Information transmission Rate ....

$$y(t) = \sum_{r=1}^{n} a_r x(t - \tau_r) \qquad (1)$$

where a_r and τ_r are the damping coefficient and the propagation time for the small r-th path, respectively. The frequency characteristic of the multipath channel is written as:

$$k(f) = \sum_{r=i}^{n} a_r e^{i2\pi f \tau_r} \qquad (2) .$$

The output signal contains correlation couplings of the type:

$$B_y(\tau) = \sum_{r=1}^{n} \sum_{s=1}^{n} a_r a_s B_x(\tau + \tau_r - \tau_s) \qquad (3)$$

Card 2/13

where B_y and B_x are the autocorrelation functions of the signals $y(t)$ and $x(t)$. The signal at the receiver, together with the noise $z(t)$, appears at the output of the communications channel, where the total signal can therefore be expressed as:

$$v(t) = \sum_{r=1}^{n} a_r x(t - \tau_r) + z(t) \qquad (4) .$$

The information-transmission rate C, when the signal at the input of the channel has normal distribution, can be expressed by (Ref. 1 - K. Shannon - The Theory of Electrical Signal Transmission in the Presence of Noise, IL, Moscow, 1953) (Ref. 7 - P. Elias - Proc. IRE, 39, 839, 1951):

$$C = \lim_{T} \frac{1}{T} \log M^{1/2} \qquad (7)$$

where M is the correlation matrix of the output signal:

$$|M| = \begin{vmatrix} \overline{v_1 v_1} & \dots & \overline{v_1 v_N} \\ \dots & \dots & \dots \\ \overline{v_N v_1} & \dots & \overline{v_N v_N} \end{vmatrix}$$

where v_j are the values of the output signal at the sampling time intervals. On the basis of Eq. (7) it is possible to express the channel-information capacity in terms of the spectral functions of the signal (Ref. 2 - Cybernetics. izd. Sov. radio, M., 1958 - N.Wiener; Ref. 8 - Dokl. Ak.nauk SSSR, 99, 213, 1954 - M.S. Pinsker):

$$C = \frac{1}{T}\log\prod_{j}^{N}\left(1+\frac{|y(f_j)|^2}{|z(f_j)|^2}\right) = \frac{1}{T}\sum_{j=1}^{n}\log\left(1+\frac{|y(f_j)|^2}{|z(f_j)|^2}\right). \qquad (8)$$

where $y(f_j)^2$ and $z(f_j)^2$ are spectral densities of the signals y(t) and z(t). If the signal and noise spectra (σ_x^2 and σ_z^2) are independent of frequency, Eqs. (7) and (8) can be written as:

$$C = F\log\left(1+\frac{\sigma_y^2}{\sigma_z^2}\right) + \lim_{T\to\infty}\left[\frac{1}{T}\log|R|^{1/2}\right]; \qquad (7a)$$

$$C = \int_0^F \log\left(1+\frac{\sigma_y^2}{\sigma_z^2}\,\frac{|k(f)|^2}{\frac{1}{F}\int_0^F |k(f)|^2\,df}\right)df. \qquad (8a)$$

Card 5/13

where R is the matrix of the correlation coefficients of the signal at the output of the channel (corresponding to the matrix M). In the case of a two-path propagation, it can be assumed that the signals received have amplitudes a_1 and a_2 and that the relative delay time is [illegible], The frequency characteristic of this channel is:

$$k(f)^2 = a_1^2 + a_2^2 + 2a_1a_2\cos(2\pi f \tau) \qquad (13)$$

so that the channel capacity is given by:

$$C = \int_0^F \log\left[1 + \alpha(a_1^2 + a_2^2) + 2\alpha\, a_1a_2\cos(2\pi f \tau)\right]df \qquad (14)$$

Card 6/13

where $\alpha = \sigma_x^2/\sigma_z^2$. The effect of two-path propagation is illustrated in Fig. 2, where F is the bandwidth of the transmission channel. The channel capacity of a system with n-path propagation, having a maximum delay time T_p and spectral distribution for the amplitude of the received signal K(f), is also investigated and it is shown that in this case the capacity is expressed by:

$$C = -\frac{Fe^{\sigma_z^2/\sigma_y^2}}{\ln 2} Ei\left(-\frac{\sigma_z^2}{\sigma_y^2}\right) \qquad (19)$$

where Ei(x) is the integral exponential function which can be represented in the form of the following series:

Card 7/13

$$Ei(x) = c + \ln(-x) + \frac{x}{1.1!} + \frac{x^2}{2.2!} + \ldots + \frac{x^n}{n.n!} + \ldots \qquad (20)$$

$(x < 0)$

where $c = 0.57$. On the other hand, for an n-path propagation channel the rate of information-transmission is a minimum if the energies transmitted to the receiver by various paths are equal and the signal delays along the various paths are the same. The frequency characteristic of such a channel is given by:

$$|k(f)|^2 = |\sin(\pi n f \tau)/\sin(\pi f \tau)|^2 \qquad (23)$$

where τ is the delay time and its capacity is expressed by:

$$C = F \log(a^2/\sigma_2^2) + \int_0^F \log|\sin(\pi n \tau f)/\sin(\pi \tau f)|\, df \qquad (24).$$

Card 8/13

In general, the signal at the output of a multipath propagation channel, which is defined by Eq. (4), has fluctuation amplitudes a_r and delay times τ_r. Due to the presence of a large number of interfering paths or rays, it can be assumed that the changes of the transfer function for the channel at various frequencies are independent. The frequency interval ω_o for the correlation of these changes is dependent on the reverberation time T_p; this is defined by:

$$\omega_o = 1/T_p \qquad (26).$$

The qualitative estimate of a multipath communications channel with variable parameters can be estimated on the basis of the work of Feinstein (Ref. 6), who gave a formula for the capacity of a channel whose output signal was in the form:

$$v(t) = K(t)y(t) + z(t) \qquad (27)$$

where K(t) is a random modulation function having the normal probability distribution. The formula for the information-transmission rate is in the form:

$$C = \Delta f \log \left| 1 + \frac{\sigma_y^2}{\sigma_x^2 + \overline{K}^2 \sigma_y^2 \left| 1 + \overline{K}^2 (q-1) \sigma_y^2 / \sigma_x^2 \right|} \right| . \qquad (28)$$

where Δf is the bandwidth of the signal frequencies,
$\overline{K}^2$ is the mean square value of the fluctuations of K(t),
q is the number of sampling points for the signal at which the values of K(t) are correlated.

It can easily be shown that:

$$q = \Delta f T_{\text{corr}} \qquad (29)$$

where T_{corr} is the autocorrelation interval for the modulating function K(t) .

Card 10/13

A multipath channel with variable parameters can be split into a number of sub-channels, whose bandwidths are less than the frequency interval $_{o}$. The capacity can be expressed by:

$$C = \int_{0}^{F} \log\left\{1 + \frac{\sigma_v^2 K_f^2}{\sigma_z^2 + K^2 \sigma_y^2 K_f^2 [1 + \bar{K}^2(q \quad 1)\sigma_v^2 K_f^2/\sigma_z^2]}\right\} df. \qquad (30)$$

provided the interaction between the neighbouring sub-channels is disregarded. On the basis of the above formulae, it is concluded that in a channel with constant parameters, the presence of many propagation paths does not reduce the capacity of the channel; in most cases, the channel capacity is equal to the capacity of a single-path channel whose energy is equal to the total energy of all the "paths" transmitted to the receiver. On the other hand, the occurrence of the equidistance distribution of delay times is very improbable in normal conditions. In the case of a channel with variable parameters, the fluctuations of the parameters have a significant effect

on the channel capacity: the capacity is dependent on the width of the spectrum and the magnitude of the changes of the transfer function of the channel. The capacity of a multipath communications channel can be determined if the following quantities are known: correlation in the signal produced by the multipath propagation; time and frequency correlation of the amplitude fluctuations of the received signal and the width of the spectrum at the output of the channel when a sinusoidal signal is applied at the input.
There are 3 figures and 8 references: 6 Soviet and 2 non-Soviet. Two of the Soviet references are translated from English.

ASSOCIATION: Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete (Scientific Research Radiophysics Institute of Gor'kiy University)

SUBMITTED: September 22, 1960

Card 12/13

3579

S/120/62/000/001/026/061
E140/E463

24.3300

AUTHORS: Zverev, V.A., Mosalov, I.V., Orlov, Ye.F., Sibiryakov, V.L.

TITLE: Spectrum analyser for film-recorded processes

PERIODICAL: Pribory i tekhnika eksperimenta, no.1, 1962, 110-117

TEXT: The authors describe a variation of the well-known optical spectrum analyser in which a periodic mask (filter) is passed before a density (or amplitude) variable negative of the process to be analysed. The disadvantages of the existing systems are the large number of filter transparencies required, the long time for a full analysis, lack of precision in the preparation of the filters and the impossibility of obtaining the spectral density at a given frequency. The authors therefore have proposed and realized an improved system using two mutually inclined diffraction gratings (Fig.3). Assuming the gratings to be sinusoidal (in the first approximation), the transmissibilities of the gratings are described by

$$A + B \cos \left[(2\pi/d)(x \cos \alpha + y \sin \alpha) - \varphi_1\right] \quad (1)$$

$$A + B \cos \left[(2\pi/d)(x \cos \alpha - y \sin \alpha) - \varphi_2\right] \quad (2)$$

Card 1/5

Spectrum analyser ...

