"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D. M.

STENON, Nikolay [Steno, Nicolaus]; STRATANOVSKIY, G.A. [translator]; BELOUSOV, V.V., redaktor; SHAFRANOVSKIY, I.I., professor, redaktor; PETROVSKIY, I.G., akademik, redaktor; ANDREYEV, N.N., akademik, redaktor; BYKOV, K.M., akademik, redaktor; KAZANSKIY, B.A., akademik, redaktor; SHCHERBAKOV, D.I., akademik, redaktor; YUDIN, P.F., akademik, redaktor; DELONE, P.N., redaktor; KOSHTOYANTS, Kh.S., redaktor; SAMARIN, A.M., redaktor; LEBEDEV, D.M., professor, redaktor; FIGUROVSKIY, N.A., professor, redaktor; KUZNETSOV, I.V., kandidat filosofskikh nauk, redaktor; ZAYCHIK, N.K., redaktor izdatel'stva; SMIRNOVA, A.V., tekhnicheskiy redaktor

[A solid body enclosed by nature within a solid. Translated from the Latin] O tverdom, estestvenno soderzhashchemsia v tverdom. Perevod G.A.Stratanovskogo. Redaktsiia, stat'i i primechaniia V.V.Belousova, i I.I.Shafranovskogo. [Leningrad] Izd-vo Akad.nauk SSSR, 1957. 150 p. (MLRA 10:10)

1. Chlen-korrespondent Akademii nauk SSSR (for Belousov, Delane, Koshtoyants, Samarin)
(Geology)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, Dmitriy Mikhaylovich; GRIGOR'YEV, A.A., akademik, otvetstvenyy redaktor; SENILOVA, M.N., redaktor izdatel'stva; ASTAF'YEVA, G.A., tekhnicheskiy redaktor.

[Outline history of geography in Russia during the 18th century (1725-1800)] Ocherki po istorii geografii v Rossii XVIII v. (1725-1800 gg.). Moskva, Izd-vo Akad. nauk SSSR, 1957. 271 p. (MIRA 10:11)

(Geography--History)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D.M.

"Selected works, vol.1: History of Science" by L.S. Berg [akademik]. Reviewed by D.M. Lebedev. Izv. AN SSSR Ser. geog. no.2:154-156 Mr-Ap '57. (MIRA 10:12)

(Geography--Collected works)
(Berg, L.S.)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D.M., doktor geograficheskikh nauk (Moskva).

Russian explorations of the North ("Arctic voyages from ancient times to the middle of the 19th century" by M.I.Belov. Reviewed by D.M.Lebedev). Priroda no.6:116-118 Je '57. (MIRA 10:7)
(Northeast Passage) (Belov, M.I.)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

Lebedev D.M.

10-58-3-13/29

AUTHORS: Grekov, V.I., Lebedev, D.M., Ye.R. Lopatina, Fradkin, N.G.

TITLE: Memorable Dates From the History of Geographical Science (Pamyatnyye daty iz istorii geograficheskoy nauki)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geograficheskaya, 1958, Nr. 3, pp 84-87 (USSR)

ABSTRACT: With this article the periodical starts to publish biographical sketches of outstanding Soviet and foreign geographers.

AVAILABLE: Library of Congress

Card 1/1

1. Biographies - Geographers 2. Periodicals - USSR

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

SOV/10-59-1-15/32

AUTHORS: Grekov, V.I., Kamanin, L.G., Lebedev, D.M., Fradkin, N.G.

TITLE: Memorable Dates From the History of Geographical Science, Third Review (Pamyatnyye daty iz istorii geograficheskoy nauki - Obzor tretiy)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya geograficheskaya, 1959, Nr 1, pp 106-108 (USSR)

ABSTRACT: This survey covers 10 memorable dates from the 18th and early 19th centuries.

Card 1/1

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

GREKOV, Vadim Ivanovich; PATULOV, A.A., kartograf; GRIGOR'YEV, A.A., akademik, otv.red.; LEBEDEV, D.M., doktor geograf.nauk, otv.red.; SELYAVINA, T.D., red.izd-va; POLYAKOVA, T.V., tekhn.red.

[Outline history of Russian geographical explorations from 1725 to 1765] Ocherki iz istorii russkikh geograficheskikh issledovanii v 1725-1765 gg. Moskva, Izd-vo Akad.nauk SSSR, 1960. 425 p. (MIRA 13:7)

1. Institut geografii AN SSSR (for Potulov).
(Russia--Discovery and exploration)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

MENDELEYEV, Dmitriy Ivanovich [deceased]; KEDROV, B.M., red.; PETROVSKIY, I.G., akademik, red.; ANDREYEV, N.N., akademik, red.; BYKOV, K.M., akademik, red. [deceased]; KAZANSKIY, B.A., akademik, red.; SHMIDT, O.Yu., akademik, red. [deceased]; SHCHERBAKOV, D.I., red.; YUDIN, P.F., akademik, red.; DELONE, B.N., red.; KOSHTOYANTS, Kh.S., red.; SAMARIN, A.M., red.; LEBEDEV, D.M., prof., red.; FIGUROVSKIY, N.A., prof., red.; KUZNETSOV, I.V., kand.filosof.nauk, red.; TRIFONOV, D.N., red.izd-va; NOVICHKOVA, N.D., tekhn.red.

[Periodic law; supplementary materials] Periodicheskii zakon; dopolnitel'nye materialy. Red.i kommentarii B.M.Kedrova. Moskva, Izd-vo Akad.nauk SSSR, 1960. 711 p. (MIRA 14:2)

1. Chleny-korrespondenty AN SSSR (for Delone, Koshtoyants, Samarin). (Periodic law)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D.M.

PASTER, Lui [Pasteur, Louis]; IMSHENETSKIY, A.A., red.; PETROVSKIY, I.G., akademik, red.; ANDREYEV, N.N., akademik, red.; BYKOV, K.M., akademik, red. [deceased]; KAZANSKIY, B.A., akademik, red.; OPARIN, A.I., akademik, red.; SHMIDT, O.Yu., akademik, red. [deceased]; SHCHERBAKOV, D.I., akademik, red.; YUDIN, P.F., akademik, red.; KOSHTOYANTS, Kh.S., red.; SAMARIN, A.M., red.; MAKSIMOV, A.A., red.; LEBEDEV, D.M., doktor geograf.nauk, red.; FIGUROVSKIY, N.A., doktor khim.nauk, red.; KUZNETSOV, I.V., kand. filosof.nauk, red.; OZNOBISHIN, D.V., kand.istor.nauk, red.; MATVEYENKO, T.A., red.izd-va; DOROKHINA, I.N., tekhn.red.

[Selected works in two volumes] Izbrannye trudy v dvukh tomakh. Red.A.A.Imshenetskogo. Moskva, Izd-vo Akad.nauk SSSR. Vol.1. 1960. 1012 p. (MIRA 13:11)

1. Chleny-korrespondenty AN SSSR (for Imshenetskiy, Koshtoyants, Samarin, Maksimov).
(MICROBIOLOGY)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LOMONOSOV, Mikhail Vasil'yevich; TOPCHIYEV, A.V., akad., red.; PETROVSKIY, I.G., akad., red.; ANDREYEV, P.N., akad., red.; BYKOV, K.M., akad.,red.; KAZANSKIY, V.A., akad., red.; SHMIDT, O.Yu., akad., red.; SHCHERBAKOV, D.I., akad., red.; YUDIN, P.F., akad., red.; DELONE, B.N., red.; KOSHTOYANTS, Kh.S., red.; SAMARIN, A.M., red.; LEBEDEV, D.M., prof., red.; FIGUROVSKIY, N.A., prof., red.; KUZNETSOV, I.V., kand. filos. nauk, red.; BERKOVICH, D.M., red. izd-va; NOVICHKOVA, N.D., tekhn. red.; KASHINA, P.Ye., tekhn. red.

[Selected works in chemistry and physics] Izbrannye trudy po khimii i fizike. Red.A.V.Topchieva. Stat'ia N.A.Figurovskogo. Primechaniia G.A.Andreevoi, O.A.Lezhnevoi i N.A.Figurovskogo. Moskva, Izd-vo Akad. nauk SSSR, 1961. 560 p. (MIRA 14:11)

1. Chlen-korrespondent AN SSSR (for Delone, Koshtoyants, Samarin).
(Lomonosov, Mikhail Vasil'evich, 1711-1765)
(Chemistry) (Physics)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D.M., doktor geograf.nauk

Russian seafarers to the southern continent; 140th anniversary of the end of the first round-the-world Antarctic expedition of F.F. Bellingshausen and M.P. Lazarev. Priroda 50 no.9:78-83 S '61. (MIRA 14:8)

1. Institut geografii AN SSSR (Moskva).
(Bellingshausen, Faddei Faddeievich, 1779-1852)
(Lazarev, Mikhail Petrovich, 1788-1851)
(Antarctic regions—Russian exploration)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

GAYUI, Rene Zhyust [Hauy, Rene-Just]; SHAFRANOVSKIY, I.I., prof.; ZABOTKINA, O.S.[translator]; STRATANOVSKIY, G.A.[translator]; SHUBNIKOV, A.V., akademik, red.; BOKIY, G.B., red.; PETROVSKIY, I.G., akademik, red.; ANDREYEV, N.N., akademik, red.; KAZANSKIY, B.A., akademik, red.; YUDIN, P.F., akademik, red.; DELONE, B.N., red.; SAMARIN, A.M., red.; ZUBOV, V.P., prof.,red; LEBEDEV, D.N., prof., red.; FIGUROVSKIY, N.A., prof., red.; ~~KUZNETSOV, I.V.~~, kand. filos. nauk, red.; OZNOBISHIN, D.V.,kand. istor. nauk, red.; SUSHKOVA, T.I., red. izd-va; SMIRNOVA, A.V., tekhn. red.

