin) is solidifying. Realization of storage is connected with development of appropriate control circuitry, including external storage components. A block diagram of a control circuit for a matrix screen with external storage is shown in a figure. Research in the field of image converters is being carried out along the lines of improving the parameters of photoconducting powdered materials in the visible and x-ray regions, theoretical and experimental determination of the optimum operating conditions for converters of different design, design development and improvement of the technology of image converters. A table gives a series of formulas that should be useful in designing new image converters. Mention is made of work on development of tubes for converting ultrasonic images to visible images. Photographs reproduced in the text show a converter image of a TV test pattern and images of x-ray pictures of some vacuum tubes and electronic components displayed on a 200 cm^2 screen. Orig. art. has: 14 formulas and 5 figures.

SUB CODE: 09, 20/ SUBM DATE: 00/ ORIG REF: 005/ OTH REF: 004

Card 2/2

[illegible] 161 [illegible]

AUTHORS: [illegible]itsev, [illegible] [illegible]evich, [illegible] [illegible] of [illegible] [illegible] [illegible] ment at the Chair of Electrical Equipment of [illegible] and Automobiles at the Moscow Institute of [illegible] Engineering; [illegible]

TITLE: [illegible] of [illegible] Hysteresis Motor ([illegible] rezhime [illegible]erevozbuzh[illegible])

SOURCE: Nauchnyye [illegible] [illegible]ektrome[illegible] [illegible] [illegible] p. [illegible]-266 (USSR)

ABSTRACT: [illegible] hysteresis motor with rotors [illegible] [illegible]netic [illegible] [illegible] at the point of the maximum [illegible]-[illegible] after superexcitation are given. This [illegible] compared with a motor without superexcitation. [illegible] at superexcitation [illegible] [illegible] coercive material [illegible] [illegible] parameters in a not superexc[illegible] [illegible] φ_n [illegible] and η_n increased considerably [illegible] result of [illegible]excitation. In motors consisting of [illegible] alloys of [illegible] superexcitation led to [illegible] results. [illegible] hysteresis motors are designed for operation in

Card 1/3

the [illegible] of [illegible]excitation, materials must [illegible] [illegible]ive [illegible] than those used [illegible] [illegible]. [illegible]citation of [illegible] [illegible] [illegible] in the motor [illegible] [illegible] circuits with condensers [illegible] [illegible] phase [illegible] overexcitation [illegible] [illegible] electromagnetic time [illegible] [illegible] winding [illegible] [illegible] motors with [illegible] starting [illegible] [illegible]. For motors with a starting-up time [illegible] [illegible] relay, electronic and other time delay relays must be used. An automatic device for the starting and the superexciting of a 5 [illegible] three-phase, four-pole hysteresis motor operating at 400 c designed for a voltage of [illegible]0 [illegible] is described. Due to this device the starting-up moment of the motor increased by a factor of 8 and the starting-up [illegible] full load took only 0.1 sec. Furthermore basic circuit [illegible] [illegible] superexcitation starting of gyrosc[illegible] [illegible] dimensions. The time delay aviation motor [illegible] AVP makes it possible to regulate the time delay [illegible] [illegible] sec. The given problem to design [illegible]

2/3

Superexcited Operation of Hysteresis Motor

hysteresis gyroscope motor on the basis of the induction motor GA 10/30 operating at a temperature of $t \leq 60°C$ and with a trigger time of $\leq$ 3 min could only be solved by the utilization of superexcitation. The problem of the practical application of such motors must be solved separately in each individual case. There are 5 figures and 2 tables. The publication of this article was recommended by a resolution of the Scientific-Technical Conference on Hysteresis Motors held at the Moscow Institute of Power Engineering in March 28-29, 1957 (Nauchno-tekhnicheskaya konferentsiya po gisterezisnym dvigatelyam, provedennaya v MEI 28-29 marta 1957 g.).

ASSOCIATION: Kafedra ESA Moskovskogo energeticheskogo instituta (Chair of Electrical Equipment of Aeroplanes and Automobiles at the Moscow Institute of Power Engineering)

SUBMITTED: February 13, 1958

SOV/105-58-7-1/12

AUTHORS: 1)Larionov, A. N., Professor, Corresponding Member, Academy of Sciences, USSR, Mastyayev, N. Z., Docent, Candidate of Technical Sciences, Orlov, I. N., Engineer
2)Panov, D. N., Candidate of Technical Sciences

TITLE: General Problems of the Theory of Hysteresis Motors (Obshchiye voprosy teorii gisterezisnykh elektrodvigateley)

PERIODICAL: Elektrichestvo, 1958, Nr 7, pp. 1 - 6 (USSR)

ABSTRACT: The first work on hysteresis motors was begun in the USSR in 1950, by the Professorial Chair of Electric Equipment of Aircraft and Automobiles at the MEI and later also by other Scientific Research Organizations and Works. First, the operational principle is described here. Next the character of magnetic reversal and the field distribution in the rotor are dealt with. Here the law governing the field distribution in the rotor by taking account of rotor-hysteresis is investigated for the most general case: A charged motor of normal-or reversible construction with a rotor which has an internal

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case (box) or rim(ring). If this rule is known, the formula for the electromagnetic hysteresis-moment and for the parameters of the equivalent circuit scheme for the hysteresis motor can be found. It is assumed that magnetic permeability μ and the hysteresis angle γ do not depend on inductance. Work is based upon some mean values. The error occurring in this connection can be estimated at 20%. Moreover, it is assumed that: 1) the normal induction-component of the rotor-surface facing the stator is distributed according to the cosine-like law; 2)there are no eddy currents in the material of the rotor; 3) the field in the machine is plane-parallel. It is shown that the character of field distribution and of magnetic reversal of the material of the rotor may differ according to the properties of the material, the dimensions, the construction of the rotor and the number of poles of the motor. The electromagnetic moment and the parameters of the equivalent circuit scheme are investigated in the last chapter. The principle of possible displacements and generalized coordinates is applied and the equation for the electromagnetic moment of the hysteresis motor (15) is written down. The formulae (17) for the effective component

F_{2a} of the magnetizing force of the stator and formula (16) for the reactive component $F_{2\mu}$ of the same are derived. The equivalent circuit scheme of an ordinary asynchronous motor and the formulae (17) and (18) are applied and the equivalent circuit scheme for the hysteresis motor is obtained. The determination of the parameters of the rotor circuit in the equivalent circuit scheme is briefly discussed. The experience gathered with projecting of hysteresis motors shows that motors with a relatively thin rotor have the best characteristics, also where the one induction-component predominates and where the other may be neglected. For this case, formulae for a motor with internal rotor with tangential magnetization and further formulae for a motor with internal rotor and magnetic box (radial magnetization) are written down. The equivalent circuit scheme for the hysteresis motor can be built up on the basis of the equivalent circuit scheme for an ideal hysteresis motor and of one for an asynchronous motor with a massive rotor (without taking account of the influence of higher harmonic

magnetizing forces of the stator) by adding the circuit of the eddy currents to the scheme of the ideal motor. The calculations of the characteristics of a series of motors according to this equivalent circuit scheme with circuit parameters obtained by way of testing agree well with the characteristics obtained by experiments. Unfortunately, it is not possible, at present, to produce analytical terms for the parameters of the eddy current branch, which can be determined only experimentally. The three ranges of the rotor in a hysteresis motor with different magnetic permeabilities are investigated. There are 7 figures.

