35056

S/024/60/000/005/002/017
E140/E435

Certain Problems in the Theory of Stepping Extremum Regulators

valid for an ideal system with constant information on the difference between the position of the working point and the extremum but is not possible for systems with control function in the form of (1.4) a real case. Numerical solutions of typical cases with pulse-amplitude modulation, pulse-width modulation and an ideal system show that the pulse-width modulation system approaches closer to the ideal than the pulse-amplitude system. Another favourable system is a relay system. There are 5 figures and 10 Soviet references.

SUBMITTED: May 3, 1960

Card 3/3

KUNTSEVICH, Vsevolod Mikhaylovich; IVAKHNENKO, A.G., red.; KOVAL'CHUK, A.V., red.; GORKAVENKO, L.I., tekhn. red.

[Optimalizing control systems] Sistemy ekstremal'nogo upravleniia. Pod red. A.G.Ivakhnenko. Kiev, Gos. izd-vo tekhn. lit-ry USSR, 1961. 150 p. (MIRA 15:4)

1. Chlen-korrespondent Akademii nauk USSR (for Ivakhnenko).
(Electronic control)

3990
S/044/62/000/007/076/100
C111/C333

16.8000

AUTHOR: Kuntsevich, V. M.

TITLE: The dynamic exactness of extremal control systems

PERIODICAL: Referativnyy zhurnal, Matematika, no. 7, 1962, 51, abstract 7V229. ("Primeneniye vychisl. tekhn. dlya avtomatiz. proiz-va." M., Mashgiz, 1961, 97-113)

TEXT: Examined is the disturbance stability of an extremal system of automatic control with modulating influence and a synchronous detector; the system is under the influence of a statistically given disturbance. The equation of the extremal characteristic is $\varphi = -\alpha_3 (x+\lambda_1)^2 + \lambda$. The purpose of the system is to compensate the influence of the disturbance $\lambda$. The disturbance $\lambda$ acts as a stationary random time function which is observed on the interval $[0, T]$ and the correlation function $R_\lambda(t)$ of which is known, while the mathematical expectation is equal to zero. By examining the cut-up system it is found: the probability p of the error when determining the position of the system relative to the extremum is $p = 1/2 (1 - \text{erf } N)$, where N is the ratio of the voltages of the effective signal and the disturbance at the entrance

Card 1/2

S/044/62/000/007/076/100
C111/C333

The dynamic exactness of extremal ...

of the detector. To increase the disturbance stability, it is suggested that simultaneously two or more modulating signals $\omega'_M$ and $\omega''_M$ with different frequencies $\omega'_M$ and $\omega''_M$ be given, and that the output quantity be detected using two synchronous detectors which are controlled by signals with the frequencies $\omega'_M$ and $\omega''_M$. By examining the closed system with the help of statistical linearizing, equations are found for the determination of the mathematical expectation and for the random component of the signal at the entrance of the non-linear amplifier. Using these equations one can calculate the mathematical expectation and the mean quadratic error caused by the disturbance $\lambda(t)$, or one can synthesize the extremal system.

[Abstracter's note: Complete translation.]

Card 2/2

KUNTSEVICH, V.M. [Kuntsevych, V.M.] (Kiyev)

Certain properties of static optimalizing controllers. Avtomatyka no.2:24-29 '61. (MIRA 14:6)
(Automatic control)

FEL'DBAUM, O.A.; KUNTSEVICH, V.M.; KOSTYUK, V.I.;
MANDROVSKIY-SOKOLOV, B. Yu. [Mandrovs'kyi-Sokolov, B. IU.]
VAN-NAYS, R. [Van Nyce, R. I.] (SShA)

Concerning the optimum value of the trial steps of extremum systems.
Avtomatyka no.2:94-97 '61. (MIRA 14:6)
(Automatic control)

KUNTSEVICH, V.M. [Kuntsevych, V.M.] (Kiyev); MANDROVSKIY-SOKOLOV, B.Yu. [Mandrovs'kyi-Sokolov, B.IU.] (Kiyev); SVETAL'SKIY, B.K. [Svietal's'kyi, B.K.] (Kiyev)

Automatic control system of a hydraulic giant. Avtomatyka no.5:77-82 '61. (MIRA 14:10)
(Automatic control) (Hydraulic machinery)
(Mines and mineral resources—Equipment and supplies)

16,6000 (1013, 1031, 1132)
26.2195

29564
S/024/61/000/005/005/009
E140/E135

AUTHOR: Kuntsevich, V.M. (Kiyev)

TITLE: Transient and steady state processes in relay pulse and optimizing systems with constant and variable control periods

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Energetika i avtomatika, no.5, 1961, 113-122

TEXT: The author considers simple second-order sampled data and optimizing systems in the phase plane. Expressions are obtained for the frequency of self-oscillations as a function of the control period. The possibility of oscillation at two different frequencies, depending on the initial conditions, is found. The results were obtained for systems where the response time of the pulse element is negligible. The author then examines the case of variable pulse period, where the pulse period varies inversely to the error magnitude. This mode of operation varies both the damping and the total gain factor of the system. A numerical example shows that the transient duration in such a

Card 1/3

Transient and steady state processes ...

system can be reduced by factors of the order of 3. The method is then applied to the study of a simple optimizing system with extremal characteristics given by a parabola. Here again the possibility of oscillation at two different frequencies is found. It is recommended to take the step of the regulator such that the smallest possible oscillation period exists. The author then introduces variable step into the system as a function of the first difference. Again a strong reduction in the transient duration, compared with fixed step systems, is found. The system proposed is claimed to be a certain improvement, although generally equivalent to one proposed by L.N. Fitsner (Ref.12: Elektrichestvo, 1960, No.8). Further, the author considers systems using first and second differences and the variable regulation. This permits further decrease of the transient duration and improvement of the regulation quality in that overshoots are smaller.
There are 12 figures and 13 references: 8 Soviet-bloc and 5 English. The four most recent English language references read as follows:
Card 2/3

Transient and steady state processes...

Ref.1: F.J. Mullin, E.J. Jury. A Phase-Plane Approach to Relay Sampled-Data Feedback Systems. Appl. and Industry, January 1959.
Ref.2: K. Izawa. Discontinuous Feedback Control Systems with Sampling Action. Proc. I IFAC, Moscow, 1960. Publ. London, 1960.
Ref.3: R.E. Andeen. Analysis of Sampled-Data Systems with Non-Linear Elements. Proc. I IFAC, Moscow, 1960. Publ. London, 1960.
Ref.4: J.A. Aseltine. Non-Linear Sampled-Data System Analysis by the Incremental Phase-Plane Method. Proc. I. IFAC, Moscow, 1960. Publ. London, 1960.

SUBMITTED: January 24, 1961

Card 3/3

KUNTSEVICH, V.M.; MANDROVSKIY-SOKOLOV, B.Yu.; SVETAL'SKIY, B.K.

Self-tuning system of the programming control of the hydraulic mining giant. Ugol' Ukr. 5 no.12:35-37 D '61. (MIRA 14:12)

1. Institut elektrotekhniki AN USSR.
(Hydraulic mining)
(Programming (Electronic computers))

KUNTSEVICH, V.M. (Kiyev)

Analysis of nonlinear and optimalizing pulse systems using difference of the phase planes. Avtom. i telem. 22 no.5:589-598 My '61. (MIRA 14:6)
(Automatic control) (Pulse techniques (Electronics))

KUNTSEVICH, V. M.

