

KHAVKIN, Yu.A.; KOROBYKOVA, M.V.

Process of ampuling adsorbed anatoxin with the aid of a magnetic mixer. Med.prom. 14 no.n3:41-42 Nr. '60. (MIRA 13:6)

1. Tashkentskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok.

(VACCINES)

ALFEROVA, V.B.; MOKEYEVA, A.D.; BOGACHEVA, R.I.; KOROBKOVA, M.V.

Reactor method of sterilizing a physiological solution. Trudy  
TashNIIVS 6:57-59 '61. (MIRA 15:11)

(SERUM—STERILIZATION)

ALFEROVA, V.B.; MOKEYEVA, A.D.; BOGACHEVA, R.I.; KOROBKOVA, M.V.

Reactor method of diluting enteric vaccines. Trudy TashNIIVS  
6:61-63 '61. (MIRA 15:11)

(VACCINES)

SHAT'KO, P.D., kand.vet.nauk; KORNILOVA, A.L., vet.vrach; KOROBKOVA, N.G., vet.vrach

Sarcomatosis in cows. Veterinariia 36 no.1:60-61 Ja '59.  
(MIRA 12:1)

1. Novosibirskaya oblvethaklaboratoriya i Nauchno-issledovatel'-  
skaya vsterinarnaya stantsiya.  
(Cows--Diseases and pests) (Cancer)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824730010-

PARIYSKAYA, L.V.; KOGAN, F.N.; KALACHEVA, A.P.; CHEREDNICHENKO, G.S.

Prinimali uchastiye: PASHNINA, V.I.; KOROBKOVA, T.N.; BURYA-  
KOVA, G.I.; AGASHKINA, N.S.; ANTOKHINA, G.N.; ANUROVA, V.Ya.;  
BOBINA, M.L.; YARMAKOVA, Z.P.; YEFREMOV, Yu.A.; POLUTSKAYA,  
L.G.; SHISHKINA, V.G.; LAPTIYEV, P.P., otv.red.; ROGOVSKAYA,  
Ye.G., red.; SERGEYEV, A.N., tekhn.red.

[Agroclimatic reference book on Chita Province] Agroklimate-  
cheskii spravochnik po Chitinskoj oblasti. Leningrad, Gidro-  
meteor.izd-vo, 1959. 131 p. (MIRA 13:2)

1. Chita. Gidrometeorologicheskaya observatoriya. 2. Starshiy  
inzhener-agrometeorolog Chitinskoy gidrometeorologicheskoy  
observatorii (for Pariyskaya). 3. Chitinskaya gidrometeorologi-  
cheskaya observatoriya (for Kogan, Kalacheva, Cherednichenko).  
(Chita Province--Crops and climate)

6(6)

SOV/112-59-5-8849

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 5, p 61 (USSR)

AUTHOR: Belen'kiy, L. S., Korobkova, V. P., and Sidlik, L. Z.

TITLE: Determining the Maximum No-Load Current of Transformers and the Charging Current of 110- and 35-kv Lines Cut by Type RLN Disconnects

PERIODICAL: Naladochnyye i ekaperim. raboty ORGRES, Nr 15, 1958, pp 156-163

ABSTRACT: To determine the possibility of adopting the substation schemes without circuit-breakers on the high-voltage side, ORGRES jointly with large power systems (Lenenergo, Mosenergo, and others) staged tests intended to determine maximum currents and thereby maximum power of transformers and also maximum length of a transmission line that could be reliably cut off at no-load by a type RLN disconnecting switch. In addition to visual observations, a cinema filming was made which permitted determining the duration of arcing; to determine accurately the moment of arc extinction in relation to the angle of the disconnecting blades, both the current being interrupted and the blade

Card 1/2

SOV/112-59-5-8849

**Determining the Maximum No-Load Current of Transformers and the Charging . . .**

movement were recorded by an oscillograph. Overvoltages set up by cutting off no-load lines were not measured. The tests enable one to draw the following conclusions: The voltage, maximum transformer capacity, and transmission-line length which could be cut off at no-load can be considerably increased over those specified by the PTE MES standards. No-load currents as high as 7 amp for 20-Mva, 38-kv transformers and 10 amp for 31.5-Mva, 110-kv transformers can be cut off by a RLN disconnect. It is recommended that the disconnects be operated on or off quickly. Pole separation of the disconnect should not be less than 2,500 mm for 110 kv and 1,200 mm for 35 kv. To determine the maximum no-load length of 35- and 110-kv lines that could be cut off by the disconnect, overvoltages accompanying the line interruption need to be studied.

I.S.Sh.

Card 2/2

BELEN'KIY, L.S., inzh.; KOROBKOVA, V.P., inzh.

Cutting-off ability of RLD circuit breakers and of OD  
type separators for 110 and 35 kilovolts. Elek.sta. 31  
no.4:53-59 Ap '60. (MIRA 13:7)  
(Electric circuit breakers)

VOSKRESENSKIY, V.F., insh.; KOROENKOVA, V.P., insh.; BAKHON, I.S.,  
insh.; PETROV, V.M., insh.

