

SOURCE CODE: UR/0004/66/000/011/0001/0001

ACC NR: AP7007069

AUTHOR: Kovalevskiy, V.; Kossyy, G.

ORG: none

TITLE: Water as a calculator 'hydrointegrator'

SOURCE: Znaniye-sila, no. 11, 1966, 1

TOPIC TAGS: thermodynamics, temperature instrument

SUB CODE: 14, 20

ABSTRACT: The article describes a so-called "hydrointegrator" represented by an array of glass tubes in which the water level rises or falls depending on temperature. Such a device makes it possible to simulate within a few minutes the hours-long process of the setting of concrete and, thus, to determine in advance whether it is feasible to lay concrete in cases where the weather bulletin forecasts a sharp drop in temperature on the following day, so as to avoid any possible "freezing" of concrete. The hydrointegrator can also be used for such purposes as the design and calculation of blast-furnace linings and the processes of rubber vulcanization, the laying of foundations in permafrost regions, and the construction of irrigation channels in desert regions. This device was conceived by Vladimir Sergeevich Luk'yanov on the theory that the flow of heat

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0008 0488

not tea is as follows: the flow of water. The process of the cooling of a glass of so that they cook, but at the same time they receive new heat from the glass layers of water; if this glass of tea is divided into 16 plates from the central tionally, each plate receives heat from the inner to the outer layers; each layer of this kind corresponds to a separate water tube in the hydrointegrator. These tubes are linked by rubber hose. Thus, the intricate process of heat transfer can be quite satisfactorily simulated in the hydrointegrator, even as regards heat transfer in nuclear power reactors. This type of visual model-simulator is even better than a motion picture camera. Orig. art. has: 1 figure. [JPRS: 39,658]

"APPROVED FOR RELEASE: 06/14/2000" CIA-RDP86-00513R000825620001-7

Card 2/2

KOVALEVSKIY, V.; SHAGOMALIO, M.

Improving the dust protection of the "Moskvich" automobile body.
Avt.transp.32 no.12:30 D '54. (MLRA 8:3)
(Automobiles--Bodies)

KOVALEVSKIY, V.
KOVALEVSKIY, V.

Financial control within departments should be put in order. Fin.
SSSR 17 no.6:66-70 Je '56. (MLRA 9:9)
(Finance)

KOVALEVSKIY, V., inzh.

Apparatus of life, the artificial kidney. IUn.tekh. 6 no.12:54-57
D '61. (MIRA 14:12)

(ARTIFICIAL KIDNEY)

KOVALEVSKIY, V.

Life zones in outer space. IUn.tekh. 6 no.1:73-75 Ja '62.
(MIRA 15:2)

(Plurality of worlds)

KOVALEVSKIY, V.

Nature prompts. Znan.sila 37 no.4:36-38 Ap '62. (MIRA 15:4)
(Biology) (Technology)

KOVALEVSKIY, V.

Cell is counting seconds. Znan.-sila 37 no.5:32-33 My '62.

(Time perception)

(MIRA 15:9)

KOVALEVSKIY, V., nauchnyy sotrudnik

Rubber water pipes. Sel'. stroi. 15 no.3:17-18 Mr '60.
(MIRA 16:2)

1. Nauchno-issledovatel'skiy institut sel'skogo
stroitel'stva.
(Water pipes) (Pipe, Rubber)

KOVALEVSKIY, V., nauchnyy sotrudnik

Composite installations for the methane fermentation of farm
waste. Sel'. stroi. 17 no.2:11 F '63. (MIRA 16:3)

1. Nauchno-issledovatel'skiy institut sel'skogo stroitel'stva
Gosstroya RSFSR.

(Fertilizers and manures)

KOVALEVSKIY, V. [Kovalevs'kyi, V.]

Nature's suggestions to engineers. Nauka i zhyttia 13 no.7:
10-14 J1 '63. (MIRA 16:10)

S/777/61/000/000/002/005

AUTHOR: Kovalevskiy, V. A.

TITLE: Ferrite-diode logic circuits.

SOURCE: Voprosy vychislitel'noy tekhniki; mashiny, ustroystva, elementy i ikh primeneniye. Ed. by A. M. Novik. Kiyev, Gostekhizdat USSR, 1961, 33-64.

TEXT: The present paper provides a brief state-of-the-art survey and classification of existing ferrite-diode elements and circuits, and describes new elements in which the effect of a black-out of diodes by a voltage that arises in the winding of a polarity-reversible core is employed. A method is set forth for the investigation of the characteristics that would ensure the dependable operation of circuit elements constructed according to this reasoning. A number of logic circuits are described: Triggers, senders, counters, etc. The concepts of logical time functions is employed in the description of the circuits. Also described is a pulse generator that is to be used for the power supply of the circuit. Following a brief discussion of the advantages of the employment of magnetic cores in logic circuits a classification of ferrite-diode systems is offered as follows: (1) Circuits in which the control by means of the output signal is accomplished by changing the total resistance of the coil with the core. Circuits of this type are termed "impedance circuits."

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Ferrite-diode logic circuits.

S/777/61/000/000/002/005

(2) Circuits operating by means of diode blackout. These circuits are termed "gate circuits." Each of these classes is further subdivided into 2 subclasses: (a) With controllable total resistance with the diode shunting the load; (b) with controllable total resistance with the diode operating in series with the load. The discussion of this paper is focused entirely on circuits employing cores with a rectangular hysteresis loop (RHL). Brief descriptions are provided of various typical circuits: (1) Shunt-type impedance circuits; (2) in-series impedance circuits; (3) gate circuits. Reference is made to the gate circuits proposed by M. Karnaugh (IRE, Proc., v.43, 1955, 579), and several disadvantages therein are noted, including the need for the use of 2 cores in each element and the shortcoming that, when the magnetic polarity reversal of the cores has come to an end, the voltage on the output winding is inadequate to black out the diode, so that the current from the generator continues to flow. Novel ferrite-diode elements of the gate or valve type are then proposed, which retain all of the advantages of existing gate circuits and eliminate the shortcomings of the Karnaugh circuits. The new circuits comprise 2 basic elements, namely, an inverter and a repeater. Following a detailed description of the inverter, repeater, and power-supply source, a comparison of the new elements with those employed in the UNIVAC II is made. The results of preliminary experiments are deduced. Using the so-called canonical circuit equations, a number of different logic circuits using the proposed ferrite-diode elements are set forth, including a

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Ferrite-diode logic circuits.

S/777/61/000/000/002/005

trigger with separate inputs, a shift sender, a sender with controllable shift, a single-discharge adding device, a dynamic trigger with counter input, a binary counter, and a binary reversible counter. A detailed discussion is offered on the pulse generator, comprising the basic requirements, the master oscillator, the recording block, and the reading block. The ferrite-diode elements described here are found to be operationally dependable and suitable for the construction of highly refined logic circuits. The pulse generators described are simple and compact. At present a development of specialized computing equipment assembled from these elements is under way. The participation of V. K. Yeliseyev, V. I. Rybak, and L. N. Shishanov in the experimental investigation is acknowledged. There are 30 figures and 4 references (1 Russian-language Soviet and 3 English-language U.S.)