35213
S/102/62/000/001/003/007
D201/D303

16.8000 (1031, 1132, 1329)

AUTHOR: Kuntsevych, V.M. (Kiyev)

TITLE: Invariance of multi-loop on-off systems having no disturbance feedforward

PERIODICAL: Avtomatyka, no. 1, 1962, 26-32

TEXT: The author shows that the conditions of absolute invariance, as obtained for continuous multi-loop systems with no disturbance feedforward, may also be used to some extent for on-off systems. Let a single overall feedback on-off system be given. Let $\psi(t)$ be a given arbitrary function of time (input); $\varphi(t)$ - quantity to be controlled (output); $K^*(z)$ - the transfer function of a discrete correcting circuit (in the case when this circuit is a digital computer, the $K^*(z)$ denotes the programming of the computer, assumed to be a linear one); $W_0(s)$ - a continuous correcting circuit; $W_1(s)$ - the object to be controlled, T - repetition period (T = const). The switching element is assumed to be ideal. By applying

Card 1/4

Invariance of multi-loop ...

the Laplace z-transformation, the dynamics equation of the system, relating the system error $\varepsilon^*(z)$ and the input at discrete instant of time $t = nT$ ($n=0, 1, 2, 3, \ldots$) Eq.(1)

$$\varepsilon^*(z) = \frac{1}{1 + K^*(z)W_o W_1^*(z)} \psi^*(z)$$

is obtained, where $W W_1^*(z)$ - z-transformation of the circuit with transfer functions $W(s) = W_o(s)W_1(s)$. When the quantity $\psi(t)$ can be measured then, as with the technique used in continuous systems, a substantial improvement in accuracy may be achieved by a feedforward circuit $D^*(z)$. For such a system Eq.(5)

$$\varepsilon^*(z) = \frac{1 - D^*(z)W_o W_1^*(z)}{1 + K^*(z)W_o W_1^*(z)} \psi^*(z)$$

may be obtained which shows that the condition for the invariance at discrete periodic instants of time is Eq. (6)

$$D^*(z) = \frac{1}{W_o W_1^*(z)}$$

It may also be seen that the addition of feedforward $D^*(z)$ does not change the characteristic system equations and does not affect its

stability. When the input quantity cannot be measured or when the $D^*(z)$ feedforward cannot be realized in practice, (5) may be rewritten as

$$\varepsilon^*(z) = \frac{1}{1 + K^*(z)W_o W_1^*(z)}\psi^*(z) - \frac{D^*(z)W_o W_1^*(z)}{1 + K^*(z)W_o W_1^*(z)}\psi^*(z)$$

Since $\varepsilon^*(z) = f^*(z) - \varphi^*(z)$ or $\psi^*(z) = \varepsilon^*(z) + \varphi^*(z)$, Eq.(7)

$$\varepsilon^*(z) = \frac{1}{1 + K^*(z)W_o W_1^*(z)}\psi^*(z) - \frac{D^*(z)W_o W_1^*(z)}{1+K^*(z)W_o W_1^*(z)}\left[\varepsilon^*(z) + \varphi^*(z)\right].$$

is obtained, which corresponds to the circuit synthesis in which the direct evaluation of $\psi(t)$ is not required. A number of examples show eventually that even in cases when the transfer function $D^*(z)$ cannot be physically realized, it may be assumed, which may after all, decrease the error considerably. The method considered above of increasing the precision of on-off systems may be applied to self-adaptive on-off systems. There are 3 figures and 11 references: 8 Soviet-bloc and 3 non-Soviet-bloc.

Card 3/4

Invariance of multi-loop ...

The references to the English-language publications read as follows: E.I. Jury, Sampled-Data control systems, John Wiley, N.Z., 1958; J.R. Ragazzini, G.F. Franklin, Sampled-Data control systems, McGraw-Hill, N.Y., 1958; J. Tou, Digital Compensation for Control and Simulation, Proc. IRE, September, 1957, v. 45, no. 9.

SUBMITTED: September 22, 1961

S/102/62/000/003/002/005
D234/D308

16.8000

AUTHOR: Kuntsevich, V.M. (Kiyev)

TITLE: Invariance of extremum pulse systems without disturbance couplings

PERIODICAL: Avtomatyka, no. 3, 1962, 23-32

TEXT: Only one type of extremum pulse system is considered, viz. the difference type with a synchronous detector. The dynamical equation of the system is obtained in the form of a non-linear difference equation with coefficients depending on time. An expression is obtained for determining the transfer function of a correcting coupling which secures the invariance of the system at discrete time instants. The method of finding the parameters of the correcting coupling is illustrated by two examples. It is proved in an appendix that the pulse transfer function required for fully identical elimination of errors of a many-circuit searching system can also be determined by minimizing the mean square error in case of statis-

Card 1/2

Invariance of extremum pulse ...

tical assignment of input signals. The introduction of correcting coupling is found to increase also the stability of the system in the second example. There are 3 figures.

SUBMITTED: November 2, 1961

Card 2/2

S/102/62/000/005/003/003
D201/D300

KUNTSEVICH, V.M.

AUTHORS: Kuntsevych, V.M. and Chuhunnaya, L.I.

TITLE: A difference-type extremal sampled-data regulator

PERIODICAL: Avtomatyka, no. 5, 1962, 49-52

TEXT: The authors discuss the design of a regulator utilizing pulse width modulation which realizes the following law of control:

$$\left.\begin{array}{ll} u = \text{sign}\,(\Delta\varphi_{n-1} + a_M)(-1)^n & \text{for } nT \leqslant t \leqslant nt + \Delta t_n \\ u = 0 & \text{for } nT+\Delta t_n < t < (n+1)T \end{array}\right\} \quad (6a)$$

$$\Delta t_n = f(|\Delta\varphi_{n-1} + a_M|) = \tau \ln \frac{|\Delta\varphi_n + a_M|}{\delta}, \quad (6b)$$

where $\tau$ is the time constant of the exponential dealy of the input voltages, $\delta$ - the operating voltage of triggers, T = constant = the repetition period. The principle of obtaining pulse width modulation consists of periodic sampling of the exponentially decay-

Card 1/2

A difference-type extremal ...

ing input voltage, so that the pulse duration at the output of the switch is related logarithmically to the input voltage amplitude. The polarity of the command voltage $u_n$ is determined by a logic system of 'or' and 'and' circuits, the operating time $t_n$ - by the operation of trigger circuits. The regulator is able to cope with a shift of the operating point of the system with respect to the extremum. Technical data of the regulator are given together with graphs of switching time $\Delta t$ of the motor against the magnitude of the input voltage with the time constant $\tau$ as a parameter. There are 5 figures.

