SOV/137-58-11-22242
Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 11, p 57 (USSR)

AUTHORS: Vol'skiy, A. N., Sergiyevskaya Ye. M.

TITLE: Comparative Kinetics of Dissolution of Zinc Oxide and Ferrite in Sulfuric Acid (Sravnitel'naya kinetika rastvoreniya okisi tsinka i ferrita tsinka v sernoy kislote)

PERIODICAL: Izv. vyssh. uchebn. zavedeniy. Tsvetn. metallurgiya, 1958, Nr 1, pp 76-81

ABSTRACT: A dynamic study is made of the influence of rate of motion of the solution, temperature, and the H_2SO_4 and $ZnSO_4$ concentration upon the rate of ZnO and Zn ferrite dissolution in H_2SO_4 solutions. It is established that the rate of dissolution of ZnO at an H_2SO_4 concentration >0.36 mole/liter is determined by the rate of diffusion, while at <0.36 mole/liter it is determined by the rate of chemical reaction. The Zn ferrite dissolution process is found to be autocatalytic. The temperature coefficient of the rate of dissolution of ZnO is 1.3, while for Zn ferrite (recalculated as ZnO) it is 1.8-2.2. The activation energy of the process of ZnO and Zn ferrite dissolution is determined. The radio-isotope Zn^{65} is used to demonstrate that the rate of ZnO

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Comparative Kinetics of Dissolution of Zinc Oxide and Ferrite (cont.)

dissolution drops markedly with increase in $ZnSO_4$ concentration in the starting solution.

B. L.

Card 2/2

SERGIYEVSKAYA, Ye. M.: Master Tech Sci (diss) -- "The theory of lixiviation of roasted zinc concentrates with solutions of sulfuric acid". Moscow, 1959. 13 pp (Min Higher Educ USSR, Krasnoyarsk Inst of Nonferrous Metals im M. I. Kalinin), 150 copies (KL, No 15, 1959, 125)

VOL'SKIY, A.N.; SERGIYEVSKAYA, Ye.M.

Thermodynamics of the dissolution of zinc oxide and copper oxide in sulfuric acid solutions as applicable to the leaching of zinc concentrates. Sbor. nauch. trud. GINTSVETMET no.33: 18-25 '60. (MIRA 15:3)

(Zinc oxide) (Copper oxide) (Leaching)

VOL'SKIY, A.N.; SERGIYEVSKAYA, Ye.M.

Kinetics of iron oxide dissolution in sulfuric acid solutions. Izv. vys. ucheb. zav.; tsvet. met. 3 no.5:37-42 '60. (MIRA 13:11)

1. Krasnodarskiy institut tsvetnykh metallov. Kafedra teorii metallurgicheskikh protsessov.
(Iron oxides) (Sulfuric acid)

SEVRYUKOV, N.N.; SERGIYEVSKAYA, Ye.M.

Theory of the reduction of sodium sulfate by carbon. Zhur. prikl. khim. 34 no.1:54-59 Ja '61. (MIRA 14:1)
(Sodium sulfate) (Carbon)

VOL'SKIY, A.N. (Moskva); ABRAMOVA, K.A. (Moskva); SERGIYEVSKAYA, Yo.M. (Moskva)

Efficient analysis of nickel compounds in waste slags from the smelting of nickel. Izv. AN SSSR. Otd. tekh. nauk. Met. i gor. delo no.4:70-80 Jl-Ag '63. (MIRA 16:10)

SERGIYEVSKAYA, Ye. N.

SERGIYEVSKAYA, Ye. N. -- "Determination of the Optimum Settings of VTI Electronic Regulators for Regulation with Self-Equilibration." Min Electric Power Stations USSR. All-Union Order of Labor Red Banner Heat Engineering Sci Res Inst imeni F. E. Dzerzhinskiy. (Dissertation for the Degree of Candidate of Technical Sciences.)

SO: Knizhnaya letopis', No. 4, Moscow, 1956

SERGIYEVSKAYA, Ye.N., kandidat tekhnicheskikh nauk.

New principles of flow measurement. Teploenergetika 4 no.1:52-53 Ja '57. (MLRA 10:3)

(Flowmeters)

SERGIYEVSKAYA, Ye.N., kandidat tekhnicheskikh nauk.

Determination of optimum settings for electronic regulators. Teploenergetika 4 no.3:12-16 Mr '57. (MLRA 10:3)

1. Vsesoyuznyy teplotekhnicheskiy institut.
(Electronic control)

8(6), 28(1) SOV/91-59-10-8/29

AUTHOR: Sergiyevskaya Ye. N., Engineer

TITLE: Improvement in Operation of Serial Regulators Type ER, System VTI

PERIODICAL: Energetik, 1959, Nr. 10, pp 17-18, (USSR)

ABSTRACT: As is well known, the chief source of trouble in an electronic system of automatic regulation is a polarized relay the contacts of which become in time burned and no longer ensure proper closing of the circuit. Moreover, during burning of contacts, the regulator dead band is considerably increased. To improve the regulator operating conditions, the author suggests the following alterations in the layouts of electronic devices Type ER. The feed of the second cascade of the electronic amplifier should be switched onto direct current. To this end, a rectifier consisting of two in series connected germanium diodes, Type DGTs-27 or D7Zh, is to be introduced into the second cascade feed circuit. To equalize the inverse resistance, each diode has to be bypassed with a 100 k-ohm resistance. Diode polarity should

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Improvement in Operation of Serial Regulators Type ER, System VTI

be selected in such a way that the power supply positive contact be on the diode anode, and the negative contact on the cathode. For filtering of rectified tension, a capacitor of 10 mcf can be used. Such an alteration of the layout enables increasing by twice the cascade steepness which, in turn, permits increasing by twice the value of current acting upon the polarized relay and enlarging the clearance between the contacts. The latter should be so much enlarged as to bring the tension of relay wear to $\pm$ (0.8-0.1) volts. To preserve the ratio of the dead band to the band of return, it is necessary to decrease the in-series connected resistance down to 50-10 k ohms so that the feed back voltage would amount to one-half of the wear tension. The contact pressure will then be increased and the closing of the circuit ensured. The above alterations permit also improving shock absorber action, if the stabilizing capacitor is removed. The existing shock absorber lets the impulses pass without absorbing them, but only diminishing by 8 times their amplitude. Removal of the capacitor will eliminate this shortcoming. There is 1 diagram.