ASSOCIATION: 1.)Moskovskiy energeticheskiy institut (Moscow Institute of Power Engineering)
2.)Taganrogskiy radiotekhnicheskiy institut (Taganrog Institute of Radio-Engineering)

SUBMITTED: October 21, 1957

General Problems of the Theory of Hysteresis Motors SOV/105-58-7-1/32

1. Electric motors--Design 2. Elektric motors--Theory 3. Hysteresis

Card 5/5

ORLOV, I. N., Cand of Tec: Sci -- (diss) "Problems of the Theory and Design of Electric Hysteresis Motors," Moscow, 1957, 23 pp (Moscow Institute of Power Engineering) (KL, 8-60, 117)

MASTYAYEV, N.Z., kand.tekhn.nauk, dotsent; ORLOV, I.N., kand.tekhn.nauk

Optimum relationships for hysteresis-type electric motors.
Elektrichestvo no.7:51-58 Jl '62. (MIRA 15:7)

1. Moskovskiy energeticheskiy institut.
(Electric motors)

26228
S/103/61/022/009/009/014
D206/D304

13.2510

AUTHORS: Mastyayev, N.Z., and Orlov, I.N. (Moscow)

TITLE: Starting time and its effects on the performance of a hysteresis gyroscope motor

PERIODICAL: Avtomatika i telemekhanika, v. 22, no. 9, 1961, 1220 - 1228

TEXT: The starting time of a gyroscope very often determines the time of readiness of the instrument and it is of importance in the gyroscope design to evaluate the maximum motor power for an assumed starting time. In the present articles the authors derive analytically the starting time, the maximum theoretical power of a hysteresis motor required for a given starting time and analyze with respect to the above, certain of the motor characteristics. The starting time of a gyroscope hysteresis synchronous motor is derived from basic assumptions as an approximate

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Starting time and its effects ...

$$t_s = \frac{J}{M_{2n}} \int_{\omega=0}^{\omega_s} \frac{d\omega}{k_m - (k_m - k_0 + 1)\frac{\omega}{\omega_s}} \qquad (5)$$

which after integration becomes

$$t_s = \frac{K}{M_{2n}} \frac{2.3}{k_m - k_0 + 1} \lg \frac{k_m}{k_0 - 1} \qquad (6)$$

where M_{2n} - nominal loading moment g. cm; J - moment of inertia of revolving parts of the motor g. cm sec^2; ω_s - synchronous angular frequency of the motor rad/sec; $k_M = M_{s.c}/M_{2n}$; K_0 - the overload coefficient $k_0 = M_{2n}/M_{ms}$ where M_{ms} - the maximum moment at synchroni[redacted] and $K = J\omega_s$ (gcm sec) - the kinetic moment of gyroscope; t_s - in sec. Expression (6) permits evaluation for a given hysteresis

Card 2/7

Starting time and its effects ...

motor with known K, M_{2n}, k_o and k_m - starting time t_s and also analysis of the influence of various motor parameters on it. K and M_{2n} are expressed in terms of dimensions and of parameters of the motor, with a cylindrical fly-wheel (Fig. 3) K is then expressed by

$$K = J\omega_s = 1.047 \cdot 10^{-5} \gamma D_H^5 \frac{L_H}{D_H}\left[1 - \left(\frac{D_b}{D_H}\right)^4\right] n \text{ (g cm sec)}, \quad (7)$$

and M_{2n}, within the range of D_H and n is expressed by

$$M_{2n} = \frac{P_{2n} \cdot 10^5}{1.03n} = 0.97 \left(a_o \beta_o \sqrt{\rho \mu^3}\right) \sqrt{n^3} D_H^4 \left(1 + 5 \frac{L_H}{D_H}\right) 10^5 \text{ (g cm)}. \quad (8)$$

In the above two expressions D_H, D_b, L_H dimensions are as in Fig. 3 in cm; γ - specific weight of the flywheel material in g/cm^3;

Card 3/7

Starting time and its effects ...

n - r.p.m.; β_0 - the ventilation loss factor; ρ - density of surrounding medium in g sec^2/cm^4; μ' - viscosity of the medium, a_0 = 1 + P_B / P_{vent} - factor determining the amount of losses in the overall resistance moment due to losses in the bearings P_B and to air friction. P_{vent} both in watts. From Eqs. (7) and (8)

$$\frac{K}{M_{2n}} = 1.08 \cdot 10^{-10} D_H \frac{L_H/D_H}{1 + 5L_H/D_H} \frac{\gamma}{\sqrt{n}} \frac{1 - (D_w/D_H)^4}{(a_0 \beta_0 \sqrt{\rho \mu'})} \text{ (sec)} \quad (9)$$

is easily obtained. Its accuracy is stated to be good enough for $a_0 \approx 1$ or for gyroscopes with small kinetic moments and operating in vacuo. When solving an inverse problem, i.e. when designing the power required for a given starting time t_s the maximum electromagnetic power of the motor is derived as

Card 4/7

Starting time and its effects ...

$$P_{el.max} = 0.956 \cdot 10^5 K \frac{(a_0 \beta_0 \sqrt{\rho \mu^3})}{\gamma \frac{L_H}{D_H}} \frac{\sqrt{n^3}}{2^{D_H}} \frac{1 + 5 \frac{L_H}{D_H}}{\left[1 - \left(\frac{D_b}{D_H}\right)^4\right]} \times \left\{1 \right.$$

$$\left. \cdot \frac{0.78 \cdot 10^{-10}}{(a_0 \beta_0 \sqrt{\rho \mu^3})} \frac{c_M}{t_s \sqrt{n}} \frac{D_H \frac{L_H}{D_H} \gamma}{\left(1 + 5 \frac{L_H}{D_H}\right)} \left[1 - \left(\frac{D_b}{D_H}\right)^4\right] \right\} \text{ (watts)(17)}$$

where $c_M = \frac{m}{k_0}$. Eq. (17) permits designing the gyroscope motors and consequently to relate the starting time t_s to the motor parame-

Card 5/7

Startingtime and its effects ...

ters. Finally, since all electrical energy absorbed by the motor results in heat dissipation, it is shown that with decreasing starting time t_s the temperature τ^0 of the motor increases according to

$$\frac{\tau^0}{\tau_0^0} = \frac{P_1}{P_{10}} = 1 + 0.725 (1 - \eta_0) \frac{c_M K}{t_s M_{2n}}. \qquad (26)$$

Several experimental data obtained for different gyroscope motors are within 25 % of theoretical data from the expressions in the present article. It is stated that although such accuracy cannot be considered as satisfactory it could be accepted for approximate design criteria. There are 1 table, 3 figures and 1 Soviet-bloc reference.