Card 3/3

AYZERMAN, M.A.; BRAVERMAN, E.M.; GLUSHKOV, V.M.; KOVALEVSKIY, V.A.;
LETICHEVSKIY, A.A.

Theory of image recognition and self-teaching systems. Izv.
AN SSSR. Tekh. kib. no.5:98-101 S-0 '63. (MIRA 16:12)

KOVALEVSKIY, V. A.

USSR/Physics - Instruments

Card 1/1 Pub. 43 - 34/97

Authors : Kovalevskiy, V. A.

Title : Photoelectric photometer for measuring the intensity of spectral lines

Periodical : Izv. AN SSSR, Ser. fiz, 18/2, page 266, Mar-Apr 1954

Abstract : The features of a photometer, which utilizes a sensitive photo-multiplier in the role of light receptable, are described. A 60 volt dry-cell battery serves as a power source for the multiplier. Fourteen in series-connected capacitors, utilized for the feeding of the multiplier emitters, are charged alternately by the battery. The photo current is measured by the compensation method at which the voltage drop on the load resistance of the multiplier is compensated by an outside source with the aid of a four-decimal potentiometer. The threshold sensitivity of the photometer to white light at a color temperature of 2360°K is 10^{-12} lumen.

Institution : State Institute of Weights and Measures, Kharkov

Submitted :

KOVALEVSKIY, V. A.

Kovalevskiy, V.A. "A new standard objective spectroprometric apparatus." Commission on Standards, Measures, and Measuring Instruments, Council of Ministers, USSR. All-Union Sci Res Inst of Metrology imeni D. I. Mendeleev. Leningrad, 1956. (Dissertations for the Degree of Candidate in Technical Science)

So: Knizhnaya letopis', No. 27, 1956. Moscow. Pages 94-109: 111.

KOVALEVSKIY, V.A.

USSR/Optics - Physical Optics.

K-1

Abs Jour : Referat Zhur - Fizika, No 3, 1957, 7783

Author : Kovalevskiy, V.A., Iosel'son, G.L., Kandyba, V.V.

Title : Objective Spectropyrometric Apparatus SPK-1

Orig Pub : Izmerit. tekhnika, 1956, No 2, 16-20

Abstract : Description of an objective spectropyrometric apparatus SPK-1, produced to calibrate temperature lamps. The compared temperature lamps are alternately projected by means of two objective and a modulator onto the input slit of a two-prism monochromator. The modulator, placed ahead of the slit of the monochromator, is a small 2.5 x 2 x 0.5 mm, prism fastened on a vibrating string. The string crosses the field of the permanent magnet and is actuated by the interaction between the a-c current flowing through it and the magnetic field. The string is connected in the feedback circuit of a two-stage amplifier and the two make up a vibrating-string

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cy to 5 decimal places.

The accuracy of temperature comparison of the lamps with the SPK-1 instrument is one order of magnitude higher than the accuracy insured by visual pyrometers. higher than the accuracy insured by visual pyrometers. higher than the accuracy insured by visual pyrometers.

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CIA-RDP86-00513R000825620001-7"

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Optics.

K-5

Abs Jour : Referat Zhur - Fizika, No 3, 1957, 7783

scale of brightness temperatures, for the construction of a colored scale on the basis of the existing temperature brightness scales, and for extrapolation of temperature scales with increased accuracy.

Card 3/3

- 61 -

SOV/ 137-58-7-14173

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 30 (USSR)

AUTHORS: Kandyba, V. V., Kovalevskiy, V. A.

TITLE: A Precision Device for Calibrating Tubes for Brightness and Color Temperatures (Pretsizionnaya ustanovka dlya graduirovki lamp na yarkostnyye i tsvetovyye temperatury)

PERIODICAL: V sb.: Issled. po zharoprochn. splavam. Vol 2. Moscow, AN SSSR, 1957, pp 318-319

ABSTRACT: A description is presented of the principle of operation of the SPK-1 standard spectropyrometer for the measurement of brightness temperatures by the null-modulation method. The device provides a more than ten-fold increase in the accuracy of measurement of high temperatures. Its special feature is high sensitivity and the ability to make a highly precise determination of effective wave length in the 4500-8500 angstrom region of the spectrum. Employment of a monochromator prism in this device permits its use as a spectropyrometer. All measurements can be made by a single person. The apparatus makes it possible to calibrate temperature tubes for brightness and color temperatures up to 2500°C with an error $\leq \pm 10^\circ$.

Card 1/1

1. Temperature--Measurement 2. Pyrometers--Operation A. S.

KOVALEVSKIY, V.A.

24(0); 5(4); 6(2) PHASE I BOOK EXPLOITATION SOV/2215
Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii imeni
D.I. Mendeleeva

Referaty nauchno-issledovatel'skikh rabot: sbornik No. 2 (Scientific
Research Abstracts; Collection of Abstracts, 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
bases for the various industries.

COVERAGE: The volume contains 128 reports on standards of measure-
ment 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.
Mendeleeva (All-Union Scientific Research Institute of Met-
rology imeni D.I. Mendeleeva) in Leningrad; Sverdlovsk branch
of this institute; VNIIX - 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
in 1958; KHMIMP - Khar'kovskiy gosudarstvennyy nauchno-
issledovatel'skiy institut mer i izmeritel'nykh priborov
and Measuring Instruments) October 1, 1958; VNIIPRI -
Vsesoyuznyy nauchno-issledovatel'skiy institut fiziko-tekhnicheskikh
i radiotekhnicheskikh izmereniy (All-Union Scientific
Research Institute of Physicochemical and Radio-engineering
Measurements) in Moscow; KHMIMP - Khar'kovskiy gosudarstvennyy
institut mer i izmeritel'nykh priborov (Khar'kov State Institute
of Measures and Measuring Instruments); and KHMIMP - Novosil-
skiy gosudarstvennyy institut mer i izmeritel'nykh priborov
(Novosil'sk State Institute of Measures and Measuring Instru-
ments). No personalities are mentioned. There are no references.

Standard Optical Pyrometers for Measuring Temperatures up to
6000° C 76

Krasovitskaya, B.M. (KHMIMP). Investigation of Radiation Pyro-
meters in Order to Increase the Accuracy of Their Calibration 77

Kandzha, Y.Y., V.A. Kovalevskiy, Ye. A. Lunakhko, G.L. Iosel'son,
and E.I. Lyanny (KHMIMP). Using Objective Photometry in the
Reproduction of Temperature Scales by the Optical Method in the
1003-3000°C Temperature Range 77

Lapina, E.A. (VNIIM). Designing and Studying Standard Tungsten
Pyrometer Lamps 78

Lapina, E.A., A.N. Gordov, and I.I. Kirenkov (VNIIM). Designing
a Standard Color Pyrometer 79

Gordov, A.N., I.I. Kirenkov, and E.A. Lapina (VNIIM). Developing
a New Method of Checking Optical Pyrometers 79
Card 16/27

AUTHORS: Kovalevskiy, V.A., Boyarskiy, L.A. SOV/115-58-6-23/43
TITLE: Lens Spectro-Pyrometer "SPK-2" (Ob'yektivnyy spektropirometr SPK-2)
PERIODICAL: Izmeritel'naya tekhnika, 1958, Nr 6, pp 57-58 (USSR)

ABSTRACT: In the Khar'kov State Institute of Measures and Measuring Devices a new spectro-pyrometer "SPK-2" (Figure 1) has been developed. It is an improvement of the similar apparatus "SPK-1". It is used for calibrating and checking standard temperature tubes for brilliance and collar temperature. In the apparatus a new modulator with an oscillating mirror which consecutively transmits light to the monochromator from both compared sources has been installed. In the outside optical system (Figure 2) several improvements have also been made. Tests have shown that the apparatus is very sensitive and may be used for measuring temperature by its brilliance. The precision of pyrometric measurements is higher

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Lens Spectro-Pyrometer "SPK-2"

SOV/115-58-6-23/43

than in the best optical pyrometers.