SERGIYEVSKAYA, Ye.N., inzh.

Automation of control processes using digital computers in thermal electric power plants in the U.S.A. Teploenergetika 10 no.4:85-86 Ap '63. (MIRA 16:3)
(United States—Electric power plants)(United States—Automatic control)

SERGIYEVSKAYA, Ye.N., kand.tekhn.nauk; KAPLUNOV, I.B., inzh.

Structure and information and control means of the EAUS-u electronic system. Teploenergetika 10 no.6:86-89 Je '63. (MIRA 16:7)

1. Vsesoyuznyy teplotekhnicheskiy institut.
(Electric controllers) (Automatic control)

YUZEPCHUK, S.V.; SERGIYEVSKAYA, Ye.V.

Two new species of the genus Arctium L. Bot. mat. Gerb. 18:297-302 '57. (MLRA 10:6)

(Burdock)

SERGIYEVSKAYA, Ye.V.

Note on two new species of the genus Viola L. Bot. mat. Gerb. 21:281-288 '61. (MIRA 14:10)
(Russia, Northern--Violets)

SERGIYEVSKAYA, Ye.V.

New genus of plantains. Bot. mat. Gerb. 21:338-340 '61.
(MIRA 14 10)
(Khaybullinskiy District--Plantain)

BOBROV, Ye.G., doktor biolog.nauk, prof.; BOCHANTSEV, V.P.;
IL'IN, M.M.; LINCHEVSKIY, I.A.; LIPSHITS, S.Yu.;
SERGIYEVSKAYA, Ye.V.; CHERNEVA, O.V.; CHEREPANOV, S.K.;
YUZEPCHUK, S.V.; SHISHKIN, B.K., red.toma; SMIRNOVA, A.V., tekhn.red.

/Flora of the U.S.S.R./ Flora SSSR. Moskva, Izd-vo.
Akad.nauk SSSR, 1962. 757 p. (Flora SSSR, vol.27).(MIRA 15:11)

1. Chlen-korrespondent AN SSSR (for Shishkin).
(DICOTYLEDONS)

SERGIYEVSKIY, A.

[Problem of the Kaschin-Beck' disease] Problema urovskoi bolezni. Med.rabot. 13 no.12:4 23 Mr '50. (CLML 19:1)

1. Director of Urovsk Scientific-Research Station, Yamkun Resort, Chita Oblast.

SERGIYEVSKIY, A.D., [translator]; GASTEV, V.A., professor, doktor tekhnicheskikh nauk, retsenzent; SERENSEN, S.V., redaktor; KUSHELEV, N.Yu., kandidat tekhnicheskikh nauk, redaktor; SOKOLOVA, L.V., tekhnicheskiy redaktor

[Problems in fatigue breakdown of steel; a collection of translations] Voprosy ustalostnogo razrusheniia stalei; sbornik perevodnykh statei. Sokrashchennye perevody A.D.Sergievskogo, pod red. S.V.Serensena. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.lit-ry, 1957. 150 p.
(Steel--Fatique) (MLRA 10:8)

SERGIYEVSKIY, A.D., kand.tekhn.nauk (Leningrad); NOVITSKIY, V.P., kand. tekhn.nauk (Leningrad).

New designs for bridge floors. Put' i put.khoz. no.9:37-38 S '57. (MIRA 10:10)
(Bridges, Iron and steel)

SERGIYEVSKIY, A.D., kand. tekhn. nauk. (Leningrad).

Bridge floor on a reinforced concrete bed. Put' i put. khoz. no.10: 21-22 O '57. (MLRA 10:11)

(Railroad bridges)

SERGIYEVSKIY, A.D., kand.tekhn.nauk

Design of slabs for point loading. Bet. i zhel.-bet. 8 no.6:262-264 Je '62. (MIRA 15:7)
(Concrete slabs)

SERGIYEVSKIY, A.D., kand.tekhn.nauk

Economic comparison of a reinforced concrete bridge road with a standard road on wooden beams. Sbor.trud.NII mostov no.7:58-65 '62.

Problem of determining the weight of metal spans. Ibid.:66-76 (MIRA 16:12)

SERGIYEVSKIY, A.M.

Health tournament. Zdorov'e 4 no.1:6 Ja '58. (MIRA 11:2)
(HEALTH EDUCATION)

GORGIYEVSKIY, Arkadiy Mikhaylovich; KOKOLOV, I.S., red.

[Some forms of disseminating knowledge of medicine and hygiene; from the work experience of the House of Sanitary Education of the Kirov District in Moscow] Nekotorye formy propagandy meditsinskikh i gigienicheskikh znanii; iz opyta raboty doma sanitarnogo prosveshcheniia Kirovskogo raiona Moskvy. Moskva, In-t sanitarnogo prosveshcheniia M-va zdravookhraneniia SSSR, 1963. 78 p. (MIRA 17:7)

SERGIYEVSKIY, A. S., inzh.; SMIRMOV, B. V., doktor tekhn. nauk, rukovoditel' raboty

Wider use of rural electric power distribution lines for telecommunication purposes. Mekh. i elek. sots. sel'khoz. 20 no.6:50-52 '62. (MIRA 16:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut elektrifikatsii sel'skogo khozyaystva.

(Electric lines—Overhead)
(Telecommunication)

GANELIN, Aleksandr Moiseyevich; LEVIN, Moisey Solomonovich. Prinimali uchastiye: SERGIYEVSKIY, A.S.; KISHECHNIKOV, S.A.; LISTOV, P.N., doktor tekhn. nauk, prof., red.; MEL'NIKOVA, G.P., red.; TOKER, A.M., tekhn. red.