Review of P.D. Dorokhin's article "Are line separators  
necessary?" Elek.sta. 31 no.5:91-93 My '60.

(MIRA 13:8)

(Electric power distribution)  
(Electric switchgear)



POPERECHNYY, A.; KOROBKOVA, Ye.

Subject the construction of enterprises manufacturing mineral  
fertilizers to a strict control. Fin. SSSR 22 no.8:35-39  
Ag '61. (MIRA 14:8)

(Banks and banking)  
(Construction industry--Finance)  
(Agricultural chemicals)

KOROBKOVA, Ye. I.

State Inst. of Epidemiology and Microbiology, South East USSR, (-1944-)

"Chemotherapy of Experimental Plaque,"

Zhur. Mikrobiol., Epidemiol., i Immunobiol., No. 6, 1944.

KOROBKOVA, YE. I.

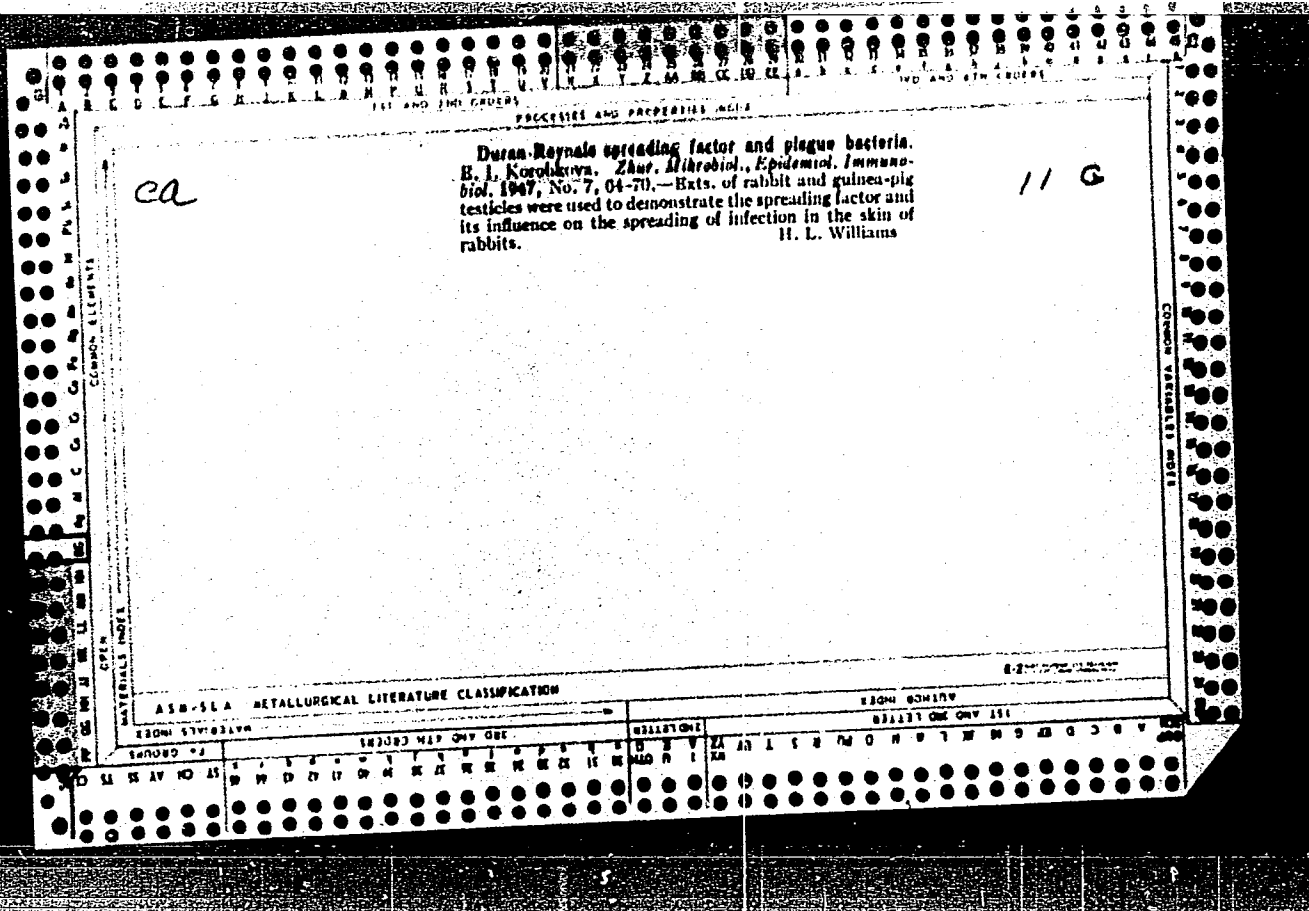
State Inst. Microbiology and Epidemiology for South Eastern SSSR, (-1944-).