There is 1 photo, 1 diagram, and 4 Soviet references.

ASSOCIATION: Khar'kovskiy gosudarstvennyy institut mer i izmeritel'nykh priborov (Khar'kov State Institute of Measures and Measuring Devices)

Card 2/2

BOYALSKIY, L.A.; GORDOV, A.N.; IOSEL'SON, G.L.; KANDYBA, V.V.; KIRENKOV,
I.I.; KOVALEVSKIY, Y.A.; KRAKHMAL'NIKOVA, G.A.; LAPINA, E.A.;
TARAYANTS, K.G.

Using the photoelectric method for precise work in the field of
optical pyrometry. Trudy VNIIM no.36:23-32 '58. (MIRA 11:11)
(Pyrometry)

05450
SOV/120-59-3-21/46

AUTHOR: Kovalevskiy, V. A.

TITLE: Null-Modulation Methods in Photometry (O nulevom
modulyatsionnom metode pri fotometriceskikh
izmereniyakh)

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 3,
pp 98-102 (USSR)

ABSTRACT: The author gives a routine text-book treatment of the
causes of error in beam-splitting and beam-modulating
devices for use in double-beam photoelectric photometers
in which both beams fall on a common photocell. The
author finished his post-graduate training in 1957 and
submitted the paper early in 1958. There are 5 figures
and 10 references, 8 of which are Soviet and 2 English.

ASSOCIATION: Khar'kovskiy gosudarstvennyy institut mer i
izmeritel'nykh priborov (Khar'kov State Institute of
Measures and Measuring Instruments)

SUBMITTED: May 8, 1958 .

Card 1/1

SOV/115-60-1-15/28

AUTHOR: Boyarskiy, L. A. and Kovalevskiy, V. A.

TITLE: A Laboratory Objective Spectropyrometer ✓

PERIODICAL: Izmeritel'naya tekhnika, 1960, Nr 1, pp 31-33 (USSR)

ABSTRACT: Detailed design and operational information is given on the "SPP-58" electronic optical pyrometer which was described previously /Ref. 2 and 37. This inexpensive, portable desk instrument is recommended for laboratory use in place of the bulky and expensive "SPK-1" and "SPK-2" optical spectropyrometers developed at the KhGIMIP, for use by "GKL" (State Control Laboratories). By means of the "SPP-58" pyrometer the monochromatic brightness of different objects is measured at wave lengths from 0.4 to 0.8 microns. Measurements compare the brightness of the object with that of a standard lamp built into the instrument. The modulator of the pyrometer, also described previously /Ref. 2 and 47, is able to work at any

Card 1/2

KOVALEVSKIY, V. A.; and RYBAK, V.I. and GLUSHKOV, V.M.

"Concerning One Algorithm in Teaching to Recognize Shapes."

Report submitted for the Symposium on Principles in the Design of
Self-Learning Systems, Kiev Ukr SSR, 5-9 May 1961

GORDOV, A.N.; IZRAILOV, K.S.; KANDYBA, V.V.; KIRENKOV, I.I.;
KOVALEVSKIY, V.A.; LAPINA, E.A.; FINKEL'SHTEYN, V.Ye.;
ERGARDT, N.N.

Metrological research for creating methods and equipment for
precise measurement of high temperatures. *Ism. tekhn. no. 1:22-25*
Ja '61. (MIRA 14:1)

(Pyrometry)

KOVALEVSKIY V.A.

6

- ABRAMOV, A. A., Computer Center, Academy of Sciences USSR [1959 position] - "Numerical solution of linear algebra problems arising in mathematical physics" (Session 26)
- CHEREVYCHNIK, Yu. K., Computer Center, Academy of Sciences USSR [1960 position] - "Cold cathode-tube blocks in computers" (Session 47)
- DORODNITSYN, A. A., Computer Center, Academy of Sciences USSR, Active Member, Academy of Sciences USSR - "Partial differential equations of the mixed type and methods of their solution" (Invited paper, Session 4)
- GLUSHKOV, V. M., Director, Computer Center, Academy of Sciences Ukrainian SSR, Kiev [1961 position] - "Some problems of learning automata" (Session 12)
- KASHIRSKIY, A. A., "The use of computers in organization of industrial methods of building construction" (Session 25)
- KOVALEVSKIY, V. A., Computer Center, Academy of Sciences Ukrainian SSR, Kiev [1960 position] - "Automatic recognition of typewritten letters" (Session 36)

report to be submitted for the 2nd Intl. Congress for Information Processing, IFIPS, Munich, West Germany, 27 Aug - 1 Sep 1962.

KOVALEVSKIY, V.A.

Transactions of the Sixth Conference (Cont.)

SOV/6371

36. Basharinov, A. Ye., and B. S. Fleyshman. Some Cybernetic Problems of the Statistical Distinguishing of Information Flows 195
37. Volkonskiy, V. A. Applications of the Theory of Random Processes to Estimating the Accuracy of Measuring Devices 201
38. Gladyshev, Ye. G. An Interpolation Problem for Multi-dimensional Stationary Sequences 203
39. Glushkov, V. M., V. A. Kovalevskiy, and V. S. Mikhalevich. On the Reliability of Discrete Automata 209
40. Zaydman, R. A. On the Possibility of Correct Transmission of Infinitely Long Communications Through a Channel With Noise 211

Transactions of the 6th Conf. on Probability Theory and Mathematical Statistics and of the Symposium on Distributions in Infinite-Dimensional Spaces held in Vil'nyus, 5-10 Sep '60. Vil'nyus Gospolitizdat Lit SSR, 1962. 493 p. 2500 copies printed

ACCESSION NR: AT4016401

S/3049/62/000/000/0005/0018

AUTHOR: Glushkov, V. M.; Kovalevskiy, V. A.; Ry*bak, V. I.