[Structure of crystals; selected works] Struktura kristallov; izbrannye trudy. Sostavlenie, stat'ia i primechaniia I.I. Shafranovskogo. Redaktsiia A.V.Shubnikova i G.B.Bokiia. Moskva, Izd-vo Akad. nauk SSSR, 1962. 175 p. Translated from the French. (MIRA 15:3)

1. Chlen-korrespondent Akademii nauk SSSR (for Bokiy, Delone, Samarin).

(Crystallography)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D.M., doktor geograf.nauk

Outstanding scientist and traveler: 250th anniversary of the birth of S.P.Krasheninnikov. Priroda 51 no.2:96-99 F '62. (MIRA 15:2)

1. Institut geografii AN SSSR, Moskva.
(Krasheninnikov, Stepan Petrovich, 1711-1755)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

AGRIKOLA, Georgiy [Agricola, Georg]; GAL'MINAS, V.A.[translator]; DROBINSKIY, A.I.[translator]; SHUKHARDIN, S.V., red.; PETROVSKIY, I.G., akademik, red.; ANDREYEV, N.N., akademik, red.; KAZANSKIY, B.A., akademik, red.; YUDIN, P.F., akademik, red.; DELONE, B.N., red.; SAMARIN, A.M., red.; ZUBOV, V.P., prof., red.; ~~LEBEDEV, D.M.~~, prof., red.; FIGUROVSKIY, N.A., prof., red.; KUZNETSOV, I.V., doktor filos. nauk, red.; BORODINA, R.M., red. izd-va; YEPIFANOVA, L.V., tekhn. red.; DOROKHINA, I.N., tekhn. red.

[Mining and metallurgy; in twelve books]O gornom dele i metallurgii; v dvenadtsati knigakh. Red. S.V.Shukhardina, perevod i primechaniia V.A.Gal'minasa i A.I.Drobinskogo. Moskva, Izd-vo Akad. nauk SSSR, 1962. 597 p. (MIRA 15:8)

1. Chlen-korrespondent Akademii nauk SSSR (for Delone, Samarin).
(Mines and mineral resources)
(Metalwork)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D.A.

Electrokinetic phenomena [illegible] origin of peat. Trudy Hal. torf. Inst. no.13:190-197 '63. (MIRA 17:12)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D.N., inzh. (g.Kuybyshev); SARDANOVSKIY, N.N., inzh. (g.Kuybyshev)

Planning and construction of industrial sewage disposal fields for the irrigation of farm lands. Gidr. i mel. 13 no.4:30-38 Ap '61. (Kuybuyshev Province—Sewage irrigation)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D.N., inzh.

Coefficient of the irregularity of water consumption in irrigating a zone with unstable precipitation. Gidr. i mel. 15 no.10:23-25 O '63. (MIRA 17:2)

1. Kuybyshevskiy filial Vsesoyuznogo gosudarstvennogo proyektno-izyskatel'skogo i nauchno-issledovatel'skogo instituta vodokhozyaystvennogo stroitel'stva.

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L 63105-65 EWT(m)/EPF(c)/EPF(n)-2/EWG(m) WW/DM

ACCESSION NR: AP5014544 UR/0089/65/018/005/0522/0525
539.122:539.121.73

AUTHOR: Kozlovskiy, S. A.; Kyz'yurov, V. S.; Popkov, K. K.; Lebedev, D. N.

TITLE: Influence of boron-containing block structures on the yield of capture γ radiation

SOURCE: Atomnaya energiya, v. 18, no. 5, 1965, 522-525

TOPIC TAGS: reactor shielding, boron shielding, capture Gamma radiation, neutron distribution, thermal neutron, epithermal neutron

ABSTRACT: The authors investigated the effect of various boron-containing block structures on the amount of capture γ radiation that leaves the primary shield of a water-water reactor. The reactor shell, the heat screens, and the layers of water between the screens were imitated respectively by sheets of steel (St3) and Plexiglas measuring 800 x 800 mm. Block assemblies made of boron carbide and borated lead were tested. The geometry of the experiment is shown in Fig. 1 of the Enclosure. The emitter was a Po-Be source of 10^8 neut/sec. The spatial distribution of the neutrons in the shield with and without the block layers are plotted for both thermal and epithermal neutrons. The results are compared with calculations. The yields of the capture γ radiation were estimated from the areas under

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ACCESSION NR: AP5014544

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the curves. Certain discrepancies with the results of others are attributed to differences in the geometry. "The authors thank L. D. Broder for valuable advice, and V. N. Dorofeykov, V. G. Komov, L. G. Kocherova, V. A. Lazukov, and Yu. K. Spivak for help with the work." Orig. art. has: 6 figures.

ASSOCIATION: none

SUBMITTED: 22May64 ENCL: 01 SUB CODE: NP

NR REF SOV: 003 OTHER: 000

Card 2/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

L 63105-65
ACCESSION NR: AP5014544

ENCLOSURE: 01

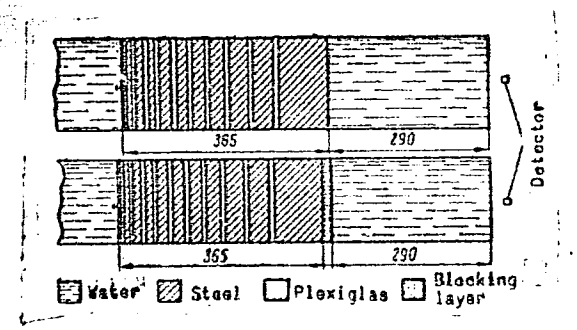

Fig. 1. Geometry of the experiment

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LEBEDEV, D.S.

PA - 2824

AUTHOR: GALITSKAYA, E.I., GARMASH, V.A., LEBEDEV, D.S.

TITLE: The Analytical Computers for the Statistical Analysis of Television Communications. (Primeneniye schetno - analiticheskikh mashin dlya statisticheskogo analiza televizionnykh soobshcheniye Russian)

PERIODICAL: Radiotekhnika, 1957, Vol 12, Nr 3, pp 53 - 56 (U.S.S.R.)
Received: 5 / 1957 Reviewed: 6 / 1957

ABSTRACT: Work in the case of the statistical analysis of an image is divided into two parts: The quantization and writing down of the values of the brightness coefficient of some elements on an intermediate member as which the standard telegraphy perforated band is used, the transmission of data from the perforated band to the perforated cards and evaluation of cards by means of analytic computers. A block scheme, which had been developed by one of the authors, is described. This serges for writing down the values of the brightness coefficient of the image elements. The possibility is shown how to obtain multidimensional functions of the probability of a distribution of brightness graduation of a television communicatinn by means of analytical computers. As communication, sections of cinema films were used. A onedimensional function for the distribution of probability, a correlation function, and the entropy value computed according to a twodimensional function of the probability distribution are shown for two images. The method of investigation

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PA - 2824

The Analtytical Computers for the Statistical Analysis of Television Communications.

described and the apparatus produced make the investigation of functions of the probability distributions of a higher order possible. As eighty different ten digit numbers can be put on each perforation card, functions of probability distributions up to the eightieth order can be investigated.
(3 illustrations and 6 citations from Slav publications)

ASSOCIATION: Not given.
PRESENTED BY:
SUBMITTED: 17.12.1956
AVAILABLE: Library of Congress.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D. S.

D. S. LEBEDEV, "Investigation of the statistics of television pictures." Scientific Session Devoted to "Radio Day", May 1958, Trudrezervizdat, Moscow, 9 Sep. 58

One of the possible methods of decreasing the channel capacity required to transmit television consists of using the statistical relations between the values of the brightness of neighboring elements of a television picture, which are specified by the presence of large monotone surfaces, by the sharpness of the fronts and by the fine details and slowness of the majority of the motions being transmitted.

In order to develop apparatus which would realize a possible decrease in the capacity required, it is necessary to know the probability of the combined appearance of different sets of values of the brightness of the picture elements which adjoin in space and time.

In order to calculate the gain to be obtained, it is necessary to find the entropy, a function of these probabilities.

A method is described herein to determine the probabilities mentioned which reduces to the measurement of the corresponding frequencies, the statistical (experimental) analogs of the probabilities.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D. S. Cand Tech Sci -- (diss) "Study of the possibility of ~~using~~ statistical coding in television." Mos, 1958. 8 pp (Min of Communications USSR. Mos Electrical Engineering Inst of Communications), 200 copies (KL, 36-58, 112)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

Lebedev, D.S.

INFORMATION THEORY TELEGRAPHY

"Possibility of Increasing the Speed of Transmission of Telegraph Messages", by D.S. Lebedev and V.A. Garmash, Elektrosvyaz', No 1, January 1958, pp 68-69.

The possibility of increasing the speed of transmission of telegraph messages is examined, using the statistics of three-latter combinations as found in the Russian language.

Referance is made to Shannon's "Prediction and Entropy of Printed English" Bell System Technical Journal, Vol 30, No 1, 1951.

