

31269
S/103/61/022/011/010/014
D271/D306

Some properties of ...

by introducing a new variable

$$b = \frac{h_2}{1 + h_m^2 \sin^2 \theta}$$

The character of transients is fully defined by the solution of a corresponding homogeneous equation; the transient process is found not strictly exponential. If the duration of the transient process is greater than the period of the exciting emf, an approximated

expression can be obtained for the time constant $\tau = \frac{L+L_e}{r}$ where $L_e = pL_c$ is the equivalent inductance of the control winding which decreases with the choke inductance. The circuit of the two-phase modulator is shown in Fig. 4. Using designations as before and starting with the balance equation of voltages in the control circuit, the authors obtain



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$$\frac{2(2 + h_m^2)}{\gamma_0} \frac{d}{dt} \left[\frac{h_2}{1 + \frac{h_m^2}{2} - \frac{h_m^4}{4} \cos^2 2\theta} \right] + h_2 = h_0 \quad (21)$$

This leads to a linear differential equation of the first order which is solved by approximating methods, and eventually the expression for the amplification is found as

$$K_{U2} = \frac{8v}{h_m^2 + \frac{8}{h_m^2} + 8} \quad (27)$$

where

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$$v = \frac{\omega L_o w_B}{w_2 \frac{r}{2}}$$

The time constant derived as previously is

$$\tau = 8 \frac{L_o}{r^2} \frac{2 + h_m^2}{h_m^4 + 8h_m^2 + 8} \quad (28)$$

and the equivalent inductance of the modulator is

$$L_e = 8L_o \frac{2 + h_m^2}{8 + 8h_m^2 + h_m^4}$$

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The comparison of amplifications of both types of modulators shows that their dependence on design parameters is the same; the values of ν are the same if ohmic resistance of the choke is neglected. The difference in amplification is due only to terms in h_m ; the effect of working conditions is expressed by the factors

$$F_1(h_m) = \left[\frac{1 + \frac{h_m^2}{2}}{\sqrt{1 + h_m^2}} - 1 \right] \frac{1}{h_m^2} \quad \text{and} \quad F_2(h_m) = \frac{1}{h_m^2 + \frac{8}{h_m^2} + 8}$$

The graphs of both F show that maximum amplification occurs for two-phase supply at a lower value of h_m and the fall of amplification with increasing h_m is more rapid, due to harmonics of 4 n order. A single-phase modulator needs, however, a filter which causes

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an increase of the time constant and a voltage drop. If the comparison of time constants, for equal amplifications, is chosen as a quality criterion, a two-phase supply is preferable on account of a much lower time constant. There are 6 figures and 3 Soviet-bloc references.

SUBMITTED: January 21, 1961

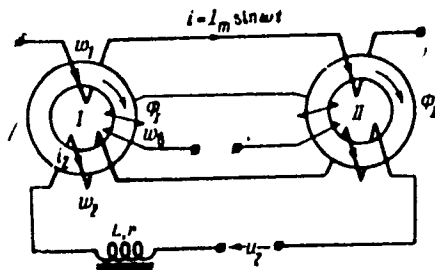


Fig. 1

Card 9/10

SHITSKIY, L.A. (L'vov); RAKOV, M.A. (L'vov)

Steady-state processes in magnetic frequency dividers.
Elektrichestvo no.8:26-30 Ag '62. (MIRA 15:7)
(Frequency changers)

33775

S/103/62/023/001/014/014
D201/D304

9.2560 (1040, 1139, 1161)

AUTHORS: Sinitskiy, L.A., and Shumkov, Yu.M. (L'vov)

TITLE: Dynamic properties of synchronous detectors

PERIODICAL: Avtomatika i telemekhanika, v. 23, no. 1, 1962,
128 - 130

TEXT: The authors briefly analyze dynamic processes in synchronous detector which find more and more application owing to the introduction of switching transistors. It is shown that a synchronous detector in an automatic control system, in which information is transmitted by means of an immodulated carrier may be replaced by a first order linear element. In contrast to a phase detector of the differential type, such an equivalent circuit remains linear for all amplitudes of the input signal and makes the analysis quite simple. The obtained characteristics of the synchronous detector were used in analyzing a phase detector in an autocompensating circuit and the experimental results showed good agreement with the theory. There are 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc

X

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3373

Dynamic properties of synchronous ...

S/103/62/023/001/014/014
D201/D304

The reference to the English-language publication reads as follows:
R. Louis Bright, Junction Transistors used as Switches, AIEE, vol.
74, pt. I, March 1955.



Card 2/2

Ref., M.A.; SINITSKIY, I.A. [Synyts'kiy, I.A.]

Use of magnetic frequency dividers in obtaining an exact 90°
phase shift. Dep. AN URSS no. 8:1025-1027 '62.

(MIRA 18:2)

1. Submitt. mashinovdeniya i avtomatiki AN UkrSSR.

S/103/62/023/010/006/008
D201/D308

1030
AUTHORS:

Berkman, R. Ya. and Sinitskiy, L. A. (L'vov)

TITLE:

Maximum possible gain of a magnetic modulator with
doubled frequency at the output and means of its re-
alization

PERIODICAL:

Avtomatika i telemekhanika, v. 23, no. 10, 1962,
1385-1392

TEXT: The analysis is carried out in the following order: 1. De-
termination of basic factors limiting the sensitivity of the mo-
dulator, assuming that there is no hysteresis, that the excitation
source has unlimited power, the excitation current has no even
harmonics and one extremum only between two zero values, that μ is
an even single-valued function and has a single extremum at $H = 0$
and that the intensity of the signal field H_0 is small compared
with that of the core saturation. 2. The determination of the shape
of the excitation current curve for maximum sensitivity found under

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S/103/62/023/010/005/008
D201/D308

Maximum possible gain ...

the above conditions, without load and with a resistive load for any of the even harmonics and for the average value of output voltage. 3. The results are applied to the curve of magnetic polarity reversal with hysteresis and some factors are considered which lower the sensitivity of a real modulator. It is shown that the maximum gain is the same for all even harmonics, is independent of the shape of the core and the shape of the magnetic polarity reversal curve, and is determined only by the value of μ_{max} . VB

Additional conditions are determined for optimum operation under load and with hysteresis. Optimum operating conditions under load are only possible when the output current is rectangular and its width depends on the permanent field intensity. A formula is indicated for the pulse width. The results obtained are therefore valid provided the polarity reversal period and the time constant of the output winding is much shorter than the pulse duration. Since these conditions are not satisfied in practice, the actual power gain is smaller. It is stated in conclusion that the results obtained can be applied to all types of excitation, including the pulsed excitation and could, therefore, help in the development

Card 2/3

KURILOV, Yevgeniy Nikolayevich; SINITSKIY, Lev Aronovich;
BLAZHKEVICH, B.I., kand. tekhn. nauk, otv. red.;
LABINOVA, N.M., red.; MATVEYCHUK, A.A., tekhn. red.

[Frequency dependence of rectifier networks] Chastotnye
zavisimosti vvpriamitel'nykh skhem. Kyiv, Izd-vo Akad.
nauk USSR, 1963. 97 p. (MIRA 16:4)
(Electric current rectifiers)

ACCESSION NR: AT4008773

S/3054/63/000/000/0330/0342

AUTHORS: Vorobkevich, V. Yu.; Danilyuk, I. S.; Sinitskiy, L. A.;
Rakov, M. A.; Shumkov, Yu. M.