[Handbook for the beginning electrician working in rural electrification] Spravochnik molodogo mekhanika sel'skoi elektrifikatsii. Pod red. P.N.Listova. Moskva, Proftekhizdat, 1963. 464 p. (MIRA 16:8)

1. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I.Lenina (for Listov).
(Rural electrification--Handbooks, manuals, etc.)

KOLODCHEVSKIY, Ya.A., aspirant; SERGIYEVSKIY, A.S., inzh.

Frequency parameters of 10 kv three-phase lines on overhead structures. Vest. TSNII MPS 24 no.2:9-13 '65. (MIRA 18:5)

L 43186-65 EWP(m)/EWT(1)/FCS(k)/EWA(d)/EWA(1) Pd-1 UR/0170/65/008/003/0300/0306
ACCESSION NR: AP5009767

AUTHORS: Budnikov, V. I.; Sergiyevskiy, A. V.

24
10
B

TITLE: On stability of a system of parallel boiling channels

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 8, no. 3, 1965, 300-306

TOPIC TAGS: boiling, flow stability, flow stability equation, Laplace transformation

ABSTRACT: The stability of vapor generation inside a system of parallel tubes was studied analytically. The system is depicted in Fig. 1 on the Enclosure. The solution is obtained for small perturbations, using the Laplace transformation on the energy balance equations $\frac{\partial}{\partial x} Gi + S\frac{\partial}{\partial t}\gamma i = Sq$, $\frac{\partial}{\partial x} G + S\frac{\partial}{\partial t}\gamma = 0$. Two analytic expressions are obtained defining the stability domain D_0

$\Phi_2 = (\sin\omega\tau_0 + \omega\tau_1\cos\omega\tau_0) \times [2B\omega\tau_1((1-\sigma)\omega\tau_1(1+A)\sin\omega\tau_0 - \sigma[\psi + (\omega\tau_1)^2(1+A)] - (1-\sigma)\psi\cos\omega\tau_0)]^{-1}$, $\Phi_1 = \frac{\sin\omega\tau_0 + \omega\tau_1\cos\omega\tau_0}{2B\omega\tau_1[\psi + (\omega\tau_1)^2(1+A)]}$, $\frac{\pi}{2} < \omega\tau_0 < \pi$. It is shown that the

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ACCESSION NR: AP5009767

stability of a uniform stationary state depends on the hydraulic characteristics of the channel, on the number of channels, and on the nature of the external branches of the channel circuit. Also, critical parameters $U_1 = U_1^*(p_{20}, i, k, \theta_1)$ exist, at which for all $U_1 > U_1^*$ the system is stable at any N, V_1, V_2, and U_2 when $V_1 = (p_0 - p_1)_0$; $V_2 = (p_3 - p_4)_0$; $U_{11} = (p_1 - p_2)_0$; $U_{21} = (p_2 - p_3)_0$. Orig. art. has: 13 formulas and 3 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut g. Gor'kiy (Physico-Technical Institute)

SUBMITTED: 12May64 ENCL: 01 SUB CODE: ME, TD

NO REF SOV: 006 OTHER: 001

Card 2/3

L 43186-65

ACCESSION NR: AP5009767

ENCLOSURE: 01

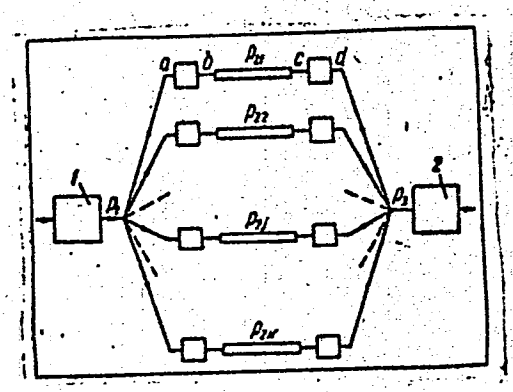

Fig. 1. Block-schematic of parallel boiling channels and external branches of the circuit. 1, 2- equivalent concentrated resistance (input and output)

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Card 3/3

L 07265-67 EWT(d)/EWT(m)/EWP(v)/EWP(k)/EWP(h)/EWP(l) GD
ACC NR: AT6025305 SOURCE CODE: UR/0000/66/000/001/0049/0059

45
B+/

AUTHOR: Yemel'yanova, I. S.; Sergiyevskiy, A. V.

ORG: none

14

TITLE: Dynamics of an automatic control system for reactor power with a stepping motor to drive the control rods

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Upravleniye yadernymi energeticheskimi ustanovkami (Control of nuclear power plants), no. 1, Moscow, Atomizdat, 1966, 49-59

19

TOPIC TAGS: nuclear reactor control, automatic control system, reactor neutron flux, control system stability, AUTOMATIC CONTROL DESIGN, NUCLEAR REACTOR CONTROL EQUIPMENT

ABSTRACT: The authors investigate qualitatively the dynamics of an automatic control system whose block diagram is shown in Fig. 1. The system is assumed to operate in a mode where constant power is maintained, and the analysis is based on the assumption of one equivalent group of delayed neutrons. The dynamics of the control rod is analyzed in phase space by the phase trajectory method. It is shown that such a system provides stable control of power and if the reactivity introduced by the control rod in each set is small, the system behaves similarly to that in which the control rods move continuously. The upper limit allowed for this reactivity step in order for the system to stay in service a long time is determined. Orig. art. has: 6 figures and 15 formulas.

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ACC NR: AT6025305

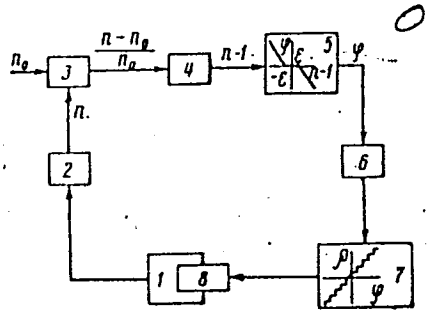

Fig. 1. Block diagram of automatic reactor control. 1 - Reactor, 2 - ionization chamber, 3 - comparison unit, 4 - amplifier, 5 - linear servomotor, 6 - stepping-motor switching system, 7 - stepping motor, 8 - control rod.