TITLE: An algorithm for teaching a machine to recognize the simplest kind of geometric figures

SOURCE: Printsipy* postroyeniya samoobuchayushohikhaya sistem (Principles of construction of self-instructing systems). Sbornik materialov simpoziuma, 1961. Kiev, Gostekhizdat UkrSSR, 1962, 5-18

TOPIC TAGS: artificial intelligence, learning, self improving machine, cybernetics, perception, character recognition, pattern recognition

ABSTRACT: In this work there is a description of an algorithm for teaching a universal computer the recognition of the representation of several of the simplest geometrical configurations, regardless of their size and position in the field of vision. The distinguishing features of the figures are the directions of the contour lines. The drawing is characterized by a set of numbers, each of which is proportional to the number of points of the contour in a given direction. In recognition, a calculation is made of the correlation of these numbers with standard sets which describe certain "averaged" (normalized) figures. The drawing refers to a particular class of figures depending on that standard

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ACCESSION NR: AT4016401

with which maximum correlation is achieved. Although this method of describing figures does not permit correct recognition of all geometric configurations, its advantage resides in its invariability with respect to consecutive shifting of the figures. The instruction consists in the automatic determination of the standards which provide the most correct recognition of the figures. The standards are calculated by averaging the sets of directions of all the drawings used in the instruction. During the instruction phase, the class, to which a given drawing relates, is indicated by the human agent. The authors point out that, in line with the special terminology adopted by certain investigators, the algorithm described in this paper might be imagined as a two-stage perceptron. The equipment used in the experimental studies, which were made with the "Kiev" general-purpose computer, is described. The results of these tests are discussed. Orig. art. has: 6 figures.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 06Jan64

ENCL: 00

SUB CODE: CP

NO REF SOV: 001

OTHER: 003

Card

2/2

ACCESSION NR: AT4016405

S/3049/62/000/000/0063/0072

AUTHOR: Glushkov, V. M.; Kovalevskiy, V. A.; Rybak, V. I.

TITLE: Universal device for the investigation of image-recognition algorithms

SOURCE: Printsipy* postroyeniya samobuchayushchikhsya sistem (Principles of construction of self-instructing systems). Sbornik materialov simpoziuma, 1961. Kiev, Gostekhizdat UkrSSR, 1962, 63-72

TOPIC TAGS: cybernetics, character recognition, optical character recognition, image recognition, pattern recognition

ABSTRACT: The authors propose a universal device for the study of image-recognition algorithms, the purpose of which is to introduce information regarding a graphic image (drawing, plan, etc.) into a computer. The device is controlled by the computer, a fact which makes it possible to simulate any kind of scanning of a drawing executed with India ink, printer's ink or pencil on paper. In this case, there is no need to transfer the drawing to the memory of the computer; i.e., to burden the memory with unprocessed information, since it is possible to refer to any point of the drawing at the necessary moment. The device is capable of distinguishing 16 gradations of grayness, thus making it possible to process not only line drawings, but half-tone work as well. The instrument is designed to be used

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ACCESSION NR: AT4016405

with the "Kiev" computer; this universal digital machine operates with a 41-bit code, with a three-address command system and a mean speed of 10,000 mathematical operations per second. The machine, and its subunits, are described in detail in the article. The author reports that a form of the proposed universal device has been in operation since December of 1960, and has been successfully used for the study of (1) the algorithm used in instructing a machine to recognize geometrical figures, (2) the recognition of typewritten digits in the presence of printing defects and (3) the reliability of the automatic reading of graphs. Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 06Jan64

ENCL: 00

SUB CODE: CP

NO REF SOV: 002

OTHER: 006

Card 2/2

8/271/63/000/003/009/049
A060/A126

AUTHORS: Glushkov, V.M., Koval'skiy, V.A., Mikhaylevich, V.S.

TITLE: On the reliability of discrete automats. Summary

PERIODICAL: Referativnyy zhurnal, Avtomatika, telemekhanika i vychislitel'naya tekhnika, no. 3, 1963, 48, abstract 3A278 (Tr. VI Vses. soveshchaniya po teorii veroyatnostey i matem. statistike, 1960. Vil'nyus, Gos. izd-vo polit. i nauchn. lit. LitSSR, 1962, 209 - 210)

TEXT: The article gives the conclusion to the paper on the influence of malfunctions of separate components on the functioning of discrete automats and cites certain hypotheses as to the nature of malfunctions. The authors note the value of J. von Neumann's work (Probabilistic logic and the synthesis of reliable organisms from unreliable components, in collection Avtomaty, Moscow, il., 1956, 68 - 139) which demonstrates the possibility of synthesizing reliable organisms from unreliable (i.e., such as admit of malfunctions).

... demonstrates the possibility of synthesizing reliable or-
ganisms from unreliable (i.e., such as admit of malfunctions) components, as
well as the work of Claude Shannon and A.P. Moore (Reliable networks from unre-
liable relays, in Kiberneticheskiy sbornik, v. 1, Moscow, 11., 1960, 109 - 148)

Card 1/2

KOVALEVSKIY, V.A.; PARKHOMENKO, I.T.

Automatic device for the input of graphs into digital computers.
Avtomii prib. no.1:44-47 Ja-Mr '62. (MIRA 15:3)

1. Vychislitel'nyy tsentr AN USSR.
(Electronic digital computers)

KOVALEVSKIY, V.A. (Kiyev)

Image recognition with the aid of the correlation method. Zhur,
vych.mat.i mat.fiz. 2 no.4:684-694 J1-Ag '62. (MIRA 15:8)
(Mathematical statistics) (Cybernetics)

16.6850

S/208/62/002/005/006/009
B112/B102

AUTHORS: Yeliseyev, V. K., Kovalevskiy, V. A., (Kiyev)
TITLE: Investigation of a determination algorithm for typewritten signs
PERIODICAL: Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki, v. 2, no. 5, 1962, 902-911

TEXT: The determination algorithm under consideration is the following: The coefficients of correlation of an unknown sign with each of a set of calibrated signs are computed for all possible variations within a bounded range. The unknown sign is identified with whichever calibrated sign corresponds to the largest coefficient of correlation. For simplicity the scalar product of a non-normalized vector describing the unknown sign by the normalized vector of the calibrated sign is computed instead of the coefficient of correlation itself, this product being proportional to the coefficient of correlation. The vectors of the calibrated signs are determined and normalized apriori. Therefore the algorithm consists of two parts, the "education", where the normalized vectors of the calibrated

Card 1/2

GAAZE-RAPOPORT, M.G., otv. red.; YAKOBI, V.E., otv. red.;
BERG, A.I., red.; GURFINKEL', V.S., red.; KOVALEVSKIY,
V.A., red.; KLEYNENBERG, S.Ye., red.; MANTEYFEL', B.P.,
red.; NAUMOV, N.P., red.; PARIN, V.V., red.; POLYANTSEV,
V.A., red.; SOTSKOV, B.S., red.;

[Bionics] Bionika. Moskva, Nauka, 1965. 475 p. (MIRA 18:12)

1. Akademiya nauk SSSR. Nauchnyy sovet po kompleksnoy probleme.
"Kibernetika."

KOVALEVSKIY, V.A., otv. red.; KULIKOVSKAYA, N.S., red.

[Feading automata and the recognition of images] Chitalushchie
avtomaty i raspoznavanie obrazov. Kiev, Naukova dumka, 1965.
287 p. (MIRA 18:11)

1. Akademiya nauk URSR, Kiev.

L 17598-66 EWT(d)/T/EWP(1) IJP(c) GG/BB/JXT(BF)/GS

ACC NR: AT6005577

SOURCE CODE: UR/0000/65/000/000/0184/0207

AUTHOR: Barashko, A. S.; Kovalevskiy, V. A.; Mazyra, Yu. S.; Netrebenko, K. A.; Semenovskiy, A. G.