Card 1/1

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

AUTHOR: Lebedev, D. S. 108-1-10/10

TITLE: Statistical Properties of Information Groups (Statisticheskiye svoystva mnozhestv soobshcheniy)

PERIODICAL: Radiotekhnika. 1958, Vol. 13, Nr 1, pp. 3-10 (USSR)

ABSTRACT: The statistical properties of information groups are finally determined by the greatest efficiency in the transmission of informations of these groups by means of transmission systems. When the statistical properties are known the construction of the optimum transmission system for the given groups can be tackled. Within the frame of a discreet case the author precizes the connection between the statistical properties of information groups and the problems of the transmission of these groups by means of a transmission system. A classification of papers is given and it is tried to construct a new statistical model for photo-telegraphic and television informations. First the dimensions of the informations are standardized. The dimension of the information is denoted by S_n^m. If the upper index is equal to unity it is left out (scalar information). A sound

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(telephone) information is an example for an information S_1. A stereophonical sound information is denoted by S_1^m.

A black and white static picture is denoted by S_2. A color picture is denoted S_2^3. To the information of class S_3 appertain television informations-moving pictures. A three-colored picture represents a S_3^3 information. For the purpose of storing the information is recorded. As carrier for S_i serves a magnetic tape, for S_2 a photographic plate, for S_2^3 a three-layer photographic plate, for S_n^m a carrier of the $S_{n_1}^{m_1}$ - class, where $m_1 \geqslant m$, $n_1 \geqslant n$ (1). For the transmission of informations with a great number of argument-space-dimensions two- and three-dimensional channels would be necessary for S_2 and S_3. As such are still unknown at present every information for the purpose of being transmitted through one channel must be transformed into a variable magnitude-into a function of an argument - of time. Such a transformation is called an

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unfolding. If some parameters of the information are discreet the unfolding can easily be carried out. A line unfolding as used in photo-telegraphy is shown. For the transmission of S_3 informations through the channel S_1 two arguments must be discreet. This is reached by unfolding each picture tape into a finite number of lines.- In the next chapter the statistical properties of the information groups as well as the efficiency and the efficient methods of transmission as well as the possibilities of measurement of the statistical characteristics are investigated. This is done mainly for the use in S_1 informations.- In the last chapter the S_2 informations are dealt with. It is shown that a long series of informations determines the whole group, while each single information only determines an ergodic class. Because of this characteristic the source of the S_2 imformation can be called a source "ergodic on the average".
There are 6 references, 3 of which are Slavic.

SUBMITTED: November 30, 1956

AVAILABLE: Library of Congress

Card 3/3 1. Sound transmission-Mathematical analysis

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

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LEBEDEV, D.S.

6(0) PHASE I BOOK EXPLOITATION SOV/2792

Akademiya nauk SSSR. Laboratoriya sistem peredachi informatsii

Problemy peredachi informatsii, vyp. 2 (Problems of Information Transfer, Nr. 2) Moscow, Izd-vo AN SSSR, 1959. 99 p. Errata slip inserted. 2,000 copies printed.

Ed. of Publishing House: Ye.K. Vinnichenko; Tech. Ed.: Yu. Rylina; Editorial Board: A.A. Kharkevich (Resp. Ed.), V.N. Kuznetsov, I.A. Ovseyevich, V.N. Roginskiy, and V.G. Solomonov.

PURPOSE: This collection of articles may be useful to engineers engaged in the design of wire communication systems.

COVERAGE: The authors discuss the theory of transmission of information and describe methods used in transmission. They consider attenuation of a two-wire line and cable impedance and discuss problems of coding, decoding and predicting communication signals. They also consider statistical analysis of information and discuss systems used. No personalities are mentioned.

Sinay, Ya.G. The Least Error and the Best Method of Transmitting Stationary Information With Linear Coding and Decoding for the Case of Gaussian Communication Channels 40
The author derives a functional expressing the mean-square error of transmission and obtains the best method of transmitting information, with linear coding and decoding, by Gaussian communication channels. There are 3 references, all Soviet (including 1 translation).

Kazaryan, R.A. Some Problem of Predication of Communication Signals 49
The author discusses problems of constructing circuits for signal prediction and analyses their operation under near-actual operating conditions. He also presents an example of extrapolating a speech signal. There are 11 references: 6 Soviet (including 1 translation) and 5 English.

Moshkovskiy, K.A. Some Problems of the Theory of Coding 57
The author discusses the principle of constructing, analyzing and comparing of codes. There are 5 references: 3 Soviet and 2 English.

Garmash, V.A. Methods of Using Punched-card Computing Machines for Statistical Information Analysis 65
The author shows the advantage of punched-card computing machines over other types of computers for statistical analysis of information. He also discusses methods of using these machines. There are 3 references, all Soviet.

Lebedev, D.S. Device for Printing Images on Punched Tape 73
The author describes a device for printing images on punched tape. The device is used in the study of statistics of television information. It converts a continuous signal obtained in scanning a motion picture into a sequence of binary numbers. There are 2 references, both Soviet.

Lebedev, D.S., and V.A. Garmash. Statistical Analysis of Three-letter Combinations of a Russian text 78
The authors present methods and results of a study of frequency of three-letter combinations of a Russian text and determine the rate of transmission of telegraph information. There are 3 references: 1 Soviet and 2 English.

Solomonov, V.G. Errors in the Synthesis of Characteristics 81
The author presents a theoretical proof of the possibility of synthesizing characteristics and analyzes the error of synthesis by means of a delay-line system. There are 5

Tsemel', G.I. Some Problems in theOperation of a Time Equalizer 92
The author derives an expression for determining delay time of a time equalizer from the pulse characteristic of a communication channel and describes the nature of equalizer distortions. He also discusses deviations of the attenuation characteristic of an equalizer operating in a linear spectrum. There are 9 references: 3 Soviet and 6 English.

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A060/A000

6.7500

AUTHOR: Lebedev, D.S.

TITLE: Device for recording images on punched tape

PERIODICAL: Referativnyy zhurnal, Matematika, no. 9, 1962, 61, abstract 9V383 (In collection "Probl. peredachi informatsii", no. 2, Moscow, AN SSSR, 1959, 73 - 77)

TEXT: The device is based on the decomposition of the image into 350 - 400 thousand elements and on registering the values of their transparency coefficients on perforated tape in a five-digit binary code by quantizing the video signal into 32 levels. The quantizing unit using diode tubes is analyzed in detail.

M.I. Grinev

[Abstracter's note: Complete translation]

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LEBEDEV, D.S.; GARMASH, V.A.

Statistical analysis of a three-letter combination of Russian text. Probl.pered.inform. no.2:78-80 '59. (MIRA 12:11)
(Information theory) (Mathematical statistics)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D.S.

SOV/24-59-3-32/33

AUTHOR: None Given

TITLE: Conference on Problems of Statistical Coding

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Energetika i avtomatika, 1959, Nr 3, pp 191-192 (USSR)

ABSTRACT: This Conference was held on April 16-17, 1959, in Moscow. The report contains little more than the titles of the papers and the names of the authors, which are listed below.
V.A. Garmash and N.Ye. Kirillov, "Coding sequences of two symbols by means of codes with separating signs" (a discussion of the effectiveness of coding by Shannon's method).
E. L. Blokh, "Transmission of a binary sequence by means of a uniform code" (with reference to sequences that form a simple Markov sequence).
D. S. Lebedev, "Statistical coding by transmitting the positions (coordinates) of rare symbols".
N. Ye. Kirillov, "Use of multi-program codes for statistical coding".
D. S. Lebedev, "Statistical concordance in the presence of strong probability relations between elements".
E. L. Blokh, "Sequential coding" (a use of a simple code in a repetitive coding procedure until the length of the coded sequence ceases to become any shorter).

Card 1/2

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SOV/24-59-3-32/33

Conference on Problems of Statistical Coding

V. A. Garmash, N. Ye. Kirillov and D. S. Lebedev, "An experimental study of the statistical aspects of information sources" (a study of frequency distributions of various types of communication).
N. Ye. Kirillov, "Variable delay in statistical coding systems".
V. A. Garmash, "Transmission of facsimile data by statistical coding".
V. A. Makhonin, "A simple system for partial statistical concordance in which the lengths of signal symbols are transformed".
N. Ye. Kirillov, "Statistical coding for use in conditions of low noise level".
K. A. Meshkovskiy, "Statistically noise-stable coding".
V. A. Garmash, "A method of constructing an optimal binary code".
E. L. Blokh, "Codes with elements whose lengths differ".

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

Lebedev, D.S.

PHASE I BOOK EXPLOITATION SOV/4480

Akademiya nauk SSSR. Laboratoriya sistem peredachi informatsii

Problemy peredachi informatsii, Vyp. 5: Statisticheskoye kodirovaniye (Problems in the Transmission of Information, No. 5: Statistical Coding) Moscow, 1960. 125 p. 4,000 copies printed.

Resp. Eds. for this volume: E.L. Blokh (Resp. Ed.), and V.G. Solomonov (Deputy Resp. Ed.); Ed. of Publishing House: G.Yu. Shteynbok; Tech. Ed.: O.G. Ul'yanova.

PURPOSE: This book is intended for readers interested in systems and methods of coding.