TITLE: Pulse-width modulated phase detector

SOURCE: Pribory* promy*shlennogo kontrolya i sredstva avtomatiki.
Doklady* i soobshcheniya. Kiev, 1963, 330-342

TOPIC TAGS: phase detector, pulse width modulation, transistorized
phase detector, second harmonic detector, demodulator, transistor-
ized detector, pulse width modulated detector

ABSTRACT: The operating principles and properties of a second-har-
monic detector using transistors operating in the switching mode are
analyzed. The operation is based on double conversion of the mea-
sured signal. The second-harmonic signal is first mixed with a fun-
damental-frequency reference voltage. The resultant difference in

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ACCESSION NR: AT4008773

in the durations of the positive and negative half cycles of the combined signal is a function of both the ratio of the amplitudes of the first and second harmonics and of the phase shift between them. This makes it possible to use as the second conversion stage a circuit similar to an ordinary phase detector with switching transistors and to obtain both proportionality of the conversion and power amplification of the measured signal. The performance of the circuit is analyzed for different harmonic ratios as a function of the circuit parameters. The detector was used as a demodulator in a stabilized dc amplifier developed at the Institut mashinovedeniya i avtomatiki AN UkrSSR (Institute of the Science of Machines and Automation, AN UkrSSR). Orig. art. has: 8 figures and 19 formulas.

ASSOCIATION: Institut mashinovedeniya i avtomatiki AN UkrSSR (Institute of the Science of Machines and Automation, AN UkrSSR)

SUBMITTED: 00

DATE ACQ: 25Jan64

ENCL: 02

SUB CODE: SD

NO REF SOV: 000

OTHER: 000

Card 2/4

L 20304-65

ACCESSION NR: AR4046877

S/0124/64/000/009/A022/A022

SOURCE: Ref. zh. Mekhanika, Abs. 9A130

AUTHOR: Sinitskiy, L. A.; Rakov, M. A.

B

TITLE: The theory of parametric frequency scalars

CED SOURCE: Tr. Mezhdunar. simpoziuma po nelineyn. kolebaniyam, 1961. T. 3. K., rev, AN USSR, 1963, 448-458

TOPIC TAGS: magnetic frequency scaler, biparametric frequency scaler, frequency scaler theory, ideal magnetization curve, stationary process analysis

TRANSLATION: A theory is presented for a magnetic biparametric frequency scaler. The authors employ the concept of an ideal magnetization curve, which clearly reflects the properties of modern magnetic materials and is convenient in calculations. They provide an analysis of stationary processes based on a step-linear approximation of nonlinear element response, establish a number of important principles analogous to those for a magnetic impedance amplifier and provide equations governing points of state variation in time. Solutions to these equations were obtained on a "Strela" electronic computer. The authors identify the parameter range in which a scaling down process is possible. Experimental results were in

L 20804-65
ACCESSION NR: AR4046877

good agreement with theory. G. V. Plotnikova

SUB CODE: ME, EM

ENCL: 00

Card 2/2

VERKHOVTSEV, V.S.; PETRUSHKO, I.V.; RAKOV, M.A.; SINITSKIY, L.A.;
SHUMKOV, Yu.M.

Measurement converters with galvanically separated input and
output. Avtom. i prib. no.4:78-81 O-D '63. (MIRA 16:12)

1. Institut mashinovedeniya i avtomatiki AN UkrSSR.

L 15613-63

BDS

ACCESSION NR: AP3004847

8/0141/63/006/003/0608/0615

46

AUTHOR: Lisitskaya, I. N.; Sinitskiy, L. A.

TITLE: Investigation of negative-resistance oscillators by piecewise linear approximation of the nonlinear-component characteristic

SOURCE: IVUZ. Radiofizika, v. 6, no. 3, 1963, 608-615

TOPIC TAGS: oscillator, negative-resistance oscillator, tunnel diode, piecewise linear approximation

ABSTRACT: The approximated current-voltage characteristic allows for a load resistance and can be used for analyzing the processes in tunnel diodes, four-layer diodes, etc. The basic simplified diagrams and the differential equations approximating the characteristic are given in Enclosure 1. The curves supplied in the article can serve for determining oscillation amplitude, deviation of oscillator frequency from the natural frequency of its circuit, period of nonsinusoidal oscillations, etc.

ASSOCIATION: Institute of Machinery and Automation, AN UkrSSR
Card 1/1

L 10015-63

ACCESSION NR: AF3002726

S/0120/63/000/003/0089/0092

AUTHOR: Verkhovtsev, V. S.; Vorobkevich, V. Yu.; Rakov, M. A.; Sinitskiy, L. A.⁴⁴

TITLE: D-c measuring amplifier

SOURCE: Pribory i tekhnika eksperimenta, ¹no. 3, 1963, 89-92

TOPIC TAGS: d-c measuring amplifier, strong negative feedback, d-c to a-c conversion, magnetic modulator, frequency doubling, voltage amplification factor

ABSTRACT: The development of a d-c amplifier capable of measuring extremely small d-c signals is reported. The amplifier uses a strong negative feedback with preliminary d-c to a-c conversion. Use of a magnetic modulator with frequency doubling at the output results in very high stability of the zero level (10 sup -17 to 10 sup -19 w). The modulator gain is 50, while the zero drift does not exceed 10 sup -15 w, which corresponds to an input signal of 0.3 microvolt. The excitation frequency of the modulator is 900 cps. A signal from the modulator output is applied to a tuned amplifier and then to a phase detector.

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L 10015-63

ACCESSION NR: AP3002726

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The two-stage tuned amplifier suppresses first and third harmonics by a factor of 150 and 80, respectively. The voltage amplification factor is approximately 5000. The bright-type transistors of the phase detector are controlled by a voltage of doubled frequency and are in a conducting state twice during the period of the emf excitation. As a result, the detector provides suppression of odd harmonics by a factor of 200 to 300. The d-c voltage developed at the detector output allows the use of a d-c amplifier as the last stage of the device. The device has the following characteristics: measuring range, from 0--3 mv; error, not more than 0.1%; rated output current, 10 mamp; power gain, 10 sup 12; and operating temperature range, from 0 to +60C. Orig. art. has: 3 figures.

ASSOCIATION: Institut mashinovedeniya i avtomatiki AN USSR (Institute of the Science of Machines and Automation AN USSR)

SUBMITTED: 12Jul62 DATE ACQ: 12Jul63 ENCL: 00

SUB CODE: 00 NO REF SOV: 000 OTHER: 002

jjalae
Card 2/2

PILIPENKO, N.S. (L'vov); SINITSKIY, L.A. (L'vov)

Transient response of a second harmonic phase detector. Avtom. 1
telem. 24 no.7:1010-1014 J1 '63. (MIRA 16:7)
(Radio filters) (Radio detectors)

SINITSKIY, L.A. (L'vov)

Dynamic characteristics of modulators. Avtom. i telem. 24 no.12:1706-
1711 D '63. (MIRA 17:1)

LISITSKAYA, I. N.; SINITSKIY, L. A.

"Untersuchung periodischer Vorgänge in autonomen Kreisen mit einem nichtlinearen negativen Widerstand."

report submitted for 3rd Conf on Nonlinear Oscillations, E. Berlin, 25-30 May 64.

SINITSKIY, L. A.; SHUMKOV, Yu. M. (L'vov)

"Über die Eindeutigkeit eines periodischen Prozesses in nichtlinearen Wechselstromkreisen."

report submitted for 3rd Conf on Nonlinear Oscillations, E. Berlin, 25-30 May 64.

L 00580-66 ZMT(d)/ZMP(y)/ZMP(k)/ZMP(h)/ZMP(l) ZMP(c) DC

ACCESSION NR: AR5019349

UR/0124/65/000/007/A011/A011
531.36+531.391.3

SOURCE: Ref. zh. Mekhanika, Abs. 7A93

AUTHOR: Sinitskiy, L. A.