SUB CODE: 18/ SUBM DATE: 27Dec65/ ORIG REF: 001/ OTH REF: 001

Card 2/2

[illegible]; [illegible], A.Ya., [illegible]; KONDRAT'EV, V.A., [illegible]

[Selecting conditions for the X-ray fluoroscopy of metals] Vybor rezhima rentgenoprosvechivaniia metallov. Moskva, Mashinostroenie, 1964. 64 p. (MIRA 17:9)

KARASEV, N.A.; BOGOSLOVSKIY, I.D.; KOSTOGONOV, V.G.; LARKIN, F.R.; MOROZOV, V.I.; SERGIYEVSKIY, A.Ya.

Effect of shot peening on the properties of a nitrogen case-hardened layer. Metalloved. i term.obr.met. no.10:12-16 O '65. (MIRA 18:11)

1. Moskovskiy institut radioelektroniki.

S/109/62/007/005/002/021
D201/D307

6.4400

AUTHOR: Sergiyevskiy, B.D.

TITLE: The response of a square-law detector receiver to phase or frequency fluctuation modulated oscillation

PERIODICAL: Radiotekhnika i elektronika, no. 5, 1962, 782 - 792

TEXT: The results are given of a theoretical investigation into the response of the receiver to the HF input signal modulated either in frequency or phase by fluctuations having a normal distribution. The analysis is carried out by applying the Duhamel integral in complex form to the envelope of the output at the detector and methods of the theory of probability. The results obtained show the dependence of the d.c. and rms. values of current and of the effective fluctuation values on the frequency spectrum width of modulating fluctuations, on the frequency bandwidth of the receiver and on frequency deviation. When modulation is slow-varying (quasi-stationary) i.e. the instantaneous frequency follows the changes in modulating voltage and the pass-band of the receiver is large, the square of the mean current at the input is nearly equal to that at the output

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The response of a square-law ...

and fluctuation is small. With decreasing bandwidth of the receiver, the average square current is proportional to the ratio of the bandwidth to frequency deviation and fluctuations are noticeable. With further narrowing of the pass-band the square of the current begins to fall at the detector output more rapidly and is proportional to the square of $\Delta FB/\Delta f^2$. The respective shares of fluctuations and of d.c. current are in this case equal. With fast modulation and a wide receiver pass-band the mean square of current consists almost wholly of the d.c. component. With the pass-band narrowing this value diminishes, with the mean value decreasing at a slower rate. As a result fluctuations appear, the intensity of which is proportional to $\Delta f^2/\Delta FB$ (Δf is a random modulating function; B = pass-band of the receiver; F = 1/T, where T is the time-constant of the receiver) With further narrowing of the pass-band this intensity, together with the average square of the current, tends to zero. As in the case of quasi-stationary modulation, there exists a certain pass-band of the receiver for which with slow modulation the fluctuations at the detector output have their maximum. The author acknowledges the participation of M.P. Moroznikova in assessing the results. There are 7 figures and 1 table.

SUBMITTED: July 7, 1961

Card 2/2

SERGIYEVSKIY, B.D.

Reaction of an amplitude receiver to oscillations modulated by phase or frequency fluctuations with detuning of the carrier frequency in respect to the receiver. Radiotekh. i elektron. 8 no.12:2016-2023 D '63. (MIRA 16:12)

SEMENYEVSKIY, B.D.

Reaction of a filter with a square-law detector to oscillations with random phase. Radiotekh. i elektron. 10 no.3:554-556 Mr '65. (MIRA 18:3)

BELYAKOV, R.S., kand. tekhn. nauk; SERGIYEVSKIY, P.P., dotsent; ZOTKIN, I.A., kand. tekhn. nauk; TIMOFEYEV, A.A., kand. tekhn. nauk; KHRAPOV, A.Ya., kand. tekhn. nauk; APON'KIN, V.A., inzh.; BEDAREV, V.I., inzh.; MATVEYENKO, I.S., inzh.

"Foundry alloys" by P.P. Zhevtunov. Reviewed by R.S. Beliakov and others. Izv. vys. ucheb. zav.; chern. met. 2 no.4:157-161 Ap '59. (MIRA 12:8)

1.Zaporozhskiy mashinostroitel'nyy institut (for Belyakov).
2.Sibirskiy metallurgicheskiy institut (for all except Belyakov).
(Foundry machinery and supplies) (Alloys)
(Zhevtunov, P.P.)

BEDAREV, V.I., inzh.; SERGIYEVSKIY, B.P., dotsent

Magnesium assimilation by cast iron. Izv.vys.ucheb.zav.; chern. met. 2 no.5:97-100 My '59. (MIRA 12:9)

1. Sibirskiy metallurgicheskiy institut. Rekomendovano kafedroy liteynogo proizvodstva Sibirskogo metallurgicheskogo instituta.
(Cast iron--Metallurgy)

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77146
SOV/148-59-9-16/22

AUTHOR: Sergiyevskiy, B. P. (Docent), Khrapov, A. Ya. (Candidate of Technical Sciences)

TITLE: The Effect of Quality of Initial Cast Iron on Properties of Castings

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, 1959, Nr 9, pp 141-144 (USSR)

ABSTRACT: The mechanical properties and gas saturation of charcoal and coke cast iron were investigated. Chemical composition of cast iron is shown in Table 1.