Since the light passes successively through the two gratings, the light flux at the output of the second grating will be the product of (1) and (2). Now, if we let the gratings vibrate with common amplitude a and frequency Ω - in phase opposition, and in the directions α and $-\alpha$, the photoelement current will have a component proportional to the spectral density of the investigated function. As the angle α varies from 0 to 30° all values of spectral density will be obtained with periods between D (the window width, fundamental frequency) up to d (the grating period). The frequency Ω determines the rate at which the results are obtained. The possibility exists of varying α manually, thus permitting interesting frequency components to be found rapidly. The use of narrow band amplifiers tuned to some harmonic of Ω is useful in filtering out closely related components. The maximum intensity is that of the harmonic with index close to $a/d \gg 1$. The output is to a self-balancing potentiometer, with the lateral displacement of the paper controlled by a special follower servomechanism to give a scale proportional to frequency as the angle α is varied. In the

instrument constructed the grating period is d = 0.2 mm, the maximum relative angle of rotation is 14°10', the window D = 100 mm. The resolution permits harmonics of D up to index 250 to be measured. Some test spectrograms of multi-frequency sinusoidal signals are given. There are 9 figures.

ASSOCIATION: Nauchno-issledovatel'skiy radiofizicheskiy institut pri GGU (Scientific Research Institute of Radiophysics of GGU)

SUBMITTED: March 6, 1961

OHLOV, Yevgeniy Sergeyevich; SHMIDT, V.A., kapitan dal'nego plavaniya, red.; IVANOV, K.A., red.izd-va; TIKHONOVA, Ye.A., tekhn.red.

[Seamanship for sailors] Morskaia praktika dlia matrosov. Moskva, Izd-vo "Morskoi transport," 1958. 139 p. (MIRA 12:2)
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ORLOV, Yevgeniy Sergeyevich; STUPAKOVA, L.A., red.; KHLOPOVA, L.K., tekhn. red.

[Maneuvering of vessels during anchorage; texts on various ship-handling subjects for correspondence students of navigation schools] Manevrirovanie sudov pri postanovke na iakor'; lektsii dlia studentov-zaochnikov sudovoditel'skikh spetsial'nostei morekhodnykh uchilishch'. Moskva, Izd-vo "Morskoi transport," 1961. 48 p. (MIRA 14:12)

(Ship handling)

ORLOV, Yevgeniy Sergeyevich; STUPAKOVA, L.A., red.; KHLOPOVA, L.K., tekhn. red.

[Maneuvering of vessels during mooring; texts on various ship handling subjects for correspondence students in navigation schools] Manevrirovanie sudov pri shvartovke; lektsii dlia studentov-zaochnikov sudovoditel'skoi spetsial'nosti morekhodnykh uchilishch. Moskva, Izd-vo "Morskoi transport," 1961. 56 p. (MIRA 14:12)
(Anchorage) (Ship handling)

ORLOV, E. S.

ORLOV, E. S. (Candidate of Veterinary Sciences, All-Union Institute of Experimental Veterinary Medicine). On the perspectives of the fight against brucellosis with application of allergy diagnosis.

So: Veterinariya; 23; (8-9); August/September 1946; Uncl.
TABCON

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

USSR/Medicine - Paratyphoid Nov 49
Sheep, Diseases

"Paratyphoid Abortus of Sheep," Ye. S. Orlov, Cand Vet Sci, All-Union Inst of Experimental Vet Med, 4½ pp

"Veterinariya" No 11

Discusses data collected in 1948 at two farms to determine reason for abortions occurring in large number of sheep. Shows larger proportion due to paratyphoid than brucellosis. Tests with chemical therapeutic preparations and serums from convalescent animals produced negative results in treatment

159T47

USSR/Medicine - Paratyphoid (Contd) Nov 49

of sick lambs, but some good results were obtained by using proserin.

159T47

PA 159T47

ORLOV, YE. S.

ORLOV, Ye. S., Cand. of Vet. Sci.
All-Union Inst. of Experimental Vet. medicine.
"Recovery of lambs ill with brucellosis."
SO: Vet. 26 (6) 1949, p. 21

USSR/Medicine - Brucellosis Jun 50
Diagnosis, Methods

"Comprehensive Method for Diagnosis of Brucellosis," Cand Vet Sci, Ye. S. Orlov, Cand Vet Sci, M. I. Chernysheva, All-Union Inst of Experimental Vet Med, 6½ pp

"Veterinariya" No 6

Discusses problems of diagnosis and methods such as agglutination reaction, allergy test, and complement fixation reaction. Outlines system of diagnosis including basic use of allergy method on small cattle and agglutination reaction in other animals, and also a

161T84

USSR/Medicine - Brucellosis (Contd) Jun 50

complex method for use in specific instances. Latter involves applying the agglutination reaction, complement fixation reaction, and allergy tests with brucellohydrolyzate to small cattle and swine, the first two reactions to cattle, sheep and goats, and the second to horses.

161T84

ORLOV, YE. S.

PA 161T8L

ORLOV, Ye.S., Cand. of Vet. Sci.
"On the results of the 34th. Plenum of the Veterinary Section of VASKhNIL."
SO: Veterinariya 28(7), 1951, p. 15

USSR/Medicine, Veterinary - Brucellosis Aug 52

"Concerning Measures in the Fight Against Brucellosis," Ye. S. Orlov, Cand. Vet Sci, All-Union Inst of Exptl Vet Med

"Veterinariya" No 8, pp 27-32

Discusses special letter of May 50 from the Vet Admin, Main Admin of Animal Husbandry, Min of Agr USSR, advocating a complex method of diagnosis of brucellosis comprising the agglutination reaction, complement fixation, and allergy test. On describing diagnostic procedure and pointing out the effectiveness of inoculations with attenuated live vaccine, the author advises

233T12

stricter supervision of sanitary conditions in community farms, and extreme vigilance in the importation of animals from contaminated areas. Suggests special attention be paid to sheep and goats as carriers of a form of brucellosis especially dangerous to human beings.

233T12

ORLOV, YE. S.

1. CHERNYSHEVA, M. I.: ORLOV, Ye. S.

2. USSR (600)

4. Bacteria, Pathogenic

7. Immunogenic properties of the attenuated strain of Br. suis 61. Trudy Vses. inst. eksp. vet. 19. no. 1. 1952.

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

CRLOV, Yevgeniy Sergeyevich

Academic degree of Doctor of Veterinary Sciences, based on his defense, 26 June 1954, in the Council of the All-Union Inst of Experimental Veterinary Science, of his dissertation entitled: "Brucellosis of Sheep."

Academic degree and/or title: Doctor of Sciences

SO: Decisions of VAK, List no. 16, 2 Jul 55, Byulleten' MVO SSSR, No. 15, Aug 56, Moscow, pp 5-24, Uncl. JPRS/NY-537

ORLOV, Ye.S.

Specific characteristics of the agglutination reaction and "test" brucellosis. Veterinariia 31 no.11:34-39 N '54. (MLRA 7:11)

1. Vsesoyuznyy institut eksperimental'noy veterinarii.
(BRUCELLOSIS IN CATTLE) (BLOOD-AGGLUTINATION)

ORLOV, Ye.S.

Is this the way to discuss scientific problems? Veterinariia 32 no.1:92-94 Ja '55. (MLRA 8:2)

1.Vsesoyuznyy institut eksperimental'noy veterinarii.
(VACCINES)

KOVALENKO, Ya.R., professor; ORLOV, Ye.S., doktor veterinarnykh nauk.

Twenty-third Congress of the International Epizootiological Bureau. Veterinariia 32 no.8:88-94 Ag '55. (MLRA 8:10)
(COMMUNICABLE DISEASES IN ANIMALS--CONGRESSES)

ORLOV, Ye.S.

Brucellosis in farm animals. Veterinariia 33 no.2:35-39 F '56.
(MLRA 9:5)
(BRUCELLOSIS)

ORLOV, Ye.S.

Brucellosis in farm animals. Veterinariia 33 no.6:33-35 Je '56.
(MLRA 9:8)
(Brucellosis)

R

COUNTRY : [illegible]
CATEGORY : [illegible] of [illegible] and [illegible] by [illegible] and [illegible].
ABS. JOUR. : RZhBiol., No. 6 1959, No. [illegible]75

AUTHOR : [illegible]; [illegible]lov, [illegible]; [illegible]
INST. : [illegible] Scientific Control Institute of [illegible]
TITLE : Experimental Trial of the Activity of Four [illegible]ccines Against Brucellosis.