TITLE: Stability of control systems with periodically varying parameters

CITED SOURCE: Tr. Mezhd. konferentsii po prikl. teorii ustoychivosti dvizheniya i analit. mekhan., 1962. Kazan', 1964, 114-117

TOPIC TAGS: automatic control system, modulated control system, varying parameter control system, system stability condition/ Nyquist-Mikhaylov theorem

TRANSLATION: The report considers an open automatic control system actuated by $x_{input} = e^{st}$. Here

$$x_{output} = x_{output} = e^{st} \sum_{m=-\infty}^{\infty} A_m(\gamma) e^{im\omega t}$$

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L 00580-66

ACCESSION NR: AR5019349

where ω is the system parameter frequency variation. It is assumed that the system is stable in an open configuration. When the system is closed, $x_{input} = -x_{output}$ and this provides for derivation of an infinite system of homogeneous linear equations relative to the derivative constants which participate in expression x_{input} in the general case. Two conditions for convergence of the infinite determinant are illustrated. The sign on the real part of eigenvalues is defined by employing the argument principle. It is shown that the stability condition for systems with variable parameters coincides with the Nyquist-Mikhaylov theorem. The author presents a program for calculating automatic control systems with modulation. I. Gurevich

SUB CODE: IE, DP

ENCL: 00

Card 2/2

MIKHAYLOVSKIY, V.N., ed.; APANASENKO, M.F., ed.; LE KIAN,
S.Ya., kand. tekhn. nauk, red.; MAZHEVICH, S.I., kand.
tekhn. nauk, red.; SEMITSKIY, L.A., kand. tekhn. nauk,
red.; KOZENBLAT, M.A., dokt. tekhn. nauk, red.;
REMERNIK, T.K., red.; KOSITSER, D.M., red.

[Magnetic elements of automatic control, remote control,
measurement techniques, and computer engineering; trans-
actions] Magnitnye elementy avtomatiki, telemekhaniki,
izmeritel'noi i vychislitel'noi tekhniki; trudy. Kiev,
Naukova dumka, 1964. 651 p. (MIRA 18:2)

1. Vsesoyuznoye nauchno-tekhnicheskoye soveshchaniye po
magnitnym elementam avtomatiki, telemekhaniki, izmeri-
tel'noy i vychislitel'noy tekhniki, L'vov, 1962. 2. Chlen-
korrespondent AN Ukr.SSR (for Mikhaylovskiy).

L 19450-65 EMT(1)/EWA(h) Feb SSD/AFWL/AFETR/RAEM(a)/ESD(c)/ESD(gs)

ACCESSION NR: AP4049191 S/0102/64/000/005/0064/0068

AUTHOR: Vasy*l'yev, Ye. D. (Vasil'yev, Ye. D.) (L'viv); Sy*ny*ts'ki*y, L. A.
(Sinitskiy, L. A.) (L'viv); Shumkov, Yu. M. (L'viv)

TITLE: Analysis of a synchronous phase detector 25 B

SOURCE: Avtomaty*ka, no. 5, 1964, 64-68

TOPIC TAGS: phase detector, phase detection, radio signal detection

ABSTRACT: The effect of the carrier shape upon the dynamic characteristics of a half-wave synchronous detector is theoretically considered. It is demonstrated that, with an input AM signal having an arbitrary periodic shape of the carrier, the detector's dynamic characteristics depend only on the average value of the carrier $f(t)$ over the period T and over the time of current flowing in the key. With no constant component in the function $f(t)$, the carrier shape has no effect on the output-voltage phase shift but affects only its amplitude. In analyzing systems

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L 19450-65
ACCESSION NR: AP4049191

where the signal is transmitted by the carrier, the synchronous detector can be represented by a linear inertial element of the first order. Orig. art. has: 1 figure and 14 formulas.

ASSOCIATION: none

SUBMITTED: 10Oct63

ENCL: 00

SUB CODE: EC

NO REF SOV: 006

OTHER: 001

Card 2/2

VOROBKEVICH, V. Yu.; NIKOLAYENKO, Yu. B.; RAKOV, M. A.; SINITSKIY, L. A.

Measurement converter with a galvanic separation of the input and
output. Priborostroenie no. 9:19-21 S '64. (MIRA 17:11)

L 54894-65 EWT(d)/EWP(1) Po-4/Pq-4/Pg-4/Pk-4/Pl-4 IJP(c) BC

ACCESSION NR: AR5016316

UR/0044/65/000/006/B043/B043
517.933

SOURCE: Ref. zh. Matematika, Abs. 6B205

35
B

AUTHOR: Sinitskiy, L. A.

TITLE: Stability of control systems with periodically varying parameters

CITED SOURCE: Tr. Mezhvuz. konferentsii po prikl. teorii ustoychivosti dvizheniya i analit. mekhan., 1962. Kazan', 1964, 114-117

TOPIC TAGS: differential equation, stability

TRANSLATION: A method is given for making computations in an automatic control system with modulation which makes it possible to study signals with the frequency of the carrier, which allows the avoiding of crude idealizations including the determination of stability with consideration only of the frequency of the envelope. It turns out that when the components with carrier frequency are negligibly small at the output of the demodulator, computation reduces to the usual method for studying automatic control systems with carrier when only signals of low frequency are considered, while enveloping high-frequency signals are taken as output and input variables for the modulator and demodulator. Bibliography 2 entries. I. Gurevich

Card 1/1

SUB CODE: MA

ENCL: 00

ACCESSION NR: AP4015897

Z/0039/64/025/001/0021/0024

AUTHOR: Vorobkevich, V. Ju. (Vorobkevich, V. Yu.); Daniljuk (Danilyuk), I. S.;
Rakov, M. A.; Sinickij (Sinitskiy), L. A.; Sumkov, Ju, M. (Shumkov, Yu. M)

TITLE: A phase demodulator of the second harmonic, with width modulation

SOURCE: Slaboproudny obzor, v. 25, no. 1, 1964, 21-24

TOPIC TAGS: phase demodulator, modulation, width modulation, second harmonic,
phase detector

ABSTRACT: A new phase demodulator of the second harmonic, with width modulation, is described, and its response (transfer coefficient, zero point stability, dynamic characteristics) is analyzed theoretically and confirmed experimentally. Designed with semiconductor triodes, the phase demodulator needs only a small signal power with sufficient zero stability and yields a high power gain. It was used in a measuring amplifier for constant current of high stability, described by Elazhkevich, et al. in Trudy* konferentsii NTO Priboroprom, K 962. Orig. art. has 17 formulas and 7 figures.

ASSOCIATION: Ustav teorie stroju a automatizace Akademie ved Ukrajinske SSR, Lvov
(Institute of the Theory of Machines and Automation, AN, UkrSSR)

Card 1/1 Submitted: 23 Apr 63

L 61903-65 ENT(1)/EWA(h) Feb

UR/0141/65/008/002/0350/0358
621.372.4

ACCESSION NR: AP5014508

AUTHOR: Sinitskiy, L. A.

8
7
B

TITLE: Operation of a parametron²⁵ excited by a specified external current

SOURCE: IVUZ, Radiofizika, v. 8, no. 2, 1965, 350-358

TOPIC TAGS: parametron, parametron excitation, parametron periodic mode, subharmonic oscillation, core saturation

ABSTRACT: The author states that an analysis of the operation of a parametron with a specified excitation current, given by A. Lavi and L. A. Finzi (Proc. IRE 49, 779, 1961) are incorrect, and therefore analyzes the process occurring in an inductive parametron for cores with an ideal magnetization curve and for a square-wave excitation current. The circuit and the wave forms are illustrated in Fig. 1 of the enclosure. It is shown by means of a phase plot that a stable mode of subharmonic oscillations exists, in which the cores are alternately saturated. A subharmonic oscillation mode with simultaneous saturation of both cores is impossible. The conditions under which subharmonic oscillations of arbitrarily high

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L 61903-65

ACCESSION NR: AP5014508 /

order can exist in the system are indicated. Orig. art. has: 2 figures and 37 formulas.

ASSOCIATION: Fiziko-mekhanicheskly institut AN UKrSSR (Physicomachanical Institute, AN UKrSSR)

SUBMITTED: 14Apr64

ENCL: 00

SUB CODE: EC

NR REF SOV: 002

OTHER: 001

dm
Card 2/2

VASIL'YEV, Y.O.D.; VEREBOTSEV, V.S.; VOROBEVICH, V.YU.,
PETRUSHEV, I.V.; FILIPENKO, N.S.; RAKOV, M.A.;
R.V.: SINITSKIY, L.A., kand. tekhn. nauk; SHKOL'NIY, V.A.;
SHUMKOV, Yu.M.; YEVSEYENKO-MISYURENKO, I.V., red.