COVERAGE: This collection of 14 articles on statistical coding written by staff members of the Laboratoriya sistem peredachi informatsii Akademii Nauk SSSR(Laboratory of Information Transmission Systems of the Academy of Sciences USSR). The articles were presented as lectures and discussed at the enlarged session of the Scientific Council of the Laboratory, April 16 and 17, 1959. No personalities are mentioned. References accompany 13 of the articles.

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Garmash, V.A., N. Ye. Kirillov, and D.S. Lebedev. Experimental Investigation of Statistical Properties of Communication Sources 112

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

GLEZER, Vadim Davydovich; TSUKKERMAN, Il'ya Ioannovich; LEBEDEV, D.S., otv. red.; RAZUMOV, S.A., red. izd-va; ARONS, R.A., tekhn. red.

[Information and vision] Informatsiia i zrenie. Moskva, Izd-vo Akad. nauk SSSR, 1961. 181 p. (MIRA 14:10)
(VISION) (INFORMATION THEORY)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D.S.

AID Nr. 994-7 20 June

IMPROVEMENT OF NOISE IMMUNITY OF BINARY MESSAGE TRANSMISSION (USSR)

Kukinov, A. M., and D. S. Lebedev. IN: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Tekhnicheskaya kibernetika, no. 2, Mar-Apr 1963, 17-21. S/280/63/000/002/003/021

To improve the noise immunity of binary information transmitted along a symmetrical binary channel, it is proposed that the initial message be

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AID Nr. 994-7 20 June

IMPROVEMENT OF NOISE IMMUNITY OF BINARY [Cont'd] S/280/63/000/002/003/021

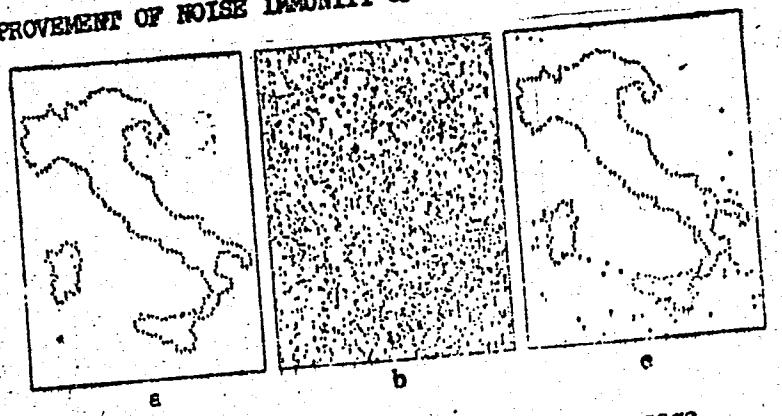

Fig. 3. a - initial message; b - message transmitted along the channel with background noise and without coding; c - message transmitted along the same channel applying proposed method.

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AID Nr. 994-7 20 June

IMPROVEMENT OF NOISE IMMUNITY OF BINARY[Cont'd] S/280/63/000/002/003/021

coded with subsequent decoding of the message received. An accumulation method is suggested in which statistical condensation is utilized. A series of calculations was made to determine the optimum number of message copies that can be sent with a minimum error probability. The illustration compares message transmission according to the proposed method and transmission without the use of coding. [DW]

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D.S.

AID Nr. 993-7 19 June

MAXIMUM INFORMATION CARRIED BY ELECTROMAGNETIC FIELD (USSR)

Lebedev, D. S., and L. B. Levitin. IN: Akademiya nauk SSSR. Doklady, v. 149, no. 6, 21 Apr 1963, 1299-1302. S/020/63/149/006/010/027

An analysis of the quantity of information that can be carried by an electromagnetic field has been made. A signal consisting of photons with an identical state of photons with an identical state of polarization and direction of the wave vectors is emitted by a transmitter and received by an ideal analyzer with a certain mean absorption power. The analyzer, which performs a precise spectral decomposition of the signal ensemble, consists of oscillators with a negligibly small natural linewidth. Formulas are derived expressing the maximum information that can be carried in an electromagnetic channel by a signal per unit time for signals with discrete energy spectra, continuous energy spectra, and narrow bandwidth. Limit cases of minimum energy required to transmit information are calculated. [BB]

Inst. Problem Peredachi Informatsii, AN SSSR
(From MIRA)

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L 40285-65 EWT(1)/EEC(t) Pg-4/Pi-4/Pl-4 GG/LHB

ACCESSION NR: AT4049767 S/2945/64/000/016/0005/0020

41
36
B+1

AUTHOR: Lebedev, D.S.; Levitin, L.B.

TITLE: Transfer of information by an electromagnetic field 21

SOURCE: AN SSSR. Institut problem peredachi informatsii. Problemy peredachi informatsii, no. 16, 1964. Teoriya peredachi informatsii (Theory of information transmission), 5-20

TOPIC TAGS: communication theory, information transfer, electromagnetic field, information capacity, photon channel, shannon formula, Brillouin principle, negentropy

ABSTRACT: The paper investigates a charge-free electromagnetic field as an information carrier and establishes the upper limit of the information capacity of a photon channel. The information transmission properties of such a channel (information capacity and the minimum energy per unit of information) were determined using thermodynamic considerations. The same results were obtained using information theory. General expressions describing the properties were obtained by an exact quantum-mechanical analysis. In the classical case, the general expressions obtained become the well-known Shannon formulas for the case of channels with additive white noise. The general expressions explain the role

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of the quantum structure of electromagnetic fields. The information-transmission channel considered is assumed to consist of a transmitter radiating an electromagnetic signal of a given mean energy, and a receiver which, in addition to the signal, also receives additive noise in the form of thermal radiation. It is assumed that the signal is one-dimensional, i.e., that it is represented by a totality of photons having the same polarization and wave vectors of the same direction. Such a signal can be fully described by energy-level filling numbers. It is further assumed that the transmitter can determine uniquely the microstate (filling number) of the signal. A signal ensemble is produced by the totality of the various microstates. A perfect frequency analyzer is used for the receiver which gives an exact spectral distribution of the signal (in accordance with Heisenberg's relation, for infinite time), i.e., it determines the microstate of the signal. Thus, the analysis eliminates any possible limitations associated with the physical nature of the transmitter and the receiver. The analysis therefore considers only the effect of the limitations which are inherently present in the electromagnetic field considered as an information carrier (limitations due to its quantum nature and the presence of thermal radiation). The Brillouin principle of negentropy is formulated in a manner so as to express the quantity of information by the amount of physical entropy. A formula for the information capacity of a photon

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channel is derived using thermodynamic considerations and the principle of entropy defect as well as by using information theory (the derivation using information theory is much more involved). A narrow-band photon channel, when the total signal power is concentrated within a very narrow band compared with the center frequency, is analyzed. The dependence of information capacity on frequency for various signal powers is investigated. It is shown that for a given bandwidth of a photon channel, information capacity depends only on the average number of signal quanta (on the spectral intensity of the photon flux). The problem of the optimum distribution of signal energy in the spectrum in order to attain the maximum information capacity is examined for the case when noise temperature is a function of frequency; it was found that the optimal signal energy distribution corresponds to the case when all the degrees of freedom are "heated" to the same temperature. In the classical case this result agrees with Shannon's formula which states that the sum of the spectral intensity of signal and noise must be constant. "The authors express their thanks to M. Ye. Gertsenshteyn, A. N. Kolgomorov, M. A. Leontovich, S. M. Rytov and A. A. Kharkevich for discussions and comments." Orig. art. has: 4 figures and 71 formulas.

ASSOCIATION: none

SUBMITTED: 00Jun63 ENCL: 00 SUB CODE: DP, EM

NO REF SOV: 005 OTHER: 007

Card 3/3

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L 16164-65 EWT(1)/EEC-4/EED-2/EWA(h) Peb ESD(dp)/SSD/BSD/AFWL/ASD(a)-5/
AFMD(p)/AFETR/AFTC(b)

ACCESSION NR: AP5000260 S/0030/64/000/011/0044/0046

AUTHOR: Lebedev, D. S. (Candidate of technical sciences); Lebedev, D. G. B

TITLE: A new method of image scanning 25

SOURCE: AN SSSR. Vestnik, no. 11, 1964, 44-46 34

TOPIC TAGS: image transmission, image scanning, scanning, digital image transmission

ABSTRACT: A method of scanning half-tone images for coding and transmission through binary digital systems is proposed. Conventional scanning by sensing the image at equal intervals of brightness without respect to their gradient values either needs a large number of elemental dots or greatly distorts the image. The distortions concentrate in the "contour" areas, that is, areas with a marked gradient of brightness, which are the main carriers of information permitting identification of the image by the human eye at the receiving end. The main feature of the proposed system consists in shifting the gray scale so that its zero level coincides with the mean brightness level

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L 16164-65

ACCESSION NR: AP5000260

of the defocused image, which level serves as the reference brightness. A relatively small number of intervals is then needed to transmit the whole gray range of contour areas with fair fidelity. The need for transmitting the reference level along with the gradations does not require much additional line capacity. The new method was experimentally tested on a Strela electronic digital computer supplemented by an input unit for transferring images to punched cards and an output unit for printing a photographic image from cards. Images split into 5 levels by the new method turned out to be of about the same quality as the same image split into 128 levels by the conventional method. A further advantage is seen in discriminating between different contour areas by means of the density of elemental dots necessary for their transmission. Orig. art. has: 1 figure.