ORIG. PUB. : [illegible] Nauchno-kontrol'n. in-ta vet. prepara-tov, 1957, 7, [illegible]

ABSTRACT : [illegible] properties of glycerinated vaccine [illegible] strain No. [illegible] (I), form[illegible] vaccine strain No. [illegible] (II), live vaccine strain [illegible] (III), and live dry vaccine strain No. [illegible] (IV) were tried on sheep. Of the sheep vaccinated

[illegible]orvakova, [illegible]; [illegible]udentov, S.N.; Ivanova, V.I.; [illegible]zunov, [illegible].
[illegible]nary Preparations

CARD: 1/2

1[illegible]

COUNTRY :
CATEGORY :

ABS. JOUR. : RZhBiol., No. 6 1959, No. 2677

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

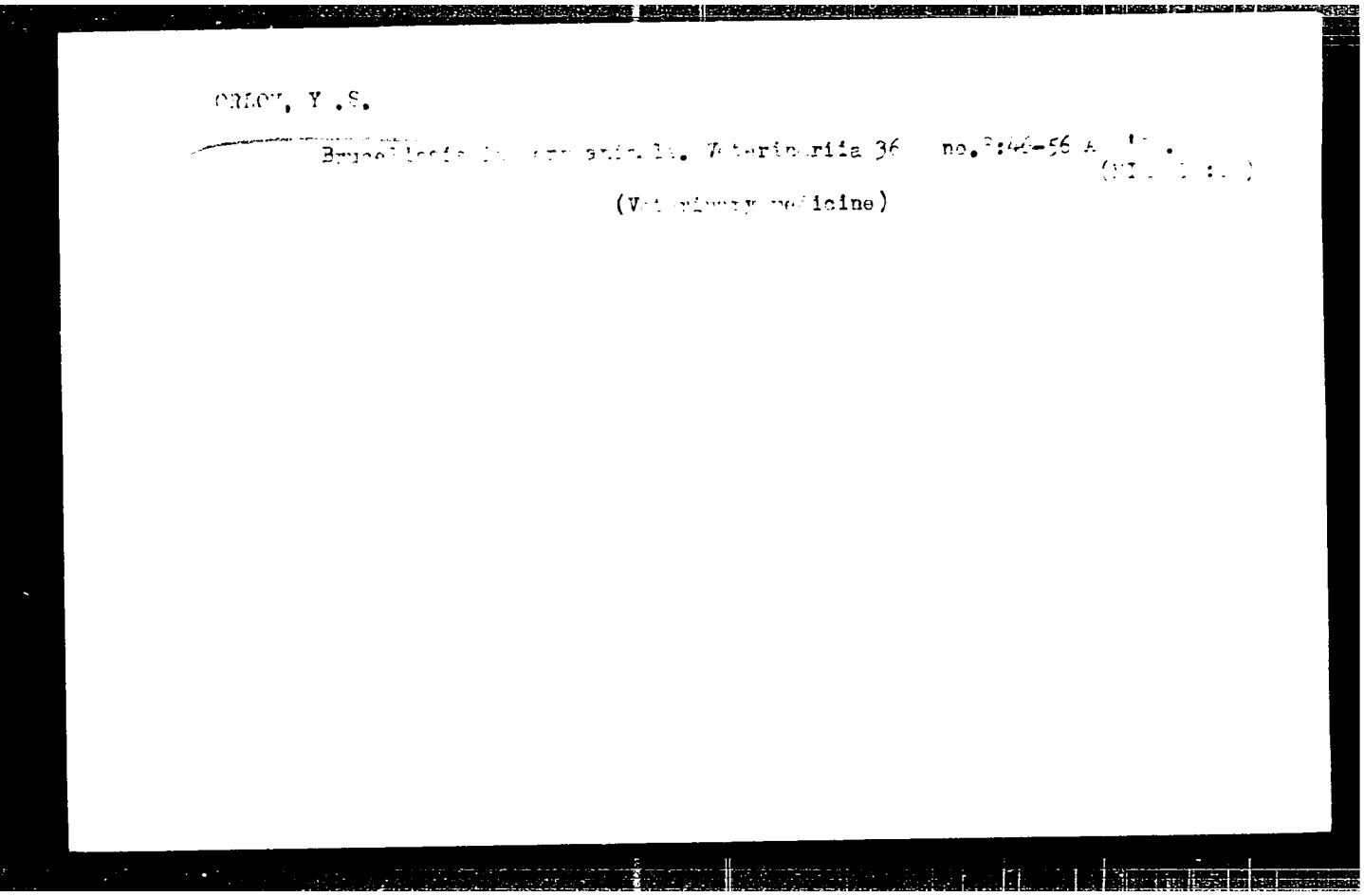
ABSTRACT : With I, immunity was established in 70 % of animals, and in sheep vaccinated with II, in 80 % of heads. The sheep vaccinated with III exhibited complete resistance to artificial infection by brucellosis. In sheep vaccinated with IV with doses of 5 and 25 billion brucellae, immunity was established in 90 and 100 % of cases respectively.-- L.S. Arichenko.

CARD: 2/2

ORLOV, Ye.S., doktor veterinarnykh nauk, prof.

Achievements in the study of brucellosis in animals. Trudy VIEV 23:257-275 '59. (MIRA 13:10)

1. Vsesoyuznyy institut eksperimental'noy veterinarii.
(Brucellosis) (Veterinary medicine)



ORLOV, Y.S.

Brucellosis in agricultural animals. Veterinariia 36 no.3:46-56 Mr '59.
(MIRA 12:4)
(Veterinary medicine)

ORLOV, Ye.S.

Incidence of brucellosis of cattle and sheep in the U.S.S.R.
Zhur.mikrobiol.epid.i immun. 31 no.2:143-144 F '60.
(MIRA 13:6)

1. Iz Vsesoyuznogo instituta eksperimental'noy veterinarii.
(BRUCELLOSIS veterinary)
(CATTLE diagnosis)
(SHEEP diseases)

ORLOV, Ye.S.; VASIL'KOV, G.V.

Veterinary science abroad. Veterinariia 38 no.3:84-87 Mr '61
(MIRA 18:1)

ORLOV, Ye.S., prof.

Methods for the control of brucellosis in farm animals. Veterinariia 39 no.5:40-44 My '62 (MIRA 18:1)

1. Vsesoyuznyy institut eksperimental'noy veterinarii.

ORLOV, Ye. S.

"Brucellosis in Reindeer"

17th World Veterinary Congress held in Hanover, West Germany
14-21 Aug '63

Institute of Experimental Veterinary Science.

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

LIKHACHEV, N.V., prof.; AGRINSKIY, N.I., prof.; SYURIN, V.N., prof.; SPESIVTSEVA, N.A., prof.; KOLOBOLOTSKIY, G.V., prof.; ZOLOTAREV, N.A., prof.; KORYAZHNOV, V.P., prof.; KOLESOV, S.G., prof.; BABICH, M.A., prof.; PETROV, A.M., prof.; ZOTOV, A.P., prof.; DOROFEYEV, K.A., prof.; POLYKOVSKIY, M.D., prof.; SOLOMKIN, P.S., prof.; ORLOV, Ya.S., prof.; KOTOV, V.T., prof.; TRILENKO, P.A., prof.; LYUBASHENKO, S.Ya., prof.; USACHEVA, I.G., red.; YARNYKH, A.M., red.; BALLOD, A.I., tekhn. red.

[Veterinary laboratory practice] Veterinarnaia laboratornaia praktika. Moskva, Sel'khozizdat. Vol.[General microbiological methods of investigation] Obshchie mikrobiologicheskie metody issledovaniia. 1963. 566 p. Vol.2. [Biochemical, chemico-toxicological, and veterinary-hygienic methods of investigation] Biokhimicheskie, khimiko-toksikologicheskie i zoogigienicheskie metody issledovaniia. 1963. 431 p. (MIRA 16:8)
(Veterinary laboratories)

ACC NR: AP6030796 (A,N) SOURCE CODE: UR/0346/66/000/009/0015/0018

AUTHOR: Vershilova, P. A.; Ivanov, M. M.; Orlov, Ye. S.; Kaytmazova, Ye. I.; Kurdina, D, S.; Zasedateleva, G. S.; Mikhaylov, N. A.; Pinigin, A. F.; Merinov, S. P.; Dranovskaya, Ye. A.; Davydov, N. N.

ORG: none

TITLE: Brucellosis cultures isolated from deer in the northern Soviet Union

SOURCE: Veterinariya, no. 9, 1966, 15-18

TOPIC TAGS: brucellosis, brucella culture, disease vector, deer, animal disease

ABSTRACT: Brucellosis is widely distributed among deer in the northern part of the Soviet Union. In general they serve as carriers and epizootic reservoirs of brucellosis in cattle and sheep. The most typical species is *Brucella abortus*, with the other two common types rare or absent. A fourth type, *Br. rangiferi*, differing from the others, was also isolated.

[WA-50; CBE No. 12]

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 014/ OTH REF: 010

Card 1/1 UDC: 619:616.981.42-02:636 294

VOSHCHININ, N.P., inzh.; BOBYLEV, L.M., inzh.; ORLOV, Ye.V., inzh.

Effect of the parameters of tamping slabs on the process of compacting soils. Transp. stroi. 14 no.7:39-41 Jl '64. (MIRA 18:1)

ORLOV, Yu.Z.