Table 1. Chemical composition of coke and charcoal cast iron

Designation cast iron	C	Si	Mn	P	S
ЛК-1	4.60	1.75	0.90	0.28	0.05
ВЛ-1	4.25	0.86	0.64	0.15	0.01
ВЛ-2	4.32	0.61	0.74	0.15	0.01

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The melting was done in two laboratory cupolas 450 mm and 200 mm in diameter. The temperature of cast iron at tapping was 1,280 to 1,320° C. The coke consumption amounted to 15.0%. The limestone used as a flux contained (%): CaO, 52.21; SiO2, 3.02; MgO, 0.56; (Fe_2O_3 + Al_2O_3). 1.06%. Weight of limestone charge was 5% of the total weight of the metal. The gas saturation of cast iron was determined by the method of hot extraction using a mercury vacuum unit described in Ref. 6 (Shizokov, N. I. and Zarvin, Ye. Ya., Zavodskaya laboratoriya, Nr 10, 1952). The mechanical properties shown in Table 5 were determined in samples 30 mm in diameter, 300 mm long, according to the All-Union State Standard (GOST) B1412-42S. As a result of experiments the following conclusions were drawn: the charcoal and coke cast iron produced in different blast furnaces show no appreciable difference either in gas saturation or in mechanical properties. Therefore, there is no need of adding the charcoal cast iron to the cupola charge. M. G. Ignat'yev (Engineer) participated in the work. There are 5 tables; and 7 Soviet references.

Table 5. Mechanical properties of charcoal and coke cast irons

Designation of cast iron	First melt in the large cupola		Second melt in the small cupola	
	Tensile strength (kg/mm^2)	Hardness H_B	Tensile strength (kg/mm^2)	Hardness H_B
ЛК-1	14,5—16,2	158—162	11,7—15,3	143—162
ВЛ-1	12,1—13,2	142—160	11,5—13,0	139—155
ВЛ-2	11,0—13,0	136—145	10,6—12,0	128—146

ASSOCIATION: Siberian Metallurgical Institute (Sibirskiy metallurgicheskiy institut)

SUBMITTED: March 18, 1959

AUTHOR: Sergiyevskiy, B.R. SOV/106-59-1-7/12

TITLE: A Determination of the Self-Oscillation Parameters in a Phase Correcting System for Telegraph Equipments using a Controlling Device of the Relay Type (Opredeleniye parametrov avtokolebaniy v sisteme korrektirovaniya fazy telegrafnykh apparatov s upravlyayushchim ustroystvom releynogo tipa)

PERIODICAL: Elektrosvyaz', 1959, Nr 1, pp 53-63 (USSR)

ABSTRACT: In previous years a two-position phase correcting system has been used in which special pulses have been employed (the Astafichev system). This arrangement suffers from a number of drawbacks which render its use in start-stop systems intended for working over radio channels impossible. A proposed three-position system for controlling the phase of the distributor brush is shown in Fig 1, and the principle of operation of this arrangement is given in Fig 2. If the frequency of the tuning fork is equal to the sending speed and the system is in phase then over the time of arrival for the voltage across the winding of the correcting relay KR, then the contacts on the tuning fork 1 and 2 are shorted out over an equal

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A Determination of the Self-Oscillation Parameters in a Phase Correcting System for Telegraph Equipments using a Controlling Device of the Relay Type

intervening time (Fig 2b), and the difference in currents flowing through the winding on KR will be less than the current necessary to operate the relay and the armature will remain in the mean position. For frequency deviations in either sense correcting currents flow in such a way as to reduce the difference to zero. A block diagram of the arrangement considered as a simple servo system is given in Fig 3. The tuning-fork differential equation is given by (1) where ω_1 is the angular frequency of the tuning fork, while $k_3 i_1$ is the increase in frequency due to a current i_1 flowing through the electro-magnet. The dynamic behaviour of the correcting electromagnet in terms of applied voltage is given by Eq (2). The controlling element acts as a non-linear element. Fig 4a shows the characteristic of a polarized 2-position relay while Fig 4b shows the operation of a 3-position device. Analysis of the operation of the correcting relay shows that, thanks to the presence of an integrating circuit of long time constant T_1 = 150 microseconds, the relationship

A Determination of the Self-Oscillation Parameters in a Phase Correcting System for Telegraph Equipments using a Controlling Device of the Relay Type

between the current difference Δi_1 and the phase deviation γ_1 can be represented by (4). The relevant differential equation in non-dimensional form is (7). In determining the parameters of the self-oscillation a method due to A.I. Lur'ye is used (Ref 1). The parameters defined in (7) are first restated as in (8) and the differential equation is represented as a system of canonical equations as (13). If we now introduce the characteristics of the 3-position relay the equations systems become (15) and (16) respectively for the two important time intervals. The equations reduce to a single transcendental equation with a single unknown as (23) and this is solved graphically in Fig 5. Fig 6 shows how the time constants of the correcting relay and the correcting electromagnet vary as a function of the ratio of the frequency deviations of the oscillator and correcting electromagnet. It will be seen that the period of the self-oscillation $T = T_1 + T_2$ does not remain constant but has in fact a maximum for the ratio

A Determination of the Self-Oscillation Parameters in a Phase Correcting System for Telegraph Equipments using a Controlling Device of the Relay Type

of frequency deviations equal to 0.5. Fig 7 shows how the phase changes within an interval of a single period and Fig 8 shows the change in the maximum phase deviation as a function of the ratio of frequency deviations. When the deviation ratio is equal to 0.4 the characteristic equation is of the 4th order and is given in the penultimate paragraph on page 63. It can easily be shown that all the Hurwitz determinants of this equation are positive and consequently stable oscillations arise in the system.

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There are 8 figures and 1 Soviet reference.

SUBMITTED: July 2, 1958

16.9000

S/141/61/004/004/017/024
E140/E435

AUTHOR: Sergiyevskiy, B.R.