[Direct current measuring converters] Izmeritel'nye preobra-
zovateli postoiannogo toka. Kiev, Naukova dumka, 1975. 373 p.
(MIRA 16:0)

1. Akademiya nauk USSR, Kiev. Fizyko-mekhanichnyi instytut.
2. Fiziko-mekhanicheskii institut AN Ukr.SSR, g.L'viv (for all except Yevseyenko-Misyurenko).

L 55345-65 - EWT(d)/EEC(k)-2/EEC(f)/EEC-4/EED-2/EWP(1) Pm-4/Pn-4/Pq-4/
Pg-4/Pk-4/Pl-4 IJP(c) BB/GG/GS

ACCESSION NR: AT5014625

UR/0000/65/000/000/0070/0078
681.142.324

61
Btl

AUTHOR: Verkhovtsev, V. S.; Vorobkevich, V. Yu.; Nikolayenko, Yu. B.; Ilakov,
M. A.; Sinitskiy, L. A.

TITLE: Magneto-semiconductor data-converters with galvanic separation of the
input from the output:

SOURCE: Vsesoyuznoy soveshchaniye po magnitnym elementam avtomatiki i vychislitel'noy tekhniki, 9th, Yerevan, 1963. Magnitnyye analogovyye elementy (Magnetic analog elements); doklady soveshchaniya. Moscow, Izd-vo Nauka, 1965, 70-78

TOPIC TAGS: data converter, galvanic input-output separation, double signal conversion converter, electromagnetic signal converter, automatic control system

ABSTRACT: The connection between the registering devices and the computer with- in an industrial automatic control setup is realized through data converters consisting of systems with carrier frequency amplification looped by a strong feedback. This paper describes in detail 4 data converter circuits with gal- vanic separation of the input from the output. The accuracy of a data converter

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L 55345-65

ACCESSION NR: AT5014625

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using a special output divider element by-passing the feedback is fixed by the accuracy of the divider proper and, consequently, high accuracy requirements imposed on the divider are often difficult to fulfill. One way to solve this problem is via the construction of two-block circuits with double signal conversion. Within the first block the signal from the sensor is converted into direct current. This current proceeds to one of the windings of the differential magnetic modulator of the second block. Each of the converter blocks consists of a separate self-compensation scheme looped by a respective feedback. The first block (within which the comparison between the input signal and the feedback signal is carried out electrically) allows the attainment of a high input resistance and converts the constant voltage into a constant current needed for the operation of the second block. The second block (within which the signals are compared magnetically) realizes the galvanic input-output separation. Detailed block diagrams, circuit diagrams, and operational data on all four alternative solutions are complemented by a discussion about the respective merits of the various engineering solutions. Orig. art. has: 4 formulas and 7 figures.

ASSOCIATION: None

SUBMITTED: 28Dec64

NO REF SOV: 000

ENCL: 00

OTHER: 001

SUB CODE: DP, IE

Card 2/2

PR

SECRET

(SECRET)

SENKOV, D.I.; SHIMON, Yu.M.

Analysis of the operation of magnetic amplifiers with self-saturation and RC load. Elektricheskoye stroitel'stvo, N 125, (1971 12-13)

I. Fiziko-mekhanicheskiy institut AN UkrSSR.

SINITSKIY, I.A.; SHKOL'NIY, V.A.

Concerning the article "Frequency stability of a transistorized
square pulse generator." Radiotekh. i elektron. 11 no.1:167
Ja '66. (MER: 19:1)

L 35986-66 INT(1)

ACC NR: AP6008534

SOURCE CODE: UR/0280/66/000/001/0175/0184

AUTHOR: Sinitskiy, L. A. (L'vov)

ORG: none

TITLE: Determination of the regions of attraction for various modes of tristable parametrons ✓

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 1, 1966, 175-184

TOPIC TAGS: parametron, digital computer, computer component, circuit design

ABSTRACT: The author investigates a parametron circuit with a prescribed excitation current (Fig. 1), in which practical use is made of three stabilized modes: the state of equilibrium, and two subharmonic oscillations of the order of 1/2, shifted in phase by 180° relative to each other. The problem posed is to determine the regions of attraction of these modes and to establish conditions for the absence of other periodic modes or the impossibility of their appearance due to a corresponding selection of initial conditions. In the solution, it is assumed that the core magnetization curve is ideal (Fig. 2), and that the excitation current is rectangular (Fig. 3). The application of such an approximation in the analysis of the parametron shows good agreement with the experiment. It is concluded that the investigation conducted makes it possible to select parameters of a tristable parametron

Card 1/3

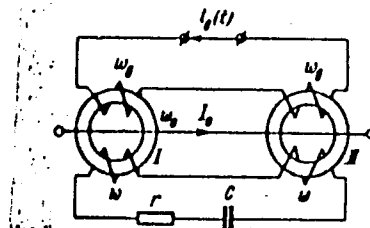
L 35986-66

ACC NR: AP6008534

0

circuit which exclude the possibility of the existence of all subharmonic oscillations, except those of the order of 1/2. A knowledge of the regions of initial conditions, which lead to different modes, assures the selection of an efficient method for the control of the parametron. The mechanisms obtained for the separation of the plane of the initial conditions into regions of attraction of various stabilized modes, to a certain degree supplement the concepts on the behavior of non-linear circuits as a function of initial conditions. Orig. art. has: 6 figures and 19 formulas.

Fig. 1

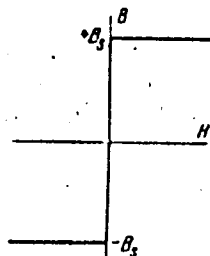


Parametron circuit with prescribed excitation current.

L 55700-00

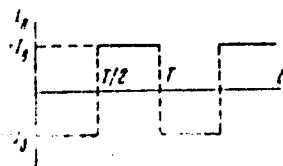
ACC NR: AP6008534

Fig. 2



Ideal core magnetization curve.

Fig. 3



Rectangular excitation current.

SUB CODE: 09 / SUBM DATE: 27Jul64 / ORIG REF: 003 / OTH REF: 003

Card 3/3

KHUDOYAN, T.S.; SHAROV, A.; CHIRKOV, I. (Stalinsk, Kemerovskaya oblast');
KHAUSTOV, S. (g.Novoshakhtinsk); ARKHIPOV, V., avtomatchik;
SHEVCHENKO, B.; GETMANSKAYA, Ye.; SUMTSCV, I.; KURDYUKOVA, L.,
doyarka; BABIY, V. (Chernovitskaya oblasti'); MAKAROV, N.;
SOKOLOV, K.; SINITSKIY, N.

Letters to the editor. Sov. profsoiuzu 17 no. 5:35-39 Mr '61.
(MIRA 14:2)

1. Zaveduyushchiy otdelom truda i zarplaty respublikanskogo sovprofa Armenii (for Khudoyan).
2. Staleprokatnyy zavod, Leningrad (for Arkhipov).
3. Predsedatel' pravleniya kluba sovkhoza "Krasnyy Oktyabr'," Voronezhskoy oblasti (for Shevchenko).
4. Chleny pravleniya kluba sovkhoza "Krasnyy Oktyabr'," Voronezhskoy oblasti (for Getmanskaya, Sumtsov).
5. Sovkhoz "Krasnyy Oktyabr'," Voronezhskoy oblasti (for Kurdyukova).
6. Predsedatel' tsekhkoma kotel'no-svarochnogo tseka Vol'skogo zavoda "Metallist" (for Makarov).
7. Predsedatel' postroykoma Stroitel'nogo uchastka No. 2, g.Gagra, Gruzinskaya SSR (for Sinitskiy).
(Trade unions) (State farms)

^{N.N.}
SINITS'KIY, N.N.