ORG: none

TITLE: The correlation reading automaton with a shifting register (ChARS) 67
B+1

SOURCE: AN UkrSSR. Chitayushchiye avtomaty i raspoznavaniye obrazov (Reading devices and pattern recognition). Kiev, Naukova dumka, 1965, 184-207

TOPIC TAGS: pattern recognition, data processing, data correlation, automaton, reading machine

ABSTRACT: The authors developed a reading automaton with a shifting register (ChARS) which they subsequently tested in several tube or transistorized versions. The device can process no less than 200 bits/sec, and error probability is no more than 0.01%. The device requires some 2500 parts. The article describes the appropriate algorithm, principles for the engineering realization of this algorithm, the photoelectric component

Card 1/2 2

L 17598-66

ACC NR: AT6005577

and the mechanism for pattern advance, the shifting register, the standard-containing block, the extremum indication block, and the control unit. General tests were carried out in conjunction with the Kiev computer. The experimental model is now being used for the accumulation of statistical data needed for the determination of recognition reliability. The results are printed on the AEPU-45 electric typewriter. Orig. art. has: 16 formulas, 12 figures, and 1 table. [08]

SUB CODE: 09 / SUBM DATE: 3Aug65 / ORIG REF: 005 / ATD PRESS: 4011

Card 2/2 net

L 28059-66 EWT(d)/T/EWP(1) IJP(c) GG/BB/GS

ACC NR: AT6005566

SOURCE CODE: UR/0000/65/000/000/0008/0037

AUTHOR: Kovalevskiy, V. A.

50
BT1

ORG: none

TITLE: Problem of pattern recognition^{16c} from the viewpoint of mathematical statistics

SOURCE: AN UkrSSR. Chitayushchiye avtomaty i raspoznavaniye obrazov (Reading devices and pattern recognition). Kiev, Naukova dumka, 1965, 8-37

TOPIC TAGS: pattern recognition, mathematical statistics

ABSTRACT: A statistical problem statement is: an algorithm is sought which, on the basis of a specified description, would indicate a class (pattern) in such a way that the mathematical expectation of penalty (risk function) would be minimized. Then, the pattern recognition problem can be treated as a hypothesis distinction problem. The classical techniques of mathematical statistics are applicable only to the simplest recognition problems. The efficiency of an algorithm is evaluated by the associated risk function (a formula for the minimum error probability is given). The pattern description can be simplified or digitalized; the simplified description ("statistical")

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L 28059-66

ACC NR: AT6005566

may be sufficient and insufficient; in the latter case, a measure of insufficiency (formula given) can be determined; this measure can be generalized over the case of probabilistic transformation of the description. The entropy (uncertainty, dispersion) as a measure of insufficiency is applicable when the a-priori probabilities $P(k)$ of the patterns are not specified, and only densities $p(x/k)$ are available. Also, the Kullback divergence can be used to measure the insufficiency in some cases. A connection between the entropy and the error probability is established. A formula (inequality) for the information loss in the transition from a specified description to an optimal answer is presented. The article is based on two well-known American books on information theory by S. Kullback and A. Fainstein. Orig. art. has: 100 formulas and 1 table.

SUB CODE: 12 / SUBM DATE: 31Aug65 / ORIG REF: 001 / OTH REF: 002

Card 2/2 CC

L 28060-66 ENT(d)/T/EWP(1) IJP(c) GC/BB/JXT(BF)/GS

ACC NR: AT6005568

SOURCE CODE: UR/0000/65/000/000/0046/0061

AUTHOR: Kovalevskiy, V. A.

53
B+1

ORG: none

TITLE: Correlation method of recognition *b*

SOURCE: AN UkrSSR. Chitayushchiye avtomaty i raspoznavaniye obrazov (Reading devices and pattern recognition). Kiev, Naukova dumka, 1965, 46-61

TOPIC TAGS: pattern recognition, correlation statistics

ABSTRACT: In recognizing optical patterns, uniform variations of the average brightness and contrast can be used as permissible transformations. Optical and nonoptical permissible transformations are described by: $e_i(\alpha) = ae_i(\beta) + b$ ($i = 1, 2, \dots, N$). A sample correlation factor of ρ , and $e_i(\beta)$ sets is given by:

which is, in fact, a non-normalized with respect to ρ correlation factor between the picture ρ and the standard $e(\beta)$. Thus, in the correlation method of pattern recognition, one standard picture $e^{(h)}$ is

$$R(\rho) = \frac{\sum_{i=1}^N \rho_i(\rho) - \frac{1}{N} \sum_{i=1}^N \rho_i \sum_{i=1}^N e_i(\rho)}{\sqrt{\sum_{i=1}^N e_i^2(\rho) - \frac{1}{N} (\sum_{i=1}^N e_i(\rho))^2}}$$

P

Card 1/2

KOVALEVSKIY, V. B. (Veterinary Surgeon), VOLKOBOY, M. V. (Prof.), and
SHCHERBAN' N. P., (Cand. of Veterinary Sci.)

"Diseases and Pests of Fish" *

*Footnote: Kh. S. Goreglyad. "Bolezni i Vrediteli Ryb."
M., Sel'khozgiz, 1955, 4 thousand copies.

Veterinariya, Vol. 38, No. 6, 1961 p. 58

Kovalevskiy, V. B. - Kiev Oblast' Veterinary Bacteriological
Laboratory.

Volkoby, M. V., and Shcherban', N. P. - Ukrainian Scientific Research
Institute of the Fish Industry.

VOLKOBOY, M.V., prof.; SHCHERBAN', N.P., kand.veter.nauk; KOVALEVSKIY, V.B.
veter.vrach

About the book "Fish diseases and pests." Veterinariia 38 no.6:
89-90 Je '61. (MIRA 16:6)

1. Ukrainskiy nauchno-issledovatel'skiy institut rybnogo khozyaystva.
(for Volkoboy, Shcherban'). 2. Kiyevskaya oblastnaya veterinarno-bakte-
riologicheskaya laboratoriya (for Kovalevskiy).
(Fishes--Diseases and pests)

KRAINSKIY, Abram Isayevich; TURETSKIY, I.L., dotsent, retsenzent;
KOVALEVSKIY, V.G., red.; CHFAS, M.A., red.izd-va; SOKOLOVA,
L.V., tekhn.red.

[Organization of material accounting in machinery manufacturing
enterprises] Organizatsiia ucheta materialov na mashinostroitel'-
nom predpriatii. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.
lit-ry, 1959. 151 p. (MIRA 12:4)
(Machinery industry--Accounting)

KOVALEVSKIY, V. G.

Epp
.R91600

Dokumental'naya Reviziya Na Predpriyatiyakh Mestnoy Promyshlennosti
(Documentary Inspection in Enterprises of Local Industry, by) V. G.

Kovalevskiy, A. I. Krainskiy, A. I. Sakulin. Moskva, Gosgiznestprom, 1955

115 p. tables.

KOVALEVSKIY, V. G.

