

KOZHEVNIKOV, S.N.; PESHAT, V.F.

Investigating the work of electropneumatic distributors by means of  
an electron modeling system. Izv. vys. ucheb. zav.; chern. met.  
no.2:178-183 '61. (MIRA 14:11)

1. Dnepropetrovskiy metallurgicheskiy institut.  
(Metallurgical plants--Equipment and supplies)  
(Electron analog computers)

KOZHEVNIKOV, S.N.; SKICHKO, P.Ya.

Experimental investigation of the main line of finishing roll stands in the continuous 1680-mm. thin-sheet rolling mill at the "Zaporozhstal'" Plant. Izv. vys. ucheb. zav.; chern. met. 4 no.12:179-184 '61. (MIRA 15:1)

1. Institut chernoy metallurgii AN USSR.  
(Zaporozhye--Rolling mills)

KOZHEVNIKOV, S.N.

Using electronic analog computers in investigating rolling mill  
drives. Trudy Inst.mash. Sem. po teor.mash. 21 no.83-84:59-76  
'61. (MIRA 14:6)

(Rolling mills--Testing)

ORLIKOV, Mikhail L'vovich; KOZHEVNIKOV, S.N., retsenzent; KPEMENSHTAYN,  
L.I., kand. tekhn.nauk, dots., otv. red.; CHISTYAKOVA, L.G.,  
inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Designing mechanisms for automatic machine tools] Froektirovanie  
mekhanizmov stankov-avtomatov. Moskva, Mashgiz, 1962. 247 p.  
(MIRA 16:2)

I.Chlen-korrespondent Akademii nauk Ukr.SSR (for Kozhevnikov).  
(Machinery, Automatic--Design and construction)

KOZHEVNIKOV, S.N.; SKICHKO, P.Ya., kand.tekhn.nauk; SKUMS, V.A., inzh.

Experimental investigation of a rotor car-dumper. Trudy Inst.  
chern.met.AN URSSR 16:3-8 '62. (MIRA 15:12)

1. Chlen-korrespondent AN UkrSSR (for Kozhevnikov).  
(Dumping appliances)

KOZHEVNIKOV, S.N.; SKICHKO, P.Ya., kand.tekhn.nauk; SKUMS, V.A., inzh.;  
VISHENSKIY, I.I., inzh.

Experimental investigation of scale cars. Trudy Inst.chern.met.  
AN URSR 16:9-14 '62. (MIRA 15:12)  
(Weighing machines)

KOZHEVNIKOV, S.N.; KUKHTEVICH, G.M., inzh.; KAZAKOV, Ye.A., inzh.;  
YEGOROV, V.S., inzh.; NEVEYKIN, A.V., inzh.

Analyzing the accuracy of weighing on lever-type hopper scales.  
Trudy Inst.chern.met.AN URSR 16:15-25 '62. (MIRA 15:12)

1. Chlen-korrespondent AN UkrSSR (for Kozhevnikov).  
(Blast furnaces--Equipment and supplies)  
(Remote control)

KOZHEVNIKOV, S.N.; FESHAT, V.F., inzh.

Dynamics of an ingot buggy with rope drive. Trudy Inst.chern.  
met.AN URSR 16:26-36 '62. (MIRA 15:12)

1. Chlen-korrespondent AN UkrSSR (for Kozhevnikov).  
(Industrial power trucks)  
(Transients (Dynamics))



KOZHEVNIKOV, S.N.; SKICHKO, P.Ya., kand.tekhn.nauk; LENSKIY, A.N., inzh.;  
TKACHENKO, A.S., inzh.

Investigating the 950 blooming mill at the Dzerzhinskii plant  
by experimental and analytical means and with help of an  
electron model. Trudy Inst.chern.met.AN URSR 16:37-55 '62.  
(MIRA 15:12)

1. Chlen-korrespondent AN UkrSSR (for Kozhevnikov).  
(Dneprodzerzhinsk--Rolling mills--Testing)  
(Electronic analog computers)

KOZHEVNIKOV, S.N.; SKICHKO, P.Ya., kand.tekhn.nauk; TKACHENKO, A.S., inzh.

Dynamics of electromechanical systems with flexible couplings.  
Trudy Inst.chern.met.AN URSR 16:56-65 '62. (MIRA 15:12)

1. Chlen-korrespondent AN UkrSSR (for Kozhevnikov).  
(Rolling mills)

KOZHEVNIKOV, S.N.; YEGOROV, V.S., inzh.

Frequency meters of speed and travel. Trudy Inst.chern.met.AN  
URSR 16:66-69 '62. (MIRA 15:12)

1. Chlen-korrespondent AN UkrSSR (for Kozhevnikov).  
(Machinery, Kinematics of)  
(Electronic measurements)

KOZHEVNIKOV, S.N.; SKICHKO, P.Ya., kand.tekhn.nauk; LENSKIY, A.N., inzh.;  
LOBODA, V.M., inzh.; BOL'SHAKOV, V.I., inzh.

Determination of optima conditions of reduction mill operations.  
Trudy Inst.chern.met.AN URSR 16:70-77 '62. (MIRA 15:12)  
(Rolling mills--Electromechanical analogies)

KOZHEVNIKOV, S.N.; SKICHKO, P.Ya., kand.tekhn.nauk

Experimental investigation of an universal mill at the  
Dzerzhinskii plant. Trudy Inst.chern.met. AN URSS 16:78-87  
'62. (MIRA 15:12)

1. Chlen-korrespondent AN UkrSSR (for Kozhevnikov).  
(Dneprodzerzhinsk--Rolling mills--Testing)

KOZHEVNIKOV, S.N.; PRAZDNIKOV, A.V., kand.tekhn.nauk; LENSKIY, A.N., inzh.;  
BOL'SHAKOV, V.I., inzh.

Investigating on an electron model the performance of the main  
line of a Pilgrim mill. Trudy Inst.chern.met.AN URSR 16:88-  
104 '62. (MIRA 15:12)

1. Chlen-korrespondent AN UkrSSR (for Kozhevnikov).  
(Rolling mills)  
(Electronic analog computers)

KOZHEVNIKOV, S.N.; PRAZDNIKOV, A.V., kand.tekhn.nauk; LOSHKAREV, V.I.,  
inzh.

Automatic indicator of plunger position on a Pilgrim mill feed  
mechanism. Trudy Inst.chern.met.AN URSR 16:105-111 '62.  
(MIRA 15:12)

1. Chlen-korrespondent AN UkrSSR (for Kozhevnikov).  
(Rolling mills) (Feed mechanisms)

KOZHEVNIKOV, S.N.; GRINBERG, S.D., inzh.

Analysis of automatic looping regulators on continuous small  
shape hot rolling mills. Trudy Inst.chern.met.AN URSR 16:112-  
128 '62. (MIRA 15:12)

1. Chlen-korrespondent AN UkrSSR (for Kozhevnikov).  
(Rolling mills) (Automatic control)



KOZHEVNIKOV, S.N.; SKURATOV, Ye.G., inzh.