Cultivation of *Antheraea pernyi* on different woody plants and the
role of a feeding intermediary. Trudy Inst.zool AN URSS no.7:5-
29 '52. (MLRA 8:12)

(Silkworms)

USSR / Farm Animals. Silkworm. 2

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40575.

Author : Sinitskiy, M. M.

Inst : Not given.

Title : The Prospects of the Development of the Rearing
of the Oak-Feeding Silkworm in the Poles'ye
and in the Carpathian Region.

Orig Pub: Visnik AN URSR, 1956, No 1, 57-60.

Abstract: In the Poles'ye, the Carpathian Mountains,
and the Belorussian SSR, as well as in the
Chuvash, Marii, and Bashkir ASSR, great po-
tentialities exist as regards the raising of
the oak-feeding silkworm and the processing
of cocoons.

Card 1/1

Name: SINITSKIY, Nikolay Nikolayevich

Dissertation: Biological bases and experiment of culture of Chinese oak bombyx (*Antheraea pernyi* G and M) in the zone of Poles'ye USSR

Degree: Doc Biol Sci

Affiliation: Inst of Zoology, Acad Sci UkSSR

Defense Date, Place: 17 Jan 57, Joint Council of the Department of Biological Sci, Acad Med UkSSR

Certification Date: 15 Jun 57

Source: BMVO 17/57

SINITSKIY, N.N. [Synyts'kyi, M.M.]

Changes in the morphoecological phase of the ontogenesis
of the coot *Fulica atra* L. Pratsi Inst.zool.AN URSR 16:
3-22 '60. (MIRA 13:7)
(Coots)

SINITSKIY, N.N.; BOGACH, A.V.; KOLYBIN, V.A.

Effect of the conditions of the environment and the action of
biologically active substances on the survival and productivity of
the mulberry silkworm. Vop. ekol. 7:165-166 '62. (MIRA 16:5)

1. Institut zoologii AN UkrSSR, Kiyev.
(Silkworms)

SINITSKIY, N.N. [Synyts'kiy, M.M.]; BURIACH, A.V. [Borich, A.V.]; KOLYBIN,
V.A. [Kolybin, V.O.]

Effect of antibiotic substances on the growth, development and
productivity of the silkworm *Bombyx mori* L. Pratsi Inst. zool.
AN URSR 20:13-20 '64. (MIRA 18:4)

SINITSKIY, S.Ye.

New tectonic data on North Korea. Sov. geol. 3 no. 11:117-
124 N '60. (MIRA 13:12)

1. Ministerstvo geologii i okhrany neдр SSSR.
(Korea, North--Geology, Structural)

IL'IN, K.B.; MASAYTIS, V.L.; PUTINTSEV, V.K.; SINITSKIY, S.Ye.

Pre-Cambrian of northeastern Korea. Sov.geol. 5 no.9:147-150
S '62. (MIRA 15:11)
(Korea, North--Geology, Stratigraphic)

PUTINTSEV, V.K.; SINITSKIY, S.Ye.

Brief sketch of the geology of the northeastern part of the
Korean People's Democratic Republic. Trudy VSEGEI 100:33-57
'63. (MIRA 17:3)

SHLYAPOSHNIKOV, B.M., doktor tekhn.nauk; REZNIKOV, Yu.A., inzh.; SINITSKIY, V.A.,
inzh.

Automatic machine for the protection of welders from injuries inflicted
by electric currents during manual welding. Sudostroenie 28 no.5:68-
69 My '62. (MIRA 15:7)
(Electric welding—Safety appliances)

SHLYAPIN, V. N., doktr. tekhn. nauk; SINITSKIY, V. A., inzh.

Device for relieving welding stresses from the electrode holder
during manual welding. Svar. proizv. no.3:39-40 Yr '65. (MIRA 12:5)

133-9-2/23

AUTHOR: Onopriyenko, V.P., Starshinov, B.N., Candidates of Technical Sciences and Trachenko, A.A., Sinitzkiy, V.D., Freydin, L.M., Portnyy, L.Ya., Engineers.

TITLE: Operation of a Blast Furnace with 1.1 atm. Top Pressure. (Rabota domennoy pechi s davleniem do 1.1 ati)

PERIODICAL: Stal', 1957, No. 9, pp. 772 - 778 (USSR).

ABSTRACT: The influence of top pressure variation from 0.6 to 1.1 atm. on the operation of a large (1 386 m³) blast furnace was investigated. The profile of the furnace is shown in Fig.1. Characteristics of burden materials and coke during the individual test periods are given in Tables 1 and 2. Operating factors are given in Table 3. Changes in the distribution of CO₂ along the throat radii in Fig.2, the composition and temperatures of the peripheral and top gas in Fig.3, the pressure drop with the height of the furnace in Fig.4, changes in the gas pressure along the furnace throat radius in Fig.5. Changes in the length of tap hole and furnace-operating indices during various testing periods are given in Tables 4 and 5, respectively. On the basis of experience gained, the following conclusions are drawn: an increase of top pressure from 0.6 to 1.1 atm., contributes to the development of the peripheral flow of gases. In such case, Card 1/3 a decrease on the coke charge or an increase in the proportion

153-9-2/23

Operation of a Blast Furnace with 1.1 atm. Top Pressure.

of direct (ore first) charges (with simultaneous dropping of the whole charge) leads to an increase in amount of ore charged to the periphery with a subsequent decrease in the peripheral flow. Static pressure along the furnace height changes lineary. On increasing pressure of gas in the throat from 0.11 atm. to 0.46 atm. and blast volume from 1 400 to 3 400 m³/min, the blast pressure increased more than that of top gas, while the uniform drop of pressure along the height of the furnace was preserved. On increasing mean gas pressure in the furnace by an appropriate increase in driving rate, the blast pressure increases to the same extent as the pressure of gas in the throat. With a constant blast volume, the pressure of gas in the stack increases to a lesser degree than that in the throat. On transfer to a higher top pressure (1.1 atm.) the blast temperature can be increased by 20 - 50 °C and the driving rate increased by 2-6% (in comparison with operating conditions of a top pressure 0.6 - 0.8 atm). The operation of the furnace becomes smooth, but on decreasing top pressure back to 0.6 - 0.8 atm., the smoothness of the operation deteriorates. On increasing top pressure from 0.8 to 1.1 atm., the output of the furnace increased by 8.3% and the coke rate decreased by 2.9%. On decreasing pressure from 1.1 atm. to 0.6 - 0.8 atm., the output of the furnace decreased by 5.0 - 9.3%

ONOPRIYENKO, V.N., kand.tekhn.nauk; STARSHINOV, B.N., kand.tekhn.nauk;
STARSHINOV, B.N., kand.tekhn.nauk; TKACHENKO, A.A., inzh; SINITSKIY,
V.D., inzh.; FREYDIN, L.M., inzh.; PORTNOY, L.Ya., inzh.

Operations of the blast furnace no.3 at the Voroshilov Plant using
fluxed IUGOK sinter. Biul.TSNIICDM no.17:1-6 (325) '57.
(MIRA 11:4)

(Blast furnaces)

ONOPRIYENKO, V.P., kand.tekhn.nauk; STARSHINOV, B.N., kand.tekhn.nauk;
POKRYSHKIN, V.L., inzh.; SINITSKIY, V.D., inzh.

Investigating the composition of cast iron produced in blast
furnaces operating with different gas pressures in the throat.
Trudy Ukr.nauch.-issl.inst.met. no.5:83-91 '59.

(MIRA 13:1)

(Cast iron--Analysis) (Blast furnaces)

STARSHINOV, B.N., kand.tekhn.nauk; SINITSKIY, V.D., inzh.

Potentialities for accelerating the operation of blast
furnaces transferred to higher and high gas pressures in the
throat. Trudy Ukr.nauch.-issl.inst.met. no.5:92-99 '59.
(MIRA 13:1)

(Blast furnaces)

ONOPRIYENKO, V.P.; STARSHINOV, B.N.; POKRYSHKIN, V.L.; SINITSKIY, V.D.