TITLE: Self oscillations in systems with two relay elements

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, v.4, no.4, 1961, 735-747

TEXT: The solution of problems in automatic control with systems containing two relay elements, where the oscillation parameters, stability and stability boundaries are required, has previously been attempted by two types of solution. The first type uses the method of harmonic balance (describing function). This method is approximate and always requires additional verification. With multivalued and unsymmetrical characteristics and external perturbations the numerical calculations are very tedious. In the second type of solution exact solutions can be obtained. The present article uses the method proposed by A.I.Lur'ye (Ref.7: Certain nonlinear problems of the theory of automatic control, GITTL, M.-L., 1951) using expansion in canonical equation and the analytical solution by piecewise intervals. The solution of the latter is carried out by the method of the z-transform. The type of system considered is

Card 1/2

shown by Fig.1, where the relay characteristics are perfectly general, and may be asymmetrical. A problem is worked in general form. There are 3 figures and 9 Soviet-bloc references.

SUBMITTED: September 28, 1960

B

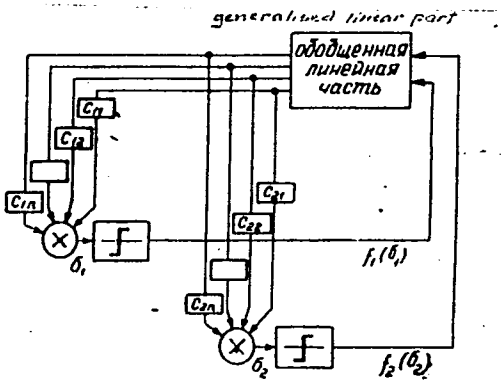


Fig.1.

Card 2/2

SERGIYEVSKIY, B.R.

Deviations in impulse phase compensating systems. Elektrosviaz' 15 no.9:54-62 S '61. (MIRA 14:9)
(Pulse techniques (Electronics))
(Telegraph)

1. CHERNIKOV, D. M., SERGIYEVSKIY, I. V., OGORODNIKOV, F. S., PEREL'MAN, Ya. A.

2. USSR (600)

4. Electric Engineering

7. Answers to questions from D. M. Chernikov, I. V. Sergiyevskiy, F. S. Ogorodnikov, Ya. A. Perel'man. Rab. energ. 2, no.2, 1952.

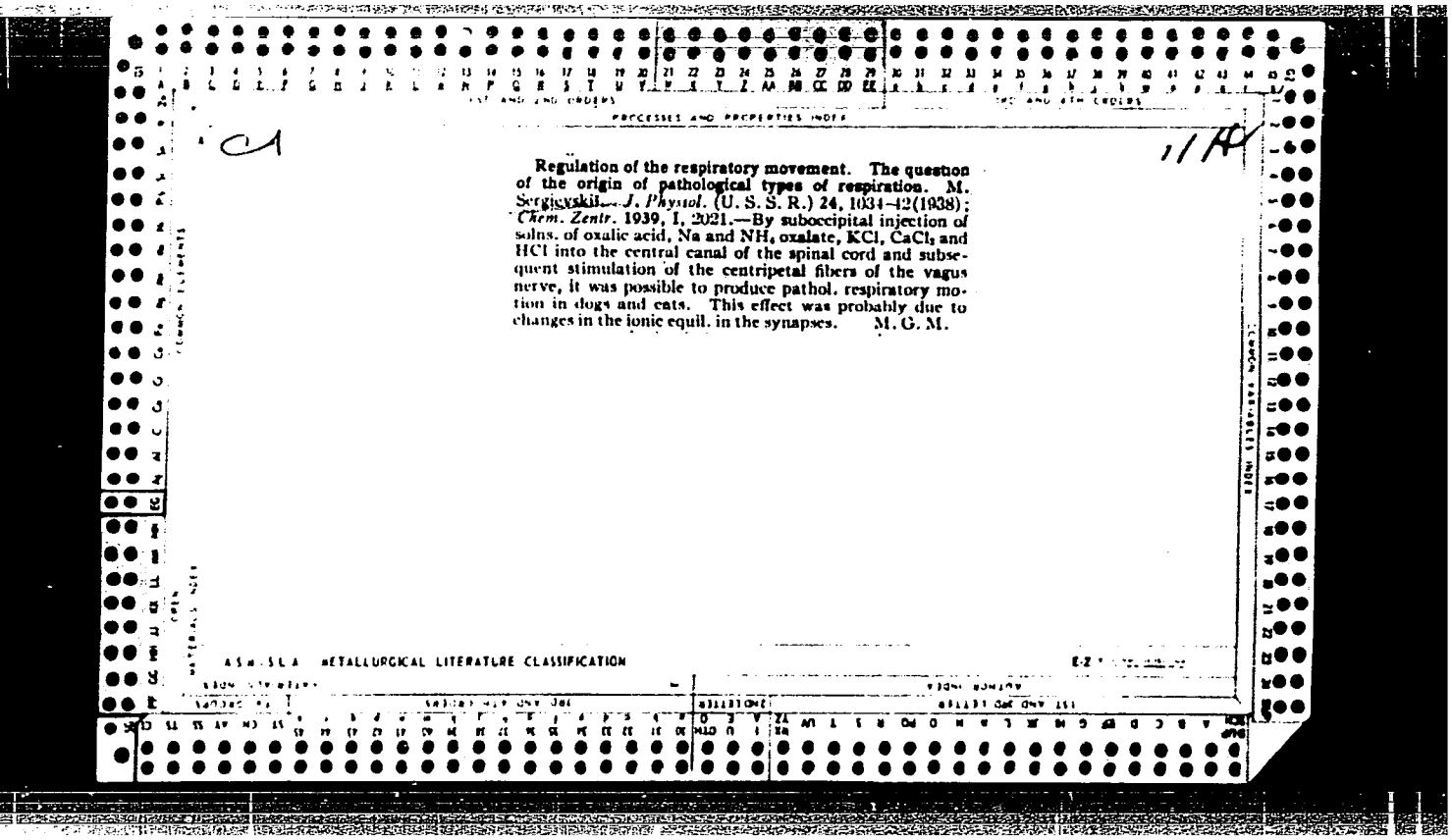
9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

(Clinical), 1951

SERGEYEVSKIY L. I.