Automatic precise stopping of reversing cold rolling mills.  
Trudy Inst.chern.met.AN URSR 16:143-153 '62. (MIRA 15:12)

1. Chlen-korrespondent AN UkrSSR (for Kozhevnikov).  
(Rolling mills) (Automatic control)

KOZHEVNIKOV, S.N.; TKACHENKO, A.S., inzh.; SKICHKO, P.Ya., kand.tekhn.  
nauk

Experimental investigation of the performance of continuous  
three-high rolling mills. Trudy Inst.chern.met.AN URSSR  
16:154-160 '62. (MIRA 15:12)

1. Chlen-korrespondent AN UkrSSR (for Kozhevnikov).  
(Rolling mills—Testing)

ARTOBOLEVSKIY, I.I., akademik, red.; LEVITSKIY, N.I., doktor tekhn. nauk, prof., red.; KOZHEVNIKOV, S.N., red.; KOBRINSKIY, A.Ye., doktor tekhn. nauk, red.; PETROKAS, L.V., doktor tekhn. nauk, red.; GAVRILENKO, V.A., doktor tekhn. nauk, red.; BESSONOV, A.P., kand. tekhn. nauk, red.; GRODZENSKAYA, L.S. kand. tekhn. nauk, red.; MERENSKAYA, I.Ya., red.izd-va; UVAROVA, A.F., tekhn. red.

[Analysis and synthesis of mechanisms] Analiz i sintez mekhanizmov; sbornik statei. Moskva, Mashgiz, 1963. 234 p.

(MIRA 16:9)

1. Soveshchaniye po osnovnym problemam teorii mashin i mekhanizmov. 3d, Moscow, 1961. 2. Chlen-korrespondent AN Ukr.SSR (for Kozhevnikov).

(Mechanisms)

ARTOBOLEVSKIY, I.I., akademik, doktor tekhn. nauk, red.; LEVITSKIY, N.I., doktor tekhn. nauk, prof., red.; KOZHEVNIKOV, S.N., red.; KOBRINSKIY, A.Ye., doktor tekhn. nauk, red.; PETROKAS, L.V., doktor tekhn. nauk, prof., red.; GAVRILENKO, V.A., doktor tekhn. nauk, prof., red.; BESSONOV, A.I., kand. tekhn. nauk, red.; SHEKHVITS, E.I., kand. tekhn. nauk, red.

[Theory of automatic machines and of hydraulic and pneumatic drives] Teoriia mashin-avtomatov i gidro-pnevmooprivoda; sbornik statei. Moskva, Mashgiz, 1963. 327 p. (Its: Trudy)

(MIRA 17:10)

1. Soveshchaniye po osnovnym problemam teorii mashin i mekhanizmov. 3d, Moscow, 1961. 2. Chlen-korrespondent AN UkrSSR (for Kozhevnikov).

KOZHEVNIKOV, S.M.

S/198/63/009/001/005/006  
D251/D303

AUTHORS: Kozhevnykov, S.M., Prazdnikov, A.V. and Smolyanyts'ky, E.A. (Dnipropetrovs'k)

TITLE: A new edging mechanism for an automatic blooming mill

PERIODICAL: Prykladna mekhanika, v. 9, no. 1, 1963, 86-93

TEXT: The results of a recent All-Union conference on the automation of blooming mills showed that many institutes are greatly concerned with the designing of automatic blooming mills. The hook-edgers used in manual control are not suitable for automation, and a new edger must be designed. It is shown that the working part of the synthesis mechanism should be at an angle and that during the entire operation the movement of the ingot is controlled by the executive unit. Such an edger will fulfil the requirement of minimum displacement of the manipulator rulers for edging ingots of various heights, if it has two leading units. The reduction of edging time is discussed, with reference to the 'Sack' and 'Shloemann' blooming mills, in which two hook edgers on the left and right rulers before  
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A new edging mechanism ...

S/198/63/009/001/005/006  
D251/D308

the mill are used, and the kinematics of an ideal blooming regime are discussed. The designing of actual edging mechanisms will depend on the number of regimes required for the mill. There are 6 figures.

ASSOCIATION: Dnipropetrovs'kyy instytut chornoyi metalurhiyi  
(Dnipropetrovs'k Institute of Ferrous Metallurgy)

SUBMITTED: April 16, 1962

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ACCESSION NR: AT4018284

S/2905/63/000/96-/0019/0027

AUTHOR: Kozhevnikov, S.N.; Prazdnikov, A.V.; Miroshnichenko, B.I.

TITLE: Electronic simulation of dynamic processes in hydraulic mechanisms

SOURCE: AN SSSR. Institut mashinovedeniya. Teoriya mashin i mekhanizmov (Theory of machines and mechanisms), no. 96-97, 1963, 19-27

TOPIC TAGS: electronic model, simulation, electronic simulation, hydraulic mechanism, hydraulic prime mover, prime mover, hydraulic model

ABSTRACT: Hydraulic prime movers, in addition to electrical and pneumatic ones, are, presently beginning to be used more and more in the metallurgical industry. Equations for the transient processes in hydraulic systems were therefore investigated on an electronic model, by the Institut chernoy metallurgii AN Ukr SSR (Institute of Non-Ferrous Metallurgy AN Ukr SSR). The system included an automatic manipulator and a blooming mill filter. These two parts are very complicated, because it is very difficult to automate them using electronic drives. An electronic device was therefore designed to simulate the equations for the hydraulic system. (See Fig. 1 of the Enclosure.) This device produced oscillograms showing the operation of the system. Although the data obtained for the entire investigation

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were incomplete, they showed the wide possibilities of electronic models for solving similar problems. Orig. art. has: 5 figures and 10 equations.

ASSOCIATION: Institut mashinovedeniya AN SSSR (Institute of Mechanical Engineering AN SSSR)

SUBMITTED: 00

DATE ACQ: 19Mar64

ENCL: 01

SUB CODE: EC

NO REF SOV: 000

OTHER: 000

Card 2/3



ACCESSION NR: AT4018284

ENCLOSURE: 01

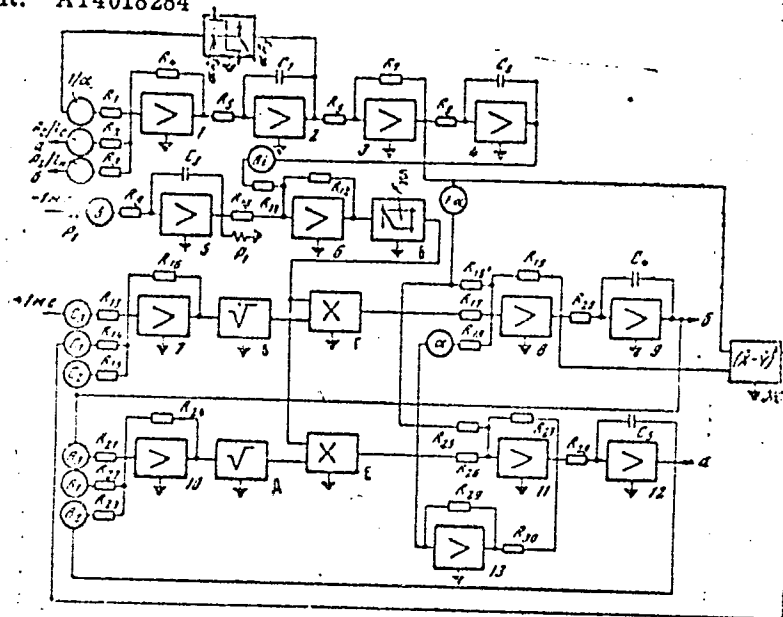


Fig. 1. Wiring diagram of an electronic model of a hydraulic drive.

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KOZHEVNIKOV, S.N.; KRISANOV, A.F., inzh.

Possibility of increasing the output of pipe-rolling plants with  
automatic mills. Stal' 23 no.5:447-450 My '63. (MIRA 16:5)

1. Chlen-korrespondent AN UkrSSR (for Kozhevnikov).  
(Pipe mills) (Automatic control)

KOZHEVNIKOV, S.N.; PRAZDNIKOV, A.V.; MIRCOSHNIHENKO, B.I.