"On the complete antigen of both pestiferous and psuedotuberculous microbes,"

Zhur. Mikrobiol., Epidemiol., i Immunobiol., No. 12, 1944

KOROBKOVA, YE. I., AND G. F. GAUZE

"Action of Streptomycin on the Plague Bacillus and Cholera Vibrio,"  
ZhMET, 7, 54, 1946



KOROBKOVA, Ye. I.

"The Propagation Factor in the Bubonic-Plague Microbe, Report II", Ye. I. Korobkova, "The Detection of Hyaluronidase in the Bubonic-Plague Microbe", Zhur Mikrobiol, Epidemiol i Immunobiol, No. 10, pp 66-73, 1950.

KOROBKOVA, Ye.I.

Methods for increasing the effectiveness of NV living vaccine  
against plague. Zhur.mikrobiol.epid. i immun. 15-21 N '55.

(MLRA 9:1)

1. Iz Gosudarstvennogo nauchno-issledovatel'skogo instituta  
mikrobiologii i epidemiologii AN SSSR (dir. D.G.Savostin)

(PLAGUE, prevention and control,

vacc. live vaccine)

(VACCINES AND VACCINATION,

plague, live vaccine)

KOROBKOVA, Ye. I.

USSR/Medicine - Plague, immunology

FD-2598

Card 1/1 Pub. 148 - 9/25

Author : Korobkova, Ye. I.

Title : ~~XXXXXXXXXXXXXXXXXXXX~~  
An allergic skin reaction as an index of immunity in plague

Periodical : Zhur. mikro. epid. i immun. 4, 40-47, Apr 1955

Abstract : The effectiveness of an allergy skin reaction as an index of the immunity produced by a live anti-plague vaccine was investigated. A killed vaccine made from strain Ye V plague bacteria grown in a simple agar culture medium was used as the antigen. Pestin was used as the allergen. The results of the experiments are presented on five charts. No references are cited.

Institution : Scientific-Research Institute of Microbiology and Epidemiology of the Southeastern USSR, "Mikrob". (Director - D. G. Savostin)

Submitted : May 4, 1954



KOROBKOVA, Yevgeniya Il'inichna; MIN'OVICH, K.G., redaktor; YEVDOKIMOVA,  
Z.N., tekhnicheskii redaktor

[Living antiplague vaccine; theory and practice of plague immuno-  
prophylaxis] Zhivaya protivochumnaya vaktsina; teoriia i praktika  
immunoprofilaktiki chumy. Moskva, Gos. izd-vo med. lit-ry, 1956.  
205 p. (MIRA 9:12)

(PLAGUE--PREVENTIVE INOCULATION)

USSR / Microbiology. Microbes, Pathogenic to Man and  
Animals. Bacteria. Pasteurellae.

F

Abs Jour : Ref Zhur - Biologiya, No 5, 1959, No. 19556

Author : Korobkova, Ye. I.

Inst : Not given

Title : The Action of Glycocol on the Plague  
Bacillus. Report III. Concerning the  
Nature of Plague Toxin and Its Value in  
Active Immunization

Orig Pub : Zh. mikrobiol., epidemiol. i immunobiol.,  
1957, No 11, 143-148

Abstract : In vaccinated strains of the plague bacillus  
during cultivation in Hottinger agar with  
glycocol, the infestation and toxic proper-  
ties are strengthened at the expense of pro-  
ducing a powerful toxin (I), for the

Card 1/3

USSR / Microbiology. Microbes, Pathogenic to Man and  
Animals. Bacteria. Pasteurellae.

F

Abs Jour : Ref Zhur - Biologiya, No 5, 1959, No. 19556

synthesis of which the microbe uses glycocol.  
Cultures, developed in ordinary agar, with  
the addition of glycocol solution, undergo  
lysis and liberate the toxin which they  
contain (II). Both toxins are immunogenic.  
Sera of horses, which had been immunized  
with live microbes of the strain EV, con-  
tained antitoxins only in relation to toxin  
II. Mice, which had been immunized with a  
sublethal dose of the native toxin I or the  
formalized toxin, acquired resistance to  
the native toxin and virulent bacteria.  
The addition to the antiplague vaccine of  
a small quantity of toxin I, inactivated by  
heating to 60° for 1 hour, considerably

Card 2/3

KOROBKOVA, Ye. I.

World distribution of cholera. Zhur. mikrobiol. epid. i immun. 28  
no. 5: 138-144 My '57. (MIRA 10:7)

1. Iz Instituta mikrobiologii i epidemiologii Yugo-Vostoka SSSR  
"Mikrob." (Saratov).  
(CHOLERA, epidemiol.  
world hist.)

KOROBKOVA, Ye.I.

Problem of increasing and stabilizing the immunogenic properties of cholera vaccine strains. Zhur. mikrobiol. oid. i immun, 28 no.7: 64-68 J1 '57. (MIRA 10:10)

1. Iz Instituta mikrobiologii i epidemiologii Yugo-Vostoka SSSR ("Mikrob")

(CHOLERA, immunology, vaccines, stabilization & increase of immunogenic properties (Rus))

KOROBKOVA, Ye. I.