Expansion of iron reduction processes with use in the blast
furnace of fluxed sinter and increased pressure. Trudy Ukr.
nauch.-issl. inst. met. no.6:45-60 '60. (MIRA 14:3)
(Iron--Metallurgy) (Blast furnaces)

STARSHINOV, B.N., kand.tekhn.nauk; LEBEDEV, A.Ye., kand.tekhn.nauk;
LUKASHOV, G.G., inzh.; SAVELOV, N.I., inzh.; TARASOV, D.A., inzh.;
SUPRUN, I.Ye., inzh.; TIKHOMIROV, Ye.N., inzh.; SINITSKIY, V.D.,
inzh.; GORBANEV, Ya.S., inzh.; PRIKHOD'KO, L.D., inzh.

Operation of a blast furnace with a capacity of 1513 m³. Biul.
TSIICHM no.9:1-6 '60. (MIRA 15:4)
(Blast furnaces)

STARSHINOV, B.N.; KOTEL'NIKOV, I.V.; SINITSKIY, V.I.; LAVRENT'YEV, M.L.
SINITSKIY, V.D.

Blast furnace operation with an addition of natural gas to the blow.
Metallurg 6 no.7:4-8 J1 '61. (MIRA 14:6)

1. Zavod im. Il'icha i Ukrainskiy institut metallovo.
(Blast furnaces)

ONOPRIYENKO, V.P., kand.tekhn.nauk; STARSHINOV, B.N., kand.tekhn.nauk;
SINITSKIY, V.D., inzh.; LAVRENT'YEV, M.L., inzh.; LULASHIN, N.I.

Distribution and flow of materials in the blast furnace. Trudy
Ukr. nauch.-issl. inst. met. no.7:7-16 '61. (MIRA 14:11)
(Blast furnaces)

ONOFRIYENKO, V.P., kand.tekhn.nauk; STARSHINOV, E.N., kand.tekhn.nauk;
POKRYSHKIN, V.L., kand.tekhn.nauk; SINITSKIY, V.D., inzh.; BRUSOV,
L.P., inzh.

Limestone behavior in blast furnaces. Trudy Ukr. nauch.-issl. inst.
met. no.7:17-35 '61. (MIRA 14:11)
(Blast furnaces) (Limestone)

STARSHINOV, B.N., kand.tekhn.nauk; SINITSKIY, V.D., inzh.; IOTEL'NIKOV,
I.V.; LAVRENT'YEV, M.L.

Slag formation in blast furnaces operating at high pressures.
Stal' 21 no. 1:12-17 Ja '61. (MIRA 14:1)

1. Ukrainskiy institut metallov i zavod im.Il'icha.
(Blast furnaces) (Slag)

STARSHINOV, B.P.; SHITSKIY, V.D.; LAVRENT'YEV, M.I.

Materials and gas distribution in, and the operation of blast
furnaces. Sbor, trud. UNLIM no.9:31-55 '61 (MIRA 18:1)

STARSHINOV, B.M.; KOTEL'NIKOV, I.V.; LAVRENT'YEV, M.L.; SINILSKII, V.D.;
SINITSKIY, V.I.

Making pig iron with a combined blow. Sbor. trud. UNIIM no.9:
56-70 '64 (MIRA 18:1)

STARSHENKO, B.N.; SINITSKIY, V.O.; LAURENTYEV, M.I.; KUPCHENKO, A.G.;
TAPALOV, B.P.; VYAZOVSKIY, V.S.

Investigating processes in the hearth of a 1719 m³ capacity
blast furnace. Sbornik UNIM number 42-55 '66. (MIRA 18-11)

IVBENT'YEV, M.I., FOMIN, V.D., TOPOV, A.P., MENITSKIY, V.I., YEFREMSKAY,
O.K., YUKASHIN, N.P.

Resulfurizing was done with films in special equipment. Film
trad. UNIM n. 1008089, 1966.

(M. R. 19611)

STARSHINOV, B.N.; SINITSKIY, V.D.; SEN'KO, G.Ye.; GULYGA, P.V.; BABIY, A.A.;
KHOMUZHIIY, A.G.; Prinsipal'nyye uchastiye: OSTROUKHOV, M.Ya.; SAVENOV,
N.I.; PLISKANOVSKIY, S.T.; MOISEYEV, Yu.G.; LAURENTIYEV, M.L.;
TARASOV, F.P.; ZAGREBA, A.V.; KAMENEV, B.D.; TYACHENKO, A.A.;
FREYDIN, L.M.; LUKIN, P.G.; POPOV, Yu.A.; MISHIN, P.F.; KARACHENTSEV,
M.D.; BOLMATOV, V.A.; AYUKOV, A.S.; PALAGITA, V.P.; VYAZOVSKIY, Yu.V.;
SOLODKIY, Yu.A.; KONAREVA, N.V.; SAPRONOV, Yu.V.; SINITSKAYA, S.K.;
SAPRONOV, B.V.; LEKAREV, V.L.; STOLYAR, V.V.; PROKHOFENKO, Z.A.;
BANDINA, Ye.Ye.

Results of the first year of operation of large capacity blast
furnaces. Sbor. trud. UNIIM no.11:34-46 '65.

(MIRA 18:11)

STARSHINOV, B.N.; KOTEL'NIKOV, I.V.; LAVRENT'YEV, M.L.; SINITSKIY, V.D.;
SINITSKIY, V.I.

Making pig iron with a combined blow. Sbor. trud. UNIM no.9:
56-70 '64 (MIRA 18:1)

STARSHINOV, B.N.; KOTEL'NIKOV, I.V.; SINITSKIY, V.I.; LAVRENT'YEV, M.L.
SINITSKIY, V.D.

Blast furnace operation with an addition of natural gas to the blow.
Metallurg 6 no.7:4-8 J1 '61. (MIRA 14:6)

1. Zavod im. Il'icha i Ukrainskiy institut metallovo.
(Blast furnaces)

SINITSKIY, V. M., Cand Tech Sci -- (diss) "Research into some questions of performance of pump valves in the driving gear of hydraulic presses." Moscow, 1960. 14 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Machine-Tool Instrument Inst im I. V. Stalin); 150 copies; price not given; (KL, 18-60, 152)

FIGURE 1: USSR DIE-FORGING PROCESS

Moscow. Stankoinstrumental'nyy Institut.
 Issledovaniya v oblasti stankoinstrumentalnogo stroeniya i obrabotki (Investigations
 of Die-Forging Processes). Collection of Articles (nos. 4) Moscow: Nauka, 1978.
 175 p. 2,500 copies printed.
 Sponsoring Agency: Mashinostroyeniye i tekhnicheskoye stroeniye (MOSSTROY).
 Moscow: "Gornolovaniye i tekhnicheskoye stroeniye" (GOSTROY).
 Ed. (title page): V.T. Meshcherin, Doctor of Technical Sciences, Professor; Ed.
 of Publishing House: L.I. Markisi; Tech. Eds.: V.G. El'kin and L.P. Gorkovaya;
 Managing Ed. for Literature on Hot-Pressing: Valeriya S.Ye. Golovin, Engineer.
PURPOSE: This collection of articles is intended for engineers and technical per-
 sonnel in the field of die forging.
COVERAGE: The articles are concerned, in general, with the question of increasing
 productivity and accuracy in die forging and simultaneously increasing metal