Principles of the Pavlovian theory on conditioned reflexes and orthoptic therapy of strabismus. Vest. oft., Moskva 30 no 5:3-8 Sept-Oct. 1951. (CLML 21:3)

1. Professor. 2. Of the Central Ophthalmological Institute imeni Gel'mgol'ts.



Regulation of the respiratory movement. The question of the origin of pathological types of respiration. M. Sergievskii. *J. Physiol.* (U. S. S. R.) 24, 1034–42(1938); *Chem. Zentr.* 1939, I, 2021.—By suboccipital injection of solns. of oxalic acid, Na and NH_4 oxalate, KCl, $CaCl_2$ and HCl into the central canal of the spinal cord and subsequent stimulation of the centripetal fibers of the vagus nerve, it was possible to produce pathol. respiratory motion in dogs and cats. This effect was probably due to changes in the ionic equil. in the synapses. M. G. M.

The control of respiratory movements II Alterations
in respiration through the action of calcium, potassium,
pilocarpine, atropine and morphine M. Sergievskii, N.
Ostroumov and A. Golovin. *J. Physiol. U.S.S.R.*
25, 685-94 (in English, 694) (1938). —The suboccipital in-
jection of KCl into cats increases pulmonary ventilation
and reduces the inhibitory effect of stimulation of the
centripetal superior laryngeal and vagal fibers, while
$CaCl_2$, atropine and morphine by the same method of
injection have the reverse effect in each case.

S. A. Karjala

METALLURGICAL LITERATURE CLASSIFICATION

SERGIYEVSKIY, M.V.

"On the regulation of respiratory movements", Report 5, M.V. Sergiyevskiy and N. M. Lopatina, "The significance of reflexes of the trachea and larynx for regulating respiratory movement". Report 6, M.V. Sergiyevskiy and V.A. Vinokurov, "The influence of the chest portion of the sympathetic nervous system on the respiratory reaction to the introduction of ammonia into the lungs", Report 8, V.A. Vinokurov, "On respiratory contractions of the muscles of the extremities". Report 11, N.A. Ostroumov, "Spinal-nerve respiratory centers of new-born and embryo mammals". Trudy Kyubyshevsk. gos. med. in-ta, Vol. II, 1948, p. 89-156.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 9, 1949)

SERGIYEVSKIY, M. V.

Clinical significance of the pathology of the respiration center. Klin. med., Moskva 29 no.8:5-13 Aug 1951. (CLML 20:11)

1. Kuybyshev. 2. Of the Department of Normal Physiology, Kuybyshev, Medical State Institute.

SERGIYEVSKIY, Mikhail Vasil'yevich, laureat Stalinskoy premii; BENYUMOV, O.M., redaktor; ISLENT'YEVA,P.G., tekhnicheskiy redaktor; SHIK, M.M., redaktor

[Regulation of respiration by the cortex] Reguliatsiia dykhaniia korol golovnogo mozga. Moskva, Izd-vo "Znanie" 1955. 37p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser. 3, no.54) (MLRA 8:12)

1. Chlen-korrespondent AMN SSSR, professor (for Sergiyevskiy)
(RESPIRATION) (BRAIN)

SERGIYEVSKIY, M.V., professor (g. Kuybyshev)

Control of respiration. Nauka i zhizn' 22 no.11:10-14 N '55.
(MLRA 9:1)

1.Chlen-korrespondent AMN SSSR.
(Respiration)

SERGIYEVSKIY, M.V.

New textbook of human physiology. Fiziol. zhur. 41 no.6:848-851 N-D '55. (MLRA 9:3)

(PHYSIOLOGY)

SERGIYEVSKIY, M.V.: KADOCHKIN, L.N.

Work practice of the joint Department of Psychology and Physiology.
Vop.psikhol. 2 no.5:189-192 S-O '56. (MIRA 10:1)

(Psychology) (Physiology)

SERGIYEVSKIY, M.V. (Kuybyshev); KADOCHKIN, L.N. (Kuybyshev)

Critical comments on the journal "Voprosy psikhologii." Zhur.vys. nerv.deiat. 6 no.4:634-644 Jl-Ag '56. (MLRA 9:11)

(PERIODICALS,
Voprosy psikhologii, Moskva (Rus))
(PSYCHOLOGY,
periodical Voprosy psikhologii, Moskva (Rus))

SERGIYEVSKIY, M.V., Prof., Corresponding Member of the Academy of Medical Sciences., PESKOV, B.Ya., Assistant, USSR.

"Traumatic and Other Diseases of the Spinal Cord," and presented research results on respiration and its peculiarities in peoplewho have recovered from traumatic diseases and from sarcomas of the spinal cord following fully reversible or irreversible disorders.

Paper presented at 11th Session of AMS USSR on Trauma, April 1957.

So: Sum. 1644

USSR/Human and Animal Physiology. Respiration. T

Abs Jour: Ref Zhur-Biol., No 20, 1958, 93294.

Author : Sergiyevskiy, M.V., Mikhaylov, N.N., Nachinskaya, V.P.
Inst : MS USSR.
Title : Characteristics of Respiration Reaction on Increased Amount of Carbon Dioxide in Inhalation of Air in Dogs and Rabbits, Normal and Deprived of Distance Receptors.

Orig Pub: V sb.: Probl. fiziol. tsentr. nervn. sistemy. M.-L., AN SSSR, 1957, 500-508.

Abstract: Experiments on normal dogs and rabbits and on dogs and rabbits which had been deprived of three pairs of distance receptors (eyes, ears, nose) revealed a decrease in motor activity, a retardation of respiration, and a lowering of sensitivity to CO_2, and also a displacement

Card : 1/2

IVANOV, Yu.N.; SERGIYEVSKIY, M.V.

Conference of Volga Valley physiologists, biochemists, and pharmacologists with the participation of morphologists and clinicians. Vop.med.khim. 3 no.5:395-396 S-O '57. (MIRA 10:12)
(BIOCHEMISTRY)

SERGIYEVSKIY, M.V.; YEMEL'YANOVA, T.M.