"The Spreading of Cholera in the Past and Present"

report presented at a scientific Conference on Medical Geography, Inst. 'Mikrob',  
Saratov, 25-Jan - 2 Feb 1957. (Izv. Ak Nauk SSSR, Ser Geog., No. 2, '58, pp. 153-55,  
(Author Kucheruk, V.V.)

~~KOROBKOVA, Ye. I.~~; VERENINOVA, N.K.; KAIACHEVA, N.F.; PETROVA, B.Yu.; KRAYNOVA,  
A.N.

Studies on a combined vaccine prepared from killed *Vibrio comma* and  
*Pasteurella pestis*. Zhur. mikrobiol. epid. i immn. 29 no.11:38-45  
N '58. (MIRA 12:1)

1. Iz Instituta mikrobiologii i epidemiologii Yugo-Vostoka SSSR (Mikrob).  
(CHOLERA, immunol.  
vaccine from killed *Vibrio comma* & *Pasteurella pestis* (Rus))  
(PLAGUE, immunol.  
same)

BAKHRAKH, Ye.M.; KOROBYKOVA, Ye.I.; SHALAYEVA, A.F.

Chemical nature and serological properties of the specific  
polysaccharide-containing fraction of the plague microbe.

Izv.Irk.gos.nauch.-issl.protivozhum.inst. 18:127-133 '58.

(MIRA 13:7)

(POLYSACCHARIDES) (PASTEURILLA PESTIS)

KOROBKOVA, Yevgeniya Il'inichna

[Microbiology and epidemiology of cholera] Mikrobiologiya i  
epidemiologiya kholery. Izd.2., dop. i perer. Moskva, Medgiz,  
1959. 303 p. (MIRA 13:9)  
(CHOLERA, ASIATIC)



KOROJKOVA, Y.I.; PAVLOVA, I.P.

Lysogeny in a subculture of plague vaccine strain EV (Girard and Robic). J.hyg.epidem., Praha 4 no.3:321-326 '60.

1. Institute of Microbiology and Epidemiology for the South-East of the USSR ("Mikrob"), Saratov.

(PASTURELLA PESTIS genetics)

(BACTERIOPHAGE)

KOROBKOVA, Ye.I.; PAVLOVA, L.P.; BAKHRAKH, Ye.E.

Intradermal allergic reaction as an indication of immunity to plague.  
Zhur. mikrobiol., epid. i immun. 32 no.9:37-42 S '61. (MIRA 15:2)

1. Iz Gosudarstvennogo nauchno-issledovatel'skogo protivochumnogo  
instituta mikrobiologii Yugo-Vostoka SSSR ("Mikrob").  
(PLAGUE) (IMMUNITY)

NIKOLAYEV, N.I., otv. red.; LENSKAYA, G.N., zam. otv. red.; PASTUKHOV, B.N., zam. otv. red.; FENYUK, B.K., zam. otv. red.; ISHUNINA, T.I., red.; AKIYEV, A.K., red.; DOMARADSKIY, I.V., red.; DROZHEVKINA, M.S., red.; ZHOVTYY, I.F., red.; KOROBKOVA, Ye.I., red.; KRAMINSKIY, V.A., red.; KRATINOV, A.G., red.; LEVI, M.I., red.; LOBANOV, V.N., red.; MIRONOV, N.P., red.; PETROV, V.S., red.; PLANKINA, Z.A., red.; PYPINA, I.M., red.; SMIRNOV, S.M., red.; TER-VARTANOV, V.N., red.; TIFLOV, V.Ye., red.; FEDOROV, V.N., red.; PARNES, Ya.A., red.; PRONINA, N.D., tekhn. red.

[Especially dangerous natural focus infections] Osobo opasnye i prirodnoochagovye infektsii; sbornik nauchnykh rabot protivochumnykh uchrezhdenii. Moskva, Medgiz, 1962. 271 p.

(MIRA 16:5)

(COMMUNICABLE DISEASES)

KOROBKOVA, Ye.I.; SAMOYLOVA, L.V.

Na Nature of immunity against plague. Zhur. mikrobiol., epid.  
i immun. 33 no.11:76-82 N '62. (MIRA 17:1)

1. Iz Vsesoyuznogo nauchno-issledovatel'skogo instituta  
"Mikrob".

KOROBKOVA, Ye. I.; LISKINA, I. V.

Use of methylene blue reduction for the determination of *in-vitro* virulence of the pathogen of plague. Zhur. mikrobiol., epid. i immun. 40 no.1:73-79'63. (MIRA' 16:10)

1. Iz Vsesoyuznogo nauchno-issledovatel'skogo instituta "Mikrob".

\*

KOROBKOVA, Ye. I.