SUBMITTED: January 21, 1961

Card 6/7

MASTYAYEV, N.Z.; ORLOV, I.N. Prinimala uchastiye RAYEVSKAYA, M.N.; YUFEROV, F.M., dots., retsenzent; LARIONOV, A.N., prof.,red.[deceased]

[Hysteresis motors] Gisterezisnye elektrodvigateli; posobie dlia diplomnogo i kursovogo proektirovaniia. Moskva, MEI, Pt.1. [Theory and applications] Voprosy teorii i primeneniia. 1963. 221 p. (MIRA 16:12)

1. Moskovskiy energeticheskiy institut (for Yuferov). 2. Chlen-korrespondent AN SSSR (for Larionov).

(Electric motors)

L 18538-66 EWT(d)/FSS-2/EWT(1)/EWP(m)/EEC(k)-2 BC

ACC NR: AP6002177 SOURCE CODE: UR/0146/65/008/006/0091/0097

37
B

AUTHOR: Dolektorskiy, B. A.; Orlov, I. N.

ORG: Moscow Power-Engineering Institute (Moskovskiy energeticheskiy institut)

TITLE: Calculation of the aerodynamic resistance torque of gyromotors operating in air

SOURCE: IVUZ. Priborostroyeniye, v. 8, no. 6, 1965, 91-97

TOPIC TAGS: gyromotor, gyroscope

ABSTRACT: These empirical formulas are offered for computing the aerodynamic resistance torque: for regular flywheel shape, $M_a = 0{,}108 \cdot 10^{-9} \cdot \rho^{0.7} \cdot \mu^{0.3} \cdot n^{1.7} \int r^{3.1}\, dl$; and for a simplified flywheel shape (a cylinder with equivalent length L), $M_a = 0{,}288 \cdot 10^{-9} \cdot \rho^{0.7} \cdot \mu^{0.3} \cdot n^{1.7} \cdot D^{4.1}\left[1 + 4{,}4\,\frac{L}{D}\right]$, here, D is the flywheel OD, n its rpm, ρ is the air density, μ is the dynamic viscosity. The formulas are accurate within ±15% for 50000 < Re < 250000. For gyromotors having Re < 50000 (D < 3 cm), a

UDC: 531.383

Card 1/2

L 08963-67 EWT(d)/FSS-2/EEC(k)-2

ACC NR: AP6021053 (A,N) SOURCE CODE: UR/0292/66/000/003/0004/0006

AUTHOR: Orlov, I. N. (Candidate of technical sciences); Delektorskiy, B. A. (Engineer); Arkhipov, O. G. (Engineer)

54

ORG: none

TITLE: Computer design of induction motors for gyroscopes

SOURCE: Elektrotekhnika, no. 3, 1966, 4-6

TOPIC TAGS: gyroscope, induction motor, servomotor, computer application, spin motor

ABSTRACT: Specific requirements of gyroscope-drive high-speed induction spin motors are formulated, particulars of their design on a digital computer are described, and computation results are presented. Main dimensions of the motor are connected with those of the gyro flywheel. Both nominal and maximum torques

UDC: 621.313.333.025.3.001.24-

Card 1/2

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

are determined by the required acceleration time. The highest motor efficiency is of prime importance because of the necessity of keeping the motor heat production as low as possible in order to ensure the gyro accuracy. The optimal design of a specified-size motor on a digital computer is reduced to calculating and comparing several versions with various combinations of β and b; here, $\beta = d_2/d_1$; d_2 and d_1 are the external and internal stator diameters; $b = B_\delta/B_1$; B_δ and B_1 are the inductions in the stator core and airgap. Eight two-pole, 400-cps motor sizes ($d_2 = 2.0 - 7.4$ cm) have been calculated. An algorithm of the computer problem and programing steps are briefly described. Each type-size has been calculated in 540 versions — over 9000 versions for all sizes. The tabulated final results show that some widely used standard spin motors can be essentially improved as to their efficiency and power factor. Orig. art. has: 4 figures, 5 formulas, and 1 table.

SUB CODE: 17, 09 / SUBM DATE: none

L 10463-67 EWT(d)/FSS-2/EWT(1)/EWP(m)/EWT(m)/EEC(k)-2/EWP(t)/ETI IJP(c) JD
ACC NR: AP6031041 SOURCE CODE: UR/0146/66/009/004/0070/0072

AUTHOR: Delektorskiy, B. A.; Orlov, I. N. 49

ORG: Moscow Power-Engineering Institute (Moskovskiy energeticheskiy institut)

TITLE: Aerodynamic resistance moment of a spin motor operating in hydrogen or helium 9 7

SOURCE: IVUZ. Priborostroyeniye, v. 9, no. 4, 1966, 70-72

TOPIC TAGS: gyro, spin motor, gyroscope

ABSTRACT: Based on (a) empirical formulas for braking torque of a spin-motor rotor developed by the authors earlier and (b) the fact that Reynolds number for spin motors operating in air is $50000 < Re_1 < 25000$, and operating in H or He is $Re_2 < 50000$, a new formula is deduced which shows the ratio of aerodynamic moments in H or He to that in air. The formula and curves for a numerical example show that: (1) The aerodynamic moment in H is equal to 20% and in He, 40% the moment in air; (2) The error connected with the new formula is ± 15%. Orig. art. has: 2 figures and 5 formulas.

SUB CODE: 17 / SUBM DATE: 10Apr65 / ORIG REF: 002 / OTH REF: 001

Card 1/1 bjo UDC: 531.383

SERDECHNYY, A.N., inzh.; ORLOV, I.P., kand. sel'skokhoz. nauk

Technology and mechanization of hay harvesting. Zemledelie
26 no.6:65-73 Je '64. (MIRA 17:

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kormov.

ORLOV, I.P., kandidat tekhnicheskikh nauk.

Wells without filters. Nauka i zhizn' 21 no.11:32 N '54.(MLRA 7:12)
(Artesian wells)

BORINEVICH, V.A., kandidat sel'skokhozyaystvennykh nauk; ORLOV, I.P., kandidat sel'skokhozyaystvennykh nauk.