24(0); 5(4); 6(2) PHASE I BOOK EXPLOITATION SOV/2215

Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii imeni D.I. Mendeleyeva

Referaty nauchno-issledovatel'skikh rabot; sbornik No. 2 (Scientific Research Abstracts; Collection of Articles, Nr 2) Moscow, Standartgiz, 1958. 139 p. 1,000 copies printed.

Additional Sponsoring Agency: USSR. Komitet standartov, mer i izmeritel'nykh priborov.

Ed.: S. V. Reshetina; Tech. Ed.: M. A. Kondrat'yeva.

PURPOSE: These reports are intended for scientists, researchers, and engineers engaged in developing standards, measures, and gages for the various industries.

COVERAGE: The volume contains 128 reports on standards of measurement and control. The reports were prepared by scientists of institutes of the Komitet standartov, mer i izmeritel'nykh priborov pri Sovete Ministrov SSSR (Commission on Standards, Measures, and Measuring Instruments under the USSR Council of Ministers). The participating institutes are: VNIIM - Vsesoyuznyy nauchno-issledovatel'skiy metrologii imeni D.I. Mendeleyeva (All-Union Scientific Research Institute of Metrology imeni D.I. Mendeleyev) in Leningrad; Sverdlovsk Branch of this Institute; VNIIK - Vsesoyuznyy nauchno-issledovatel'skiy institut Komiteta standartov, mer i izmeritel'nykh priborov (All-Union Scientific Research Institute of the Commission on Standards, Measures and Measuring Instruments), created from MGIMIP - Moskovskiy gosudarstvennyy institut mer i izmeritel'nykh priborov (Moscow State Institute of Measures and Measuring Instruments), October 1, 1955; VNIIFTRI - Vsesoyuznyy nauchno-issledovatel'skiy institut fiziko-tekhnicheskikh i radiotekhnicheskikh izmereniy (All-Union Scientific Research Institute of Physicotechnical and Radio-engineering Measurements) in Moscow; KhGIMIP - Khar'kovskiy gosudarstvennyy institut mer i izmeritel'nykh priborov (Khar'kov State Institute of Measures and Measuring Instruments); and NGIMIP - Novosibirskiy gosudarstvennyy institut mer i izmeritel'nykh priborov (Novosibirsk State Institute of Measures and Measuring Instruments). No personalities are mentioned. There are no references.

Frequency Service 50

Artem'yeva, Ye.V. (VNIIFTRI). ISCh-1 and ISCh-2 Type Instruments for Integral Comparison of Electric Oscillation Frequencies 51

Veyzbrut, A.P. and V.K. Budin (Deceased) (VNIIM). Automatic Device for Controlling the Frequency Comparator Unit of Generators 52

Faly, O.N. (VNIIFTRI). Standard Frequency Meter (for checking purposes) for Frequency Transmission Through a High-power Short-wave transmitter 53

Bryzzhev, L.D., A.Ya. Lerkin, I.V. Baulin, and Ye.Z. Orlov (KhGIMIP). Determining the Frequency Values of [illegible] Absorption Lines 54

Hardness and Strength Requirements (Dolinskiy, Ye.F., Candidate of Technical Sciences)

Savitskiy, P.S., and I.A. Zakharov (Sverdlovsk Branch of VNIIM).

Card 11/24

S/115/63/000/002/005/008
E202/E492

AUTHORS: Leykin, A.Ya., Orlov, Ye.Z.

TITLE: Coincidence of frequency values in molecular generators of similar constructions

PERIODICAL: Izmeritel'naya tekhnika, no.2, 1963, 46-48

TEXT: The authors used four identically constructed molecular generators contained in pairs in one general vacuum shell. Each aggregate was supplied with electronic equipment which tuned the frequency of the generator according to the minimum changes in the pressure of ammonia in the source of the molecular beam and compared this molecular frequency with that of quartz generators. Details of preliminary tuning are given. The pressure of ammonia was so chosen that the amplitude of generation was at its maximum. In order to determine the effect of the voltage on the quadrupole condenser, the beat frequency was measured between the two molecular generators. At the same time the voltage on the quadrupole condenser of one generator was fixed at 35 kV, while that of the other varied from 22 to 37 kV. The measurements have shown that changes in voltage of 15 kV cause frequency changes of 70 c/s. Simultaneous frequency measurements on the standard

Coincidence of frequency ...

quartz generator and the molecular generators were carried out for a period of three weeks; each molecular generator was tuned and the difference between the standard and molecular generators measured. Approximately 10 to 12 measurements were taken on each of the molecular generators. The results of these measurements show that the mean arithmetic deviation of frequencies of the individual generators was of the order of about 0.1 while the mean quadratic deviation was of the order of 1×10^{-9}. It was concluded that using this method of tuning, it is possible to attain a frequency with a mean quadratic error of 1×10^{-9}. It is stated that when subjected to the above procedure, molecular generators may be operating with the same frequency accuracy as that which is ascribed to the standard generator. There are 5 tables.

Card 2/2

MAKHLIN, M.; ORLOV, Yu.

Tilapia and heat and electric power plants. Znan.-sila 37 no.11:14-15 N '62. (MIRA 16:1)
(Tilapia) (Power plants)

CHKHAIDZE, L., mladshiy nauchnyy sotrudnik; CHITAVA, Z.; ORLOV, Yu., mladshiy nauchnyy sotrudnik; MANUKOV, R.; ZAKOMORNYY, G., mekhanik

If it's manufactured in the Soviet Union it is of a superb quality. Radio no.2:34-35 F '64. (MIRA 17:3)

1. Gruzinskiy politekhnicheskiy institut (for Chkhaidze). 2. Starshiy inzh. Vychislitel'nogo tsentra AN Gruzinskoy SSR (for Chitava). 3. Institut kibernetiki AN Gruzinskoy SSR (for Orlov). 4. Starshiy tekhnik Vychislitel'nogo tsentra AN Gruzinskoy SSR (for Manukov). 5. Institut elektroniki AN Gruzinskoy SSR (for Zakomornyy).

ORLOV, Yu., gvardii polkovnik

Propaganda of legal knowledge. Komm. Vooruzh. Sil 46 no.16:64 Ag '65. (MIRA 18:8)

MYMKIN, P.V.; ORLOV, Yu.A.

Automatic machine for marking bushes. Stan.i instr. 31 no.7:33 Jl '60. (MIRA 13:7)
(Marking devices)

MYNKIN, P.V.; ORLOV, Yu.A.

Pneumatic attachment with automatic clamping. Stan.i instr. 31 no.10: 37-38 O '60. (MIRA 13:10)
(Drilling and boring machinery--Attachments)

ORLOV, Yu.A.

Errors in the control of gas flow and distribution of materials in the furnace top. Metallurg 6 no.6:7-9 Je '61. (MIRA 14:5)

1. Kushvinskiy metallurgicheskiy zavod.
(Blast furnaces--Design and construction)

ORLOV, Yu.A.

Granulation of cast iron. Metallurg 7 no.5:13-14 My '62.
(MIRA 15:5)

1. Kushvinskiy metallurgicheskiy zavod.
(Cast iron)
(Granular materials)

MYNKIN, P.V.; ORLOV, Yu.A.

Automatic pneumatic attachment for milling clutch housing. Avt.-prom. 28 no.5:35-36 My '62. (MIRA 15:5)

1. Moskovskiy avtozavod imeni Likhacheva.
(Milling machines--Attachments)

MYNKIN, P.V.; ORLOV, Yu.A.

Adjustment of drilling and screw-cutting heads for machining holes in small parts. Stan.i instr. 33 no.3:42-44 Mr '62. (MIRA 15:2)

(Machine tools--Attachments)

MYNKIN, P.V.; ORLOV, Yu.A.

Cutting thread in turning multiposition jigs on universal drilling machines. Avt.prom. 29 no.1:34-35 Ja '63. (MIRA 16:1)