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

SUBMITTED: 00	ENCL: 00	SUB CODE: DP, EC
NO REF SOV: 000	OTHER: 000	ATD PRESS: 3146

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APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, Dmitriy Savel'yevich; TSUKKERMAN, Il'ya Ioannovich; GARMASH, V.A., retsenzent; FROLUSHKIN, V.G., nauchn. red. RASKINA, T.D., red.

[Television and information theory] Televidenie i teoriia informatsii. Moskva, Energiia, 1965. 218 p. (MIRA 18:4)

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L 48503-65 EWT(d)/T/EED-2/EWP(1) Po-4/Pg-4/Pk-4 IJP(c) BB/GG/JXT(BF)

ACCESSION NR: AP5007254 S/0280/65/000/001/0088/0092

AUTHOR: Lebedev, D. G. (Moscow); Lebedev, D. S. (Moscow)

TITLE: Discretization of images by isolating and quantizing contours

SOURCE: AN SSSR, Izvestiya. Tekhnicheskaya kibernetika, no. 1, 1965, 88-92

TOPIC TAGS: pattern recognition, image discretization

ABSTRACT: A new method of image discretization requiring a much fewer number of quantization levels than the conventional method is set forth. The new method isolates and quantizes the brightness values of contour-forming image elements with subsequent restoration of gradual shadings by a two-variable interpolation. As the Laplacian is believed to be the criterion of the human eyesight system for recognizing contours, this operator is selected for singling out the contours of the image. In an experimental verification of the method, the optical density was quantized into 128 levels, and the image was recorded by a

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ACCESSION NR: AP5007254

7-digit binary code on 135 punch cards. As compared with the conventional method, the new method promises either a 2.7-times reduction of the number of binary digits with the same quality of product or a higher quality of reproduction if the number of quantization levels is the same. Orig. art. has: 1 figure and 8 formulas.

ASSOCIATION: none

SUBMITTED: 16Mar64 ENCL: 00 SUB CODE: DP

NO REF SOV: 001 OTHER: 001

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L 3004-66 EWT(d)/FSS-2

ACCESSION NR: AP5020887

UR/0106/65/000/008/0062/0068
621.397.1:621.391.164.7

AUTHOR: Lebedev, D. S.; Yaroslavskiy, L. P.

TITLE: Efficiency of some methods of facsimile transmission

SOURCE: Elektrosvyaz', no. 8, 1965, 62-68

TOPIC TAGS: facsimile transmission

ABSTRACT: The AM, PCM with and without correcting codes, and bi-orthogonal-signal methods of facsimile transmission are considered. Assuming certain characteristics of the human eye (vision) and a constant-parameter channel, the minimum signal-to-noise ratio corresponding to still invisible distortion caused by additive normal white noise is evaluated. This table is reported:

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ACCESSION NR: AP5020887

Method	$\frac{A^2_{0AM}}{A^2_0}$	$\frac{\Delta F}{\Delta F_{AM}}$	$\frac{C}{C_{AM}}$
AM	1	1	1
7-digit PCM	2,7	7	3,5
8-digit PCM (Wagner).....	4,5	8	3,2
Bi-orthogonal signals	6,2	64	6,5

Here: A_0 is the signal-to-noise average power ratio; $C = \Delta F \lg\left(1 + \frac{P_s}{P_n}\right)$, P_s and P_n are the signal power and noise power, respectively. The table shows that the AM method requires a channel with the lowest traffic capacity (last column).

The energy efficiency of the bi-orthogonal method is found to be 0.0285 and that of the AM method, 0.0048. Orig. art. has: 13 formulas and 1 table.

ASSOCIATION: none

SUBMITTED: 05Nov64 ENCL: 00 SUB CODE: EC

NO REF SOV: 002 OTHER: 003

Card 2/2 md

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L 27629-65 EWT(d)/FSS-2/EEC-4/EEC(t)/T/EWP(1) Pn-4/Pp-4/Pac-4/Pq-4/Pae-2/Ph-4/
Pj-4/Pl-4 IJP(c) JXT(BF)

ACCESSION NR: AP5004210 S/0077/65/010/001/0062/0071

AUTHOR: Lebedev, D. S. 68

TITLE: Applicability of the information theory to photographic systems 70 48 B

SOURCE: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, v. 10, no. 1 1965, 62-71

TOPIC TAGS: photography, information theory, photographic system, information transmission, photographic information transmission, image transmission, photographic image transmission 8

ABSTRACT: The article deals with problems of the applicability of the information theory to the transmission of information by photographic means. In particular, the author is concerned with the extent to which the information theory will be useful in establishing future trends in the development of photography as a means for the storage and transmission of information. Proceeding from a general outline of the information theory, the author analyzes the quantity of information contained specifically in images. The author points to certain limitations of the human eye as a receiving organ, specifically to its thresholds of resolution and sensitivity, as affording the possibility of breaking down an image into groups of element dis-

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ACCESSION NR: AP5004210

tributions not distinguishable by the eye, each group being represented by an "average" image. Reference is made to an earlier work by the author in which an attempt is made to determine quantitatively the degree of entropy decrease, or "infidelity," associated with the breakdown operation. Discussing a photographic system as a coding process, the author concludes that the actual efficiency of photographic coding is extremely low (8—30,000 photons are required to store one bit, while, in theory, one photon should suffice). A knowledge of actual efficiency is of great practical value in designing communications systems in general, although in photography its value is greatly reduced by its very low magnitude. Nevertheless, the concepts of the information theory in its broader sense could be usefully applied to the development of photographic systems on the basis of the analogy with electrical communication systems set forth by Elias and Fellgett (Opt. Soc. America, 43, no. 4, 1953). This analogy makes it possible to apply frequency concepts such as the image spectrum and contrast-and-frequency characteristics to optical and photographic systems; the theory of accidental errors can be used to describe the layer density fluctuations due to granularity. In the light of these analogies, a new approach to the problem of image quality becomes possible. A suitable criterion is needed to define photographic image quality. The author proposes a quantity proportional to the "distance" between two images in terms of similarity (zero would mean absolute identity). The functional of the number could be based on data

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ACCESSION NR: AP5004210

of biophysical and psychological investigations. It is demonstrated that the assumption of a direct connection between quality and quantity of information is not applicable to photographic systems. Certain concepts of the information theory, such as the amount of information, entropy, and capacity, are found to have a rather limited applicability to the photographic method since their main concern is the specific problem of coding and decoding, both of which can hardly be applied in the field of photography. Orig. art. has: 11 formulas. [FP]

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: DP, ES

NO REF SOV: 008 OTHER: 016 ATD PRESS: 3190

Card 3/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D.S.; YAROSLAVSKIY, L.F.

Effectiveness of some methods for transmitting stationary patterns. Elektrosviaz' 19 no.8:62-68 Ag '65. (MIRA 18:9)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D.V.; CVJYANNIKOV, B.M.

Developing methods for the mechanical testing of tool steel.
Sbor. trud. TSNIICHM no.24:400-406 '62. (MIRA 15:6)
(Tool steel--Testing)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D.V.; MOLOTILOV, B.V.; OVSYANNIKOV, B.M.

Methods of mechanical tension testing at temperatures of liquid hydrogen. Sbor. trud. TSNIICHM no.24:414-429 '62. (MIRA 15:6)
(Metals--Testing) (Metals at low temperatures)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

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27840
S/032/61/027/010/017/022
B104/B102

24.1800

AUTHORS: Ovsyannikov, B. M., Kurganova, Ye. A., and Lebedev, D. V.

TITLE: Dynamic methods of measuring the Young's modulus E

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 10, 1961, 1299-1302

TEXT: A test arrangement for determining the Young's modulus E of metals in the temperature range of from -80 to +900°C by means of transverse vibrations is described. Its block diagram is shown in Fig. 1. During the high-temperature tests, the sample was placed into an electric furnace. The low-temperature tests were made in a nitrogen-cooled cryostat. The Young's modulus of cylindrical test rods was determined from their natural frequency. Previous tests have shown that the size of the sample has a considerable influence upon the amount of the Young's modulus as determined with this arrangement. Samples of equal length (L = 200 mm), but with different diameters (d_1 = 10 mm, d_2 = 7 mm) have Young's moduli that differ by 2.5%. This effect calls for a uniform shape and superior quality of the preparation of the test bodies. The samples were suspended

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on 0.05 - 0.07 mm thick copper wires. At high temperatures they were suspended on 0.1 mm thick nichrome wires. An essential factor in these tests was optimum location of the samples in the furnace and in the cryostat. The maximum error in determining E amounts to about 1%. The values of the Young's moduli of various metallic alloys ascertained by means of the described arrangement are contrasted with those determined by static methods (c. f. Table 4).

Material	$E_{static} \cdot 10^{-4}$ kg/mm^2	$E_{dynamic} \cdot 10^{-4}$ kg/mm^2
steel У7 (U7)	2.12	2.19
steel 1Х18Н9Т (1Kh18N9T)	2.0	2.09
steel 30ХГСА (30KhGSA)	2.14	2.2
copper	1.24	1.3
duralumin	0.75	0.81

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Dynamic methods of measuring the ...

There are 5 figures, 4 tables, and 4 Soviet references.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii im. I. P. Bardina (Central Scientific Research Institute of Ferrous Metallurgy imeni I. P. Bardin)

Legend to Fig. 1: (1) test body, (2) suspension, (3) vibrator, (4)receiver, (5) cooling device, (6) ЗГ-10 (ZG-10) sound generator, (7) furnace and cryostat, respectively, (8) ЭО-7 (EO-7) oscilloscope.