Baling hay from mows. Nauka i pered.op.v sel'khoz. 7 no.7:28-29 Jl '57. (MLRA 10:8)

(Hay--Harvesting)

ORLOV, I.P., kand. sel'skokhozyaystvennykh nauk.

Methods of producing high-quality hay in different zones of the country. Zhivotnovodstvo 20 no.5:38-44 My '58. (MIRA 11:5)
(Hay--Harvesting)

KOKOREV, S.V., inzh.; KUZ'MIN, D.I., inzh. [deceased]; OHLOV, I.S., inzh.; SAVEL'YEV, V.I., red.; LARIONOV, G.Ye., tekhn.red.

[Safety rules for servicing the boiler and turbine sections of an electric power plant] Pravila tekhniki bezopasnosti pri obsluzhivanii oborudovaniia teplovykh tsekhov elektrostantsii. Moskva, Gos.energ.izd-vo, 1959. 94 p. (MIRA 13:6)

1. Russia (1923- U.S.S.R.) Ministerstvo stroitel'stva elektrostantsiy. Tekhnicheskoye upravleniye.
(Electric power plants)

ALLAKHVERDIYEV, T.B.; ZAKARYAN, M.R.; ORLOV, I.S.; TAGIYEV, T.S.

The SSK machines for removing the floss and sorting the silkworm cocoons. Trakt. i sel'khozmash. no.2:37-38 F '65. (MIRA 18:4)

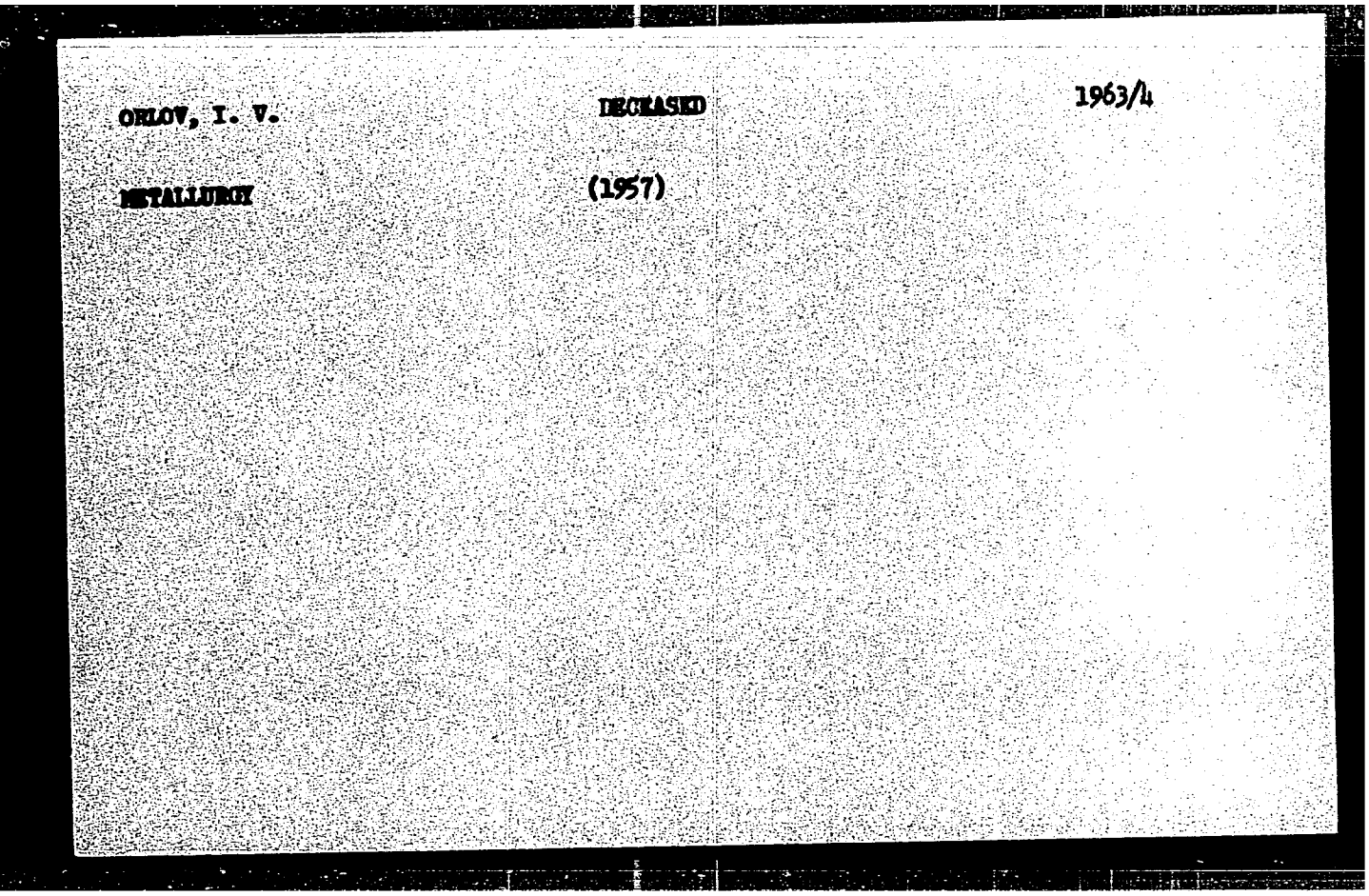
1. Zakavkazskaya mashinoispytatel'naya stantsiya.

DEGTYAREV, Ye.I.; ORLOV, I.T.

They were the first. Metallurg 8 no.4:5-6 Ap '63. (MIRA 16:3)

1. Predsedatel' zavodskogo komiteta professional'nogo soyuza Chelyabinskogo metallurgicheskogo zavoda (for Degtyarev). 2. Starshiy inzh. otdela organizatsii truda Chelyabinskogo metallurgicheskogo zavoda (for Orlov).

(Iron and steel workers)



ORLOV, I.V., inzh.-podpolkovnik

What minimum weather conditions should be established for the pilot? (MIRA 12:4)
Vest.Vozd.Fl. 41 no.2:46-50 F '59.
(Meteorology in aeronautics)

ORLOV, I.V., professor.

Two-stage threshing. Nauka i pered.op.v sel'khoz. 7 no.7:46-47 Jl '57. (MLRA 10:8)

(Threshing)

KALASHNIKOV, S.N., kand.tekhn.nauk; ORLOV, I.V., inzh.

Manufacturing high-precision cylindrical gear wheels under mass production conditions. Vest.mashinostr., 44 no.[illegible] 64. (MIRA 17:9)

BASSALYK, D.A.; ORLOV, I.V.