1. Moskovskiy avtozavod imeni Likhacheva.
(Screw cutting)

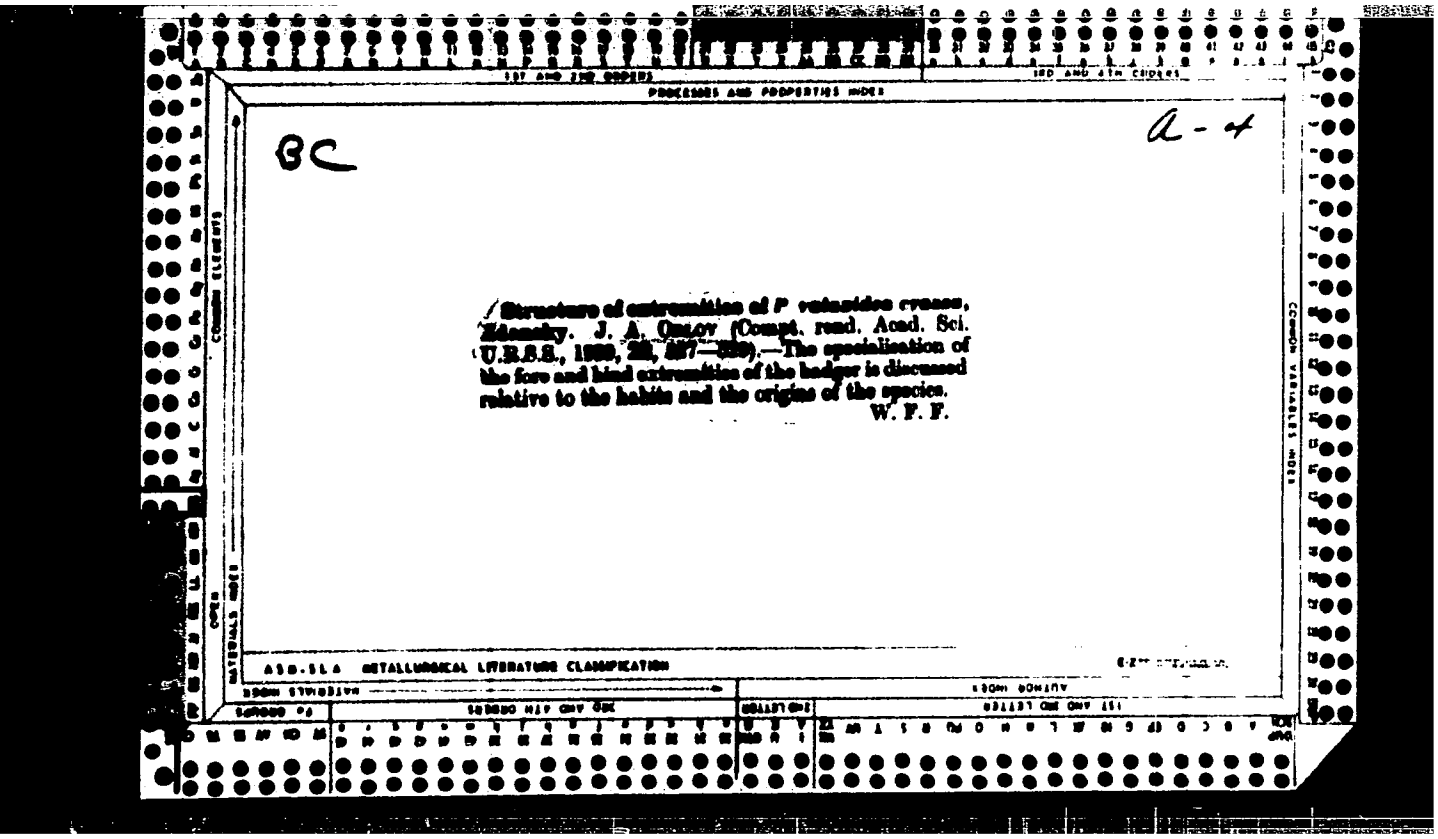
ZHILKIN, N.K.; INOZEMTSEV, N.S.; ORLOV, Yu.A.; POKHVISNEV, A.N.; SHAROV, S.I.

Processes in the hearth of a powerful blast furnace. Izv. vys. ucheb. zav.; chern. met. 7 no.11:34-40 '64. (MIRA 17:12)

1. Moskovskiy institut stali i splavov.

POKHVISNEV, A.N.; SHAROV, S.I.; ZHILKIN, N.K.; ORLOV, Yu.A.; MATVEYEV, P.M.; VASIL'YEV, S.V.; VIZLOV, Ye.M.

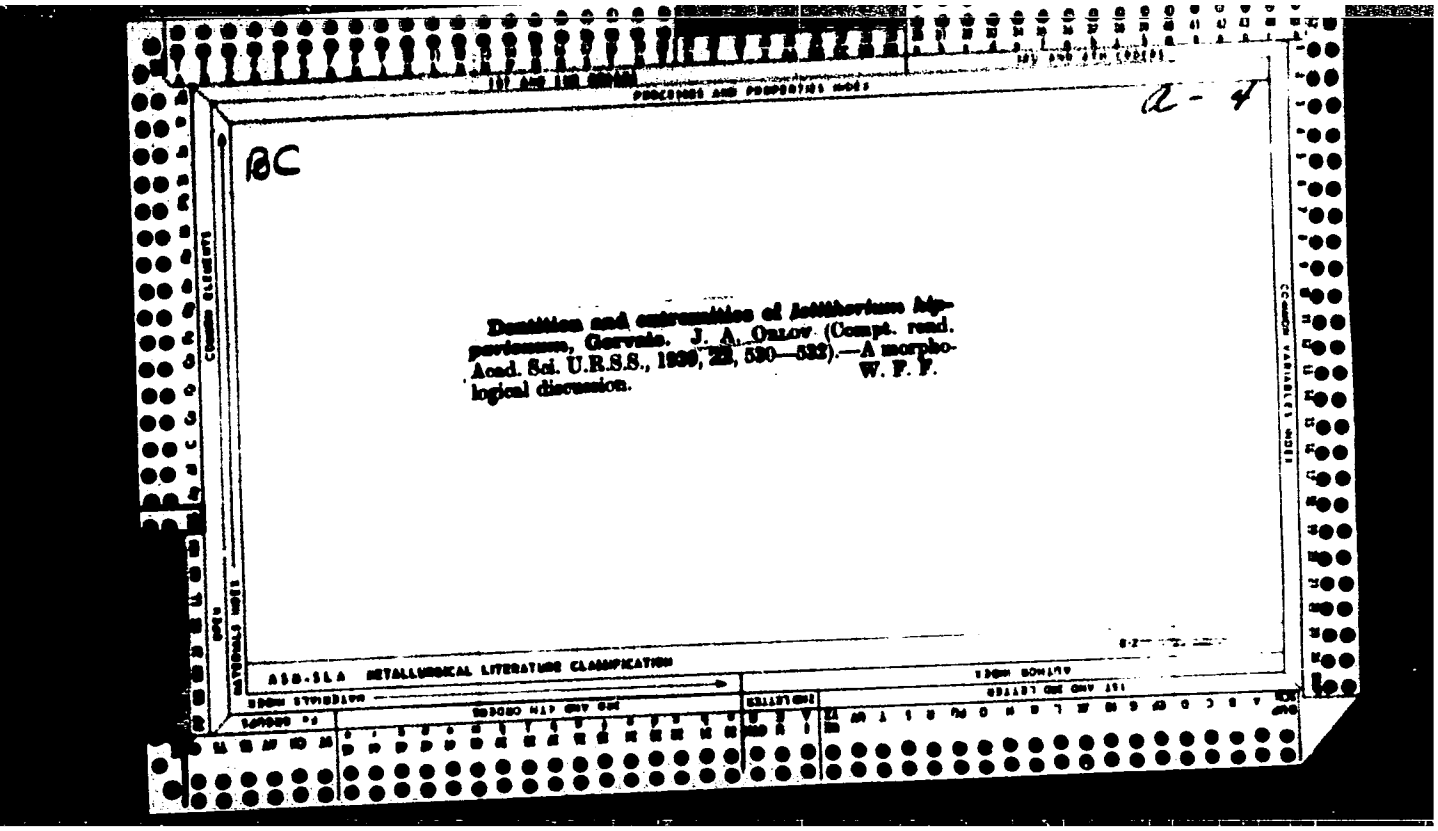
Operation of a 2,000 m^3 capacity blast furnace. Metallurg. 9 no.1:7-11 Ja '64 (MIRA 18:1)