Electronic simulation of dynamic processes in hydraulic mechanisms.  
Teor. mash. i mekh. no.96/97:19-27 '63. (MIRA 17:1)

KOZHEVNIKOV, S.N.; LENSKIY, A.N.; SKICHKO, P.Ya.

Using electronic models for determining loads in the main lines  
of rolling mills. Teor. mash. i mekh. no.96/97:74-84 '63.  
(MIRA 17:1)

KOZHEVNIKOV, S.N.; PRAZDNIKOV, A.V.; IOFFE, A.M.; GLIKIN, M.P.

Stand for the testing and installation of a pilgrim mill feed  
mechanism. Metallurg 9 no.3:29-30 Mr '64. (MIRA 17:3)

1. Institut chernoy metallurgii i zavod im. K.Libknekhta.

KOZHEVNIKOV, S.N.; PRAZDNIKOV, A.V.; IOFFE, A.M.

New trends in the creation of high-speed feeding devices for  
pilgrim mills. Metallurg 9 no.9:21-23 S '64. (MIRA 17:10)

KOZHEVNIKOV, S.N. (Kiev)

"Dynamics of machines with elastic links and distributed parameters"

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 Jan - 5 Feb 64.

KOZHEVNIKOV, S.N.; REYSANOV, A.F.

Theoretical investigations of long-stroke pneumatic cylinders.  
Teor. mash. i mekh. no.101/102:30-41 '64.

(MIRA 17:11)



KOZHEVNIKOV, S.N.; NESTEROV, A.P.

Dynamics of a hoisting unit with a differential reductor. Teor.  
mash. i mekh. no.103/104:72-86 '64.

(MIRA 17:11)

KOZHEVNIKOV, Sergey Nikolayevich; YESIFENKO, Yakov Ivanovich;  
~~MASKIE, Yakov Mikhaylovich~~

[Mechanisms] Mekhanizmy. 1zd.3., dop. i perer. Moskva,  
Mashinostroenie, 1965. 1058 p. (MIRA 18:4)

1. Chlen-korrespondent AN Ukr.SSR (for Kozhevnikov).

NEBESNOV, Viktor Ivanovich, prof.; KVANTALIANI, N.Ye., inzh.,  
retsenzent; NAYDENKO, O.K., kand. tekhn. nauk, prof.,  
retsenzent; KOZHEVNIKOV, S.N., nauchn. red.; NIKITINA,  
R.D., red.

[Problems in the joint operation of ship engines, propellers  
and the hull; studies with electronic analog computers] Vopro-  
sy sovместnoi raboty dvigatelei, vintov i korpusa sudna; is-  
sledovaniia na EVMND. Leningrad, Sudostroenie, 1965. 246 p.  
(MIRA 18:9)

1. Chlen-korrespondent AN Ukr.SSR (for Kozhevnikov).

L 2693-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l) IJP(c) BC  
ACCESSION NR: AT5022816 UR/3165/65/000/001/0094/0102 40  
B+1

AUTHOR: Kozhevnikov, S. N. (Corresponding member AN UkrSSR); Prazdnikov, A. V.  
(Candidate of technical sciences); Smolyanitskiy, E. A.

TITLE: Selection of optimal parameters for a high-speed throttle servo control  
mechanism with an electronic model 9

SOURCE: Ukraine. Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya.  
Gidravlicheskiye mashiny i gidroprivod, no. 1, 1965. Issledovaniye gidravli-  
cheskikh ustroystv i sistem (Investigation of hydraulic devices and systems),  
94-102

TOPIC TAGS: servomechanism, optimal control, mathematic model, machine tool

ABSTRACT: The present paper considers the problem of utilizing a servo throttle  
hydraulic drive with rigid negative feedback, operating on water, and using  
remote manual or automatic control for the mechanisms of heavy high-speed ma-  
chines. The drive should be capable of performing the following functions:  
a) Operate the mechanisms controlled by it in a broad range of speed; in this  
case, the maximum speed may reach one or several meters per second. b) Assure  
the braking of the moving parts of the mechanism within the limits specified by

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ACCESSION NR: AT5022816

the conditions of endurance and durability of the mechanism. c) Carry out the prescribed displacement of the piston to an accuracy of from one to several millimeters. d) Assure the stability of the system along the entire range of changing speeds. The data obtained from processing the oscillograms obtained show good agreement between the data of the electronic and the physical models, and, therefore, a good approximation of the mathematical description of the processes in the high-speed servo drive. It is shown that with the parameters selected, the maximum pressures arising in the cylinder cavities during braking exceed their rated values only slightly. Orig. art. has: 5 figures, 1 table, and 7 formulas.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: IE

NO REF SOV: 000

OTHER: 000

KOZBEVNIKOV, L.N.; BRAZDNIKOV, A.V., kand. tekhn. nauk; SEOLYANITSKIY,  
E.A., inzh.

Using an electronic model in selecting optimal parameters of a  
high-speed mechanism with a throttle servomechanism. Gidr.  
mash. i gidr. no.1:94-102 '65. (MIRA 18:12)

1. Dnepropetrovskiy institut chernoy metallurgii.
2. Chlen-korrespondent AN UkrSSR (for Kozbevnikov).

ACC NR: AM5017937

Monograph

UR/

Kozhevnikov, Sergey Nikolayevich (Corresponding Member, Academy of Sciences of the Ukrainian S.S.R.); YEsipenko, YAKov Ivanovich; Raskin, YAKov Mikhaylovich

Mechanisms (Mekhanizmy) 3d ed., rev. and enl. Moscow, Izd-vo "Mashinostroyeniye", 65. 1058 p. illus., biblio. Errata slip inserted. 16,000 copies printed.

TOPIC TAGS: mechanical engineering, automatic machine, automatic control, durability

PURPOSE AND COVERAGE: This book contains descriptions of 2,030 mechanisms and their elements applied to present machines of different branches of industry. It also describes elements and apparatus of automatic devices. For most of the material the classification of mechanisms is principally functional. For many mechanisms the design formulas are given in finished form to facilitate planning. This book is useful as a manual for technical engineers in factories, technological and planning institutes as well as for students in design of mechanisms and machines. 14

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Ch. II. Links, kinematic pairs and bar mechanisms—73

Ch. III. Gears—174

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UDC:621.01

ACC NR: AM5017937

- Ch. IV. Cam mechanisms <sup>1</sup>—302
- Ch. V. Friction gears and variators. Brakes <sup>1</sup>—365
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- Ch. VII. Mechanisms with broken motion of driven links—504
- Ch. VIII. Mechanisms with regulated motion, compensating, adjusting and safety mechanisms and devices—584
- Ch. IX. Guiding mechanisms, mechanisms for conversion of rotating motion into reciprocating or vibrating, reversing mechanisms, mechanisms for automatic switching on and off—650
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SUB CODE: 13 / SUBM DATE: 18Feb65/ ORIG REF: 068

Card 2/2



ACC NR: AT7000712

SOURCE CODE: UR/0000/66/000/000/0045/0050

AUTHOR: Kozhevnikov, S. N. (Corresponding member AN UkrSSR); Prazdnikov, A. V. (Candidate of technical sciences); Ioffe, A. M. (Candidate of technical sciences); Fabrika, L. P. (Engineer)

ORG: None

TITLE: Use of electronic simulation for studying the hydropneumatic system of the feed mechanism on a pilger mill