All-Russian conference of student science societies in sanitation departments and in hygiene faculties of medical institutes. Zdrav. Ros. Feder. 4 no.7:44-45 Je '60. (MIRA 13:9)
(PUBLIC HEALTH--STUDY AND TEACHING)

ORLOV, I.V.

Methods of determining the economic results of efficiency promotion and inventiveness. Neftianik 1 no.9:23-28 S '56. (MLRA 9:11)

1. Inzhener-ekonomist gazovogo promysla na Ukhte.
(Petroleum industry) (Gas, Natural)

ORLOV, I.V.

Honing holes in hardened pinions with diamond bricks. Avt.prom. 29 no.2:35-39 F '63. (MIRA 16:2)

1. Moskovskiy avtozavod imeni Likhacheva.
(Grinding and polishing)

ORLOV, I.V.; DUBROVNYY, V.P.

Semiautomatic device indicating the termination of the steaming and pressing process of clothing with variable moisture content. Leh.prom. no. 4:3-8 O-D '63. (MIRA 17:5)

L 41226-65 EWI(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) MJW/JD
ACCESSION NR: AR5003992 S/0277/64/000/010/0009/0009

SOURCE: Ref. zh. Mashinostroitel'nyye materialy, konstruktsii i raschet detaley mashin. Gidroprivod. Otd. vyp., Abs. 10.46.55

AUTHOR: Karasev, N. A.; Morozov, V. I.; Orlov, I. V.

TITLE: The effect of surface hardening on the mechanical properties of nitrided case hardened steel 25KhGM

CITED SOURCE: Dokl. Mosk. s.-kh. akad. im. K. A. Timiryazeva, vyp. 96, 1964, 155-162

TOPIC TAGS: steel hardening, case hardening, surface hardening, metal mechanical property, microhardness, metal hardness, nitriding/ steel 25KhGM

TRANSLATION: The parameters of the mechanical characteristics in nitrided case hardened layers of steel 25KhGM were investigated before and after surface hardening on special flat samples which did not have sharply marked concentrations of stresses. The thickness of the samples, the multiple depth of the martensite layer, was 2.5,

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L 41226-65

ACCESSION NR: AR5003992

3.5, 5, and 10 mm. The width and length of the samples were 20 and 75 mm respectively. The surface of each sample, after chemicothermal treatment, was divided into 7 parts 6 mm long. Each section of the plate was peened with steel shot of a diameter of 0.8 mm for 0.5-10.5 min. The speed of the shot was 78.5 m/sec. With an increase in hardening time, the microhardness on the surface of the samples changed insignificantly (3-4%), while the microhardness of the subsurface layers varied within wide limits and increased by 45-55%. The value of the microhardness of the subsurface layers is not stable but varies according to hardening time. The magnitude and position of the point of maximum hardness are a function of hardening time. This point moves with the subsurface layers to the surface and in the opposite direction. 4 figures, 2 tables, 3 literature titles.

SUB CODE: MM ENCL: 00

Card 2/2

ORLOV, I.V., kand. tekhn. nauk; ...

Elastomeric polyurethane foam, its properties and use in the clothing industry. I.V. Orlov, ... Hrasymova. Leh. prom. ... (MIRA ...) 7-10 Ap-Je'64

ORLOV, I. V.; FEDOROV, N. Ye.; ROGOV, I. A.

"New data on the te[illegible] of tri[illegible]"

report submitted for 1st Intl Cong, Parasitology, Rome, [illegible] Sep [illegible]

Talalikhina 33, Moscow.

ACCESSION NR: AP4041164 S/0020/64/156/004/0972/0975

AUTHOR: Orlov, I. V.

TITLE: Threshold of caloric nystagmus during rotation at constant speed

SOURCE: AN SSSR. Doklady*, v. 156, no. 4, 1964, 972-975

TOPIC TAGS: ipsilateral rotation, contralateral rotation cosmic flight caloric nystagmus, rotation induced nystagmus, caloric nystagmus threshold, semicircular canal irritation, central rotation, eccentric rotation, constant speed rotation, centrifugal acceleration cupula deviation, bidirectional vestibular sensitivity

ABSTRACT: The study aimed at obtaining quantitative characteristics of vestibular irritability during rather prolonged rotation at a constant rate, by thermal irritation of the semicircular canals, using cervical caloric nystagmus as the indicator. The tests were conducted in pigeons whose right horizontal semicircular canal was irritated with an electrically heated metal loop. Temperature of the loop, surface temperature at the canal and the nystagmus were registered. The pigeons were attached to a rotating table; rotation

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ACCESSION NR: AP4041164

lasted for 60 minutes and tests were conducted during the last 30 minutes in 2 series: the rotation axis either passed through the labyrinth at 33, 28 or 21 rpm or eccentric rotation was tested at 28 or 21 rpm with the pigeon's head 20 cm off the rotation center. The results are tabulated and graphed, giving the hystagmus threshold before and during rotation. Temperature increase was at most 100. In the first test series this threshold was reached only at 33 rpm, in eccentric rotation already at the 2 lower rpm values. It is assumed that in the former the low centrifugal force increases cupula deviation due to thermal stimulation only upon rapid rotation. In the second series the centrifugal force is much higher, thus acts at a lower rpm. Since centrifugal acceleration will lower the threshold independently of rotatory direction, these experimental results may also be considered from the point of view of bi-directional sensitivity of the semicircular canal receptors. The value P (threshold difference) for ipsilateral was always below that for contralateral rotation, which may be considered the quantitative expression of some asymmetry of the cupula apparatus. These findings may be of interest for modern aviation and cosmic flights. Orig. art. has: 1 figure and 1 table.

Card 2/3

ACCESSION NR: AP4041164

ASSOCIATION: Institut fiziologii im. I. P. Pavlova Akademii nauk SSSR (Institute of Physiology, Academy of Sciences, SSSR)

SUBMITTED: 03Jan64 ENCL: 00

SUB CODE: LS NR REF SOV: 002 OTHER: 016

Card 3/3

L 15213-66 EWT(m)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/EWA(h) JD

ACC NR: AP6002912 SOURCE CODE: UR/0286/65/000/024/0074/0074

INVENTOR: Shepelyakovskiy, K. N.; Stroganov, K. V.; Shklyarov, I. N.; Orlov, I. V.; Nikonov, V. F.; Assonov, A. D.