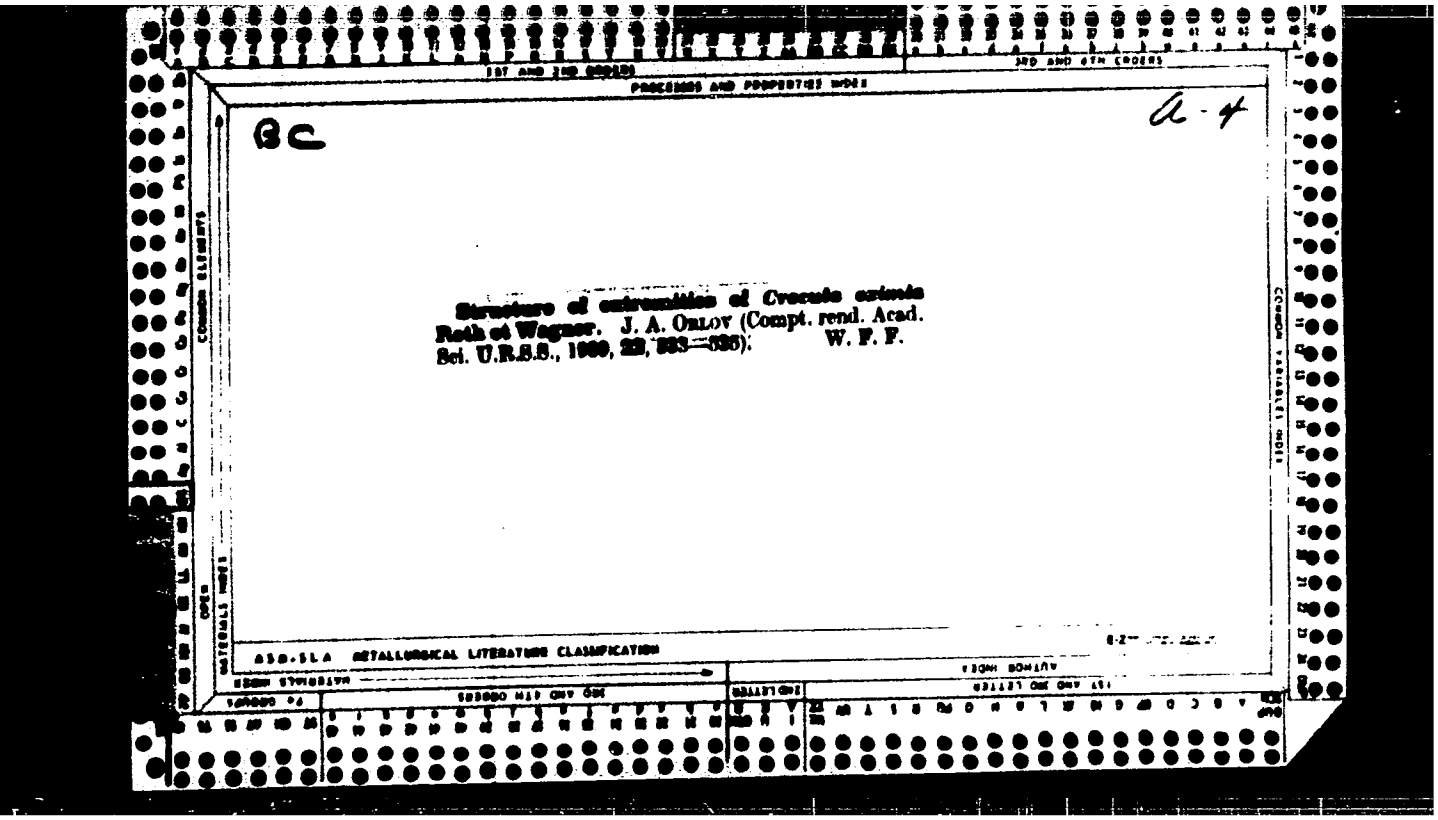


BC

a-4

Structure of extremities of *P. vetustidens* cranus, Zdansky. J. A. Orlov (Compt. rend. Acad. Sci. U.S.S.R., 1933, 28, 357—359).—The specialisation of the fore and hind extremities of the badger is discussed relative to the habits and the origins of the species.
W. F. F.





BC

a-4

Structure of extremities of Crocuta crocuta Roth et Wagner. J. A. Orlov (Compt. rend. Acad. Sci. U.R.S.S., 1939, 22, 383—386). W. F. F.

ORLOV, YU. A., Professor

"Academician Alekseyy Alekseevich Borisyak."
Vest. Ak. Nauk SSSR, No. 6, 1951.

Report U-1171, 7 November 1951.

ORLOV, Yu. A.

Mbr., Paleontolo[illegible] Institute, Acad. Sci., - [illegible] -

"New Fossils o[illegible]e Peruni[illegible] [illegible] from the [illegible] Tertiar[illegible] Strata [illegible] Ukraine," Dok. A[illegible], [illegible], [illegible], 194[illegible]

NEKHOROSHEV, V.P.; ORLOV, Yu.A., glavnyy redaktor izdaniya; SHUL'GA-NESTERENKO, M.I., redaktor; MALIVKIN, D.V., redaktor; GEKKER, R.F., redaktor; KRISHTOFOVICH, A.N., redaktor; LIBROVICH, L.S., redaktor; LIKHAREV, B.K., redaktor; SLODKEVICH, V.S., redaktor; EBERZIN, A.G., redaktor; YANISHEVSKIY, M.E., redaktor; MERKLIN, R.L., redaktor; AUZAN, N.P., tekhnicheskiy redaktor

[Paleontology of the U.S.S.R.] Paleontologiia SSSR. Moskva, Izd-vo Akad.nauk SSSR. Vol.3, pt.2, no.1. Nekhoroshev, V.P.,[Devonian Bryozva of the Altai Territory] Devonskie mshanki Altaia. 1948. 172 p. 48 p. of illus. (MIRA 10:7)

1. Direktor Paleontologicheskogo instituta (for Orlov)
(Altai Territory--Polyzoa, Fossil)

ORLOV Yu A

RUZHENTSEV, V.Ye.; ORLOV, Yu.A., doktor biologicheskikh nauk, otvetstvennyy redaktor; AVDUSINA, Ye.I., redaktor izdatel'stva; ZELENKOVA, G.V., tekhnicheskiy redaktor.

[Systematics and evolution of the families Pronoritidae Frech and Medlicottiidae Karpinsky.] Sistematika i evoliutsiia semeistv Pronoritidae Frech i Medlicottidae Karpinsky. Moskva, Izd-vo Akad. nauk SSSR, 1949. 193 p. (Akademiia nauk SSSR. Paleontologicheskii institut. Trudy, vol.19). (MLRA 10:7)
(Brachiopoda)

ORLOV, Yu. A.

21572 ORLOV, Yu. A.

A. A. Borisyak i paleontologiya pozvonochnykh.
Trudy Paleontol. in-ta (Akad. nauk SSSR), t. XX, 1949, s. 29 - 44.

SO: Letopis' Zhurnal'nykh Statey, No. 27, Moskva, 1949.

ORLOV, Yu. A.

21553 ORLOV, Yu. A.

Paleonavrologiya kak odin iz razdelov paleontologii pozvonochn[illegible].
Trudy Paleontol. in - ta (Akad. nauk SSSR), t. XX, 1949, s. 57 - 66.
Bibliogr: 9, NAZV.

SO: Letopis' Zhurnal'nykh Statey, No. [illegible], Moskva, 1949.

1. ORLOV, YU. A.

2. USSR (600)

4. Paleontology

7. Soviet paleontology. Izv. AN SSSR. Ser. biol. no. 3, 1952

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

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

ORLOV, Y. A. PDF

USSR/Geophysics - Paleontology Jul 52

"Prominent Soviet Paleontologists," Prof Yu. A. Orlov, Dr Biol Sci

"Nauka i Zhizn'" No 7, pp 36-37

Presents bibliographical sketch of A. A. Borisyak (1872-1945), prominent paleontologist, geologist and pedagogue. Main works include a geological study of Crimea, Don Basin, and Donets Basin. Borisyak was Stalin Prize winner in 1943.

244T89

ORLOV, YU.A.

Mongolia--Paleontology

Activities of the Soviet paleontologists in Central Asia. [illegible]

9. Monthly List of Russian Accessions, Library of Congress, [illegible] 1953. Unclassified.

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

ORLOV, YU.
"Work of the Soviet paleontologist in Central Asia. Tr. from the Russian". (.47)
PRIRODA (Bulgarska Akademiia Na Naukite) Sofiya Vol 2 No 6 Nov/Dec 1953

SO: East European Accessions List Vol 3 No 6 Aug 1954

ORLOV, Yu.A.,

[Vertebrate paleontology in the U.S.S.R.] Paleontologiia pozvonochnykh v SSSR. Moskva, Izd-vo Akademii nauk SSSR, 1954.28 p. (MLRA 9:5)
(Paleontology)

ORLOV, YU. A.

USSR/ Scientists - Paleontology

Card 1/1 Pub. 46 - 12/24

Authors : Orlov, Yu. A.

Title : Florentino Ameghino (1854-1911)

Periodical : Izv. AN SSSR. Ser. geol. 6, 107-108, Nov-Dec 1954

Abstract : Eulogy is presented honoring the 100-th anniversary of the birth of Florentino Ameghino famous Argentinian paleontologist (1854-1911).

Institution : .....

Submitted : September 2, 1954

ORLOV, Yu.A.

Florentino Ameghino and his role in the development of the paleontology of vertebrates. Izv. AN SSSR. Ser. biol. no.6:117-124 N-D '54. (MLRA 8:3)
(AMEGHINO, FLORENTINO, 1854-1911)
(PALEONTOLOGY)

ORLOV, YU. A.

USSR/Scientists

Card 1/1 : Pub. 124 - 21/24

Authors : Orlov, Yu. A., Memb. Corresp. of Acad. of Sc. USSR

Title : Memorable dates

Periodical : Vest. AN SSSR 11, 95-96, November 1954

Abstract : Editorial honoring the 100th birthday of the Argentinian scientist-paleontologist Florentino Amegino is presented.

Institution : .....

Submitted : .....

ORlov, Yu. A.
USSR/Scientists - Paleontology

Card 1/1 : Pub. 86 - 34/38

Authors : Orlov, Yu. A.

Title : Life story of Florentino Ameghino, Argentine scientist

Periodical : Priroda 43/12, 118-119, Dec 1954

Abstract : The author reviews a book, by Fernando Marques Miranda, on the life and work of the Argentine physician, Florentino Ameghino (born 1854), who contributed to paleontological knowledge. Illustration.

Institution : .....

Submitted : .....

ORLOV, Yu. A.