SUBMITTED: May 6, 1962

Card 2/2

S/024/62/000/006/011/020
E140/E135

7226

AUTHOR: Kuntsevich, V.M. (Kiev)

TITLE: Improving the quality of pulse-width-modulation control systems

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Energetika i avtomatika, no.6, 1962, 120-127

TEXT: Previous work on the theory of invariance based on compensation of perturbation has concerned either linear systems or pulse-amplitude modulation systems. In pulse-width-modulation systems with constant-velocity servomotors only velocity errors can be eliminated. Pulse-width modulated systems can be studied by the same techniques as pulse-amplitude systems, by considering the parallel connection of a large number of pulse elements with time shifted pulses, such that their sum corresponds to the width of the pulse in the width modulated system. Expressions are found for systems with and without compounding with respect to the command signal. Conditions are found for minimising the mean-square reproduction error (by an iteration method) and

Card 1/2

Improving the quality of ...

S/024/62/000/006/011/020
E140/E135

elimination of the velocity error.
There are 6 figures.

SUBMITTED: April 10, 1962

Card 2/2

KUNTSEVICH, V.M. [Kuntsevych, V.M.] (Kiyev)

Invariance of impulse-type optimalizing systems without perturbance coupling. Avtomatyka 7 no.3:23-32 '62. (MIRA 15:6)
(Automatic control)

KUNTSEVICH, V.M. [Kuntsevych, V.M.] (Kiyev); CHUGUNNAYA, L.I. (Kiyev)

Impulse-type optimalizing differential controller. Avtomatyka 7 no.5:49-52 '62. (MIRA 15:11)
(Automatic control)

KUNTSEVICH, V. M. (Kiyev)

Increase in the quality of control systems with pulse-width modulation. Izv. AN SSSR. Otd. tekh. nauk. Energ. i avtom. no.6:120-127 N-D '62. (MIRA 16:1)

(Automatic control)

39348
S/103/62/023/007/009/009
D201/D308

16.8000

AUTHOR: Kuntsevich, V. M.

TITLE: Analysis of extremal pulse systems with extremum drift

PERIODICAL: Avtomatika i telemekhanika, v. 23, no. 7, 1962, 971-984

TEXT: The analysis assumes one form of the drift of extremum only, namely, that when the projections of the vector of the velocity of the extremum displacement are constant in their magnitudes. The object to be controlled is assumed to consist of a linear component with inertia; the sampling element is assumed to be ideal. For the above conditions, the following types of extremum control systems were analyzed: (1) With a constant control period with no external generator of sampling signal. For this system; formulas are derived for determining the limiting value

Card 1/3

of the rate of extremum drift at which the system remains operational. Limiting values exceeding this lead to increase of amplitude of oscillations of the system. Under certain conditions, such a system is unstable as an on-off system in which the gain has been increased accordingly. (2) Extremum systems with a varying control period. Assuming that the equation of extremum characteristic of the analyzed systems is given in the form of

$$\varphi = -a_3(x + \lambda)^2 + \lambda' , \qquad (1)$$

the varying control period system has the maximum permissible rate of change of $\lambda(t)$, limited only by the speed of operation of the system itself; the effect of $\lambda'(t)$ is considerably greater than in the previous system. (3) Extremum systems with an external generator of sampling signals. The analysis is carried out for a difference type system with synchronous detector, as described in Avtomatika, no. 5, 1962. The highest quality of

Analysis of extremal...

control for the given form of extremum drift is found in an extremal system of the difference type, of which the fundamental properties are the nearest to those of ideal linear extremum systems. The method of analysis of difference systems with synchronous detector in their linearized form is due to O. M. Kryzhanovskiy. There are 8 figures.

SUBMITTED: July 10, 1961

Card 3/3

KUNTSEVICH, V. M.; KREMENTULO, Yu. V.

"Invariancy Theory for Self-Adjusting(pulse) Systems."

Paper to be presented at the IFAC Congress held in Basel, Switzerland, 27 Aug to 4 Sep 63

L 12488-63 EWT(d)/HDS AFFTC/APGC/ASD Pg-4/Pk-4/Pl-4/Pc-4/Pq-4 BC/IJP(C)
S/102/63/000/002/001/007

74

AUTHOR: Kuntsevych, V. M. and Chuhunnaya, L. I.

9

TITLE: Experimental studies of a self-adjusting system which controls the indirect quality controller

PERIODICAL: Avtomatyka, no. 2, 1963, 3-12.

TEXT: A self-adjusting system, the purpose of which was to maintain constant a relative damping system during changes of the parameters of controlled object was investigated. Since every self-adjusting system is a nonlinear system the concept of continuous relative damping was introduced. A method is proposed for its continuous monitoring of this parameter. The dynamics of a self-adjusting system are described by a linear integral-differential equation. The solution of this equation cannot be obtained in a general form. As a result of this the study of a system with SAC (kontur samonastroyki; self-adjusting circuit) was conducted on an electronic model. The proposed SAC facilitates extremely rapid response of the system. Consequently, incorporation of SAC into an unstable system will accomplish self-adjustment during one transition process. It was established that optimum

Card 1/2

parameters of SAC exist which enable not only preservation of the stability of the system as a whole at any initial adjustment, but also preservation of the prescribed nature of the process. Introduction of additional elements into SAC assures preservation of working capacity of the system even in the case of considerable level of interference or control signals at the input. The article contains 8 figures and a 6 item bibliography.

SUBMITTED: October 12, 1962.

KUNTSEVICH, V.M. [Kuntsevych, V.M.]; SVETAL'SKIY B.K. [Svetal's'kyi, B.K.]; MELESHEV, A.M. [Melieshev, A.M.], CHERNYSH, A.F. [Chernysh, O.F.]

Improved controller for optimum speed regulation in river craft. Avtomatyka 8 no.5:84-89 '63. (MIRA 17:1)

KUNTSEVICH, V.M.; CHUGUNNAYA, L.I.

Step-by-step optimalizing controller with a synchronous detector.
Priborostroenie no.10:9-11 O '63. (MIRA 16:11)

KULEBAKIN, V.S., akademik, otv. red.; PETROV, B.N., akademik, otv. red.; BODNER, V.A., doktor tekhn. nauk, red.; VORONOV, A.A., doktor tekhn. nauk, red.; IVAKHNENKO, A.G., red.; ISHLINSKIY, A.Yu., akademik, red.; KOSTYUK, O.M., kand. tekhn. nauk, red.; KRASSOV, I.M., kand. tekhn. nauk, red.; KUNTSEVICH, V.M., kand. tekhn. nauk, red.; KUKHTENKO, A.I., red.; RYABOV, B.A., doktor tekhn. nauk, red.; SIMONOV, N.I., doktor fiz.-mat. nauk, red.; ULANOV, G.M., doktor tekhn. nauk, red.; FEDOROV, S.M., kand. tekhn. nauk, red.; TSYPKIN, Ya.Z., doktor tekhn. nauk, red.; CHINAYEV, P.I., kand. tekhn. nauk, red.; KRUTOVA, I.N., kand. tekhn. nauk, red.; RUTKOVSKIY, V.Yu., kand. tekhn. nauk, red.

[Invariancy theory in automatic control systems; transactions] Teoriia invariantnosti v sistemakh avtomaticheskogo upravleniia; trudy. Moskva, Nauka, 1964. 503 p. (MIRA 18:2)

1. Vsesoyuznoye soveshchaniye po teorii invariantnosti i yeye primeneniyu v avtomaticheskikh ustroystvakh. 2d, Kiev, 1962. 2. Chlen-korrespondent AN Ukr.SSR (for Ivakhnenko, Kukhtenko).