Terminology of *Pasteurella pestis* dissociants. Zhur. mikrobiol., epid.  
i immun. 40 no. 11:76-80 N '63. (MIRA 17:12)

1. Iz Vsesoyuznogo nauchno-issledovatel'skogo instituta "Mikrob",  
Saratov.

NIKOLAYEV, N.I., otv. red. (Saratov); LENSKAYA, G.N., zam. red.;  
DOMARADSKIY, I.V., red.; DROZHEVKINA, M.S., red.;  
KOROBKOVA, Ye.I., red.; AYKIMBAYEV, M.A., red.;  
TER-VARTANOV, V.N., red.; STYCHINSKIY, G.A., red.

[Specific prevention of particularly dangerous infections; a collection of scientific papers of antiplague institutions] Spetsificheskaya profilaktika osobo opasnykh infektsii; sbornik nauchnykh rabot protivochumnykh uchrezhdenii. Moskva, Medtchina, 1964. 383 p. (MIRA 17:6)

KOROBKOVA, Ye.I.; LOBANOV, V.N.; KUZNETSOVA, O.R.

Stabilization of the immunogenic properties of the Girard and Robik EV strain. Report No. 3: Effect of passage through the animal body and the significance of selection of individual colonies in immunogenicity of the EV strain. Zhur. mikrobiol., epid. i imm. 41 no. 2:16-21 F '64. (MIRA 17:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy protivochumnyy institut "Mikrob".



KOROBKOVA, Ye.I.; PAVLOVA, I.P.; DENISOVA, Ye.P.

Intradermal allergic reaction as an index of immunity against plague. Report No.4: Allergens of the plague bacillus for intradermal reaction in persons vaccinated by various methods. Zhur.mikrobiol., epid. i immun. 42 no.10:30-35 0 '65.

(MIRA 18:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy protivochumnyy institut "Mikrob", Saratov. Submitted July 30, 1964.

I 21952-66 EWT(1)/T JK  
ACC NR: AP6011446

SOURCE CODE: UR/0016/65/000/010/0030/0035

AUTHOR: Korobkova, Ye. I.--Korobkova, E. I.; Faylova, L. P.; Denisova, Ye. P.-- 27  
Denisova, E. P. BORG: All-Union Antiplague Research Institute "Mikrob", Saratov (Vsesoyuznyy nauchno-  
issledovatel'skiy protivochumnyy institut "Mikrob")TITLE: Intradermal allergic reaction as an index of immunity to plague. IV. Past.  
pestis allergens for intradermal reaction in individuals vaccinated by different  
methods

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 10, 1965, 30-35

TOPIC TAGS: human ailment, bacterial disease, bacteria, vaccine, immunization

ABSTRACT: The authors noted immunobiological and allergic reconstruction in individuals who had recovered from plague. The Past. pestis allergens studied proved to be heat- and acid-resistant with no toxic or immunogenic properties. Live plague vaccine altered body reactivity, reflected not only in the development of resistance to plague but in allergic reconstruction to plague bacteria and fractions isolated therefrom. Immunity in the vaccinated persons and animals resulted in increased skin reactivity to the injection of pestin. This phenomenon can be used to evaluate the immunological changes occurring in the body after immunization with live vaccine. A positive intradermal reaction to pestin is an indication of immunity to plague. It occurred in almost all those vaccinated twice and

Card 1/2

UDC: 616.981.452-084.47-07:616.5-056.3 2

I 21952-66

ACC NR: AP60111116

in 50% of those vaccinated once. These results are consistent with the experimental data obtained on guinea pigs inoculated with live vaccine. They showed that immunity is completely developed within 6 or 7 days despite the presence of live microbes in the organs, i. e., during the nonsterile phase of immunity. Orig. art. has: 3 tables. [JPRS]

SUB CODE: 06 / SUBM DATE: 30Jul64 / ORIG REF: 014 / OTH REF: 001

Card 2/2 ULR

ACC NR: AP6020694

SOURCE CODE: UR/0016/66/000/005/0146/0146

AUTHOR: Korobkova, Ye. I.; Pavlova, L. P.; Zubova, M. V.; Dyushikyan, G. Kh.

ORG: All-Union Antiplague Scientific Research Institute "Microbe" (Vsesoyuznyy nauchno-issledovatel'skiy protivochumnyy)

TITLE: Effect of certain culture conditions on the virulence of the plague microbe

SOURCE: Zh mikrobiol, epidemiol i immunobiol, no. 6, 1966, 146

TOPIC TAGS: microbiology, plague microbe, epidemiology, ~~environmental conditions~~  
bacterial disease, disease control, bacteria

ABSTRACT:

Culture conditions affect the virulence of the plague microbe. Highly virulent cultures were passaged on agar under differing conditions. The virulence of strain 708 for mice decreased 20 times after five to ten passages through agar. On synthetic media the number of pigmented colonies decreased. This suggested that after many passages on nutrient agar or synthetic media, the succeeding generations of microbes become increasingly more adapted to the media than they are to the host organism.

[W.A. 50; CBE No. 10]

SUB CODE: 06/ SUBM DATE: 22Jan65/

Card 1/1

UDC: 576.851.45.093.3:576.851.45.097.21

KOROBKOVA, Z.A. (Moskva)

Psychological views of the existentialists. Zhur.nevr. i psikh.  
58 no.8:1011-1018 '58 (MIRA 11:9)  
(EXISTENTIALISM)

KOMAR, A.P., akademik; KOROBOCHKA, Yu.S.