ORG: none

TITLE: Steel for surface-hardened parts. Class 40, No. 177083

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 74

TOPIC TAGS: steel, surface hardened steel, manganese containing steel, silicon containing steel, chromium containing steel, shallow hardenable steel

ABSTRACT: This Author Certificate introduces a steel for surface-hardened parts containing 0.4—1.2% carbon and alloyed with manganese, silicon, and chromium. To obtain steel with a specified hardenability, one of three alloying elements is added in a specified amount and the content of the other two is limited. For example, in steel containing 0.3—1.4% manganese, the chromium and silicon contents are limited to 0.15% and 0.17%, respectively. Steel with 0.3—1.4% silicon should contain 0.15% chromium and 0.20% manganese, and steel with 0.3—1.8% chromium should contain 0.20% manganese and 0.17—0.27% silicon. [AZ]

SUB CODE: 11/ SUBM DATE: 29Dec60/ ATD PRESS: 4190

Card 1/1

ORLOV, I.V.

Imitation reflexes in fishes. Uch. zap. LGU no.239:101-106 '58.
(MIRA 12:1)

1. Laboratoriya fiziologii vysshey nervnoy deyatel'nosti Fiziologicheskogo instituta Leningradskogo gosudarstvennogo universiteta.
(CONDITIONED RESPONSE) (FISHES--HABITS AND BEHAVIOR)

ORLOV, I.V.

Characteristics of the changes in the motor, alimentary and sexual activity of birds (roosters and hens) with destruction of the distance receptors. Nauch. soob. Inst. fiziol. AN SSSR no.1:61-63 '59. (MIRA 14:10)

1. Laboratoriya interotseptivnykh uslovnykh refleksov (zav. - E.Sh. Ayrapet'yants) Instituta fiziologii imeni Pavlova AN SSSR.
(CONDITIONED RESPONSE) (POULTRY RESPONSE)

ORLOV, I. V. (Moskva)

Ob uchdstii retikulyarnykh formatsiy stvola mozga i talamusa v prov denii afferentnykh impul'sov ot interorepetorov matki

report submitted for the First Moscow Conference on Reticular Formation, Moscow, 22-26 March 1960.

BIYASHEVA, Z.G.; ORLOV, I.V.

Characteristics of disturbances in the motor, food, and sexual activity of birds following the cutting off of distant receptors. Vop. srav. fiziol. anal. no. 1:107-114 '60. (MIRA 14:4)

1. The Higher Nervous Activity Physiological Laboratory, University of Leningrad, and the Interoseptive Conditioned reflexes Laboratory of the Pavlov Institute of Physiology, Academy of Science of the U.S.S.R.

(REFLEXES) (EYE—WOUNDS AND INJURIES)

ORLOV, I.V.

Technic of an electrophysiological study of the vestibular-motor reflex arc in birds. Fiziol.zhur. 47 no.5:659-661 My '61. (MIRA 14:5)

1. From the Laboratory of Conditioned Interoceptive Reflexes, I.P.Pavlov Institute of Physiology, Leningrad.
(ELECTROPHYSIOLOGY) (NYSTAGMUS) (REFLEXES)

ORLOV, I.V.

Data on the electrophysiological characteristics of the vestibular analysor in birds. Fiziol. zhur. 48 no.1:24-30 Ja '62. (MIRA 15:2)

1. From the Laboratory of Conditioned Interoceptive Reflexes, I.P. Pavlov Institute of Physiology, Leningrad.
(ELECTROPHYSIOLOGY) (VESTIBULAR APPARATUS)
(BIRDS--PHYSIOLOGY)

ORLOV, I.V.

Bi-neuronal vestibular motor reflex arc. Fizio. zhur. 48 no.8:916-921 Ag'62. (MIRA 16:6)

1. From the Laboratory of Conditioned Interoseptive Reflexes, I.P.Pavlov Institute of Physiology, Leningrad.
(REFLEXES) (VESTIBULAR APPARATUS)
(STRYCHNINE—PHYSIOLOGICAL EFFECT)
(ELECTROPHYSIOLOGY)

S/020/62/144/005/017/017
B144/B138

27.1140

AUTHOR: Orlov, I. V.

TITLE: Influence of polarization of the semicircular canal on the monosynaptic vestibulomotor effect

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 144, no. 5, 1962, 1192-1195

TEXT: The changes effected in the activity of the vestibulomotor arcs by polarization of the horizontal semicircular canal are studied in 20 anesthetized pigeons. The previous method (Fiziol. zhurn. SSSR, 47, no. 5, 659 (1961)) is modified by mechanically stimulating the ampullar receptors with rectangular pulses from a piezocrystal introduced into the osseous ampulla. The action potential is recorded from the mm. recti capitis postici maiores. Whereas anode application reduces or inhibits the monosynaptic answer, cathode application has the opposite effect. In both cases, the aftereffects have the opposite sign. Nystagmus can be inhibited by applying a cathode; this is also true for anode application, but only for the first 3-5 sec. The polarization effect depends on the strength and direction of the current and on the depth of narcosis.

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Influence of polarization of the ... S/020/62/144/005/017/017
B144/B138

ASSOCIATION: Institut fiziologii im. I. P. Pavlova Akademii nauk SSSR (Institute of Physiology imeni I. P. Pavlov of the Academy of Sciences USSR)