SOURCE: Ukraine. Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya. Gidroprivod i gidropnevmoavtomatika (Hydraulic drive and hydropneumatic automation), no. 2, Kiev, Izd-vo Tekhnika, 1966, 45-50

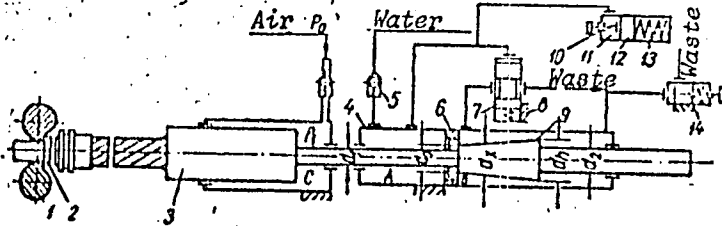
TOPIC TAGS: rolling mill, pneumatic servomechanism, hydraulic device, computer application, analog computer

ABSTRACT: Electric simulation is used for studying the operation of the feed mechanism on a pilger mill. This method consists of using an analog computer for solving the equation of motion of the moving masses in the mechanism. Shown in the figure is a feed mechanism for production of seamless tubes 219-325 mm in diameter. The unit contains a hydraulic brake consisting of housing 4 with diaphragm 6. Inside the housing is tapered plunger 9 with a rod rigidly connected to plunger 3. The entire braking system is filled with water which is fed in at a pressure of  $58.9 \cdot 10^4$  N/m<sup>2</sup>.

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Rolls 1 move sleeve with mandrel 2 as well as plungers 9 and 3 from the extreme left-hand position toward the right. During this process, water from the main line flows through check valve 5 into cavities A and B. After completion of rolling, the moving masses are braked by compressed air in chamber C and begin to move toward the left. On the return path, water from cavity B flows freely through valve 7 into the waste line until the end of the tapered plunger covers the diaphragm. At this point, the fluid pressure in chamber A rises and valve 7 cuts off the waste line. This begins braking of the moving masses. The fluid in chamber A is forced through the annulus between the tapered plunger and the diaphragm into chamber B and through pressure valve 14 into the waste line. Valve 14 is used for regulating braking conditions. The length of the braking path is adjusted by using screw 10 for setting piston 12 in measuring unit 11. When plunger 9 enters diaphragm 6, piston 12 is moved by fluid pressure to the extreme right-hand position. This action delivers a fixed quantity of fluid to



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the cylinder of measuring unit 11 without resistance, so that there is no braking force on a given section of the braking path. When piston 12 stops in the extreme right-hand position, braking force develops in the hydraulic braking system. After completion of braking at the beginning of the rolling process, spring 13 returns piston 12 to the original position while spring 8 returns slide valve 7 to the neutral position. Electronic simulation was used for studying motion of the masses in this mechanism as a function of their magnitude, the working capacity of the feed mechanism was determined and operation of the hydraulic brake was checked with variations in parameters. The program included simulation of both the acceleration and braking of the moving masses. The resultant data show that an increase in air pressure considerably reduces the operating cycle of the mechanism accompanied by a sharp increase in deceleration of the moving masses past the permissible value. An increase in the gap between the tapered plunger and the diaphragm to more than 0.4 mm results in an excessive final velocity of the moving masses during braking. Repair measures are called for when the clearance reaches this limiting value. The given data agree with those of dynamic computation. Orig. art. has: 5 figures.

SUB CODE: 13/ SUBM DATE: 29Jun66

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5(3)

AUTHOR:

Kozhevnikov, S. P.

SOV/54-59-2-17/24

TITLE:

Contact Polythermal Investigation Methods of the Melting Diagrams of Binary Organic Systems (Kontaktno-politermicheskiy metod issledovaniya diagramm plavkosti binarnykh organicheskikh sistem)

PERIODICAL:

Vestnik Leningradskogo universiteta. Seriya fiziki i khimii, 1959, Nr 2, pp 111-118 (USSR)

ABSTRACT:

Up to now the method of contact preparations developed by Kofler (Ref 1) had been used for determining the type of melting diagram of the systems mentioned in the title, which in contrast to the complete determination takes much less time. From investigations carried out by use of this method the author had come to some convenient modifications which made it possible to investigate simultaneously - in the given system - all changes occurring in a certain temperature interval. This possibility was given by the use of a rectangular coordinate system, on the abscissa of which the composition, and on the ordinate of which the temperature were drawn. The preparation was made by melting - at first the substance with the higher melting point in a glass capillary tube, then the substance

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Contact Polythermal Investigation Methods of the  
Melting Diagrams of Binary Organic Systems

SOV/54-59-2-17/24

with the lower melting point in the adjoining part of the capillary tube so that a contact between the two substances, and a diffusion and solution of the two substances into one another could take place. The preparation was once more heated by a heater (Fig 1). The essential part of this heater is a heating loop under the isothermal of which the contact point is introduced at about a right angle. A temperature gradient is produced by the heating loop in the same direction. By a change of the current intensity in the heating loop, the temperature interval could be changed. By a change of the temperature gradient, the whole range of the preparation between alloy and fusion, and in part also the limits of the melts of the initial substances, could be considered. The preparation was observed by a microscope. The photographs of the various systems investigated (antipyrine-hydrochinone, picric acid-anthracene, and paraphenylenediamine-pyrocatechol) are shown in figures 3, 4 and 6. The melting diagrams of the first and second preparation according to Rheinboldt (Ref 2) and Kremann (Ref 4) are

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Contact Polythermal Investigation Methods of the  
Melting Diagrams of Binary Organic Systems

SOV/54-59-2-17/24

represented for comparison in figures 2 and 5. There are  
6 figures and 4 references.

SUBMITTED: July 4, 1958

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KOZHEVNIKOV, S.P.

Ternary contact compound method. Uch.zap.LGU no.272:87-93  
'59. (MIRA 13:1)  
(Systems(Chemistry))

KOZHEVNIKOV, S.P.

Accelerated method of thermal analysis. Vest.LGU 15 no.10:  
144-151 '60. (MIRA 13:5)  
(Thermal analysis)



KOZHEVNIKOV, S.P.

Study of the system antipyrine - *p*-nitrophenol - hydroquinone by  
a rapid method of thermal analysis. Vest. LGU 16 no.4:126-140 '61.  
(MIRA 14:3)

(Antipyrine) (Phenol) (Hydroquinone)

VINOGRADOVA, N.B.; KHROMOV-BORISOV, N.V.; KOZHEVNIKOV, S.P.; LIVSHITS, I.M.

Derivatives of imidazoledicarboxylic acids. Part 2: Dimethyldiamides  
of 1-alkylimidazole-4, 5-dicarboxylic acids. Zhur.ob.khim. 31 no 5:  
1471-1476 My '61. (MIRA 14:5)

1. Institut eksperimental'noy meditsiny AN SSSR.  
(Imidazoledicarboxylic acid)

KHROMOV-BORISOV, N.V.; KOZHEVNIKOV, S.P.

Synthesis of asymmetric ion exchange resins based on L-tyrosine.  
Zhur.ob.khim. 31 no.9:2926-2930 S '61. (MIRA 14:9)

1. Institut eksperimental'noy meditsiny Akademii meditsinskikh  
nauk SSSR.

(Ion exchange resins) (Tyrosine)

SVIREZHEV, M.V.; POROKH, P.Ye.; KOZHEVNIKOV, S.V.