Golenishchev-Kutusov, Mikhail Illarionovich, 1745-1813.

Field Marshal. Voen. byl' 1 no. 1, 1952.

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

KRAINSKIY, Abram Isaeyvich; KOVALEVSKIY, V.G., retsenzent; VARKOVETSKAYA, A.I., red. izd-va; LEYKINA, T.L., red. izd-va; SHCHETININA, L.V., tekhn. red.

[Organizing materials control at a machinery manufacturing plant] Organizatsiia ucheta materialov na mashinostroitel'nom predpriatii. Izd.2., dop. i perer. Moskva, Mashgiz, 1962. 190 p.
(MIRA 15:6)

(Machinery industry--Accounting)

RAPOPORT, Ye.N.; KOVALEVSKIY, V.G., inzh., rezensent

[Organization of a computing center at a machinery enterprise] Organizatsiia vychislitel'nogo tsentra na mashinostroitel'nom predpriatii. Moskva, Mashinostroenie, 1964. 113 p. (MIRA 17:9)

ACCESSION NR. AP4022108

B/0073/64/030/003/0247/0252

AUTHOR: Vdovenko, I. D.; Kovalevskiy, V. I.

TITLE: Investigation of the corrosion of indium-antimony alloys

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 30, no. 3, 1964, 247-252

TOPIC TAGS : indium antimony alloy, corrosion, corrosion activation, InSb, electric potential, rate of solution, stable passive film, homogeneous alloy, electrochemical property.

ABSTRACT: This study was conducted to accumulate experimental data regarding the behavior of In-Sb alloys in aggressive media and to correlate this behavior to the chemical composition, structure and nature of the reagents. The corrosive behavior of In-Sb alloys was studied in acid (HCl and H₂SO₄) and in alkaline (NaOH) media of different concentrations. The corrosion rate of In-rich alloys is greatest in HCl, the chloride ions apparently activating the corrosion. The rate of solution of In-Sb alloys is in accord with the phase diagram, the most stable being the homogeneous alloys containing the chemical compound InSb. The minimum corrosion rate is shown by Sb-rich alloys. The potentials of several alloys were also measured.

Card 1/2

ACCESSION NR: AP4022108

As a rule good correlation is noted in acid media between the corrosive and the electrochemical properties. Improvement in the potential is accompanied by a decrease in the rate of solution of the alloys. In In-rich alloys the potential assumes a negative value and with increasing Sb content the potential becomes positive. The rate of solution in alkaline solutions is minimal, possibly due to the formation of stable passive films under the influence of atmospheric oxygen. Orig. art. has: 7 figures and 1 table.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk UkrSSR (Institute of General and Inorganic Chemistry, Academy of Sciences, UkrSSR)

SUBMITTED: 16 May 63

DATE ACQ: 09 Apr 64

ENCL: 00

SUB CODE: ML

NO. REF. SOV: 005

OTHER: 002

Card 2/2

VDOVENKO, I.D.; KOVALEVSKIY, V.I.

Corrosion of indium-antimony alloys. Ukr. khim. zhur. 30
no.3:247-252 '64. (MIRA 17:10)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

KOVALEVSKIY, VLADIMIR LUKICH

Zhiliishchnoye stroitel'stvo v pyatoy pyatiletke.
Moskva, Gos. izd-vo polit. lit-ry, 1954.

77 p. illus. 20 cm.

KOVALEVSKIY, Vladimir Osnovnyevich; DAVITASHVILI, L. Sh., otvetstvennyy
redaktor; SPIZ, M.Ye., redaktor izdatel'stva; KISELEVA, A.A.,
tekhnicheskyy redaktor

[Collection of scientific works] Sbranie nauchnykh trudov. Moskva,
Izd-vo Akademii nauk SSSR. Vol.2. 1956. 299 p. (MLRA 10:2)
(Ungulata, Fossil)

KOV LEVSKI, V. O.

"The eminent Russian paleontologist." (p. 87) by Kovalovski, V. O. (1842-1889-1942);
Shtraikh, S. Ya. (Moscow).

SO: Advances in Modern Biology (Uspekhi Sovremennoi Biologii) Vol. 16, No. 1, 1943.

KOVALEVSKIY, Vladimir Onufriyevich; GABUNIYA, L.K., doktor geol.nauk
[translator]; OKROPIRIDZE, O.V. [translator]; TUMANISHVILI, G.D.,
kand.biolog.nauk [translator]; NATADZE, L.L., kand.biolog.nauk
[translator]; DAVITASHVILI, L.Sh., otv.red.; NIKITINA, O.G.,
red.izd-va; KASHINA, P.S., tekhn.red.

[Collection of scientific works] Sbranie nauchnykh trudov.
Moskva, Izd-vo Akad.nauk SSSR. Vol.3. 1960. 350 p.

(MIRA 14:2)

(Ungulata, Fossil)

KOVALEVSKIY, V. P.

Geography & Geology

Alaska. Moskva, Geografiz, 1952.

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

KOVALEVSKIY, V. P.

USSR/ Geography - Czechoslovakia

Card 1/1 Pub. 45 - 14/18

Authors : Kovalevskiy, V. P.

Title : ~~Geographical book about Czechoslovakia~~
Geographical book about Czechoslovakia

Periodical : Izv. AN SSSR. Ser. geog. 1. 105 - 107, Jan-Feb 1955

Abstract : A review is made of the book, "Czechoslovakia", published by the State Publishing Office for Geographical Literature in 1954, and containing 312 pages. This book by I. M. Maergoyz is said to contain abundant material on the economic life of Czechoslovakia.

Institution :

Submitted :

KOVALEVSKIY, V.P.

VITVER, I.A.; KOVALEVSKIY, V.P.

"Geography of heavy industry of the U.S.A." by V.M.Goldman. Izv.AN
SSSR, Ser.geog.no.1:158-160 Ja-F '57. (MLRA 10:4)
(United States--Industries) (Gokhman, V.M.)

Kovalevskiy, V.P.

ALAMPIYEV, P.M.; GERASIMOV, I.P.; GORNUNG, M.B.; GOKHMAN, V.M.; ZHIRMUNSKIY,
M.M.; KOVALEVSKIY, V.P.; KULAGIN, G.D.; MILNYKOVSKIY, A.G.; MEYSHTADT,
M.I.; POPOV, K.M.; POLYARKIN, V.A.

A.S. Dobrov; obituary. P.M. Alampiev and others. Izv. AN SSSR. Ser.
geog. no. 4:143-144 J1-Ag '57. (MIRA 11:1)
(Dobrov, Aleksandr Semenovich, 1901-1957)

ANDREYEVA, Vera Mikhaylovna; GOKHMAN, Veniamin Maksovich; KOVALEVSKIY,
Vladimir Pavlovich; POLOVITSKAYA, Mariya Yefimovna; POPOV, K.M.,
doktor ekon.nauk, otv.red.; SOLOV'YEVA, M.G., kand.geograf.nauk,
otv.red.; CHIZHOV, N.N., red.; VASILEVSKIY, L.I., red.; KISELEVA,
Z.A., red.kart; NOGINA, N.I., tekhn.red.