Investigations of Die-Forging Processes (Cont.) SOV/ISS

consumption. The following are also discussed: increasing the accuracy in de-
 termining individual process parameters; the fundamentals of use, highly pro-
 ductive stamping processes; the strength and rigidity of press frames; the
 effect of the kinematic parameters of mechanisms and fluid drives on the pro-
 ductivity of presses; and the improvement of heating-furnace performance.
 The articles are based on the results of scientific research investigations
 performed in recent years at the Department of Forging and Stamping Equipment
 and Processes of the Moscow Institute of Machine Tools and Instruments (MII
 V.I. Stalin). Most of the research and experimental work carried out at the
 Department's laboratory has been directed toward an increased productivity and
 accuracy of stamping operations, as well as a more economical use of metal. The
 specialists are B.V. Rozanov, V.I. Mirles, V.M. Simitskiy, and V.A. Lazenkov.
 46 references; 42 Soviet and 4 German.
 Ankeyev, A.G. [Candidate of Technical Sciences, Doctor]. Determining the
 Cam Parameters for Automatic Cold-Upsetting Presses 76
 Storozhev, M.V. [Candidate of Technical Sciences, Doctor]. Flexure of
 Hydraulic-Press Columns 95
 Rozanov, B.V. [Candidate of Technical Sciences, Doctor], and V.I.
 Mirles [Eng'g]. The Effect of the Elasticity of the Hydraulic-Press System
 [Oil and Construction] on the Speed Characteristics of the Press 107
 Simitskiy, V.M. [Engineer]. The Action of the Valves of a Crank-Type
 Yungler Pump for a Hydraulic-Press Drive 115
 Lazenkov, V.A. [Candidate of Technical Sciences, Doctor]. Automatic
 Regulation of the Thermal Regime of Heating Furnaces 137

S/122/EO/000/001/010/018
A161/A130

AUTHOR: Sinitakiy, V. M., Engineer

TITLE: The dynamics of the drive pump valves of hydraulic presses

PERIODICAL: Vestnik mashinostroyeniya, no. 1, 1960, 49-53

TEXT: An accurate equation of the valve motion can be obtained by integrating a system of differential equations of unstabilized fluid flow in the intake or in the pressure line in combination with a nonlinear differential equation of the motion of a corresponding valve. The solution presents extreme mathematical difficulties. Some assumptions can simplify the problem, but the differential equation of the valve motion remains nonlinear and has to be solved by numerical integration in every separate practical case [Ref. : V. I. Zaytsev, Issledovaniye raboty klapana porshnevogo nasosa. Dissertatsiya (Investigation of the operation of a piston pump valve. Dissertation', Moscow, 1954)]. The author shows by mathematical analysis of the experimental results that the derivation of a linear differential equation is possible. The experiments consisted in static passing water through the delivery valve of a [B-351 (GE-351) pump (30 l/min capacity, 400 rpm crankshaft velocity; 200 kg/cm² work pressure). Spring

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S/122/60/000/001/010/018

A161/A130

The dynamics of the drive ...

pretension (P_0) was calculated with the formula $F_0 = P_0 \frac{d^2}{4c}$, and the spring rigidity $k = k_0 d_c$. It is evident that at a sufficient spring pre-load the effect of work load increase on the relative valve lift is low, but it raises the loss considerably. Static observations enable stating of operation parameters at which the hydraulic losses are low. The differential equation of the valve motion is

$$\frac{G}{g} \cdot \frac{d^2 h}{dt^2} + kh = kf(Q) \tag{8}$$

where G is the valve weight; g - the gravity acceleration; t - the time. The $f(Q)$ function could be well approximated in a simple linear relation. For cases where this is not possible, this function can be presented in a piecewise-linear characteristic, and two linear pieces are sufficient. The displacements were recorded with small inductive pickups with 5,000 cycles carrier frequency, and the pressure gradients measured with differential membrane pressure gages with wire pickups glued to membranes. The theory of hydraulic shock in blind pipe-lines (the connection pipes to the pressure gages presented such experiments) determined the maximum reading amplitude as double shock pressure in the system; then a period of damping of natural oscillations of the system followed. Despite

Card 2/3

S/122/60/000/001/010/018
A161/A130

The dynamics of the drive ...

the minimum possible dimensions of the pressure gages, the curve was distorted. The theory of the valve motion under the effect of the initial pressure pulse is not discussed, for the problem is beyond the scope of the article. An oscillogram has been taken with the removed spring and at 90 rpm of the crankshaft. The results of the theoretically calculated maximum valve lifts and return speeds to the seat matched the experimental data with a satisfactory accuracy (17% higher in calculation), but the difference of the lag angle (i.e., lag of opening and closing) was much higher - 2° theoretical and 12° on the oscillogram. This is due to losses not considered in the calculation - imperfect suction, leak in valves and sealings, resilience of the system, mutual effect of valves operation, etc. It can be concluded that the pressure pulse acting at the first moment makes the valve jump up and then pass over to the usual motion trajectory being theoretically determinable. One of the ways to raise the velocity of pumps is to design valves with a reduced specific lift coefficient (α), and the press drive pumps with centrifugal or axial pumps should be combined to produce a continuous fluid flow and a high volume efficiency. There are 5 figures, 1 table and 5 Soviet-bloc references.

Card 3/3

SINITSKIY, V.M., inzh.

Performance of valves on crankshaft plunger pumps of hydraulic
press drives. Sbor. MOSSTANKIN no. 5:135-156 '60. (MIRA 14:2)

(Hydraulic presses) (Valves)

SINITSKIY, V.M.

Changes in the state of the cardiovascular system in epileptics
at various stages in the course of the illness. Zhur. nevr. i
psikh. 65 no.9:1371-1376 '65. (MIRA 18:9)

1. Otdel psikhiiatrii i patologii vysshey nervnoy deyatel'nosti
(zaveduyushchiy - prod. P.V. Biryukovich) Instituta fiziologii
AN UkrSSR, Kiyev.

SINITSKIY, V.P.; AKHREMOVICH, M.B.

Effect of the fifteen-year tapping on the quality of butt logs.
Gidreliz. i lesokhim.prom. 9 no.6:16-17 '56. (MIRA 9:10)

1. Belorusskiy nauchno-issledovatel'skiy institut lesokhimii.
(Tree tapping) (Wood)

SINITSKIY, V.P.

K-4

USSR/Forestry - Forest Economy.

Abs Jour : Ref Zhur - Biol., No 2, 1958, 5894

Author : Sinitskiy, V.P.

Inst : -

Title : 15-Year Tapping of the Common Pine

Orig Pub : Sb. rabot po lesn. kh-vu, Moskva-Leningrad, Goslesbumizdat,
1957, 28-30.

Abstract : No abstract.

Card 1/1

Sinitskiy, V. P.

JSSR / General and Specialized Zoology. Insects. P
General Problems.

Abs Jour : Ref Zhur - Biol., No 17, 1958, No 78142

Author : Sinitskiy, V. P.

Inst : -

Title : Preparation of a Gum for Caterpillars
(Raupenleim)

Orig Pub : Sb. rabot. po lesn. kh-vu. M.-L.,
Goslesbumizdat, 1957, 69-71

Abstract : A formula for a gum (using Drogobych paraffin
semigudron) [viscous solids obtained in petro-
leum distillation]: using 60 parts per weight
of semigudron; 10 slaked lime (GOST [All-
Union State Standard 7 1174-41), 11 parts per
weight of galipot oil, and 35 parts per weight
of axle grease (GOST 610-42, Trademark "L").

Card 1/2

KHARITONOVICH, F.N., otv. red.; BEREZENKO, N.M., zam. otv. red.
MOISEYENKO, F.P., red.; ORLENKO, Ye.G., red.; OSTROGLAZOV,
V.A., red.; RYVKIN, B.V., red.; SAVCHENKO, A.I., red.;
SINITSKIY, V.P., red.; POBELOV, V.S., red.; BARKAN, V.,
red.; ZUYKOVA, V., tekhn. red.

[Forestry science and practice] Lesovodstvennaia nauka i prak-
tika. Minsk, Sel'khozgiz BSSR, 1962. 246 p. (MIRA 16:1)
(White Russian--Forests and forestry)

SINITSKIY, Vitaliy Petrovich; CHURVICH, Isay Markovich; VYSOTSKIY, A.A.,
retsenzent; USTINCVICH, B.P., retsenzent; SINELOBOV, M.A.,
red.; GRECHISHCHEVA, V.I., tekhn. red.