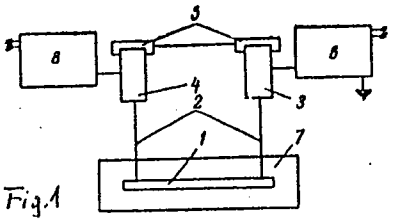

Fig.1

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

S/032/63/029/004/009/016
A004/A127

AUTHORS: Lebedev, D.V., Molotilov, B.V., Ovsyannikov, B.M.

TITLE: Metal tensile tests at very low temperatures

PERIODICALS: Zavodskaya laboratoriya, no. 4, 1963, 474 - 477

TEXT: The authors analyze methods of metal tensile tests at the boiling point of liquid hydrogen. The specimens were cooled and deformed in a modified and improved Dewar low-temperature vessel. The tests were carried out on a multipurpose P-5 (R-5) testing machine at a deformation rate of 2 mm/min. It is recommended to use cylindrical specimens as this reduces the error magnitudes. The nature of the stressed state arising during the deformation of the specimens can be established according to the angular distribution of stresses, in particular, the very substantial effect of bending at low loads. The total error of determining the mechanical characteristics by this method amounts to 5 - 7% of the maximum stress. Based on a statistical analysis it was found that reliable results are obtained with this method both for brittle and ductile metals. There are 5 figures and 1 table.

Card 1/2

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Metal tensile tests at ....

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ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii im. I.P. Bardina (Central Scientific-Research Institute of Ferrous Metallurgy im. I.P. Bardin)

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L 11405-63 EWP(q)/EWT(m)/BDS AFFTC/ S/032/63/029/005/020/022
ASD JD

55

AUTHORS: Lebedev, D. V., Melekhin, A. K. and Ovsyannikov, B. M.

TITLE: Furnace for testing metals 19 for long-time strength at temperatures up to 1500° in air

PERIODICAL: Zavodskaya laboratoriya, v. 29, no. 5, 1963, 618-619

TEXT: The furnace (600 x 250 x 200 mm) was made of asbestos cement 15 mm thick with stainless steel plates at the openings and with $MoSi_2$ heating elements. The temperature on the test piece was measured with a thermocouple by means of a potentiometer. The load was applied to the test piece after it was heated and while it was held at 1500°C. There are three figures.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii im. I. P. Bardina (Central Scientific Research Institute of Ferrous Metallurgy imeni I. P. Bardin)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

ACCESSION NR: AT4001248 S/2776/63/000/032/0164/0174

AUTHORS: Ovsyannikov, B. M.; Melekhin, A. K.; Lebedev, D. V.; Vol'nov, N. N.

TITLE: Stress rupture testing of refractory metals and alloys at temperatures up to 1800°C

SOURCE: Moscow. Tsentral'ny*y nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov, no. 32, 1963, 164-174

TOPIC TAGS: refractory metal, refractory alloy, ultrahigh temperature stress rupture test, refractory material stress rupture test

ABSTRACT: In view of the shortage of suitable equipment for mechanical tests of high-melting-point metals and alloys at temperatures above 1200°C, the authors describe some of the main equipment which they constructed for long-run tests in air (up to 1500--1600°C) and in vacuum. The system constitutes two types of small vacuum

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ACCESSION NR: AT4001248

furnaces with seals to ensure hermeticity of the system at relatively large displacements of the clamps of the testing machine, heating elements for the furnace, and control circuitry. Some operating features of the furnaces are discussed. Orig. art. has: 15 figures.

ASSOCIATION: Tsentral'ny*y nauchno-issledovatel'skiy institut chernoy metalurgii (Central Scientific Research Institute of Ferrous Metallurgy)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

L 27760-65 EWT(m)/EWP(w)/EPF(c)/EPF(n)-2/EPR/T/EWP(b)/EWP(t)/EWA(d) Pr-4/
Ps-4/Pu-4 JD

ACCESSION NR: AT5003403 S/2776/64/000/038/0115/0118

47
45
B+1

AUTHOR: Lebedev, D. V.; Molotilov, B. V.; Ovsyannikov, B. M.

TITLE: Tensile testing equipment for very low temperatures

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov, no. 38, 1964. Novyye metody ispytaniy metallov; metallograficheskiye issledovaniya i mekhanicheskiye ispytaniya metallov (New methods in the analyses of metals; metallographic investigations and mechanical analyses of metals), 115-118

TOPIC TAGS: tensile testing, cryostat, liquid helium, liquid nitrogen, low temperature test

ABSTRACT: The development of solid state physics requires an ever-increasing number of methods suitable for low temperature testing, and particularly unidirectional static tensile tests. The authors' Institute has been working on the simplification of available tensile testing machines. An improved design was also sought with a view to reducing the amount of He used as a coolant. Furthermore, the new machine was to have a capacity for testing single crystals, polycrystalline microsamples and standard cylindrical specimens 4 to 5 mm in diameter or

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flat specimens 3 to 5 mm thick. A wall-type microtester was designed and among several models a cryostat suggested by A. B. Fredkov was found to be most convenient and compact. Loss of heat through its walls was diminished by tightening the connections and the use of rubber membranes prevented the leakage of the coolant. Isolation from the ambient air was improved by additional cooling with liquid nitrogen. The loads applied were recorded by means of an oscillography system. A centering device provided reliable centering of the work piece. The working chamber was isolated with mirror-finished copper sheets, 0.1 mm thick, clad with Cr, Ni or Ag. However, the search for better equipment continues. Orig. art. has: 3 figures.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii, Moscow (Central ferrous metallurgy scientific research institute)

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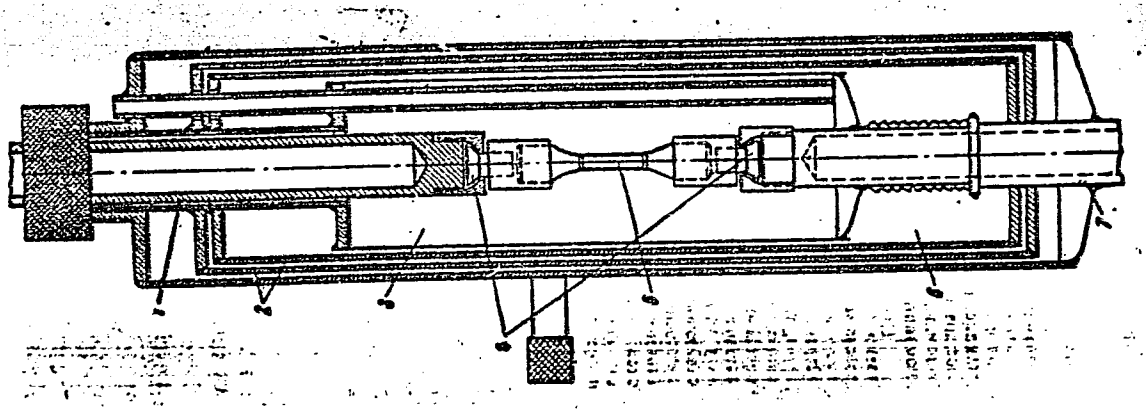

Figure 1. Schematic view of the model-4 cryostat: (1) active pull; (2) radiation screens; (3) working chamber with liquid He; (4) centering device; (5) specimen; (6) vacuum chamber; (7) passive pull.

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S/0032/64/030/002/0228/0229

ACCESSION NR: AP4013314

AUTHOR: Ovsyannikov, B. M.; Lebedev, D. V.; Kelekhin, A. K.; Vol'nov, N. N.

TITLE: An installation for testing long range durability under vacuum at temperatures up to 1800C

SOURCE: Zavodskaya laboratoriya, v. 30, no. 2, 1964, 228-229

TOPIC TAGS: durability, durability test, long range durability, vacuum effect, temperature effect, vacuum oven, heated vacuum oven

ABSTRACT: The installation consisted of a two-section steel vacuum oven of cylindrical shape, 29 cm in diameter and 30 cm long, provided with a water jacket and two centrally located radiation heaters. By these means it was possible to bring the temperature up to 1300C within 20 minutes and to 1800C within 65 minutes. However, it was found that a too rapid rise of temperature caused an accelerated evolution of gases from the test samples placed in the oven, which affected the vacuum. A gradual step-by-step rise in temperature was found to be the proper procedure. An additional source of error in a vacuum of fluctuating magnitude was due to the presence of equalization loads of the leverage system of the testing machine. Figure 1 on the Enclosures gives the structural details of the vacuum oven. ~~while~~

~~Card 1/5~~ Cent Sci Res Inst of Ferrous Metallurgy

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

KOZLOVA, N.A.; LEBEDEV, D.V.

Mechanical properties of stainless austenitic steels at -253° C. Metalloved. i term. obr. met. no. 12:47-51 D '65. (MIRA 18:12)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii imeni Bardina.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D.V.; MOLOTILOV, B.V.; OVSYANNIKOV, B.M.

Mechanism of the low-temperature deformation of iron-aluminum, iron-cobalt-vanadium alloys, and commercial-grade iron. Sbor. trud. TSNIICHM no.39:175-180 '65. (MIRA 18:7)

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L 39323-65 EWT(d)/EWT(m)/EWP(w)/EWP(c)/EWA(d)/EWP(v)/EPR/T/EWP(t)/EWP(k)/EWP(h)/
ACCESSION NR: AP5007680 EWP(b)/EWP(1)/EWA(c) Pf-4 S/0032/65/031/003/0367/0369
JD/HW/EM

AUTHORS: Andrianov, Yu. Ye.; Lebedev, D. V.; Ovsyannikov, B. M.