Two processes favoring the capture of electrons under betatron  
acceleration conditions. Dokl. AN SSSR 123 no. 4:643-644 D'58.  
(MIRA 11:12)

1. AN USSR (for Komar).  
(Electrons--Capture) (Particle accelerators)

KOROBOCHKIN, B.I.; FILIPPOV, Yu.A.; DITKIN, V.A., prof., otv. red.;  
ORLOVA, I.A., red.

[Tables of modified Whittaker functions] Tablitsy modifitsirovannykh funktsii Uittkera. Moskva, Vyshtislitel'nyi tsestr AN SSSR, 1965. 321 p. (MIRA 18:5)

1. KOROBCHKIN, B.L.
2. USSR (600)
4. Lathes
7. Comparative appraisal of designs for hydraulic profiling equipment. stan. i. instr.  
23 No. 10. 1952

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

KOROBOCHKIN, B. L.

KOROBOCHKIN, B. L. -- "Investigation of Hydraulic Tracking Systems of Copying Machine Tools." Min Higher Education USSR, Moscow Machine Tool Instrument Inst imeni I. V. Stalin, Moscow, 1955 (Dissertation For the Degree of Doctor of Technical Sciences)

SO: Knizhnaya letopis', No. 37. 3 September 1955



KOROBOCHKIN, B.L.; MEZIVETSKIY, Ya.P.

Hydraulic contour follower attachment for the LA62 model lathe.  
Stan. 1 instr. 26 no.11:12-15 N '55. (MLRA 9:2)  
(Lathes--Attachments)

KOROBOCHKIN, B.L.

Hydraulic drives for semiautomatic lathe profiling machines.  
Stan.i instr. 26 no.12:1-5 D '55. (MLRA 9:2)  
(Machine tools--Hydraulic driving)

KOROBOCHKIN, B.L.

Selecting optimum parameters for hydraulic servomechanisms used on  
profiling machine tools. Stan.i instr.27 no.6:12-19 Je '56.  
(Machine tools--Hydraulic driving)  
(MIRA 9:9)

SOV/112-59-1-1201

35(2)

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 1,  
pp 159-160 (USSR)

AUTHOR: Korobochkin, B. L.

TITLE: Hydraulic Follow-Up Systems for Tracer-Controlled Machines and the  
Fundamentals for Designing Such Systems

PERIODICAL: V sb.: Avtomatizatsiya v mashinostr. M., Mashgiz, 1957,  
pp 89-117

ABSTRACT: Equations are analyzed that describe the motions in hydraulic follow-up systems of tracer-controlled machines: various types of machines with differential and nondifferential power cylinders, with flow-through, with two-edge, and one-edge slide valves. An approximate method for computing parameters of such systems is suggested; the method is based on linearized equations of motion. Influence of the system parameters upon its stability is investigated by means of the Vyshnegradskiy diagram for systems of the third

Card 1/2

SOV/112-59-1-1201

Hydraulic Follow-Up Systems for Tracer-Controlled Machines and the . . . .

order in dimensionless coordinates without allowance for friction forces, and by means of an Andronov and Mayyer diagram in the same coordinates with an allowance for friction forces. From these diagrams, the system stability range and the velocity limit gain can be determined. The influence of the drooping friction characteristic upon the follow-up-system stability is investigated. It is recommended that damping be introduced at various points of the follow-up system to increase system accuracy at high speeds of piston motion. Data for selecting damper parameters is submitted. Twelve illustrations. Bibliography: 6 items.

V. M. D.

Card 2/2

Korobochkin, B. L.

KOROBOCHKIN, B.L.

Synchronizing the operations of hydraulic cylinders. Stan. 1  
instr. 28 no.12:7-8 D '57. (MIRA 10:12)  
(Machine tools--Hydraulic driving)

KOROBOCHKIN, B. L.

"On automatic control."

report presented at the Second Conf. on the Problem of Pneumatic Hydraulic Automation, at Inst. of Automation, AS USSR, 17-19 Mar. '58.

KOROBOCHKIN, B.L.

Efficiency and power consumption in hydraulic servosystems  
used in copying units. Trudy Inst.mash.Sem.po teor.mash.

19 no.75:16-30 '59.

(MIRA 13:1)

(Hydraulic control)



KOROBOKHIA, B. I.

report to be presented at the 1st Intl Congress of the Intl Federation of Automatic Control, 25 Aug-5 Jul 1960, Moscow, USSR.