PRESENTED: January 18, 1962, by Ye. N. Pavlovskiy, Academician

SUBMITTED: January 12, 1962

Card 3/3

ORLOV, I.V., kand. tekhn. nauk

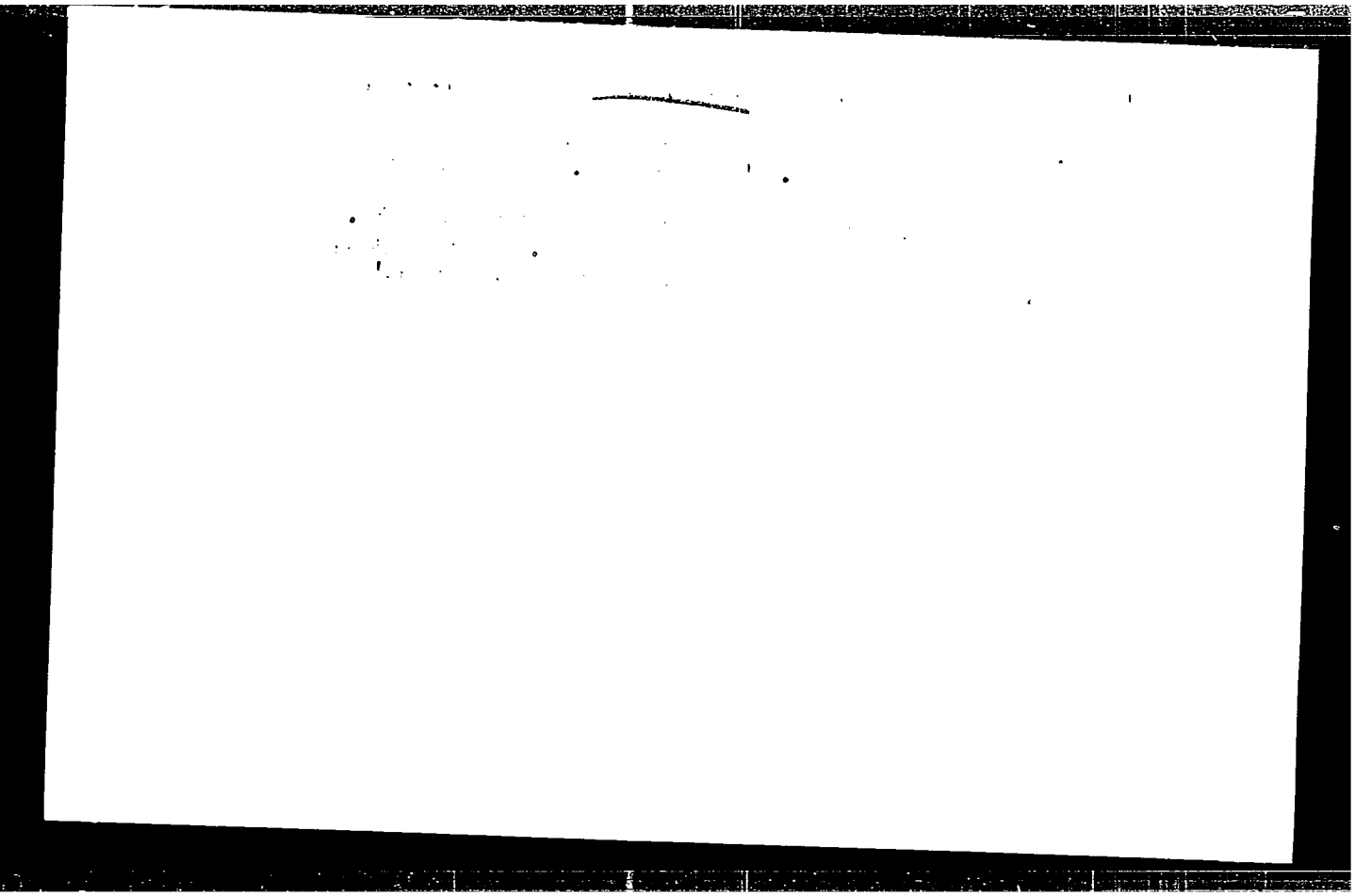
Thinning of the edges of clothing during steam pressing. Leh. prom. no.3:17-21 Jl-S '64. (MIRA 17:10)

ORLOV, I.V., kand. tekhn. nauk; [illegible], A.I.

Stenching of articles made from layman fabrics. Leg. prom. no.3:61-65
(MIRA 17:10)
Jl-S '64.

ORLOV, I.V , kand. tekhn. nauk; GERASIMOVA, A.N. [Herasymova, A.M.]

Effect of temperature on the hygienic characteristics of foam polyurethane. Leh.prom. no.1:13-16 Ja-Mr '65. (MIRA 18:4)



APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

BOGDANOV, R.S.; ORLOV, ..V.

Determination of the excitability threshold of the semicircular canals by thermal stimulation. Fiziol.zhur. SSSR no.11:1370-1372 N '65. (MIRA 18:12)

1. Institut fiziologii imeni I.P.Pavlova AN SSSR, Leningrad.

ORLOV, I.V., kand. tekhn. nauk; GERASIMOVA, A.N. [Herasymova, A.M.]

Studying the properties of shaped poron interlining for headgear. Leg. prom. no.3:10-14 Jl-S '65. (MIRA 18:9)

TSEYTLIN, M.; ROZENBERG, Ya.; ORLOV, M.

Locating damage on underground cables with polyvinyl chloride covering. Radio no.12:28-31 D '53. (MLRA 6:12)
(Electric cables)

CRIOV, M. I.

"Method of Computating the Scatterers for Searchlights Over a Specified Curve of Light Distribution." Cand Tech Sci, Sci Res Inst of the Min of the Motor Engineering Industry, Moscow, 1954. (RZhMiz, Feb 5)

SO: Sum. No. 631, 26 Aug 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (13)

ORLOV, M.I., kandidat tekhnicheskikh nauk

Diffuser computation for projectors with a given curve of light intensity distribution. Svetotekhnika 1 no.4:19-21 Ag '55. (MLRA 8:9)

1. Moskovskiy proshektornyy zavod.
(Light--Scattering) (Searchlights)

CATEGORY : USSR
Soil Science. Soil Genesis and Geography.

ABS. JOUR. : RZhBiol., No. 3 1959, No. 10651

AUTHOR : Orlov, M. I.

INST. :

TITLE : The Forest Growing Properties of Soils in Mountain-Forest Rayons.

ORIG. PUB. : Tr. Sibirsk. lesotekhn. in-ta, 1956, sb. 14, 1-12

ABSTRACT : The turf-podzolic soils of the Stolby Forest Preserve Krasnoyarskiy Kray are formed on the eluvium of granite-syenites rich in the minerals of orthoclase, hornblende, augite, biotite, and plagioclase. As the result of disintegration of the primary minerals, these soils are enriched with K and Ca and therefore are distinguished by favorable forest growing properties. Forests growing on turf-podzolic soils are distinguished by high productivity up to 450-500 m^3 per 1 hectare of timber. The most