TITLE: A method for strain testing small specimens at a temperature up to 1600C in a vacuum

SOURCE: Zavodskaya laboratoriya, v. 31, no. 3, 1965, 367-369

TOPIC TAGS: vacuum chamber, material, material strength, metal deformation, vacuum, plastic deformation, elastic deformation/ IRM 0.2 machine

ABSTRACT: A technique of strain testing microspecimens under vacuum (or in inert gas) at temperatures up to 1600C is described. The method employs the IRM-0.2 material testing device described by V. P. Konoplenko and D. K. Vinogradov (Zavodskaya Laboratoriya, No. 1, 1959). The basic machine parameters are: maximum load capacity 1000 kg, direct loading; scale divisions 0-200, 0-400, 0-600, 0-800, and 0-1000 kg; maximum temperature 1600C; vacuum pressure 1 x 10^{-4} mm Hg; deformation rates 1 and 2 mm/minute; automatic diagram recording; deformation scale 45:1: required potential at maximum test temperature 2 kilovolts. The machine permits measuring several stress parameters. Figure 1 on the Enclosure gives the definition of the variables describing the size of a test specimen. The optimal size of a test specimen was considered to be that size which allows the closest approximation of

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the test to standard conditions and allows the use of the recording devices for description of mechanical properties. Tests were performed to find the optimal specimen dimensions, and concrete recommendations are made for specification of temperature control and measurement during the testing. Results indicate that the prescribed methods are in complete accord with the standard testing routines prescribed in GOST 1497-61. Orig. art. has: 3 figures.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii im. I. P. Bardina (Central Scientific Research Institute of Ferrous Metallurgy)

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ENCLOSURE: 6

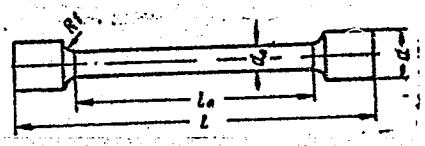

Fig. 1. View of test specimen

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N L 11139-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) JD

ACC NR: AP6000612 SOURCE CODE: UR/0129/65/000/012/0047/0051

AUTHOR: Kozlova, N. A.; Lebedev, D. V.

ORG: TsNIIChERMET

TITLE: Mechanical properties of austenitic stainless steels at -253C

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 12, 1965, 47-51

TOPIC TAGS: steel, austenitic steel, stainless steel, solid mechanical property, metal grain structure, cryogenic engineering, brittleness

ABSTRACT: Specimens of five austenitic stainless steels containing 0.03% carbon, 18% chromium, and 8, 10, 12, 14, and 20% nickel were subjected to tensile tests at -253C at a deformation rate of 2 mm/min. For each steel two types of specimens were tested: fine-grained (annealed at 1050C) and coarse-grained (annealed at 1250C). In all steels, regardless of grain size, the deformation in the elastic-plastic region had a more or less unstable behavior with multiple necking along the gage length (see Fig. 1) owing to the formation of martensite or, in the case of steel with 20% nickel, to heat fluctuations. With increasing nickel content, the tensile strength drops and ductility increases. Analysis of the experimental data led to the conclusion that although steels with 8—10% nickel have a high tensile strength (185 kg/mm^2) and ductility (reduction of area 40%) at -253C, they cannot be recommended for stressed parts of cryogenic equipment because at the moment unstable deformation begins, these steels are strain hardened to a high degree and therefore are suscep-

Card 1/2

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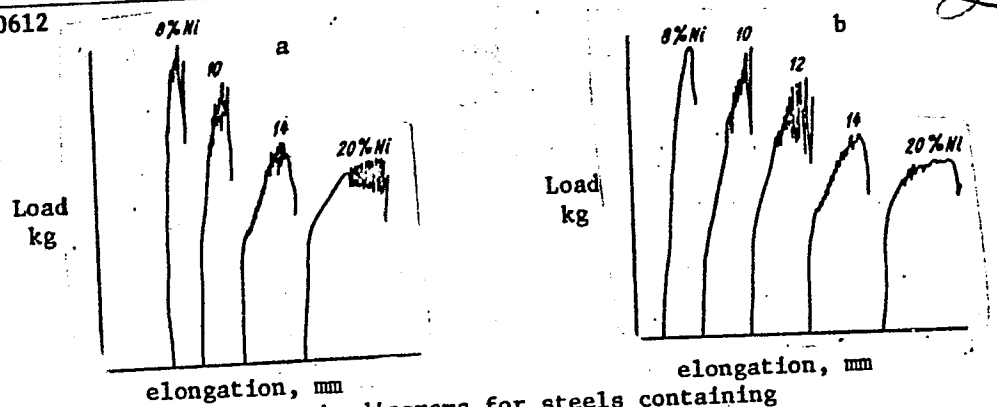

Fig. 1. Stress-strain diagrams for steels containing 8—20% Ni at -253C annealed at 1050C (a) or 1250C (b).

tible to brittle failure in the presence of an accidental metallurgical defect or a stress concentrator. Steels with 12—14% nickel are the most reliable for service under cryogenic conditions. Orig. art. has: 6 figures. [DV]

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 011/ OTH REF: 002/ ATD PRESS: 4174

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APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D.V.

From the history of some theories of Russian genetics (N.I. Vavilov and V.I. Taliev). Bot. zhur. 50 no.5:730-733 My '65. (MIRA 18:10)

1. Botanicheskiy institut imeni Komarova AN SSSR, Leningrad.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D.V.; RABOTNOV, T.A.; ADO, M.I. (Moskva)

Reviews and bibliography. Bot. zhur. 50 no.7:1014-1025 Jl '65. (MIRA 18:11)

1. Botanicheskiy institut imeni Komarova AN SSSR, Leningrad (for Lebedev). 2. Vsesoyuznyy institut kormov, pochtovoye otdeleniye Lugovaya, Moskovskaya oblast' (for Rabotnov).

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LEBEDEV, D.V.; KIRPICHNIKOV, M.E.

Sergei IUl'evich Lipshits, 1905- ; on his 60th birthday. Bot.zhur. 50 no.10:1469-1480 O '65. (MIRA 18:12)

1. Botanicheskiy institut imeni Komarova AN SSSR, Leningrad.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D.V.; KHADZHINOV, M.I.

100th anniversary of Mendelism. Bot. zhur. 50 no.12:1661-1664 D '65. (MIRA 19:2)

1. Botanicheskiy institut imeni Komarova AN SSSR i Krasnodarskiy nauchno-issledovatel'skiy institut sel'skogo khozyaystva.

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LIPSHITS, S.Yu.; LEBEDEV, D.V.

Fatikh Khafizovich Bakhteev; on his 60th birthday. Bot. zhur. 50 no.12:1777-1782 D '65. (MIRA 19:2)

1. Botanicheskiy institut imeni Komarova AN SSSR, Leningrad.

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L 20626-66 EWT(m)/T/EWA(d)/EWP(w)/EWP(t) IJP(c) JD/HW

ACC NR: AP6010101 SOURCE CODE: UR/0129/66/000/003/0064/0065

AUTHOR: Lebedev, D. V.; Maslenkov, S. B.; Ovsyannikov, B. M.

ORG: TsNIIChERMET

32
31
B

TITLE: Mechanical properties of EI827 alloy at low temperatures

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 3, 1966, 64-65

TOPIC TAGS: nickel alloy, chromium containing alloy, tugsten containing alloy, molybdenum containing alloy, aluminum containing alloy, alloy property, low temperature property / EI827 alloy

ABSTRACT: The tensile and yield behavior of EI827 nickel alloy (0.03%C, 9.85% Cr, 5% W, 5.65% Mo, 4.35% Al) at 20C to -253C has been investigated. The alloy was annealed at 1170C for 6 hr and water quenched. It was found that the strength characteristics increase linearly with decreasing temperature. At room temperature the tensile and yield strengths are 108 and 70 kg/mm^2; at -120C, 119 and 80 kg/mm^2; and at -253C, 140 and 82 kg/mm^2. The ductility changes insignificantly with a drop in temperature, the elongation remains around 47%, and the reduction of area, around 40—44%. The deformation along the gage length was uniform; no necking was observed at any temperature tested. The yielding at temperatures as low as -253C was smooth, and the stress-strain curve showed no serrations as observed in some metals and alloys at low temperatures. At room temperature the alloy is prone to deformation aging, which

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does not occur at the temperatures of liquid nitrogen or liquid hydrogen. The deformation aging increases the quantity of the precipitated secondary phase by 3%. Orig. art. has: 1 table. [ND]

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 001/ ATD PRESS: 4224

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L 00951-67 EWT(m)/EWP(t)/ETI/EWP(k) IJP(c) JD/HW

ACC NR: AT6026552 SOURCE CODE: UR/2776/66/000/046/000

AUTHORS: Laz'ko, V. G.; Lebedev, D. V.; Ovsyannikov, B. M.