KUNTSEVICH, V.M. (Kiyev)

Study of a class of high-speed self-adjusting control systems. Avtom. i telem. 24 no.12:1672-1684 D '63. (MIRA 17:1)

L 00831-66 EWT(d)/EPF(n)-2/EWP(v)/EWP(k)/EWP(h)/EWP(l) IJP(c) WW/BC

ACCESSION NR: AP5015905 UR/0103/65/026/006/1010/1020
62-504

AUTHOR: Kuntsevich, V. M. (Kiev)

TITLE: Investigation of the stability of free and forced transitions in two types of the sampled-data extremal systems

SOURCE: Avtomatika i telemekhanika, v. 26, no. 6, 1965, 1010-1020

TOPIC TAGS: sampled data automatic control, automatic control, automatic control design, automatic control system, automatic control theory

ABSTRACT: The stability of free cycling and of forced transitions (extremum drift) is theoretically investigated im kleinen in two sampled-data systems: (a) a difference-type system with a synchronous detector and (b) a system with two controlled hunters (dithers). For determining the a-system stability, a variational equation is evolved in the form of a linear difference equation with periodic coefficients; a method is given for investigating this equation. For determining b-system stability, linear differential equations with periodic coefficients are also developed. A theoretical comparison shows stability advantages of the a-system over the b-system. Orig. art. has: 2 figures and 85 formulas.

Card 1/2

L00831-66

ACCESSION NO: AP5015905

ASSOCIATION: none

SUBMITTED: 14Jan64 ENCL: 00 SUB CODE: DP, IE

NO REF SOV: 005 OTHER: 004

Card 2/2

L 2223-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l) IJP(c) BC

ACCESSION NR: AP5022979 UR/0103/65/026/008/1391/1402
62-506.4

38
B

AUTHOR: Kuntsevich, V. M. (Kiev) 44

TITLE: The study of stability of simple adaptive systems 9,44

SOURCE: Avtomatika i telemekhanika, v. 26, no. 8, 1965, 1391-1402

TOPIC TAGS: self adaptive control, automatic control system, automatic control R and D, free oscillation 14

ABSTRACT: The paper investigates the dynamics of a class of simple adaptive systems the operation quality of which is determined by indirect criteria. The system discussed utilizes, as a quality criterion, the magnitude of the relative damping of the basic loop of the adaptive system, and the author describes two improved methods for the measurement of the relative damping. Studies of the stability of free oscillations of closed adaptive systems for various variable parameters of the system are carried out using second order systems. Conditions for the existence of parametric autooscillations are also determined and the author presents a method for approximate investigations of adaptive systems of arbitrary order. Orig. art. has: 44 formulas and 10 figures.

Card 1/2

L 2223-66

ACCESSION NR: AP5022979

ASSOCIATION: None

SUBMITTED: 23Jun64 ENCL: 00 SUB CODE: IE

NO REF SOV: 002 OTHER: 002

Card 2/2

L 04989-67 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l) GD

ACC NR: AT6016437 (A) SOURCE CODE: UR/0000/65/000/000/0165/0184

AUTHOR: Kuntsevich, V. M.; Krementulo, Yu. V.

52
B+1

ORG: none

TITLE: The theory of invariance of pulsed and self-adjusting pulsed systems

SOURCE: International Federation of Automatic Control. International Congress, 2d, Basel, 1963. Diskretnyye i samonastraivayushchiyesya sistemy (Discrete and adaptive systems); trudy kongressa. Moscow, Izd-vo Nauka, 1965, 165-184

TOPIC TAGS: self adaptive control, self organizing system, automatic control theory, nonlinear automatic control system

14

ABSTRACT: This is a comprehensive study of the problem of invariance in pulsed systems. Until recently the theory of invariance has been widely used only for ordinary systems of continuous action control. Since self-adjusting systems are a special class of nonlinear systems the introduction of compounding connections with respect to perturbations makes it possible both to improve quality and to extend the stability regions of these systems. Methods of analyzing and constructing pulse systems, enabling errors to be eliminated may serve as the basis for constructing control systems of substantially greater accuracy than present ones. In their

Card 1/2

L 04989-67

ACC NR: AT6016437

exposition, the authors make the following limitations and assumptions: (1) synchronous AM pulsed systems, (2) pulse repetition interval is constant, (3) pulse element has ideal characteristics, (4) equations are recorded in their variations, and (5) initial conditions are zero. The paper deals with pulsed systems (equations of multicircuit pulsed systems, pulse systems with continuous and with discrete compounding connections, and pulsed-continuous compounding systems) and extremal pulsed systems (systems without compounding connections, invariance of extremal control systems with indirect compounding connections), giving four examples of different types of systems. Orig. art. has: 71 formulas and 6 figures.

SUB CODE: 09/ SUBM DATE: 29Sep65/ ORIG REF: 021/ OTH REF: 010

13/

Card 2/2

KUNTSEVICH V.V

V-4

USSR/Human and Animal Physiology - Circulation.

Abs Jour : Ref Zhur - Biol., No 2, 1958, 8623

Author : V.V. Kuntsevich

Inst : The University of Tomsk

Title : Reduced Circulation in a Lower Extremity

Orig Pub : The Fifth Pavlov Symposium, Tomsk Medical Institute, The University of Tomsk, 1956, 37-39

Abstract : The pressure in central and peripheral sections of the femoral arteries of 18 dogs was recorded. After a clamp was applied to the central segment, the peripheral pressure was 30-32 mm Hg. Clamping the femoral vein increased the pressure to 40-54 mm Hg. In 10 chronic experiments clamping the vein after transecting the femoral artery or supplementary clamping of the previously ligated (at the same time as the artery) vein increased the peripheral arterial

Card 1/2

USSR/Human and Animal Physiology - Circulation. V-4

Abs Jour : Ref Zhur - Biol., No 2, 1958, 8623

pressure. The author is of the opinion that the increase in peripheral pressure after clamping the corresponding vein indicates a greater flow of blood through the collaterals of the femoral artery.

Card 2/2

BULGARIA/Electricity - Dielectrics. G

Abs Jour : Ref Zhur Fizika, No 10, 1959, 22897

Author : Kuntshev, P.I.

Inst : The Bulgarian Academy of Sciences, Peoples Republic of Bulgaria

Title : A Method for Separating and Tracing Changes of Complex Dielectric Constant /Text in Source Wrong/

Orig Pub : Dokl. Bolg. AN. 1958, 11, No 3, 173-176

Abstract : A method is proposed, which makes it possible to measure and register independently from each other rapid, simultaneously occurring changes in the capacitance and active conductance of a dielectric, subjected to some irradiation or some other action.

Card 1/1

L 11216-66 EWT(1) SC

ACC NR: AR6022381 (N) SOURCE CODE: UR/0397/65/000/024/0020/0020

AUTHOR: Kuntsman, I. Ya.