[Biological foundations and technology of the tapping] Biolo-
gicheskie osnovy i tekhnologiya podsochki. Moskva, Goslesbum-
izdat, 1961. 251 p. (MIRA 16:2)
(Turpentine)

SINITSKIY, V.S.

Primary and secondary infection of rye raised for the production
of ergot. Bot. zhur. 47 no.10:1482-1487 0 '62. (MIRA 15:12)

1. Botanicheskiy institut imeni V.L. Komarova AN SSSR, Leningrad.
(Rye—Diseases and pests)
(Ergot)

SINITSKIY, V.S.

Artificial infection of rye with ergot. *Bor.zhur.* 48 no.2:219-222 F '63,
(MIRA 16:4)

(Ergot)

(Rye--Diseases and pests)

BALABAS, G.M.; BRYKO, R.A.; GRASHCHENKOV, A.Ye.; SATSYPEROVA,
I.F.; GALDINA, I.B.; SINITSKIY, V.S.; SOKOLOV, V.S.

[Introduction of medicinal, aromatic, and technical plants;
results of the work of the introduction nursery of the
Botanical Institute of the Academy of Sciences of the
U.S.S.R. for 250 years] Introduktsiia lekarstvennykh, aro-
matischeskikh i tekhnicheskikh rastenii; itogi rabot intro-
duktionnogo pitomnika BIN AN SSSR za 250 let. Moskva,
Nauka, 1965. 424 p. (MIRA 18:9)

1. Akademiya nauk SSSR. Botanicheskiy institut.

SINITSKIY, V.S.

Cultivation of the ergot of rye in Leningrad Province. Trudy
Bot. inst. Ser. 5 no. 13:216-235 '65. (MIRA 13:12)

SADOF'YEVA, V.I.; KARDEVIKIY, I.K.; LASKOV, I.S.; GINITSKIY, Yu.P.

Method of X-ray determination and operative correction of the frontal inclination of the acetabulum in congenital dislocation of the hip. Ortop., travm. i protsz. 26 no.9:3-7 S '65.
(MIRA 18:10)

1. Iz Detskogo ortopedicheskogo instituta imeni G.I. Turnera (direktor - prof. M.N. Goncharova) Adres avtorov: Leningrad, F-236, Lakhtinskaya ul. d. 10-12, Institut imeni G.I. Turnera.

СИНЦОВИЙ, Ю.В. (Ленинград, 1-10, Кировский проспект, д. 59, кв.44)

Method of measuring the true angle between the femoral neck and epiphysis with the aid of a rotation meter. Ortop., travm. i sport. 26 no.9:124-127 S 165. (MIRA 18:10)

12 (Leningrad ortopedicheskogo instituta imeni G.I. Turnera (Leningrad - prof. M.M. Boncharova)).

BELYAYEV, Nikolay Mikhaylovich, prof. [deceased]; BELYAVSKIY, L.A., dotsent; KIPNIS, Ya.I., dotsent; KUSHELEV, N.Yu., dotsent; SINITSKOV, A.K., dotsent; KACHURIN, V.K., prof., obshechiy red.; SNITKO, I.K., red.; GAVRILOV, S.S., tekhn.red.

[Strength of materials] Soprotivlenie materialov. Izd.12.
Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1959. 856 p. (MIRA 12:8)

(Strength of materials)

450,1

S/109/63/008/001/011/025
D295/D308

9.3280

AUTHORS: Sinitskiy, L. A. and Shkol'nyy, V. A.

TITLE: On the frequency stability of a semiconductor generator of rectangular oscillations

PERIODICAL: Radiotekhnika i elektronika, v. 8, no. 1, 1963, 84-89

TEXT: The main causes of frequency instability in a transistor generator of rectangular oscillations are variations of supply voltage, of ambient temperature and of load current. The first two causes can be made to compensate each other (when power requirements are not of primary importance) by using a voltage stabilizer with a suitable temperature coefficient. The object of the paper is to determine under what conditions load variations affect frequency the least. The analysis assumes: 1) an idealized stepped magnetization curve of the transformer core with zero current on its non-saturated sections, 2) idealized piece-wise linear collector characteristics of the transistor, 3) purely resistive load. An expression is obtained for the oscillation half-period. By

Card 1/2

SINITSO, T A

T

USSR/Human and Animal Physiology. Digestion.

Abs Jour: Ref Zhur-Biol., No 8, 1958, 36515.

Author : Sinitso, T.A.

Inst : Vinnitsk Medical Institute.

Title : Inhibition of Postprandial Salivary Excretion in Overheated Dogs.

Orig Pub: Sb nauchn. tr. Vinnitsk. med. in-ta, 1957, 8, 140-148.

Abstract: The saliva of 4 dogs with fistulas of the parotid glands was collected on fasting and following feeding of the animals with a meat-sugar powder (10 gm) every 10 minutes for a period of 2 hours. After placing the animals in a chamber at 40°C in 30-35% humidity for 2 hours, the salivary excretion on fasting increased during the first 10-40 minutes and remained at the reached level until the end of the experiment. At 50° the salivary

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... reached maxima levels after a longer time interval and was higher than at 40°. The dry residue content was lower in "heated" saliva (from 1.21-1.55 to 0.46-0.87%), the salts content increased and visco-

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550730013-6"

... The prandial salivary excretion at 40-50° was greater than at normal T°, but the increase, produced by a meal was smaller than under normal conditions, particularly at 50°. The amount of prandial saliva decreased with each feeding of the animals and the % of dry residue was lower than in "prandial" saliva under normal conditions, but higher than in "heated" saliva without feeding. The return to normal values of prandial salivary excretion after removal of the dog from the chamber occurred on the average within one

Card : 2/3

Card : 3/3

SINITSYN, A., inzh.

Sublimation drying of meat products ready for immediate use.
Mias. ind.SSSR 31 no.2:25-27 '60. (MIRA 13:8)

1. Rostovskiy konservnyy zavod "Smychka".
(Meat, Dried)

SINITSYN, A.

Practices of the Leningrad administration of the scientific
technical society. Zhil.-kom.khoz. 10 no.9:22-23 '60.

(MIRA 13:9)

1. Uchenyy sekretar' Tsentral'nogo pravleniya nauchno-tekhnicheskogo
obshchestva porodskogo khozyaystva i avtomobil'nogo transporta.
(Leningrad--Municipal services)

SINITSYN, A.

Standardization of housing construction in the White Russian S.S.R.
Zhil. stroi. no.7:6-8 J1 '61. (MIRA 14:8)

1. Glavnyy inzhener Belgosproyekta.
(White Russia--Apartment houses)

SINITSYN, A.

Descriptive examples of striving for technical progress. Zhil.-
kom. khoz. ll n.12:9-10 D '61. (MIRA 16:11)

1. Uchenyy sekretar' Tsentral'nogo pravleniya Nauchno-tekhnicheskogo obshchestva gorodskogo khozyaystva i avtomobil'nogo transporta.

SINITSYN, A.A., IVIN, I.A., nauchnyy redaktor; BREZANOVSKAYA, L., redaktor;
DMITRIYEVSKAYA, N., tekhnicheskij redaktor

[Planting potatoes in checkrows] Kvadratno-gnezdovala posadka
kartofelia. Moskva, Gos. izd-vo kul'turno-prosvetitel'noi lit-ry,
1954. 28 p. (Bibliotekha v pomoshch' lektoru, no.3) [Microfilm]
(Potatoes) (MLRA 7:10)

KEYS, N.V.; SINITSYN, A.A.; POZDNYSHV, V.M.; SAMARIN, A.P.; YARTSEVA, T.M.;
Prinimali uchastiye: BENDOVSKIY, B.M.; CHUTCHEV, I.I.; KOMPANIYETS, N.V.;
OTRISHCHENKO, N.I.; KHARITONOVA, V.V.; TOROPOV, F.S.

Making ingot molds and other castings of cast iron with spheroidal
graphite at the Chelyabinsk Metallurgical Plant. Stal' 23 no.4:381-383
Ap '63. (MIRA 16:4)

(Iron founding)

(Ingot molds)