ORG: none

TITLE: Influence of thermal treatment and preliminary deformation on the crystallization process in thin ribbons of steel 1Kh18N10T

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov, no. 46, 1966. Spetsial'nyye stali i splavy (Special steels and alloys), 86-92

TOPIC TAGS: steel, alloy steel, chromium steel, nickel steel, metal test / 1Kh18N10T steel

ABSTRACT: The crystallization process in thin 0.1-mm ribbons of steel 1Kh18N10T was studied as a function of the thermal treatment and preliminary deformation of the ribbon. The study supplements the results of I. L. Rogel'berg and Ye. S. Shpichinetskiy (Diagrammy rekristallizatsii metallov i splavov. Metallurgizdat, 1950). The microstructure and grain size of the steel ribbon were determined as a function of the annealing temperature and degree of deformation. The experimental results are presented graphically (see Fig. 1). It was found that at 1200C the critical deformation of the ribbon was 10--25%. At all temperatures studied, a

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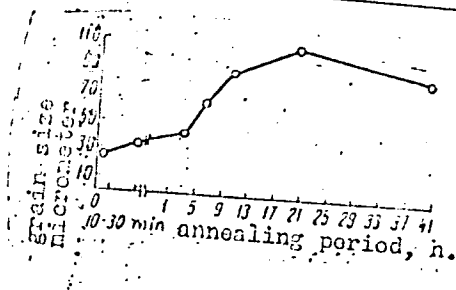
ACC NR: AT6026552

Fig. 1. Dependence of the grain size after annealing (1250C) on the annealing period (deformation 90--93%).



second critical deformation zone was found to exist for a degree of compression of 90--93%. The heating medium (water, vacuum) has no effect on the grain size of the steel. Orig. art. has: 1 table and 6 graphs.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 002/ OTH REF: 001

stainless steel

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

ACC NR: AP6035952 SOURCE CODE: UR/0129/66/000/010/0040/0041

AUTHOR: Babakov, A. A.; Lebedev, D. V.; Ovsyannikov, B. M.; Ol'yanin, Ye. A.

ORG: TsNIIChERMET

TITLE: Mechanical properties of Kh14G14N3T steel at -253C

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 10, 1966, 40-41

TOPIC TAGS: SOLID MECHANICAL PROPERTY, METAL GRAIN STRUCTURE, chromium manganese nickel steel, boron containing steel, steel property, steel subzero temperature property/Kh14GN3T steel, Kh14G14N3TR steel

ABSTRACT: The properties of Kh14G14N3T and Kh14G14N3TR steels in the as-cast and in hot-rolled conditions have been investigated at -253C. Annealed at 1050C and water quenched, the steels had a fine-grained austenitic-ferritic structure, while the Kh18N10T steel used for comparison had fully austenitic structure. At -253C, rolled and annealed Kh14G14N3T steel had a tensile strength of 160 kg/mm^2, a yield strength of 49 kg/mm^2, and elongation of 34%, and a reduction of area of 28%, compared to 185 kg/mm^2, 68 kg/mm^2, 32%, and 42% in the Kh18N10T steel and 152 kg/mm^2, 58 kg/mm^2, 38% and 50% for boron-bearing Kh17G14N3TR steel. Kh14G14N3T steel in the as-cast condition had a much lower strength, (70 kg/mm^2) and extremely low ductility, and an elongation and reduction of area of only 5%. At -253C, as-cast Kh14G14N3T steel had a crystalline fracture which was not observed in Kh14G14N3TR or in Kh18N10T steel.

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UDC: 620.17:669.14.018.8:536.48

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ACC NR: AP6035952

Thus, hot-rolled Kh14G14N3T and Kh14G14N3TR steels have mechanical properties comparable to those of the Kh18N10T steel. Orig. art. has: 2 tables.

SUB CODE: 11 / SUBM DATE: none/ ORIG REF: 002

Card 2/2

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

NAUMOVA, Zinaida Vasil'yevna; LEBEDEV, D.V., otv. red.; VINOGRADOVA, N.F., tekhn. red.

[Annotated bibliographic index to the "Izvestiia S.-Peterburgskogo botanicheskogo sada" and to the "Izvestiia Botanicheskogo sada Akademii nauk SSSR," 1901-1932] Annotirovannyi bibliograficheskii spravochnik k "Izvestiiam S.-Peterburgskogo botanicheskogo sada" - "Izvestiiam Botanicheskogo sada Akademii nauk SSSR," (1901-1932 gg.) Moskva, Izd-vo "Nauka," 1964. 237 p. (MIRA 17:4)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D. V. PA 34T3

POLAND/Academy of Sciences Mar 1947
USSR/Academy of Sciences

"Restoration of Science in Poland," D. V. Lebedev, 3 pp

"Priroda" No 2

Effect of the war in disrupting Polish scientific studies. Short description of Polish Academy of Sciences, Scientific Council, Institution of Higher Learning, Scientific Research Institute, and Scientific Congress which was held in Aug 1945. Author states that Polish Science has experienced a very vigorous revival, and that it is most important that an exchange of scientists between Poland and the Soviet Union be organized.
ID

34T3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D. V.

"New Successes of Revived Polish Science," Priroda, No.1, 1948

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D. V.

"Antibioditic Substances in Lichens," Priroda, No.2, 1948

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D. V.

PA 77T85

USSR/Medicine - Flies
Medicine - Heredity, Mutations

Mar 1948

"The Mutational Action of Chemical Substances," D. V. Lebedev, 2 pp

"Priroda" No 3

Describes how Rapoport, working in USSR, produced lethal mutations in flies with formaldehyde and hexamethylenetetramine. Refers to yperite experiments of Auerbach in England on fungi, continued by Horowitz in US. Summarizes work of Texas University, where action of chemical compounds on Staphylococcus Aureus was combined with that of ultra-violet ray.

77T85

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D. V.

"New Data on the Theory of Heterosis," Priroda, No.3, 1948

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

PA 78T33

LEBEDEV, D. V.

USSR/Medicine - Plants
Medicine - Tissues

Apr 1948

"N. P. Krenke's Book, 'Chimeras of Plants,'" D. V. Lebedev, 1 p

"Priroda" No 4

N. P. Krenke, who died in 1939, was expert on subject. Material for this work was assembled by V. L. Ryzhkov, who has contributed two supplementary articles. Review is extremely favorable. Pub by Acad Sci USSR, 1947, 386 pp, 86 drawings.

78T33

[redacted]

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D. V.

PA 78T57

USSR/Medicine - Penicillin
Medicine - Seeds

Apr 1948

"Does Penicillin Affect Seed Germination?" D. V. Lebedev, ½ p

"Priroda" No 4

D. F. Ribeiro showed that clinical penicillin greatly lowers growth of seeds. W. J. Smith, however, proved that this does not occur with pure penicillin. Work of N. A. Krasil'nikov, Soviet microbiologist, shows that microorganisms can act not only as antibiotics, but as biotics on higher plants: They should not be used before seeding without exhaustive preliminary investigations.

[redacted]

78T57

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D. V.

PA5/49T89

USSR/Medicine - Bacteria May 48
Medicine - Heredity, Mechanisms

"The Character of Biochemical Mutations of Bacteria," D. V. Lebedev, 1 p

"Priroda" No 5

Summarizes existing research on subject. Concludes that all mutations produced to date are of same (biochemical) type. Factors producing them are same as for higher organisms. Mutations are not adaptive responses to change of medium. Reverse mutations show that production of dependent forms is result of alteration in genetic base of organism.

[redacted] 5/49T89

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D. V.

PA5/49T94

USSR/Medicine - Insects
Medicine - Nitrogen

May 48

"Nitrobacter and Insects," D. V. Lebedev, ½ p

"Priroda" No 5

Describes the work of the Czech scientist, Yaroslav Peklo, in this field. Detailed anatomical investigation revealed presence of nitrogen-fixing bacteria in digestive system of bark beetle Ips typographus L. This shows how various species of birds are preserved from nitrogen starvation.

5/49T94

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D. V.

PA5/49T90

USSR/Medicine - Heredity, Mechanism May 48
Medicine - Penicillin

"Biochemical Mutations in Penicillia," D. V. Lebedev, $\frac{1}{2}$ p

"Priroda" No 5

Describes D. Bonner's experiments on subject (Am J Bot, 33, 788, 1946).

5/49T90

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D. V.

USSR/Academy of Sciences May 48

"Works of the Academy of Sciences USSR on the History of Natural Sciences, Vol I," D. V. Lebedev, 3/4 p

"Priroda" No 5

Among articles in this volume are "Russian Paleozoology," "Russian Crystallography," "Role of Russian Navy in Development of Natural Science in the 18th Century," "Academician S. Ye. Gur'ev," "Theory of Egyptian Fractions," "History of Medieval Atomic Theory," "I. Newtin Lectures on Optics," "Michel Rollo as a Critic of Infinitesimal Analysis,"

5/49T8

USSR/Academy of Sciences (Contd) May 48

"Absolute Spare in Eiler Mechanics," "Koshi's Definite Integral," and "A. M. Filomantskiy and Narcosis in Moscow University," 1947, 536 pp, 5,000 copies printed, price 45 rubles, 50 kopeck.

5/49T8

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0

LEBEDEV, D. V.

PA 2/49T79

USSR/Medicine - Plants
Medicine - Antibiotics Jun 48

"Search for Antibiotics Among the Higher Plants," D. V. Lebedev, 1 p

"Priroda" No 6

Discusses various work conducted by Soviet and foreign scientists in finding antibiotic substances among the higher plants.

2/49T79

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929010019-0"