"Principal Accomplishments in the Investigation of the Paleontology of the Vertebrates of the USSR," Lomonosov Lectures in 1956, Vest. Mosk. U., Physico Math and Natural Sciences Series, 4, No. 6, pp 147-160., 1956, Geology Faculty

Translation U-3054,363

ORLOV, Yu.A.

Visiting French paleontologists. Izv.AN SSSR. Ser.biol. no.5:110-115 S-O '56. (MLRA 9:12)

1. Paleontologicheskiy institut Akademii nauk SSSR.
(FRANCE--PALEONTOLOGY) (VERTEBRATES, FOSSIL)

ORLOV, Yuriy Aleksandrovich; OBRUCHEV, D.V., otv.red.; NEVESSKAYA, L.A., red.izd-va; ZELENKOVA, Ye.V., tekhn.red.

[Predaceous Deinocephalia (Titanosuchidae) og the fauna of Isheyevo] Khishchnye deinotsefaly fauny Isheeva (Titanozukhi). Moskva, Izd-vo AN SSSR, 1958. 112 p. (Paleontologicheskii institut. Trudy, vol. 72) (Isheyevo region--Reptiles, Fossil) (MIRA 11:11)

ORLOV, Yu.A.

Some improvements in the technique of paleontological research.
Paleont. zhur. no.4:129-131 '60. (MIRA 14:1)

1. Paleontologicheskiy institut AN SSSR.
(Paleontological research)

ORLOV, Yuriy Aleksandrovich; ANTONYUK, L.D., red. izd-va; ASTAF'YEVA, G.A., tekhn. red.

[In the world of ancient animals; studies in vertebrate paleontology] V mire drevnikh zhivotnykh; ocherki po paleontologii pozvonochnykh. Moskva, Izd-vo Akad.nauk SSSR, 1961. 189 p. (MIRA 14:6)
(Vertebrates, Fossil)

ORLOV, Yu.A.; SOKOLOV, B.S.

Visiting Polish paleontologists. Paleont. zhur. no.2:137-139 '61. (MIRA 14:6)

(Poland--Paleontological research)

ORLOV, Yu.A.

Paleontological problems in the light of the decisions of the CPSU. (MIRA 15:3)
Paleont.zhur. no.1:3-7 '62.
(Paleontology)

ORLOV, Yu. A.

Training of paleontologists. Paleont. zhur. no.2:3-8 '62. (MIRA 15:10)

(Paleontology—Study and teaching)

ORLOV, Yu. A.

Elena Domet'evna Konzhukova; obituary. Paleont. zhur. no.2: 180-182 '62. (MIRA 15:10)

(Konzhukova, Elena Domet'evna, 1902-1961)

ORLOV, Yu.A.

International Paleontological Conference in Paris, 1961. Paleont. zhur. no.3:138-143 '62. (MIRA 15:9)
(Paleontology--Congresses)

ORLOV, Yu.A.

Meeting of the Paleontological Society in Tübingen. Paleont.zhur. no.1:147-150 '63. (MIRA 16:4)

(Paleontological societies)

ORLOV, Yu.A., otv. red.; GABUNIYA, L.K., red.; TROFIMOV, B.A., red.; FLEROV, K.K., red.; YANOVSKAYA, N.M., red.

[Tertiary mammals] Tretichnye mlekopitaiushchie. Moskva, Izd-vo "Nauka," 1964. 57 p. (Its Doklady sovetskikh paleontologov. Problema 8) (MIRA 17:6)

1. International Geological Congress, 22d, 1964.

ORLOV, Yu.A.

On one problem of the vertebrate palentology in the U.S.S.R. Paleont. zhur. no. 1:131-132 '64. (MIRA 17:7)

1. Paleontologicheskiy institut AN SSSR.

MAKR DIN, Vladimir Petrovich; GEKOV, Yu.A., akademik, retsenzent;
SHIMANSKIY, V.N., prof., retsenzent; KAMYSHEVA-ELIASHEVA,
V.G., prof., retsenzent; GERKEN, B.F., prof., retsenzent;
STEPANOV, D.L., prof., retsenzent; STERLIN, B.I., otv. red.

[Jurassic brachiopods of the Russian Platform and
regions adjacent to it] Brakhiopody iurskikh
Moskva, Nedra, 1 [illegible].

ORLOV, Yu.A., glav. red.; ROZHDESTVENSKIY, A.K., otv. red.;
TATARINOV, L.P., otv. red.

[Fundamentals of paleontology; manual for paleontologists and geologists of the U.S.S.R. in 15 volumes] Osnovy paleontologii; spravochnik dlia paleontologov i geologov SSSR v piatnadtsati tomakh. Glav. red. IU.A.Orlov. Moskva, Izd-vo "Nauka." Vol.12. [Amphibians, reptiles, and birds] Zemnovodnye, presmykaiushchiesia i ptitsy. 1964. 721 p. (MIRA 17:5)

GORELOV, Yu.K.; [illegible]LOV, Yu.A.

[illegible] forms of the Indian rat snake (Ptyas mucosus L.). Izv. [illegible] (MIRA 18:[illegible])
Turkm.SSR.Ser.biol.nauk no.4:94-95 '65.

1. Badkhyzskiy gosudarstvennyy zapovednik i Kirgizskaya baza Vsesoyuznogo zoob"yedineniya.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123[illegible]

L 15631-65 Pb-4/Pa-4/AMD

ACCESSION NR: AP4043844 S/0020/64/157/005/1216/1218

B

AUTHOR: Utina, I. A.; Orlov, Yu. A. (Academician)

TITLE: Changes in the ribonucleic acid content of horizontal and amacrine cells of the frog retina under varying illumination conditions

SOURCE: AN SSSR. Doklady*, v. 157, no. 5, 1964, 1216-1218

TOPIC TAGS: ribonucleic acid, RNA content, retinal cell, horizontal cell, amacrine cell, continuous light, flashing light, electrophysiological retinal cell response, retinal cell RNA increase, light frequency

ABSTRACT: Irritation by flashing light is known to increase the RNA content in the title cells. The studies aimed at obtaining additional electrophysiological data on their functional properties. The frogs were immobilized with diplacin, one lot was kept in the dark, the other under continous or flashing light (100 lux) of varying frequency (1 or 5 hertz) at 1:5 ratio of light to dark. RNA amount was determined in the cytoplasm and the nucleus. The test material, obtained

Card 1/2

L 15631-65
ACCESSION NR: AP4043844

after one hour of illumination, was studied by photographic cytophotometry. Results show a RNA increase in both amacrine and horizontal cells to occur solely with flashing light; this is an unexpected result, since electrical reaction of the horizontal cells to light irritation is known to differ considerably from that of other retinal nerve cells (ganglion, bipolar). This RNA content increased linearly with increase in light frequency. This result points towards a possible similarity of the functional properties of both types of cells. "The author wishes to thank A. L. By*zov and V. Ya. Broadski for their help with this work." Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Institut problem peredachi informatsii Akademii nauk SSSR (Institute of Information Transmission, Academy of Sciences SSSR)

SUBMITTED: 29Nov63 ENCL: 00

SUB CODE: LS NO REF SOV: 009 OTHER: 009

Card 2/2

L 1430-66 EWT(m) DIAAP

ACCESSION NR: AP5020838 UR/0020/65/163/004/1001/1002

AUTHOR: Prokof'yeva-Bel'govskaya, A. A.; Pankova, N. V.; Orlov, Yu. A. 44,55

TITLE: Differential radiation injury of parent sets of chromosomes 19,44,55

SOURCE: AN SSSR. Doklady, v. 163, no. 4, 1965, 1001-1002, and insert facing p. 1002