17
B

TITLE: Some data on the comparative pharmacological action of eleutherococcus leaves and roots

SOURCE: Ref. zh. Farmakologiya. Toksikologiya, Abs. 24.54.153

REF SOURCE: Soobshch. Dal'nevost. fil. Sib. otd. AN SSSR, vyp. 23, 1964, 15-18

TOPIC TAGS: pharmacology, nervous system drug, drug effect, toxicity

ABSTRACT: Liquid extract prepared from prickly eleutherococcus leaves compared to extract prepared from the roots was more toxic and displayed stronger stimulant action in experiments on mice. Eleutherococcus extract prepared from leaves displayed antihypnotic action. A mixture of equal amounts of eleutherococcus leaf extract and root extract produced a potent stimulant effect. Eleutherococcus leaf extract displayed an antidiuretic and hypotension effect, but not the potent effect produced by a mixture of the two extracts. S. K. [Translation of abstract].

SUB CODE: 06

UDC: 615.78

Card 1/1 MT

IVANOV, V.F., doktor tekhn. nauk, prof. [deceased]; ONUFRIYEV, N.M., doktor tekhn. nauk, prof.; ROT, A.V., kand. arkh. dots.; GRIGOR'YEVA, A.M., arkh.; ZAKHAR'YEVSKAYA, M.A., kand. tekhn. nauk; ZEL'TEN, L.V., kand. arkh.; KRAMSKOY, V.A., arkh.; KUNTSMAN, M.S., kand. arkh. dots.; LOKHANOV, G.I., arkh.; NIKOLAYEV, A.I., doktor tekhn. nauk, prof.; OSIPOV, Ye.A., kand. tekhn. nauk, dots.; SAKHNOVSKIY, K.V., doktor tekhn. nauk prof.; TRULL', V.A., kand. tekhn. nauk, dots.; KARRO V.M., inzh., nauchn. red.; MARGOLIN, A.G., inzh., nauchn. red.

[Elements of buildings and structures] Konstruktsii zdanii i sooruzhenii. Leningrad, Stroiizdat, 1965. 487 p. (MIRA 18:12)

NEMZER, G.A.; LOSEVA, A.G.; KUNTSMAN, Ye.S.

Materials on clinical and microbiological characteristics of Salmonella infections in children. Vop.okh.mat. i det. 1 no.2: 53-60 Mr-Ap '56. (MLRA 9:9)

1. Iz detskoy bol'nitsy imeni N.F.Filatova (glavnyy vrach Z.A.Savel'yeva) Leningrad.
(CHILDREN--DISEASES) (INTESTINES--DISEASES)

KUNTSMAN, Ye.S.; SEKUNOVA, V.N.; BYCHKOVA, V.V.

Use of type antigens in making a serological diagnosis of dysentery in children. Zhur.mikrobiol.epid. i immun.,supplement for 1956:15-16 '57 (MIRA 11:3)

1. Iz Leningradskoy detskoy infektsionnoy bol'nitsy imeni Filatova i Instituta vaktsin i syvorotok.
(DYSENTERY) (ANTIGENS AND ANTIBODIES)

KUNTSMAN, Ye.S.

Serological diagnosis of Salmonella infections in children; author's abstract. Zhur.mikrobiol.epid. i immun. 28 no.7:144 Jl '57.
(MIRA 10:10)

1. Iz kafedry infektsionnykh bolezney I Leningradskogo meditsinskogo instituta i detskoy infektsionnoy bol'nitsy imeni Filatova.
(SALMONELLA)

KUNTSMAN, Ye.S.; LYUBIMOVA, V.D.; GUSAROVA, N.D.

Etiology of pneumonia in children with whooping cough. Vop. okh. mat. i det. 6 no.7:38-43 Jl '61. (MIRA 14:8)

1. Iz kafedry infektsionnykh bolezney (zav. B.L.Ittsigson) I Leningradskogo meditsinskogo instituta imeni akad. I.P.Pavlova i detskoy infektsionnoy bol'nitsy imeni N.F.Filatova (glavnyy vrach I.Kh.Sokolova).
(PNEUMONIA) (WHOOPING COUGH)

ADAMOVICH, Z. A.;KUNTSEVICH, D.Ye.

Clinical aspect and roentgenologic diagnosis of cancer of the small intestine. Ter. ark., Moskva 23 no. 6:70-72 Nov-Dec 1951. (CLML 21:3)

1. Of the Department of Faculty Therapy (Head -- Prof. I. Yu. Kayryukshtio)and of the Department of Faculty Surgery and Roentgenology (Head — Docent K. G. Katilyus) of the Medical Faculty of Vil'nyus State University.

KUNTSEVICH, D.Ye., dotsent; KFROS,B.I., kandidat meditsinskikh nauk (Vil'nyus)

Diagnosis of primary gastric sarcoma. Khirurgiia no.7:84 Jl '55. (MLRA 8:12)
(STOMACH--TUMORS)

KUNTSEVICH, D.Ye.

A case of congenital hypoplasia of the lung. Vest. rent. i rad. 32 no.1:20-21 supplement '57 (MLRA 10:5)

1. Iz 3-y gorodskoy bol'nitsy Vil'nyusa.
(LUNGS, abnorm.
hypoplasia of right lung)

KUNTSEVICH, D.Ye., Doc Med Sci -- (diss) "Clinical X-ray observations of cancer of the large intestine." Mos, 1958, 23 pp (State Sci Res X-ray Radiology Inst of Min of Health RSFSR) 200 copies (KL, 50-58, 127)

KUNTSEVICH D. Ye., Doc Med Sci -- "Clinical X-ray Observations of cancer of the large intestine," Mos, 1960 (State Sci Res X-ray Radiological Inst of the Min of Health RSFSR). (KL, 1-61, 204)

KUNTSEVICH, D.Ye., dotsent, zasluzhennyy vrach Litovskoy SSR (Vil'nyus)

Improved method for the X-ray diagnosis of cancer of the large intestine. Klin.med. 40 no.6:120-123 Je '62. (MIRA 15:9)
(INTESTINES--CANCER) (DIAGNOSIS, RADIOSCOPIC)

KUNŽEVIČ, D., med. m. dr.

The problem of early clinico-roentgenological diagnosis of intestinal polyposis. Sveik. apsaug. 8 no.12:13-17 D'63.

1. Vilniaus Valst. V.Kapsuko v. universiteto Medicinos fakulteto vidaus ligu propedeutikos katedra. Katedros vedejas- med. m. dr. M.Marcinkevicius.

*

KUNTSOVA, M.Ya.

Summation capacity of the nerve centers connected with the tonic and tetanic apparatus of the skeletal muscles [with summary in English]. Fiziol.zhur. 44 no.7:609-618 Jl'58 (MIRA 11:7)

1. Meditsinskiy institut, g.Kalinin, i Fiziologicheskiy institut Gosudarstvennogo universitete, Leningrad.
(MUSCLES, physiology,
summation capacity of centers related to tonic & tetanic appar. (Rus))

KUNTSOVA, M.Ya.