[Economic regions of the U.S.A.; the North] Ekonomicheskie
raiony SShA: Sever. Otv. red. K.M.Popov, M.G.Solov'eva. Moskva,
Gos. izd-vo geogr. lit-ry, 1958. 829 p.. (MIRA 12:1)
(United States--Economic geography)

KOVALEVSKIY, V.P.

Agricultural geography in the U.S.A. Vop.geog. no.44:135-149
'58. (MIRA 12:5)

(United States--Economic geography)
(United States--Agriculture)

GOKHMAN, V.; KARPOV, E.; KOVALEVSKIY, V.; SEREBRYANNYY, L.; CHIZHOV,
N.N., red.; VILENSKAYA, E.N., tekhn.red.

[U.S.A., Canada, Alaska, Greenland] SShA, Kanada, Aliaska,
Grenlandia. Moskva, Gos.izd-vo geogr.lit-ry, 1959. 55 p.
(MIRA 12:6)

(United States) (Canada) (Alaska) (Greenland)

KOVALEVSKIY, V.P.

A Canadian scientist's opinion on geography in Canada and in
the U.S.S.R. Izv.AN SSSR.Ser.geog. no.3:135-137 My-Je '60.
(MIRA 13:6)

(Canada--Geographical research)

KOVALYSHIY, V.P.

Soviet geographers' trip across northern Scandinavia. Inv. A1 1931.
Ser. geog. no. 1:146-149 Jan '61. (CIA A 14:2)
(Scandinavia--Description and travel)

GOKHMAN, V.M.; KOVALEVSKIY, V.P.

Changes in population distribution in major regions of the U.S.A.
during the postwar period and some problems in city growth. Vop.
geog. no.53:48-62 '61. (MIRA 14:7)

(United States--Population--Statistics)
(United States--Cities and towns--Growth)

KOVALEVSKIY, V.P.; CHERNOZHUKOV, K.N.; GOLUBENKOV, V.I.

Exchange of geographical delegations between the U.S.A. and the
U.S.S.R. Izv. AN SSSR. Ser. geog. no.6:150-153 N-D '61. (MIRA 14:12)
(United States--Relations (General) with Russia)
(Russia--Relations (General) with the United States)
(Geography)

KOVALEVSKIY, V.P.

Some tendencies in the change of the structure and distribution
of agriculture in the U.S.A. Izv. AN SSSR. Ser. geog. no.2:
18-25 Mr-Apr '62. (MIRA 15:3)

1. Institut geografii AN SSSR.
(United States--Agriculture)

KOVALEVSKIY, V.P. (Moskva)

Across the mountains west of the United States. Priroda 52
no.6:93-101 '63. (MIRA 16:6)
(United States--Description and travel)

KOVALEVSKIY, V.P., kand. geogr. nauk, otv. red.; SHOKHET, B.S.,
red.izd-va; ASTAF'YEVA, G.A., tekhn. red.

[Agricultural geography of capitalist countries; the
U.S.A., Italy, Canada and Finland] Geografiia sel'skogo
khoziaistva kapitalisticheskikh stran; SShA, Italiia,
Kanada, Finliandiia. Moskva, Izd-vo AN SSSR, 1963. 157 p.
(MIRA 17:2)

1. Akademiya nauk SSSR. Institut geografii.

GOKHMAN, V.M.; KARPOV, L.N.; KOVALEVSKIY, V.P.

Latest forecasting works on ensuring the productive forces of
the U.S.A. and Canada with natural resources. Izv. AN SSSR.
Ser. geog. no. 2:69-80 Mr-Ap '64. (MIRA 17:5)

1. Institut geografii AN SSSR.

ARMAND, D.L.; KARPOV, L.N.; KOVALEVSKIY, V.P.

Conservation of natural resources in the foreign countries.
Izv. AN SSSR Ser. geog. no.4:97-110 '64 (MIRA 17:8)

1. Institut geografii AN SSSR.

KOVALEVSKIY, V.P.

Comprehensive development of the natural resources of the
Tennessee Valley in the U.S.A. Izv. AN SSSR Ser. geog. no.1:
62-72 Ja-F '65. (MIRA 18:2)

1. Institut geografii AN SSSR.

GORBMAN, V.N.; YARPOV, L.N.; KOVALEVSKIY, V.P.

Problems of water resources development in North America. Izv.
AN SSSR. Ser. geog. no.3:73-83 My-Je '65.

(MIRA 18:6)

I. Institut geografii AN SSSR.

KOVALEVSKIY, V.S.

Role of Kama Valley in discharging pressure waters from Perm area strata and their possible effect on the planned lower Kama reservoir. Nauch. dokl. vys. shkoly; geol.-geol. nauki no.3: 213-220 '58. (MIRA 12:1)

1. Moskovskiy universitet, geologicheskiy fakul'tet, kafedra gidrogeologii.

(Kama Valley--Water, Underground)

(Perm region--Geology, Stratigraphic)

KOVALEVSKIY, V. S., Candidate Geolog-Mineralog Sci (diss) -- "The hydrogeological conditions of the central Kama region and the trend of changes in them since the creation of the Lower Kama Reservoir". Moscow, 1959. 21 pp (Moscow Order of Lenin and Order of Labor Red Banner State U im M. V. Lomonosov), 110 copies (KL, No 21, 1959, 112)

3(5)

AUTHOR:

Kovalevskiy, V.S.

SOV/132-59-2-8/16

TITLE:

Experience in Hydro-Geological Districting of the Middle Kama Region According to Water Supply (Opyt gidrogeologicheskogo rayonirovaniya Srednego Prikam'ya v tsel'yakh vodosnabzheniya)

PERIODICAL:

Razvedka i okhrana nedr, 1959, Nr 2, pp 37 - 46 (USSR)

ABSTRACT:

The author conducted hydro-geological research in connection with the creation of the Lower Kama reservoir, designed to supply water for rural areas and small towns. He suggests that the following basic principles be taken into consideration in the division of the Middle-Kama region into districts: 1) the age of the water bearing layers; 2) tectonic characteristics of the district; 3) the degree of water saturation of layers; 4) the geo-morphologic conditions 5) the quality of the water. He develops these principles, applying them to the local conditions of the Middle-Kama region. There is 1 map and 1 table.

ASSOCIATION:

(VSEGINGEO)

Card 1/1

3(4)

SOV/132-59-9-8/13

AUTHOR: Kovalevskiy, V.S.

TITLE: Classification Scheme of Natural Conditions in the
Distribution of Ground Waters

PERIODICAL: Razvedka i okhrana nedr, 1959, Nr 9, pp 41-47 (USSR)

ABSTRACT: The author proposes some changes in the classification scheme elaborated by G.N. Kamenskiy which is based on the division of each territory with analogous geological and hydrogeological conditions into four zone-types characterized by specific natural conditions of formation and distribution of ground waters. Basing his proposition on observations carried out in the region adjacent to the middle part of the Kama River, he divides this region into the four following zones: the interfluvial zone; the zone of slopes; the zone of terraces; and a fluvial zone. Specific features and

Card 1/2

SOV/132-59-9-8/13
Classification Scheme of Natural Conditions in the Distribution of
Ground Waters

conditions governing the distribution and changes
in ground water level in these zones are described
in detail. There are 3 Soviet references.