CARD: 1/2

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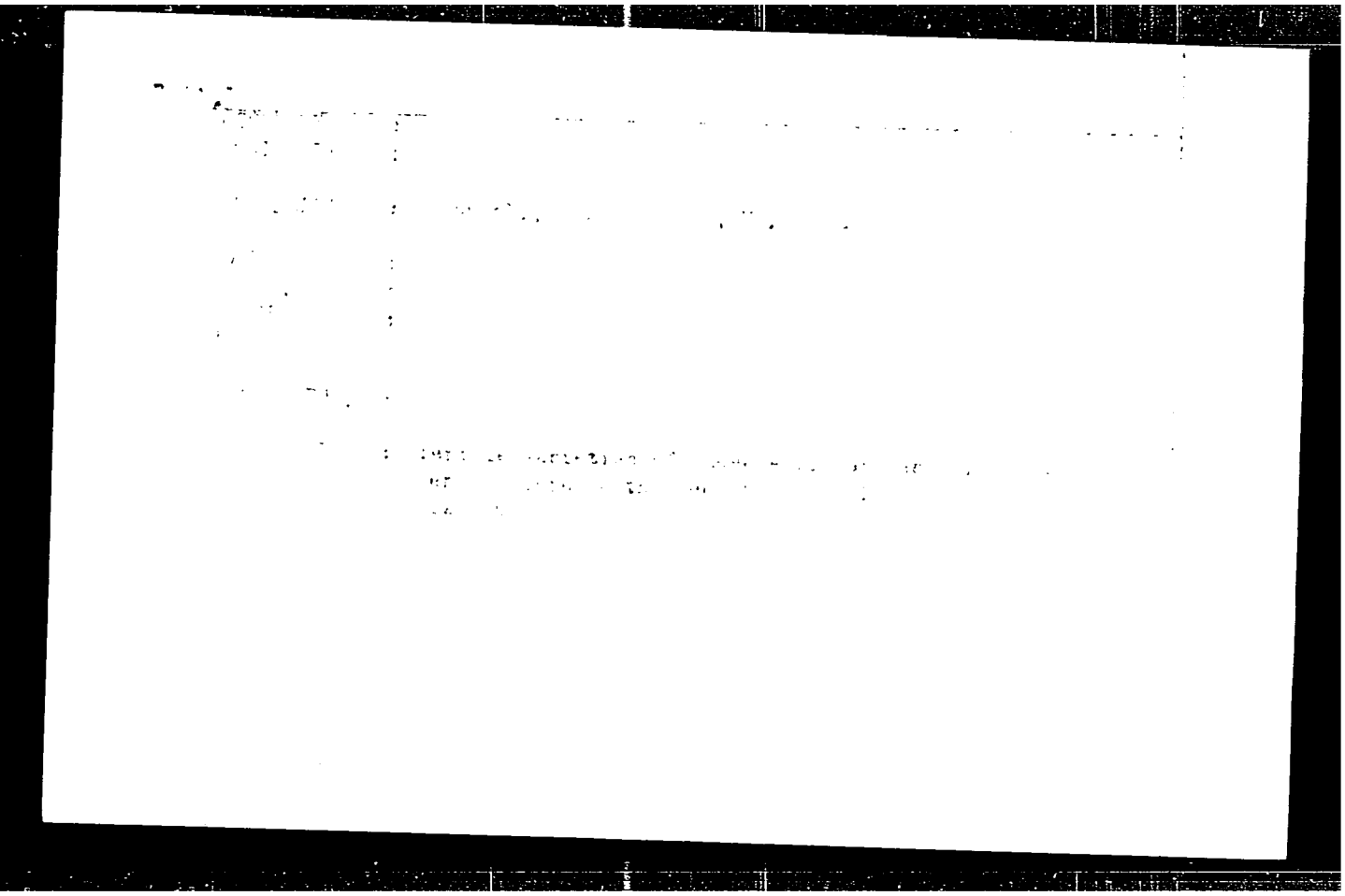

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

ORLOV, M.F.

Life span and time of opening of the flowers in Lilium regale.
Biul. Glav. bot. sada no.28:121-122 '57. (MIRA 11:1)

1. Botanicheskiy sad Akademii nauk Ukrainskoy SSR.
(Lilies) (Plants, Flowering of)

ORLOV, M.I.

Propagation of Clematis Jackmani in the Ukraine. Trudy Bot. sada AN URSR 7:125-128 '60. (MIRA 14:4)
(Ukraine—Clematis)

ORLOV, M.I.

Cultivation of Clematis Jackmani. Biul. Glav. bot. sada no. 38:33-37 '60. (MIRA 14:5)

1. Botanicheskiy sad AN Ukrainskoy SSR, Kiyev.
(Clematis)

Orlov M.L.

68-58-2-10/21

AUTHORS: Kolyandr, L.Ya., Orlov, M.L., Tyaptina, M.I. and Fomenko, G.M.

TITLE: Production of High-quality Benzole for Organic Synthesis (Polucheniye vysokokachestvennogo benzola dlya organicheskogo sinteza)

PERIODICAL: Koks i Khimiya, 1958, Nr 2, pp 44 - 46 (USSR)

ABSTRACT: A new standard for benzole for synthesis I, introduced in September, 1957, required a very low concentration of thiophene (0.005%). An investigation was carried out in order to study the process of purification of benzole-toluole fraction up to the limits required for the benzole synthesis I and to develop the optimum scheme for the production of such benzole. The investigation of the appropriate fractions from Zaporozhe and Bagleysk Coke Oven Works (Table 1) under laboratory conditions was carried out. At first, a direct washing of the whole fractions was tested (Table 2); the results obtained indicated that this method of purification is unprofitable. Therefore, the following investigations were carried out: 1) Separation of BTX (mixed) fraction into a narrow benzole fraction and a toluole-xylole fraction with their subsequent treatment to a required purity; 2) The usual washing of mixed fraction to limits required to obtain pure products

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68-58-2-10/21

Production of High-quality Benzole for Organic Synthesis

(bromine numbers benzole $\leqslant$0.6; toluole $\leqslant$0.3) with subsequent washing of pure benzole to the required standard. Experimental results are given in Tables 3-5. It is concluded that for Southern works, the second scheme is most suitable, but for Eastern works, which deal with low-sulphur products, the first scheme may be more rational. It is pointed out that both methods of production of benzole for synthesis are imperfect and that further research is necessary. There are 5 tables and 6 references, 2 of which are Soviet, 2 English, 1 French and 1 German.

ASSOCIATION: UKhIN

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1. Benzole - Production 2. Benzole - Purification
3. Benzole - Synthesis

ORLOV, M.L.; TUMARKIN, L.A.; YEPIMAKHOV, N.M.; SORKIN, M.M.; KOPTEV, G.P.

Improving the process of the primary separation of crude benzol. Koks i khim. no.3:36-41 '64. (MIRA 17:4)

1. Ukrainskiy uglekhimicheskiy institut (for Orlov, Tumarkin).
2. Bagleyskiy koksokhimicheskiy zavod (for Yepimakhov, Sorkin, Koptev).

PRAVDYUK, N. F.; KONOBEYEVSKIY, S. T.; ORLOV, M. L.

"Effect of some factors on hydrogenization and properties of zirconium alloys used for jackets of heat-producing elements in water cooled power reactors."

report submitted for 3rd Intl Conf, Peaceful Uses of Atomic Energy, Geneva, 31 Aug-9 Sep 64.

MOSKALEV, V. Ye.; ORLOV, M. M.

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Modernization of fire-tube boilers for hot water supply, Za ekon. top., No. 2, 1952

Monthly List of Russian Accessions, Library of Congress, March, 1952. Unclassified.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

IOFFE, Yuliy Rafailovich; KUPTSOV, Ivan Pavlovich; ORLOV, M.M., inzh., red.; SLABODKINA, G.N., red.; LEBEDEVA, L.V., tekhn. red.

[Design and construction of large thermal electric power plants of precast reinforced concrete]Proektirovanie i stroitel'stvo moshchnykh teplovykh elektrostantsii iz sbornogo zhelezobetona. Moskva, Orgenergostroi, 1962. 77 p. (MIRA 15:10)
(Electric power plants)
(Precast concrete construction)