TOPIC TAGS: experiment animal, radiation biologic effect, animal genetics

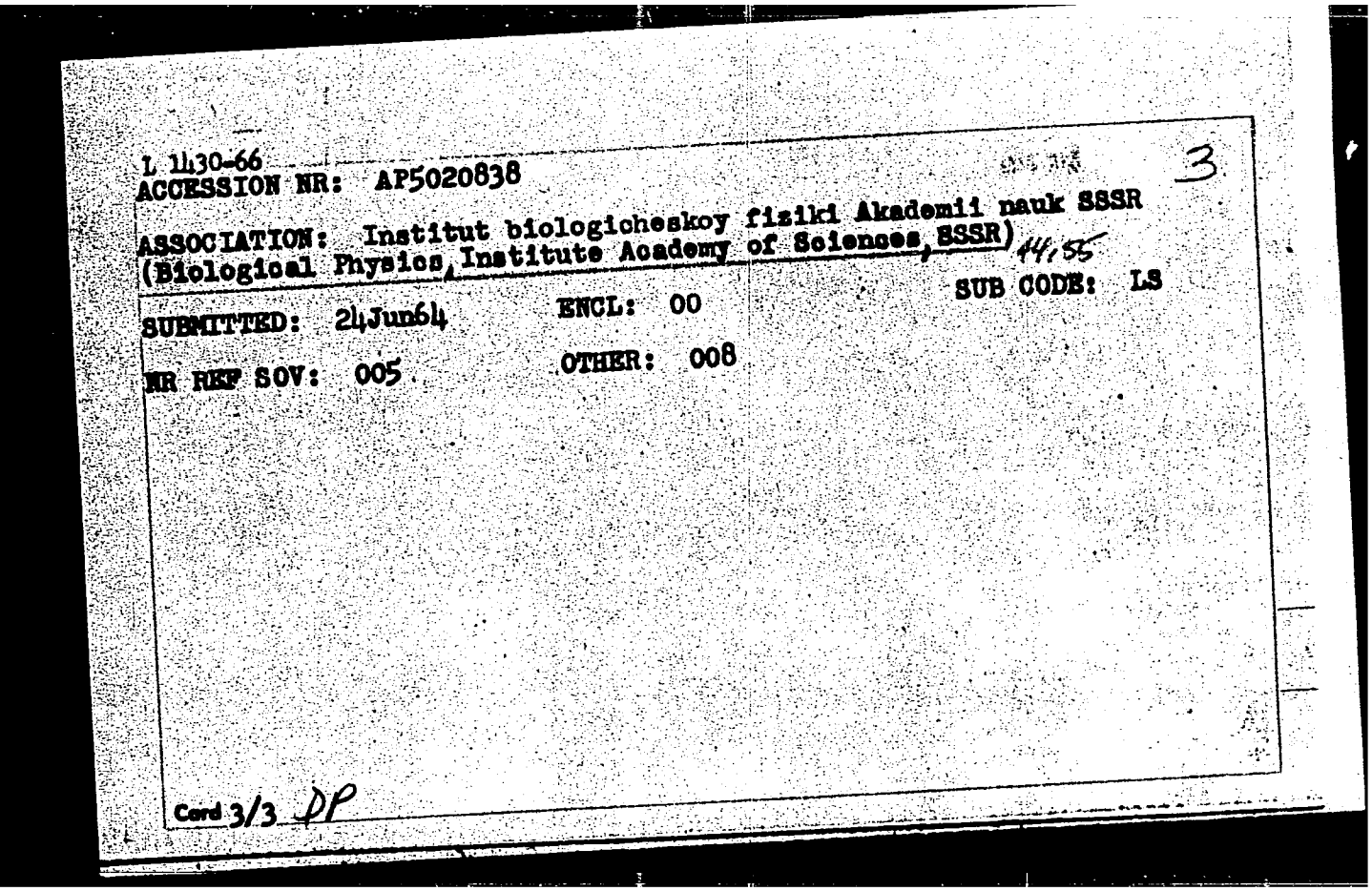
ABSTRACT: Parent sets of chromosomes were investigated in salmon (Salmo salar L.) and groundling (Misgurnus fossilis) fertilized ova in different stages of cleavage to determine radiosensitivity differences. The groundling fertilized ova were irradiated with a 1000 r dose (165 kv, 15 ma, focal length 20 cm, 485 r/min) in the third stage of cleavage, and the salmon fertilized ova were irradiated with an 800 r dose in the fourth stage of cleavage. The irradiated embryos were fixed in the middle and late blastula stages and also the gastrula stage. Chromosome injuries were determined in prepara-

Card 1/3

L 1430-66
ACCESSION NR: AP5020838

tions of crushed stained embryos. In earlier morphological studies of salmon and groundling blastomeres, the dual structure of the nucleus observed in the interphase was found to correspond in the metaphase to two chromosome complexes which remained separate in all developmental stages. In the present study, only one of the two chromosome complexes forming the blastomere nucleus in an irradiated embryo was damaged. In some embryos, the maternal complex with its loosely distributed chromosomes was damaged, and in other embryos the paternal complex with its closely arranged chromosomes was found damaged. These differential radiation injuries of the parental set of chromosomes were observed in the metaphase stage as well as the anaphase-telophase stages. The effects of the initial chromosome breaks, usually of the chromosome and chromated bridges in the bridge-breakage-fusion cycle, were carried through to the blastula stage several cell generations after irradiation. However, the presence of certain types of fragments indicates that some chromosome aberrations are the result of breaks occurring several generations after irradiation. Radiation injury differences of parental chromosome complexes appear dependent on the developmental stage at the moment of irradiation. Orig. art. has: 1 table.

Card 2/3



L 1430-66
ACCESSION NR: AP5020838

3

ASSOCIATION: Institut biologicheskoy fiziki Akademii nauk SSSR (Biological Physics Institute Academy of Sciences, SSSR) 44,55

SUBMITTED: 24Jun64 ENCL: 00 SUB CODE: LS

NR REF SOV: 005 OTHER: 008

Card 3/3 DP

L 9872-66 EWT(m)
ACC NR: AT5024007 SOURCE CODE: UR/0020/65/164/002/0437/0440

AUTHOR: Aleksandrov, I. D.; Orlov, Yu. A. (Academician)

ORG: IBFANS

ORG: Institute of Biological Physics AN SSSR (Institut biologicheskoy fiziki AN SSSR)

TITLE: The correlation of two forms of postradiational destruction of cells in the bone marrow of mice with and without protection by meksamine

SOURCE: AN SSSR. Doklady, v. 164, no. 2, 1965, 437-440

TOPIC TAGS: irradiation, experiment animal, radiation protection, bone marrow

ABSTRACT: An attempt was made to estimate quantitatively the destruction of cells in the interphase and after the division, during the first two cycles following irradiation, and to establish the prophylactic merits of meksamine (5-methoxytryptamine) (I). The experiments were carried out on white mice. I.HCl was introduced intraperitonially 25-30 min. before irradiation, in doses 0.2 ml.,

1/2

equimolar to 75.5 mg. base per kg. Control animals received an equal volume of physiological salt solution. The irradiation (X-rays) conditions were: 190 kv. 15 mamp., filter 0.75 mm. Al and 0.5 mm Cu, intensity 25.6 r./min. distance 55 cm, total dose 50 r. The animals were killed at various intervals, from 15 min. to 66 hours. The number of degenerated cells (pyknosis and karyorrhexis) was counted for each animal in preparations amidst not less than 2000 morphologically unchanged cells, and the average percent degeneration was calculated against time. An assumption that cells with deformed chromosomes perish during mitosis made possible a theoretical calculation of the number of cells that is destroyed in this stage. The results show that even after a comparatively small dose during the first postradiational cell cycle, the interphase destruction of the bone marrow elements considerably prevails over the postmitotic destruction. It was found that (I) gives some protection against the lethal effect which results from the structural changes in the chromosomes and does not give any protection against the action of radiation which causes the destruction of the cells prior to their postradiational division. Orig. art. has: 1 figure.

SUB CODE: 06/ SUBM DATE: 14Nov64/ NR REF SOV: 012/ OTHER: 006

2/2

L 48119-65 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG

ACCESSION NR: AP5008485 S/0078/65/010/003/0693/0696

17
16
B

AUTHOR: Shvedov, V. P.; Orlov, Yu. F.

TITLE: Extraction of rare-earth elements by butyl phenyl phosphates

SOURCE: Zhurnal neorganicheskoy khimii, v. 10, no. 3, 1965, 693-696

TOPIC TAGS: cerium nitrate extraction, cerium, cerium nitrate, praseodymium, lanthenum, neodymium, extractant, triphenyl phosphate, butyl phenyl phosphate, dibutyl phenyl phosphate, diphenyl butyl phosphate, tributyl phosphate, partition, extraction, rare earth element, rare earth element extraction

ABSTRACT: Nitrates of Cr(III), Pr, La, and Nd have been extracted with dibutyl phenyl phosphate (DBPP) diphenyl butyl phosphate (DPBP), and the effect of substituting phenyl groups for butyl groups in tributyl phosphate (TBP) on the extraction and separation of the nitrates has been studied. The results show that: 1) the extraction of Ce(III) and Pr drastically decreases in the following order: [illegible] practically remain constant; and

2) the separation factors of [illegible] by TBP. The results [illegible] have the same value of 2 obtained for the extraction by TBP. The results are given in Table 1 of the Enclosure. Orig. art. has: 1 table.

Card 1/2

L 48119-65

ACCESSION NR: AP5008485

ASSOCIATION: Leningradskiy tekhnologicheskiy institut im. Lensoveta (Leningrad Technological Institute)

SUBMITTED: 16Sep63 ENCL: 01 SUB CODE: IC

NO REF SOV: 006 OTHER: 007

Card 2/2

L 51069-65 EWT(m)/EPA(w)-2/EWA(m)-2 Pab-10/Pt-7 IJP(c)

ACCESSION NR: AP5009108 S/0089/65/018/003/0209/0213

34
B

AUTHOR: Vecheslavov, V. V.; Orlov, Yu. F.

TITLE: Accelerator with nonlinear spiral focusing 19

SOURCE: Atomnaya energiya, v. 18, no. 3, 1965, 209-213

TOPIC TAGS: particle accelerator, strong focusing, linear focusing, spiral focusing, cubic field, accelerator stability, self phasing accelerator

ABSTRACT: This work is related to an earlier study (ZhETF v. 45, 932, 1963) devoted to the solution of the equations of motion of a charged particle in a nonlinear spiral field. In the present article it is proposed to use a spiral field for transverse slow-phasing in order to avoid passing through resonance during the time of the acceleration. Since there is no constant magnetic field, the usual synchro-