Optimum and pessimum of frequency of stimulation of tetanic and tonic reflex apparatus [with summary in English]. Biul.eksp. biol. i med. 46 no.8:15-18 Ag '58 (MIRA 11:10)

1. Iz Kalininskogo meditsinskogo instituta i fiziologicheskogo instituta Leningradskogo gosudarstvennogo universiteta. Predstavlna deystvitel'nym chlenom AMN SSSR D.N. Nasonovym [deceased].
(NERVES, physiol.
stimulation of tetanic & tonic reflex apparatus, optimum & contra-optimum in spinal forms (Rus))

VOSKRESENSKAYA, A.K.; KUNTSOVA, M.Ya.; SVIDERSKIY, V.L.

Relations between innervating systems in the neuromuscular apparatus of Crustacea. Fiziol.zhur. SSSR 45 no.7:830-839 Jl '59.
(MIRA 13:4)

1. From the U.S.S.R. Academy of Sciences I.M. Sechenov Institute of Evolutionary Physiology, Leningrad.
(MYONEURAL JUNCTION, physiology)
(CRUSTACEA)

KUNTSOVA, M. Ya., Cand Biol Sci -- (diss) "Research into tonic and fascial reflexes in amphibia." Leningrad, 1960. 14 pp; (Academy of Sciences USSR, Inst of Physiology im I. P. Pavlov); 240 copies; free; (KL, 27-60, 151)

KUNTSOVA, M.Ya.

Specialization of the phasic and tonic reflex arch in cold-blooded animals. Nerv. sist. no.1:73-82 '60. (MIRA 13:9)

1. Laboratoriya evolyutsionnoy fiziologii, Leningradskiy ordena Lenina gosudarstvennyy universitet im. A.A. Zhdanova.
(REFLEXES) (MUSCLE)

KUNTSOVA, M.Ya.

Characteristics of the interaction of innervation systems in the neuromuscular apparatus of different crale species of the Black Sea. Fiziol. zhur. SSSR 46 no. 9:1090-1097 S '60. (MIRA 13:10)

1. From the Sechenov Institute of Evolutionary Physiology, Leningrad.
(NERVOUS SYSTEM—CRUSTACEA) (CRABS) (ANIMAL MECHANICS)

KUNTSOVA, M.Ya.

Effect of $\gamma^1$-aminobutyric acid on motor reactions of normal and denervated closing muscles of the crayfish claw. Biul. eksp. biol. i med. 52 no.12:8-12 D '61. (MIRA 14:12)

1. Iz laboratorii evolyutsii nervno-myshechnykh funktsiy (zav. - doktor biologicheskikh nauk A.K.Voskresenskaya) Instituta evolyutsionnoy fiziologii imeni I.M.Sechenova (dir. chlen-korrespondent AN SSSR Ye.M.Kreps) AN SSSR, Leningrad. Predstavlena deystvitel'nym chlenom AMN SSSR S.V.Anichkovym.
(BUTYRIC ACID) (NERVOUS SYSTEM--CURSTACEA)

VOSKRESENSKAYA, A.K., KUNTSOVA, M.YA., SVIDERSKIY, V.L.

"The influence of the nervous system on the function of locomotor muscles of insects and cray-fish."

Report submitted, but not presented at the 22nd International Congress of Physiological Sciences.
Leiden, the Netherlands 10-17 Sep 1962

KUNTSOVA, M. Ya.

Regulating function of the inhibiting nerve in Crustacea.
Nerv. sist. no.4:27-28 '63 (MIRA 18:1)

1. Institut evolyutsionnoy fiziologii AN SSSR, Leningrad.

S/239/63/049/003/001/001

[illegible] A.Ia.

TITLE: The effect of sympathomimetic amines on nerve-muscle preparations of crabs and crayfish

PERIODICAL: Fiziologicheskiy zhurnal SSSR imeni I.M.Sechenova, v.49, no.3, 1963, 370-378

TEXT: An investigation was carried out on the effect of sympathomimetic amines such as adrenalin (Adrenalinum hydrochloricum), noradrenalin (l-Nor-Adrenalin), anspiran (N.isopropyl-noradrenalinum sulfuricum) and pedrolon (-1-(4-Hydroxyphenyl)-2-aminopropanum hydrobromicum) in concentrations $1 \times 10^{-10}$ to $1 \times 10^{-4}$ g/ml on the bioelectric and mechanical activities of the chela closing muscles of crabs and crayfish. The excitable nerve of the muscles was stimulated by square topped stimuli (pulses) fed from an electronic stimulator. The action potentials were recorded by a loop oscillograph and the mechanical responses by a myograph. Sympatholytic substances (Sympatholytin, D.H.Ergotamin, D.H.Ergotoxin, Aminazin) in concentrations $1 \times 10^{-6}$ to $1 \times 10^{-5}$ g/ml were used to suppress the inhibiting as well as stimulant effects of the sympathomimetic amines. It was found

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that pedrolon is the most effective stimulant, noradrenalin the most inhibiting, sympathomimetic and sympatholytin the most active sympatholyt. Conclusions: It can be assumed that the peripheral nerve-muscle preparation of the crustacea contain characteristic sensitive adrenoreactive systems. There are 4 figures and 1 table.

ASSOCIATION: Institut evolyutsionnoy fiziologii im. I.M.Sechenova AN SSSR, Leningrad (Institute of Evolutionary Physiology imeni I.M.Sechenov AS USSR, Leningrad)

SUBMITTED: February 20, 1962

KUNTSOVA, M.Ya.; KARLOV, A.A.

Characteristics of myoneural transmission during a functional synaptic block in crustaceans. Fiziol. zhur. 50 no.5:531-537 My '64. (MIRA 18:2)

1. Laboratoriya evolyutsii nervno-myshechnykh funktsiy Instituta evolyutsionnoy fiziologii imeni Sechenova AN SSSR, Leningrad.

KUNTSOVA, M.Ya.

Variation in the electrical and mechanical activity of the compressor muscle of the claw in the crab Eriphia spinifrons (Herbst.) under simple ( $\beta$ ) and supplementary ( $\alpha$ ) inhibition. Dokl. AN SSSR 155 no. 4:981-984 Ap '64. (MIRA 17:5)

1. Institut evolyutsionnoy fiziologii im. I.M.Sechenova AN SSSR. Predstavleno akademikom V.N.Chernigovskim.

SHARIPOV, Vakhit Sharipovich, kand.tekhn.nauk; KUNTUKOV, Yuriy Grigor'yevich, inzh.; MUZGIN, Sergey Spiridonovich, kand.tekhn.nauk; TKACHENKO, Artem Mikhaylovich; TRET'YAKOV, Aleksey Mikhaylovich, inzh.; SHCHERBAK, Georgiy Sergeyevich, inzh.; TARASOV, L.Ya., red.; PARTSEVSKIY, V.N., red.izd-va; ATTOPOVICH, M.K., tekhn.red.

[Hole drilling equipment] Karetki i agregaty dlia bureniia shpurov. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1959. 134 p. (MIRA 12:4)

1. Institut gornogo dela AN KazSSR (for all except Tarasov, Partsevskiy, Attapovich).
(Boring machinery)

KUNTUKOV, Yu.G.

Sludge recovery in deep rod drilling. Izv. AN Kazakh. SSR. Ser. gor. dela no.1:64-69 '61. (MIRA 15:2)
(Boring)

SHARIPOV, V.Sh.; KUNTUKOV, Yu.G.; KULAKOV, A.Ya.