Reducing the incidence of osteoarticular tuberculosis in Vladimir Province. Zdrav. Ros. Feder. 5 no.5:9-13 My '61. (MIRA 14:5)

1. Iz Vladimirskogo oblastnogo kostnotuberkuleznogo sanatoriya.  
(VLADIMIR PROVINCE—BONES—TUBERCULOSIS)

*KOZHEVNIKOV, SAVVA, YELIZO*

SHEPELEV, Aleksandr Grigor'yevich, ASHCHEPKOV, Yevgeniy Andreyevich;  
KOZHEVNIKOV, Savva Yelizarovich; NEMIRA, Kirill L'vovich; KITAYNIK,  
Abram Usherovich; SINAGOV, V.N., red.; MAZUROVA, A.F., tekhn.red.

[With our friends; impressions of Siberians visiting people's  
democracies] U Nashikh družei; vpechatleniia sibirnikov, pobывavshikh  
v stranakh narodnoi demokratii. [Novosibirsk] Novosibirskoe knizhnoe  
izd-vo, 1957. 127 p. (MIRA 10:12)

(China--Description and travel)

(Czechoslovakia--Description and travel)

(Germany, East--Description and travel)

KOZHEVNIKOV, Saava Yelizarovich, KOLESNIKOVA, G.A., red.; BESSONOVA, I.D.,  
tekh, red.

[That is what makes life worthwhile; narratives] Eadi etogo stoit  
zhit'; ocherki. Moskva, Sovetskii pisatel', 1958. 467 p. (MIRA 11:8)  
(Siberia--Description and travel)  
(China--Description and travel)

KOZHEVNIKOV, V. A.

11 2283

USSR/Aeronautics

Mar 1947

Helicopters - Aerodynamics  
Propellers - Aerodynamics

"Influence of the Proximity of the Earth on the Aerodynamic Character of the Carrying Propeller of a Helicopter," V. A. Kozhevnikov, 8 pp

"Tekh Voz Flota" No 4

Mathematical discussion of an experiment with a helicopter with a type ~~HEZE~~ carrying propeller, having rectangular or trapezoid blades, rotating with a constant number of revolutions and at a constant angle of the blades. The work attempted to find a geometric law for the change of the strength of the attraction in the function of relative distance between the propeller and the earth. BS 29T3

KOZHEVNIKOV, V.A.

KOZHEVNIKOV, V. A. -- "Theoretical and Experimental Investigation of Screen Reflectors." Sub 17 May 52, Moscow, Voenno-Inzhenernyi Seryo Orichonil'nye. (Dissertation for the degree of Candidate in Technical Science).

in: Technicheskaya nauka, January-December 1952



AUTHOR: Kozhevnikov, V.A., and Bridavskiy, M.S., Engineers SOV-91-58-11-2/20

TITLE: The Welding of High-Pressure Pipes (Svarka truboprovodov vysokogo davleniya)

PERIODICAL: Energetik, 1958, Nr 11, pp 4-8 (USSR)

ABSTRACT: The author states that with the introduction of a new and more perfect method of examining welding seams, i.e. the ultrasonic detection of defects (UZD), it was found that the position in regard to the butt-welding of high-pressure pipes was not as good as had previously been supposed. In some cases cracks were found in the root of the seam; the quality of the hollow ingots produced by the factory was largely a cause of this. The author is of the opinion that the ends of the pipes should be machined by the factory in such a way that they can be assembled according to the prescribed instructions for welding as regards to the clearances and angles of taper of the edges; the inner surfaces should be correspondingly made to take cylindrical washers. The author illustrates this point by several figures and examples, and later refers

Card 1/3

The Welding of High-Pressure Pipes

SOV-91-58-11-2/20

to work being organized by the kafedra svarki Leningrads-kogo politekhnicheskogo instituta (Chair of Welding of the Leningrad Polytechnical Institute) on the butt-welding of pipes, without using washers, but by welding on the first bead by a tungsten electrode in an argon medium. Another method consists of welding on ceramic removable rings. However, these methods are not yet being used in practice. The author further discusses techniques of welding and fault-detection, and finally comes to the following conclusions: 1) the assembly of high-pressure pipes and their inspection by ultrasonic fault detection requires an improvement in the quality of the pipes supplied; 2) welding instructions should be followed and inspection by ultrasonic detection carried out; 3) by adhering to the rules of technology and changing the

Card 2/3

The Welding of High-Pressure Pipes

SOV-91-58-11-2/20

"geometry" of the butt, the quality of the seam can be improved so as to satisfy the demands of ultrasonic fault-detection; 4) in order to reduce the cost of assembly and improve the quality of the equipment, it is necessary to introduce block delivery of pipes and their controlled assembly at the factory with calibration and marking of the ends of the pipes. There are 7 diagrams and 2 Soviet references.

Card 3/3

1. Pipes--Welding

KOZHEVNIKOV, Vladimir Aleksandrovich; SEDOV, Leonid Aleksandrovich;  
LAVRENT'YEVA, Ye.V., red.; BURLAKA, N.P., tekhn.red.

Laos. Moskva, Gos.izd-vo geogr.lit-ry, 1962. 44 p.

(Laos--Economic geography)

(MIRA 15:2)

KOZHEVNIKOV, V. A.

32621. ZHUKOV, A. P. I KOZHEVNIKOV, V. A. Sravnitel'naya Kharakteristika Krasnoy Krovi Ovets V Gorakh. (K Postanovke Poprosa Ob Akklimatizats 11). Iz Vestiya Tadzh. Filiala Akad. Nauk SSSR, No. 14, 1947, s. 31, 45.

SO: Letopis' Zhurnal'nykh Statey, Vol. 44, Moskva, 1949

KOHEVNIKOV, V. A.; MARUSEVA, A. M.

Mbr., Lab. of Physiology of Sense Organs, Inst. Physiology im. Acad. I. P. Pavlov.  
Acad. Sci., -1949-.

"Electroencephalographic Study of the Formation of Temporary Contacts in Imperceptible  
Stimuli of Humans," Iz. Ak. Nauk SSSR, Ser. Biol., No. 5, 1949.

SO: Monthly List of Russian Accessions, Library of Congress, \_\_\_\_\_ 1953, Uncl.

KOZHEVNIKOV, V. A.

USSR/Medicine - Physiology

FD 252

Card 1/1

Author : Kozhevnikov, V. A.

Title : Instruments for measuring cutaneous-galvanic reflexes in laboratories and clinics

Periodical : Fiziol.zhur. 2, 226-230, Mar/Apr 1954

Abstract : Two instruments, developed for use in the study of cutaneous-galvanic reflexes, are described and illustrated. One is a portable instrument, galvanometer, with a needle indicator from which cutaneous-galvanic reflex reading can be taken. The other instrument enters in ink the cutaneous-galvanic reactions. Both instruments work off of normal ac line. A special study was made by the author of this article in 1952; the results of this study showed that this method is superior to the cutaneous potential measurement, because it enables measuring the initial level of cutaneous resistance and observing the dynamics of its changes from day to day during the entire period of experimentation. Five references, four Soviet.

Institution : Laboratory of Physiology of the Acoustic Analysor, Institute of Physiology imeni I. P. Pavlov, Academy of Sciences USSR

Submitted : June 30, 1953

USSR/Medicine - Physiology

FD-1339

Card 1/1 : Pub 33-17/25

Author : Kozhevnikov, B. A.