ERGOVITZ, M. L. - "Ultra stability in electronic calculating devices in the solution of nonlinear equations in iterative form"

CHERVENIKH, N. - "Use of calculating devices in systems for the automatic control of rolling mills"

CHERVENIKH, N. - "Concerning some problems of the organization of self-adjusting and self-teaching systems of automatic control, based on principles of random search"

DEKOV, M. I. - "Development of automatic control systems for boiler mills"

DEKOV, M. I. - "Parameterization of optimum adjustments of industrial automatic regulation systems according to initial data obtained from experience"

DEKOV, M. I., and KOZDRAKOV, E. E. - "Methods of organizing regulatory functions in the theory of nonlinear regulating systems"

MEZHENIN, E. B. - "Advanced regulation and inter-communications of a multi-vector electric drive and technology in continuous rolling mills"

MEZHENIN, E. B. - "Problems of statistical theory of automatic optimization systems"

MEZHENIN, E. B. - "Automation of a reversible cold rolling mill for nonferrous metals"

FRIDMAN, A. P. - "Application of the theory of differential equations with a discontinuous right side to nonlinear problems of automatic regulation"

CAVILLON, M. A. - "Structural analysis and operational reliability of relay devices"

GARKIN, M. L. - "Automation of irrigation systems"

CHERNOMOR, G. B. - "Power regulation of disturbance and problems of the stability of electric power systems"

CHERNOMOR, G. B. - "Logical method of synthesis of functional converters"

IL'IN, V. A. - "Methods of transmission of information and the structure of telemechanical systems"

DEKOV, V. L., and LITVIN, ( ) - "The code-impulse system of tele-measurement for dispersing the application of the theory of combined regulation systems for cybernetic adaptation systems"

YANIKHEVO, A. G. - "Concerning the application of the theory of combined regulation systems for cybernetic adaptation systems"

KARABAYEV, K. B. - "A system of automatic control"

BLAZHENKO, V. V. - "Concerning the process of active regulation of inert objects in the presence of disturbances"

BLAZHENKO, V. V. - "Some problems of the theory of statistical linearization of its applications"

KILIN, P. M. - "Some problems of the theory of impulse systems with time selectors"

KOROBOKHIA, B. I., KOLYVANSKIY, G. V., VOZDROBNIKOVA, L. M., KOPPE, D. M., POLJAY, E. P., POZIN, B. P., SHAYKIN, Ya. L., SHEN, A. Ya., and YANIKHEVO, A. G. - "Some problems of bioelectric control"

KOROBOKHIA, B. I., KOLYVANSKIY, G. V., and SHEN, A. Ya. - "System of automatic control and regulation of blast distribution in the figures of blast furnaces"

KOROBOKHIA, B. I. - "Investigation of the dynamics of the hydraulic mechanism of a copying table"

KOROBOKHIA, B. I. - "Dynamics of continuous systems of automatic regulation with extra self-adjustment of corrective devices"

KOROBOKHIA, B. I. - "Concerning the selection of parameters of optimum stability systems"

KOROBOKHIA, B. I. - "The dynamics of devices imitating living organisms"

KOROBOKHIA, B. I. - "The invariant theory of automatic regulation and control systems"

KOROBOKHIA, B. I. - "Automatic calculating devices as a means of insuring the reliability of complex automation systems"

KOROBOKHIA, B. I. - "Mechanization of processes of analysis and synthesis of the structure of relay devices"

KOROBOCHKIN, B.L., laureat Leninskoy premii

Who will take this fortress? Izobr.i rats. no.5:26-29 My '60.  
(MIRA 14:2)

1. Zaveduyushchiy laboratoriyey stankov Moskovskogo zavoda imeni  
Ordzhonikidze.  
(Machine tools--Technological innovations)

KOROBOCHKIN, B.L.

Investigating the dynamics of the hydraulic drive of a  
copying lathe. Stan.i instr. 31 no.7:6-9 J1 '60.  
(MIRA 13:7)

(Lathes--Hydraulic driving)

S/103/61/022/009/013/014  
D206/D304

AUTHORS: Korobochkin, B.L., and Levin, A.L. (Moscow)

TITLE: The influence of dry friction in guiding rails on the stability of the hydraulic follow-up systems in automatic cutting machines

PERIODICAL: Avtomatika i telemekhanika, v. 22, no. 9, 1961, 1253 - 1256

TEXT: In the present article the authors analyze the problem of stability and of dry friction in the follow up systems in these installations on a strictly theoretical basis. For increased accuracy in determining the behavior of the system in an oscillatory state, the saturation characteristics of the piping is introduced as conditioned by the finite pump output. In solving the problem, use was made of the electronic analogue (MN-M). To evaluate the accuracy of the results obtained the same analogue was used to obtain the solution of the Vyshnegradskiy problem which was in complete agree-

Card 1/5

S/103/61/022/009/013/014  
D206/D304

The influence of dry friction ...

ment with the solution of this problem given by A.A. Andronov and A.G. Mayer. The present article is restricted to analyzing the influence of dry friction and that of saturation resulting from the finite output of the pump. The linearized equation of the system with linear input function, i.e. with constant velocity of the probe without friction, has the form of

$$L \frac{d^3 \delta}{dt^3} + M \frac{d^2 \delta}{dt^2} + D \frac{d\delta}{dt} + E = D \frac{dy}{dt} + R. \quad (1)$$

In it L - a factor characterizing the influence of compressibility of the fluid and elasticity of piping; M - the mass of the working part of the machine; D - the coefficient of internal damping; E - stiffness coefficient; R - the constant component of cutting speed;  $\delta$  - copying error; y - coordinate of the probe tip;  $\delta = y - x$ , where x - coordinate of the moving part of the machine. The analysis of stability of such a system reduces to the Vyshnegradskiy problem in the theory of servos without power amplification. The

Card 2/5

The influence of dry friction ...