System of sublevel caving using self-propelled equipment to work pitching ore bodies (applicable to the Atasu Mine). Trudy Inst. gor.dela AN Kazakh.SSR 9:154-156 '62. (MIRA 15:8)
(Atasu region—Mining engineering—Equipment and supplies)

KUNTUKOV, Yu.G., inzh; TKACHENKO, A.M., inzh.

The SBK-4 boring car. Bezop.truda v prom. 2 no.4:26-27 Ap '58.
(Mining machinery) (MIRA 11:4)

KUNTUPOV, Yu.S.

SHARIPOV, V.Sh.; KUNTUPOV, Yu.G.

An efficient diameter for blast holes. Izv. AN Kazakh. SSR. Ser. gor. dela, met., stroi. i stroimat. no.2:82-87 '57. (MLRA 10:9)
(Blasting) (Boring)

KUNTUKOV, Yu.G.

Breaking the ore by means of rod boring at the Dzhezkazgan Mines. Izv. AN Kazakh. SSR. Ser. gor dela no.1:40-47 '60.
(MIRA 13:10)
(Dzhezkazgan region--Mining engineering)
(Rock drills)

KUNTUKOV, Yu.G.; MUZGIN, S.S.

Changes in the true rate of boring dependent on the depth of the boreholes in boring with a perforator with an independent rotation of the rod bores. Izv. AN Kazakh. SSR. Ser.tekh. i khim.nauk no.3: 65-68 '64. (MIRA 17:2)

KUNTUKOV, Yu.G.

Resisting moment of rotation of a boring bit. Trudy Inst. gor. dela AN Kazakh. SSR 13:69-72 '64. (MIRA 17:7)

SHARIPOV, V.Sh.; KUNTUKOV, Yu.G.

Mechanization and automation of industrial processes, and remote control in the ore mining industry. Trudy Inst. gor. dela AN Kazakh. SSR 17:3-10 '65. (MIRA 18:9)

MUZGIN, S.S.; KUNTUKOV, Yu.G.; DAVYDOV, O.B.

Efficiency of the actuating mechanisms on the loading equipment in the Dzhezkazgan mine. Trudy Inst. gor. dela AN Kazakh. SSR 17:55-58 '65. (MIRA 18:9)

YAGODKIN, G.I.; KUNTYSH, M.F.

Determining the compression strength of samples. Fiz.-mekh.-svois.,dav.i razr.gor.porod no.1:8-11 '62. (MIRA 16:3)
(Rocks--Testing)

KUNTYSH, M.F., inzh.

Analysis of experimental methodology for obtaining Mohr limiting envelope curves. Nauch. soob. IGD 20:55-67 '63. (MIRA 16:10)

(Rocks--Testing) (Curves)

KUNTYSH, M.F.

Study of the relationship between the rate of applying a load and friction to the ends and a change in the volume of the index of hardness of rock specimens in uniaxial compression. Nauch. soob. IGD 12:119-129 '61. (MIRA 15:9)
(Rocks--Testing) (Strains and stresses)

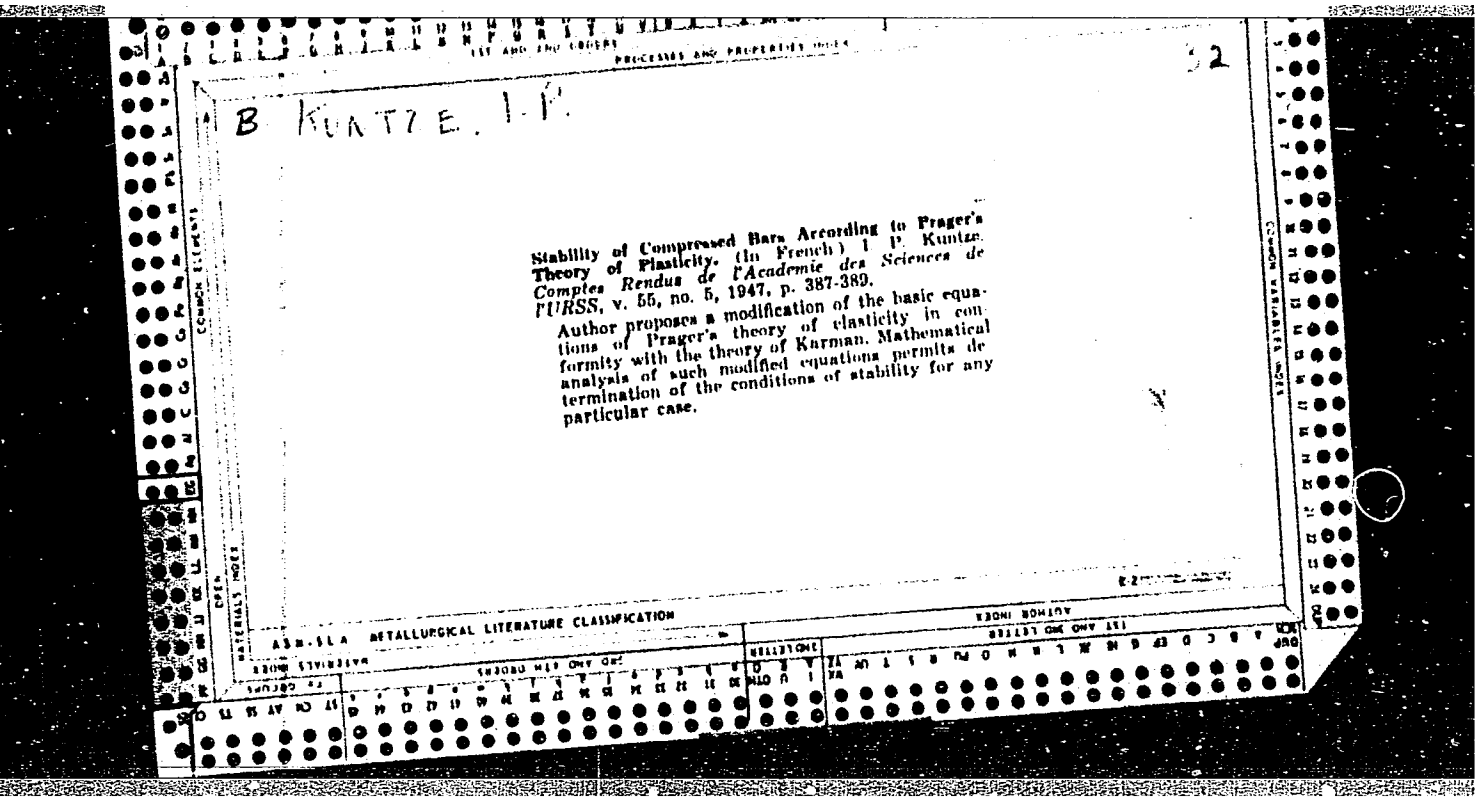
PROTOD'YAKONOV, Mikhail Mikhaylovich; KOYFMAN, Mikhail Il'ich; CHIRKOV, Sergey Yefimovich; KUNTYSH, Mikhail Filimonovich; TEDER, Rolland Iogannesovich

[Strength certificate of rocks and methods of determining it] Pasporta prochnosti gornykh porod i metody ikh opredeleniia. [By] M.M.Protod'iakonov i dr. Moskva, Nauka, 1964. 76 p. (MIRA 18:1)

1. Moscow. Institut gornogo dela im. A.A.Skochinskogo.

IOKHVEDOV, F.M.; KUNTYSH, V.B.