Title : ~~Method of automatic analysis of biological currents~~  
Method of automatic analysis of biological currents (Electronic analyzer of biological currents of the brain)

Periodical : Fiziol. zhur. 4, 487-492, Jul/Aug 1954

Abstract : A method of automatic division of electro-encephalograph recordings into several separate rhythmic components and quantitative evaluation of amplitudes of these components has been developed. Direct tabulation of intensity of fluctuations of individual rhythms can be made. An apparatus has been constructed which can be attached to a standard electro-encephalographic intensifier and can provide simultaneous recordings of electro-encephalograph and of isolated alpha, beta, and gamma-rhythms. Continuous automatic tabulation of total intensity of fluctuations, observed along the width of each rhythm, can also be performed by the apparatus. Results of tabulations are recorded on an oscillogram and are presented in numerical form on the electro-mechanical counter. Diagrams. Graphs. Four Soviet and three non-Soviet references.

Institution : Laboratory of Physiology of Auditory Analysor, Institute of Physiology imeni I. P. Pavlov, Academy of Sciences USSR, Leningrad

Submitted : February 10, 1954



*Kozhevnikov, V.A.*

GERSHUNI, G.V.; KOZHEVNIKOV, V.A.; MATYATOVA, Ye.S.

Studies on certain manifestations of the function of the auditory analyzer in man by means of conditioned cutaneo-galvanic reflexes. Vest. oto-rin. 16 no.4:14-20 J1-Ag '54. (MLRA 7:8)

1. Iz laboratorii slukhovogo analizatora (zav. prof. G.V.Gershuni) Instituta fiziologii imeni I.P.Pavlova Akademii nauk SSSR i kliniki bolezney ukha, gorla i nosa (zav. chlen-korrespondent Akademii meditsinskikh nauk SSSR V.F.Undrits) i Leningradskogo meditsinskogo insituta.

(REFLEX, CONDITIONED,

\*cutaneo-galvanic, auditory analyzor funct. test)

(HEARING TEST,

\*cutaneo-galvanic conditioned reflex technic)

GERASIMOV, A.A.; KOZHEVNIKOV, V.A.

Electrical ergograph with the mechanism for summation. *Fiziol.*  
shur. 42 no.4:434-437 Ap '54. (MLRA 9:7)

1. Laboratoriya ekologicheskoy fiziologii i laboratoriya fiziologii  
slukhovogo analizatora Instituta fiziologii imeni I.P.Pavlova  
AN SSSR, Leningrad

(PHYSIOLOGY, apparatus and instruments,  
ergograph with mechanism for summation (Rus))

USSR/Medicine - Physiology

FD-2454

Card 1/1      Pub 33-5/24

Author      : Kozhevnikov, V. A.

Title      : ~~Comparative characteristics of galvanic skin reflexes, measured by means of potential differences and resistance of the skin~~  
Comparative characteristics of galvanic skin reflexes, measured by means of potential differences and resistance of the skin

Periodical : Fiziol. zhur. 2, 195-203, Mar-Apr 1955

Abstract   : The changes of the electrical resistance and the potential difference between palmar and dorsal surface of the hand in response to an electrical shock applied to the right ear lobe were compared in 60 experiments on 11 subjects. The resistance changes always in the form of a single, monophasic decrease, while the changes of the potential difference may occur in 2 to 3 phases of changing polarity. The latent period of the resistance changes exceeds that of the potential changes by 0.4 to 0.9 sec. Table; graphs. Six references, 2 of them USSR (1 since 1940).

Institution: Laboratory of the Physiology of Hearing of the Institute of Physiology imeni I. P. Pavlov of the Academy of Sciences USSR, Leningrad

Submitted   : June 30, 1953

KOZHEVNIKOV V A

Principles of analyzing the bioelectric current of the brain as a complex oscillatory process. Probl.fiziol.akust. 3:102-116 '55.  
(MLRA 9:5)

1. Laboratoriya fiziologii slukhovogo analizatora Instituta fiziologii imeni I.P.Pavlova AN SSSR, Leningrad.  
(BRAIN--PHYSIOLOGY)  
(ELECTROENCEPHALOGRAPHY)

<sup>1</sup>  
KOZHEVNIKOV, V.A.; SOROKO, V.I.

Two-cascade direct-current amplifier with high amplification.  
Biofizika 1 no.1:95-97 '56. (MIRA 9:12)

1. Institut fiziologii imeni I.P.Pavlova Akademii nauk SSSR,  
Leningrad.

(AMPLIFIERS, ELECTRON-TUBE)

KOZHEVNIKOV, Y.A.

Stable direct-current amplifier. Biofizika 1 no.3:292-295 '56.  
(MLRA 9:9)

1. Institut fiziologii imeni akademika I.P.Pavlova Akademii  
nauk SSSR, Leningrad  
(AMPLIFIERS, ELECTRON-TUBE)

KOZHEVNIKOV, V.A.

Studying electrical reactions of the brain to sound stimuli; detection of electrical reactions of small amplitudes. Trudy Inst.fiziol. 5: 159-162 '56. (MIRA 10:1)

1. Laboratoriya fiziologii slukhovogo analizatora. Zaveduyushchiy - G.V.Gershuni. (ELECTROPHYSIOLOGY)

KOZHEVNIKOV, V.A.; SOROKO, V.I.

Appliance for auditory detection of electroencephalographic and other biological currents; encephalophone. Zhur.vys.nerv. deiat. 6 no.3: 479-481 My-Je '56. (MLRA 9:11)

1. Laboratoriya fiziologii slukhovogo analizatora Instituta fiziologii im. I.P.Pavlova AN SSSR.

(ELECTROENCEPHALOGRAPHY, apparatus and instruments, encephalophone (Rus))

(ELECTROPHYSIOLOGY, apparatus and instruments, encephalophone (Rus))



KOZHEVNIKOV, V.A.; SOROKO, V.I.

Construction of differential amplifiers for the registration  
of biopotentials without screening the object. Fiziol. zhur.  
43 no.2:187-191 F '57 (MLRA 10:4)

1. Laboratoriya fiziologii slukhovogo analizatora Instituta  
fiziologii im. I.P. Pavlova AN SSSR, Leningrad.

ELECTROPHYSIOLOGY, appar. and instruments  
differential amplifiers for registration of  
biopotentials without screening of object)

Country : USSR  
Category: Human and Animal Physiology. Nervous System  
General Problems

T

Abs Jour: RZhBiol., No 19, 1958, 89155

Author : Kozhevnikov, V.A.

Inst : -

Title : Some Problems of Measurement and Analysis of the  
EEG and the Theory of Information.

Orig Pub: Fiziol. zh. USSR 1957, 43, No 10, 983-994

Abstract: The results of measurements of various parameters  
of complicated biopotentials ("pleasant signal")  
appear to be a function of the measurable effect  
("useful signal") and incidental fluctuations ("noise").  
They may be represented in the form of a fluctuating  
process, in which the arithmetical mean of the mea-

Card : 1/3

T-34

Country : USSR  
Category: Human and Animal Physiology. Nervous System.  
General Problems

T

Abs Jon: RZhBiol., No 19, 1958, 89155

sured value corresponds to the constant component of this process, and the dispersion to the average value of the intensity of the fluctuations. The processes of measurement of the height of the wave R in the EKG and of the average tension of the  $\alpha$ -rhythm in the EEG are considered. With the increase of the number of measurements for the electrocardiogram the gathering of information occurs more rapidly than for the EEG. In the detection of weakly manifested reactions in the EEG, for instance in the establishment of thresholds, it is necessary to take into account the statistical

Card : 2/3

Country : USSR  
Category: Human and Animal Physiology. Nervous System.  
General Problems

T

Abs Jour: RZhBiol., No 19, 1958, 89155

characteristics of the reaction. In view of the presence of "noise" the registered changes in the EEG contain, besides the record of the reaction to a determined action, also records not related to the studied action (accidental fluctuations of the studied manifestations). Therefore the evaluation of data amounts to acknowledgment of the probability that the observed changes in the EEG are associated mainly with the studied action. As an example, the reaction of suppression of the  $\alpha$ -rhythm by sound stimulation is considered. --  
I.M. Feygenberg

Card : 3/3

T-85

KOZHEVNIKOV, Y.A.