S/103/61/022/009/013/014  
D206/D304

authors reduce the system to a dimensionless form of

$$\ddot{x} = \tau \dot{\xi}, \quad P = \tau M \sqrt{\frac{E_1}{L_2}} \psi, \quad P_{\tau} = \tau M \sqrt{\frac{E_1}{L_2}}, \quad t = \sqrt{\frac{L}{E}} \tau. \quad (5)$$

where  $\xi$  and  $\psi$  are dimensionless coordinates of the system and  $\tau$  a dimensionless time. Since the pump output is finite, the velocity of moving arm cannot exceed

$$\dot{x}'_{\max} = \frac{Q_p}{F} \quad (6)$$

where  $Q_p$  - is the pump output and  $F$  - the area of the piston. Eq. (6) in dimensionless form can be written as

$$\left(\frac{d\xi}{d\tau}\right)_{\max} = \tau_{\max} = \frac{Q_p \sqrt[3]{\frac{L}{E}}}{F\gamma} \quad (7) \quad \checkmark$$

The values of parameters ultimately obtained are shown as a family  
Card 3/5

The influence of dry friction ...

S/103/61/022/009/013/014  
D206/D304

of curves in Fig. 2b with the limits of stability shown in Fig. 2a for various initial displacements of cutting head from neutral. The same Fig. 2 shows the hyperbola of Vyshnegradskiy (Curve A, Fig. 2b) and the limits of stability region as obtained by A.A. Andronov and A.G. Mayer (Fig. 2a). It is stated in conclusion that the results by Andronov and Mayer (Ref. 2: Zadacha Vyshnegradskogo. v teorii pryamoregulirovaniya (The Vyshnegradskiy Problem in the Theory of the Control without Power Amplification) Avtomatika i telemekhanika, v. VIII, no. 5, 1947) cannot be applied directly to the problem of stability of a hydraulic follow-up system of an automatic cutting machine, if the dry friction has to be taken into account, and that the analysis of such a system with the limitation introduced by the finite output capability of the pump, has produced conditions for absolute stability as a function of its parameters and of the pump output. There are 2 figures and 4 Soviet-bloc references.

SUBMITTED: August 15, 1960

Card 4/5

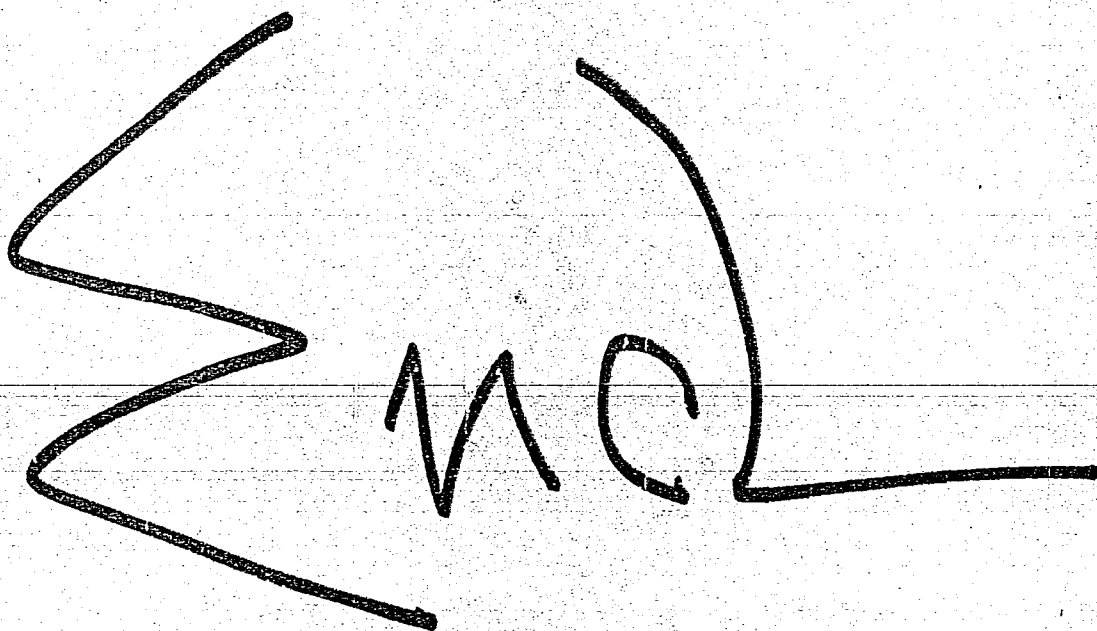
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Korkhov, S.M.

to

Korobochkin, B.L.





S.M.C.