ASSOCIATION: VSEGINGEO

Card 2/2

KOVALEVSKIY, V.S.

Underground waters of the middle Kama Valley in the region of the future Lower Kama Reservoir. Vest.Mosk.un.Ser.biol., pochv., geol., geog. 14 no.1:147-154 '59. (MIRA 12:9)

1. Moskovskiy gosudarstvennyy universitet, Kafedra gidrogeologii. (Kama Valley)

KONOPLYANTSEV, A.A.; KOVALEVSKIY, V.S.; LEBEDEV, A.V., nauchr.
red.

[Principles of the distribution of an observation net
for the study of the natural regime of underground
waters; methodological instructions] Printsipy razme-
shchenia nabludatel'noi seti dlia izucheniia este-
stvennogo rezhima podzemnykh vod; metodicheskie ukaza-
niia. Moskva, 1963. 47 p. (MIRA 17:9)

1. Moskva. Vsesoyuznyy nauchno-issledovatel'skiy insti-
tut gidrogeologii i inzhenernoy geologii.

KONOPLYANTSEV, A.A.; KOVALEVSKIY, V.S.; SEMENOV, S.S.

Some regional characteristics of the regime of ground waters in
the U.S.S.R. Sov. geol. 7 no.9:121-125 S '64. (MIRA 13:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii i
inzhenerney geologii.

KOVALEVSKIY, V.S.

Division of the middle Kama Valley into hydrogeological sectors from
the point of view of watersupply. Razved. i okh. nedr 25 no.2:41-46
F '59. (MIRA 12:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii i
inzhenernoy geologii.

⌘ (Kama Valley--Water, Underground)

YONAK, Yan [Jonak, Jan]; KOVALEVSKIY, V.S. [translator]; LAVRENT'YEVA,
Ye.V., red.; POPOVA, V.I., mladshiy red.; VILENSKAYA, E.N.,
tekhn.red.

[Two thousand and two hundred kilometers along the Danube]
2200 kilometrov po Dunaiu. Moskva, Gos.izd-vo geogr.lit-ry,
1960. 70 p. (MIRA 13:5)
(Danube Valley--Description and travel)

KOVALEVSKIY, V.S.

New data on the Domashkino series in the central Kama Valley. Izv. vys. ucheb. zav.; geol. i razv. 3 no.5:56-60 My '60. (MIRA 13:11)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Kama Valley--Geology, Stratigraphic)

KOVALEVSKIY, V.S.

Effect of climatic factors on underground water conditions. Razved.
i okh. nedr 26 no.12:36-43 D '60. (MIRA 13:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii i
inzhenernoy geologii.

(Water, Underground)

KONOPLYANTSEV, A.A.; KOVALEVSKIY, V.S.

Principles underlying the study of the natural regime of ground
waters. Meteor.i gidrol. no.6:28-35 Je '61. (MIRA 14:5)
(Water, Underground)

KOVALEVSKIY, V.S.

Relationships between Permian aquifers in the Kama Valley.
Vop.gidrogeol. i inzh.geol. no.19:25-33 '61. (MIRA 15:2)
(Kama Valley--Water, Underground)

DRUZHININ, Vladimir Nikolayevich; KOVALEVSKIY, V.S., red.; KAPELUSH,
S.I., red.; SHAPOVALOVA, N.S., mladshiy red.; VILENSKAYA,
E.N., tekhn. red.

[Typhoon is in sight]V nashem kvadrate taifun. Moskva,
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ACC NR: AP6031065

SOURCE CODE: UR/0143/66/000/008/0117/0120

AUTHOR: Anyutin, A. N. (Engineer); Griga, A. D. (Engineer); Kovalevskiy, V. V. (Engineer); Yershov, V. N. (Docent)

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TITLE: The effect of a decrease in axial velocity in a compressor stage on its efficiency

SOURCE: IVUZ. Energetika, no. 8, 1966, 117-120

TOPIC TAGS: axial compressor, compressor efficiency, compressor stage, compressor stage model, axial flow compressor, *flow velocity*

ABSTRACT: Due to the lack of data on the subject, an experimental investigation was made of the effect of a reduction of the axial velocity in the flow passage of an axial-flow compressor on its efficiency. The basic tests were performed on a K-50-1 stage model at the TsKTI. The axial-flow velocity was changed by varying the shape of the flow-passage cross section so that its ratios of inlet-to-outlet cross-section areas were $F_2/F_1 = 0.92$, 1.00, and 1.10. The angles of the rotor-blade setting (at the middle of their heights) were $27^\circ 40'$, $32^\circ 40'$, and $37^\circ 40'$; this permitted the testing of nine versions of the model stage. The angles of the inlet and intermediate guide vanes were $15^\circ 30'$ and $32^\circ 30'$ and were not changed during the investigation. The circumferential velocity of the blade tips was $u = 200$ m/sec at a Reynolds number

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UDC: 542.78

ACC NR: AP6031065

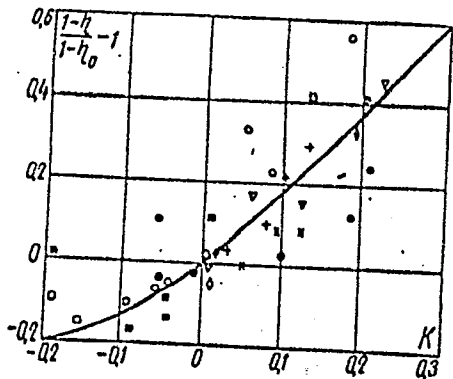


Fig. 1. The dependence of the efficiency on K . $\Delta \delta$ for $u = 270$ m/sec

$Re \approx 3.7 \times 10^5$. For most of the stage versions the tests were repeated at $u = 270$ m/sec. The temperatures were measured at the inlet and outlet of the stage and the static pressures, at the hub and the casing. The velocity distribution in the radial direction of the flow passage in front of and behind the rotor was also determined. For the each version of the stage the characteristics were plotted and the regime of the maximum efficiency η was determined. For this regime the diffusivity factor $\phi = (W_{max} - W_2) / W_1$ was determined; here, W_1 (W_2) are the relative velocities at the inlet (outlet) of the rotor cascade. An approximate formula for determining the efficiency of a stage of an axial-flow compressor with a rough approximation of the air compressibility is proposed: $(1-\eta) / (1-\eta_0) = 1 + K$, where η_0 is the efficiency

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ACC NR: AP6031065

of the stage when $\Delta\phi = \phi_1 - \phi_2 = 0$ and K is a parameter depending on the blade geometry and flow characteristics. The test results (with added characteristics of six other compressor stages) are plotted in a diagram in which the solid curve corresponds to the equation $(1-\eta)/1-\eta_0 = 1 + 1.45K + 2.16K^2$ (see Fig. 1). This equation is recommended for estimating the effect of a decrease in the axial flow velocity on the efficiency of an axial compressor. Orig. art. has: 3 figures and 1 formula. [WA-76]

SUB CODE: 3,20/ SUBM DATE: 23Jul65/ ORIG REF: 003/

Card 3/3

ACC NR: AP6031065

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