Photoelectric method for isolating weak electrical responses of the brain (detection, determination, average forms and variability of responses [with summary in English]. Fiziol.zhur. 44 no.9:801-809 S '58 (MIRA 11:12)

1. Laboratoriya fiziologii slukhovogo analizatora Instituta fiziologii imeni I.P. Pavlova AN SSSR, Leningrad.  
(BRAIN, physiol.  
weak electric responses, photoelectric detection,  
determ. forms & variations (Rus))

KOZHEVNIKOV, V.A.; RADIONOVA, Ye.A.

Probability method of estimating the alpha-rhythm inhibition of the electroencephalogram in response to auditory stimulations of minimum intensity. Probl.fiziol.akust. 4:68-79 '59. (MIRA 13:5)

1. Laboratoriya fiziologii slukhovego analizatora Instituta fiziologii imeni I.P. Pavlova AN SSSR, Leningrad.  
(AUDIOMETRY) (ELECTROENCEPHALOGRAPHY)

KOZHEVNIKOV, V.A.; SOROKO, V.I.

Electronic apparatus for measuring alpha-rhythm variations of the electroencephalogram produced by stimulations. Probl.fiziol.akust. 4:80-83 '59. (MIRA 13:5)

1. Laboratoriya fiziologii slukhovogo analizatora Instituta fiziologii imeni I.P. Pavlova AN SSSR, Leningrad.  
(AUDIOMETRY) (ELECTROENCEPHALOGRAPHY) (ELECTRONIC INSTRUMENTS)

KOZHEVNIKOV, V. A. (Prof.)

"Modern Methods of Analysing Records of Biopotentials."

report presented at the Third International Conference on Medical Electronics,  
Olympia, London, 21-27 July 1960.



KOZHEVNIKOV, V. A. Doc Biol Sci -- "Automatic methods of ~~the~~ analysis of  
bio-electric potentials and their use for the study of weak electric reactions  
of the brain." Len, 1960 (Len Order of Lenin State Univ in A. "A. Zhdanov)  
(XL, 1-61, 186)

-101-

KOZHEVNIKOV, V.A.; SHUPLYAKOV, V.S.

Methods of simultaneous registering of articulatory and acoustic parameters of speech. Vop.psikhol. no.6:128-134 N-D '62.

(MIRA 16:2)

1. Institut fiziologii imeni I.P.Pavlova AN SSSR, Leningrad.  
(Speech) (Psychological apparatus)

KOZHEVNIKOV, V.A., doktor biolog.nauk

Electronic computers in physiological studies abroad. Vest.  
AN SSSR 32 no.5:100-105 My '62. (MIRA 15:5)  
(ELECTRONIC DIGITAL COMPUTERS) (PHYSIOLOGY--RESEARCH)

KRATIN, Yuriy Gennadiyevich; BEKHTEREVA, Nataliya Petrovna;  
GUSEYNIKOV, Vladimir Ivanovich; KOZHEVNIKOV, Valeriy  
Aleksandrovich; SENICHENKOV, Boris Tikhonovich; USOV,  
Vladimir Vasil'yevich; KATINAS, G.S., red.izd-va;  
ZAMARAYEVA, R.A., tekhn. red.

[Technique and methods of encephalography] Tekhnika i  
metodiki elektroentsefalografii. [By] I.U.G.Kratin i dr.  
Moskva, Izd-vo AN SSSR, 1963. 312 p. (MIRA 16:10)  
(Encephalography)

KOZHEVNIKOV, Valeriy Aleksandrovich; MESHCHERSKIY, Rostislav Mikhaylovich;  
NAZAROVA, V.A., red.; PARAKHINA, N.L., tekhn. red.

[Current methods of analyzing the electroencephalogram] Sovremennye metody analiza elektroentsefalogrammy. Moskva, Medgiz, 1963. 326 p. (MIRA 16:10)

(ELECTROENCEPHALOGRAPHY)

ACCESSION NR: AT4037703

S/2865/64/003/000/0324/0334

AUTHOR: Kozhevnikov, V. A.; Chistovich, L. A.

TITLE: Physiological studies of the speech process and their significance in design of speech decoding systems

SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy\* kosmicheskoy biologii, v. 3, 1964, 324-334

TOPIC TAGS: speech, phonetics, articulation, decoding, speech decoding

ABSTRACT: A phonetic and articulatory analysis of spoken Russian has been conducted to determine the feasibility of systems for the automatic decoding of speech. Sensors were attached to the lips of test subjects and were incorporated into artificial plastic palates which adhered precisely to the subjects' palates. The air flow during articulated speech was measured by means of a mouthpiece attachment fitted tightly over the subjects' mouth. A preliminary statistical analysis of the results showed that it is possible to obtain meaningful data on the elements of articulated speech. Such information could be of considerable value in designing automatic "human speech" systems.

Card 1/2

ACCESSION NR: AT4037703

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: LS

NO REF SOV: 002

OTHER: 003

2/2

Card

CHISTOVICH, L.A.; KOZHEVNIKOV, V.A.; ALYAKRINSKIY, V.V.; BONLAKKO,  
L.V.; GOLUZINA, A.G.; KLAAS, Yu.A.; KUZ'NICH, Yu.I.;  
LISENKO, D.M.; LYUBLINSKAYA, V.V.; FEDOROVA, N.A.;  
SHUPLYAKOV, V.S.; SHUPLYAKOVA, R.M.

[Speech: Articulation and perception] Artikuliatsiya i  
vospriyatie. Moskva, Nauka, 1965. 240 p. (MIRA 18:2)

1. Akademiya nauk SSSR. Institut fiziologii im. I.P.Pavlova.



L 14274-66 EWT(d)/EWP(1) IJP(c) BB/GG/RD

ACC NR: AT6003898

SOURCE CODE: UR/2865/65/004/000/0605/0613

AUTHOR: Kozhevnikov, V. A.; Chistovich, L. A.

ORG: none

TITLE: Some possible physiological investigations of speech processes in connection with the problems of establishing man-machine communication based on speech

SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy kosmicheskoy biologii, v. 4, 1965, 605-613

TOPIC TAGS: man machine communication, acoustic signal, acoustic theory, biosensor, computer calculation

ABSTRACT: Low information transmission capacity and high susceptibility to error are just two of the many disadvantages of conventional man-to-machine information input links based on levers, pushbuttons, and knobs. Creation of a direct man-machine link based on human speech would eliminate these and other limitations of present systems. The first requirement of such a system is development of a device capable of mechanically resolving running speech into its constituent phonemes, which are defined as the smallest distinctive speech units into which a language can be analyzed.

Card 1/5

L 14274-66

ACC NR: AT6003898

The most common approach to this problem for the past 10 to 15 years has been to devise equipment for: 1) automatic sequential segmentation of running speech into its component sounds, and 2) comparison of each segment against a stored phoneme dictionary to identify the phoneme it represents. Though attractive in its great simplicity, this approach has not borne fruit, and existing theoretical and phonetic considerations indicate that it is not likely to work. The acoustic signals of speech vary too much from speaker to speaker and even in the speech of a single speaker for reliable matching to be possible.