Studying the flow around staggered bundles of pipes with smooth and rough surface in a transverse flow. Trudy LTITSBP no.14:151-157 '64. (MIRA 18:5)



B KUNTZE, I.P.

Stability of Compressed Bars According to Prager's Theory of Plasticity. (In French.) I. P. Kuntze. *Comptes Rendus de l'Academie des Sciences de l'URSS*, v. 55, no. 5, 1947, p. 387-389.

Author proposes a modification of the basic equations of Prager's theory of elasticity in conformity with the theory of Karman. Mathematical analysis of such modified equations permits determination of the conditions of stability for any particular case.

KUNTZEL, A., prof., dr. (Darmstadt, Nemet Szovetsegi Koztarsasag)

Recent achievements in the chemistry of mineral tanning. Bor cipo 13 no.3:74-77 My '63.

KUNVARI, Arpad, dr.

Experiences in making detailed plans for 1964 in the silicate industry. Epites szemle 7 no.10:317-322 '64.

1. Group Head, Department of Economic Planning, Ministry of Construction, Budapest.

KUNVARI, O.

Hungary/Atomic and Molecular Physics - Gases, D-7

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 34454

Author: Gombas, P., Kunvari, O.

Institution: Physics Inst. of the University of Tech. Sciences, Budapest

Title: On the Equations of State of Atoms of Inert Gases Ne, Ar, Kr, and X at Absolute Zero Temperature

Original Periodical: Acta phys. Acad. sci. hung., 1955, 5, No 3, 339-354; German; Russian resumé

Abstract: Based on the Thomas-Fermi Model, refined by introducing the exchange and correlation energy, an equation of state is derived for the crystals of Ne, Ar, Kr, and X at absolute zero. The crystal is treated as a system of densely-packed atoms with the coordination polyhedron replaced by a sphere. The results are given in the form of a table and of graphs.

AUTHORS: Kuny, L. and Nemets, Z. SOV/136-58-6-17/21

TITLE: New Method of Making the Edge of the Aluminium-production Electrolytic Bath from Heat-resisting Concrete (Novyy metod izgotovleniya brovki elektroliticheskoy vanny iz termobetona dlya proizvodstva alyuminiya)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 6, p 96 (USSR)

ABSTRACT: At the authors' suggestion, a heat-resisting concrete made of 17 kg Portland cement, 950 of blast-furnace slag, 480 of fireclay grains and 240-280 of waterglass per $m^3$ was used for aluminium-electrolyser (figure) edges. Baths with this type of edge have been in operation at the Skavina Aluminium Works in Poland for over a year, and since February 1957 all baths are being repaired in this way. There are 1 figure and 1 table.

ASSOCIATION: Skavinskiy alyuminiyevskiy zavod (Skavina Aluminium Works) (Poland)

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KUNYANSKIY, I.A.

Organizing cleaning operations in workshops. Mashinostroitel' no.8:22-25 Ag '65. (MIRA 18:11)

SOV/19-58-6-10/685

AUTHORS: Rabiner, N.Ya.; Kunyanskiy, N.A. and Kogan, F.I.

TITLE: A Device for Automatic Control of the Level of Partition "Oil-Water" in Steam Oil Ovens (Ustroystvo dlya avtomaticheskogo regulirovaniya urovnya granitsy razdela "maslo-voda" v paromaslyanykh pechakh)

PERIODICAL: Byulleten' izobreteniy, 1958, Nr 6, p 7 (USSR)

ABSTRACT: Class 2a, 15. Nr 113826 (585393 of 17 October 1957). Submitted to the Committee for Inventions and Discoveries at the Ministers Council of USSR. Developed at the Ukrainian Scientific Research Institute of Food Canning Industry. (Ukrainskiy nauchno-issledovatel'skiy institut konservnoy promyshlennosti). An automatic control device for, e.g. ovens for frying fish and vegetables, containing a pickup, an electronic re-

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A Device for Automatic Control of the Level of Partition "Oil-Water" in Steam Oil Ovens

lay and an electric work mechanism with cocks for inlet and outlet of water. The pickup consists of two siphon pipes.

RABINER, N.Ya.; KUNYANSKIY, N.A.; KOGAN, F.I.

Automatic controller of the water cushion level in a steam-heated deep-fat fryer. Kons. i ov. prom. 14 no.1:18-20 Ja '59.
(MIRA 12:1)

1.Ukrainskiy nauchno-issledovatel'skiy institut konservnoy promyshlennosti.
(Canning industry--Equipment and supplies)

RABINER, N.Ya; KUNYANSKIY, N.A.; ZEYGERMAN, I.Yu.; KLEVITSKIY, Z.S.

Steam-heated deep-fat fryer with automatic regulation of the process of frying vegetables. Kons.i ov.prom. 15 no.9:5-8 S '60. (MIRA 13:9)

1. Ukrainskiy nauchno-issledovatel'skiy institut konservnoy promshlennosti (for Rabiner and Kunyanskiy). 2. Spetsial'noye konstruktorskoye byuro "Prodmash" Odesskogo sovnarkhoza (for Zeygermanand Klevitskiy).
(Canning and preserving--Equipment and supplies)

KUNYANSKIY, N.A.; SHTEYNBERG, R.V.; DOLGIY, V.I.

Mechanization of the hanging up and removing of glass jars from hooks of a forked chain conveyer. Kons.i ov.prom. 15 no.10:11-12 O '60. (MIRA 13:10)

1. Ukrainskiy nauchno-issledovatel'skiy institut konservnoy promyshlennosti.
(Canning industry--Equipment and supplies)

KUNYANSKIY, N.A.; DOLGIY, V.I.

Machine for cutting squash and eggplant into round slices, and equipped with a directed furit feeding device. Kons. i ov. prom. 15 no. 12:9-11 D '60. (MIRA 14:1)

1. Ukrainskiy nauchno-issledovatel'skiy institut konservnoy promyshlennosti (for Kunyanskiy, Dolgiy).
(Canning and preserving--Equipment and supplies)

GODIK, M.M., inzh.; KUNYANSKIY, Ya.I., inzh.

Pneumatic instruments for polishing facets and cleaning seams from slag. Stroi. truboprov. 5 no.7:25-26 Jl '60. (MIRA 13:9)
(Pipelines--Maintenance and repair)

GODIK, M.M., inzh.; KUNYANSKIY, Ya.I., inzh.

New abrasive wheels for cleaning pipe facets. Stroi. truboprov. 6 no. 1:30 Ja '61. (MIRA 14:2)
(Grinding wheels) (Pipe—Cleaning)

ZHALILOV, F.I., inzh. (Ryazan'); DUBROVSKIKH, V.Z., inzh. (Salavat); KUNYANSKIY, Ya.I., inzh. (Salavat)

Welding rotatable joints without reinforcing rings in a carbon dioxide medium. Stroi. truboprov. 6 no.5:16-19 My '61. (MIRA 14:7)

(Pipe joints--Welding)