A new approach, developed in the last 2 or 3 years, is to base resolution not on the acoustic signals of speech themselves but instead on the complex of articulatory movements which go into the production of a speech sound, which in theory can be consistently and reliably deduced from the acoustic signal.

The phoneme (minimal speech unit) thesaurus can then be made up of such complexes of articulatory acts, which are distinctive for each phoneme and more reliably matched, than with the bundles of acoustic features which are the phonemes themselves.

Card 2/5

L 14274-66

ACC NR: AT6003898

Solution of this problem lies in identifying those changes in the parameters of the speech signal which correspond reliably with changes in articulatory parameters. There are at least two ways in which the essential features of the speech signal may be sought: 1) detailed study of the strategy by which a human, hearing a sound, discovers what articulatory movements he must make to imitate it; and 2) statistical (computerized) analysis to isolate the acoustic signs corresponding to a given stance of the articulatory organs and to transitions from one stance to another. The latter line of attack requires synchronous recording of articulatory parameters and speech signals.

Another problem, no less complex is that of the procedure for segmenting the speech continuum into its constituent smallest significant units. As we have seen, these exist in a pure state only on the articulatory level, so must be studied on this level. Basic research is required into the nature of articulatory programs, their organizational principles, and their mechanisms of realization.

These questions are unstudied to date. Since the 1930's, the phoneticians have given most of their attention to ever more refined recording and analysis of the physical characteristics of the sounds of speech. Investigation of articulatory

Card 3/5

L 14274-66

ACC NR: AT6003898

processes has been almost at a standstill, confined where it did exist to study of the movement of air in the speech tract and the role of the tongue in the formation of vowel sounds. Essential information on closure of the lips and the exact location of changing contact of the tongue with the palate, necessary to understanding of the formation of consonants, can now be obtained by means of the artificial palate illustrated in Fig. 1 (for fuller discussion see "Tongue Movements in Speech Electrically Recorded," Acc. Nr: AT6003892).

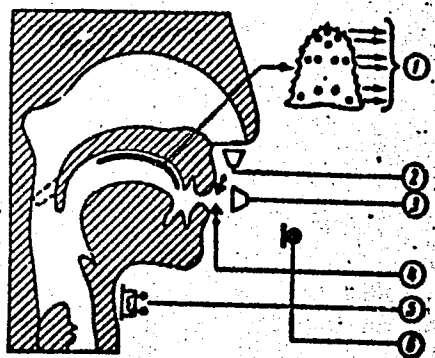


Fig. 1 Distribution of basic sensors of articulatory speech parameters

- 1 - Artificial palate with tongue contact sensors;
- 2 - sensor for nasal airflow;
- 3 - sensor for buccal airflow;
- 4 - lip closure sensor;
- 5 - laryngophonic sensor;
- 6 - microphone for acoustic record of speech.

Card 4/5

L 14274-66

ACC NR: AT6003898

These data can either be recorded with a multi-channel pen-writer or input into a computer. Information can be obtained with the artificial palate in binary form and lends itself easily to computer processing. Computer analysis makes it possible to identify meaningful groupings of complex articulatory features, which can then be correlated with groupings of complex phonetic features. Orig. art. has: 2 figures. [ATD PRESS: 4091-F]

SUB CODE: 05, 09, 20 / SUBM DATE: none / ORIG REF: 017 / OTH REF: 013

OC  
Card 5/5

KOZHEVNIKOV, V.A.

Bridge spans on the highways of Saratov Province and  
Kazakhstan. Avt.dor. 28 no.10:23-24 0 '65.

(MIRA 18:11)

KOZHEVNIKOV, V.A., doktor biolog.nauk

International Conference on the Development of Biomedical  
Electronics, held at Liege. Vest. AN SSSR 34 no. 1:70-73  
Ja '64. (MIRA 17:5)

KOZHEVNIKOV, V.A., inzh.

Braking systems for electric railway motors. Sbor, LIZHT  
no.159:178-188 '58. (MIRA 12:2)  
(Electric railroads--Brakes)



KOZHEVNIKOV, V.A., inzh.

Using electrodynamic braking on diesel locomotives. Sbor.  
LIIZHT no.159:189-197 '58. (MIRA 12:2)  
(Railroads--Brakes) (Diesel locomotives)

KOZHEVNIKOV, V.A., inzh. (Leningrad)

Rheostatic brakes for diesel locomotives. Elek. i tepl. tiaga 2  
no.8:9-11 Ag '58. (MIRA 11:9)  
(Railroads—Brakes) (Diesel locomotives)

KOZHEVNIKOV, V A.

PHASE I BOOK EXPLOITATION SOV/5518

Gakkel', Yekaterina Yakovlevna, Doctor of Technical Sciences, Vladimir Arsen'yevich Kozhevnikov, Engineer, Boris Georgiyevich Kuznetsov, Engineer, Andrey Vladimirovich Lapin, Candidate of Technical Sciences, Mikhail Andreyevich Nikulin, Candidate of Technical Sciences, and Grigoriy Semenovich Ezrin, Engineer.

Elektricheskiye mashiny i elektrooborudovaniye teplovozov (Electric Machines and the Electrical Equipment of Diesel-Electric Locomotives) Moscow, Transzheldorizdat, 1960. 218 p. 10,000 copies printed.

Ed. (Title page): Ye. Ya. Gakkel'; Ed.: N. M. Khutoryanskiy, Candidate of Technical Sciences; Tech. Ed.: Ye. N. Bobrova.

PURPOSE: This textbook was approved in 1958 by GUUZ (Glavnoye upravleniye uchebnymi zavedeniyami - Main Administration of Schools) of the Ministry of Railroads, for use by students in institutes of railroad transportation.

COVERAGE: The book examines the purpose, arrangement, and operation of the elements of electrical transmission in Diesel-electric (D-E)  
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## Electric Machines (Cont.)

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locomotives, and in auxiliary machinery and apparatus. Information on the structure of electrical machines and apparatus and examples of their design are given. The circuits of modern Soviet D-E locomotives including the new TE10 and TE50 locomotives, are described. The circuit of the TE-3 lot-produced D-E locomotive is examined in detail. Primary materials included in the book come from the texts of courses given by teachers of the Leningradskiy institut inzhenerov zheleznodorozhnogo transporta (Leningrad Institute of Railroad Transportation Engineers), and from the Khar'kovskiy zavod "Elektrotiyazhmash" (Khar'kov Heavy Electrical Machinery Plant). Chs. I and VII were written by Ye. Ya. Gakkel'; Ch. II by M. A. Nikulin and Ye. Ya. Gakkel'; Ch. III by A. V. Lapin; Ch. IV by G. S. Ezrin (sec. 7 by V. V. Strekopytov, Engineer); Ch. V by B. G. Kuznetsov (secs. 9 and 10 by Ye. Ya. Gakkel'); and Ch. VI by V. A. Kozhevnikov. The authors thank A. Ye. Alekseyev, Corresponding Member, AS USSR, K. I. Rudaya, Candidate of Technical Sciences, and A. D. Stepanov, Doctor of Technical Sciences, for their advice, and Ye. F. Kholmovskaya and I. F. Pushkarev, Engineers, and A. N. Korotkova, Laboratory Assistant, who helped with the manuscript. There are 29 references, all Soviet.

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