Effect of different combinations of proprioceptive reflexes from muscles of fore- and hindlegs on the respiration of a frog. Nauk zap. Kyiv. un. 16 no.17:187-193 '57. (MIRA 13:2)
(RESPIRATION) (REFLEXES)

SERGIYEVSKIY, M.V. (Kuybyshev)

Conference of physiologists, biochemists and pharmacologists of the Volga region with the participation of morphologists and clinicists. Fiziol.zhur. 43 no.12:1209-1211 D '57. (MIRA 11:3)
(PHYSIOLOGY)

SERGIYEVSKIY, M.V.; PESKOV, B.Ya.

Peculiarities of respiration in patients suffering from spinal cord conduction disorders. Zhur.nevr.i psikh. 58 no.3:304-311 '58. (MIRA 13:3)

1. Kafedra normal'noy fiziologii (zaveduyushchiy - prof. M.V. Sergiyevskiy) i nervnykh bolezney (zaveduyushchiy - prof. A.I. Zlatoverov) Kuyubyshevskogo meditsinskogo instituta.

(SPINAL CORD, dis.
conduction dis., eff. on resp. movements (Rus))
(RESPIRATION, in var. dis.
conduction disord. of spinal cord, eff. on resp. movements (Rus))

SERGIYEVSKIY, M.V., professor (Kuybyshev, Leningradskaya ul., d.72, kv.36)

Some comments on A.I.Sirts' article "Application of the Pavlovian doctrine in surgery." Vest.khir. 79 no.7:89-93 Jl '57.
(MIRA 10:10)

1. Chlen-korrespondent AMN SSSR.
(SURGERY) (NERVOUS SYSTEM)

SERGIYEVSKIY, M.V., prof.

Basic principles of the regulation of respiration. Sov.med. 22 no.6: 3-10 Je '58 (MIRA 11:9)

1. Iz kafedry normal'noy fiziologii Kuybyshevskogo meditsinskogo instituta. Chlen-korrespondent Akademii meditsinskikh nauch SSSR.
(RESPIRATION, physiol.
regulation, principles, review (Rus))

SERGIYEVSKIY, M.V.; IVANOV, Yu.N.

Patterns of respiratory reactions to carbon dioxide in dogs with modified receptor systems [with summary in English]. Fiziol.zhur. 44 no.2:126-133 F '58. (MIRA 11:5)

1. Kafedra normal'noy fiziologii Meditsinskogo instituta, Kuybyshev.
(RESPIRATION, physiol.
response of dogs with modified sensory receptor systems to carbon dioxide inhalation (Rus)
(BRAIN, physiol.
eff. of modified sensory receptor system in resp. response of dogs to carbon dioxide inhalation (Rus)

SERGIYEVSKIY, M.V.; IVANOV, Yu.N.

Problems in the physiology of respiration and circulation. Fiziol. zhur. 45 no.11:1404-1406 N '59. (MIRA 13:5)
(BLOOD CIRCULATION physiol.)
(RESPIRATION physiol.)

SERGIYEVSKIY, M.V.; IVANOV, Yu.N.

On some collections of works on physiology recently published by regional institutions. Fiziol.zhur. 45 no.12:1509-1512 D '59. (MIRA 13:4)

1. Kafedra normal'noy fiziologii Meditsinskogo instituta, Kuybyshev.

(PHYSIOLOGY)

SERGIYEVSKIY, M.V.; OKUNEVA, G.N.

Comparative evaluation of the excitability and significance of the carotid sinuses, medulla oblongata, and cerebral cortex in the regulation of respiration. Fiziol.zhur. 46 no.8:897-907 Ag '60. (MIRA 13:8)

1. From the Chair of Normal Physiology, Medical Institute, Kuybyshev.
(RESPIRATION) (CAROTID SINUS) (BRAIN)

PARIN, V.V., prof., otv. red.; MARSHAK, M.Ye., prof., red.; MUZYKANTOV, V.A., kand. biolog. nauk, red.; SERGIYEVSKIY, M.V., prof., red.; SHIK, L.L., prof., red.; MUZYKANTOV, V.A., red.

[New developments in the physiology and pathology of respiration; data] Novoe v fiziologii i patologii dykhaniia; materialy. Pod red. V.V.Parina. Moskva, 1961. 279 p. (MIRA 15:3)

1. Konferentsiya po fiziologii i patologii dykhaniya. 2. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Parin). 3. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Marshak, Sergiyevskiy). 4. Institut khirurgii im. A.V.Vishnevskogo Akademii meditsinskikh nauk SSSR, Moskva (for Shik).
(RESPIRATION)

SERGIYEVSKIY, M.V. (Kuybyshev)

All-Union conference on the physiology, pathology and clinical aspects of respiration. Fiziol. zhur. 48 no.3:368-370 Mr '62. (MIRA 15:4)

(RESPIRATION--CONGRESSES)

SERGIYEVSKIY, M.V.; IVANOV, Yu.N.

Problem of sleep. (Experiments on animals deprived of three pairs of distance receptors). Fiziol.zhur. 48 no.6:646-653 Je '62. (MIRA 15:8)

1. From the Department of Physiology, Medical Institute, Kuybyshev.
(SLEEP) (RECEPTORS (NEUROLOGY))

SERGIYEVSKIY, M.V.

"Regulation of respiration. Comparative sensitiveness of respiratory responses under the action of chemical stimuli (CO_2 etc.) on various areas of the nervous system."

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

SHCHYNVSKIY, M.V.

Stimulating and inhibiting effect of respiratory impulses. Nerv. sist. no.4:83-86 '63 (MIRA 18:1)

1. Kuybyshevskiy meditsinskiy institut.

SERGIYEVSKIY, Mikhail Vasil'yevich; SOVETOV, A.N., red.

[Peripheral, or local, reflexes] Perifericheskie, ili mestnye, refleksy. Moskva, Meditsina, 1964. 198 p. (MIRA 17:5)

1. Kuybyshevskiy meditsinskiy institut (for Sergiyevskiy).

SERGIYEVSKIY, M.V.; GABDRAKHMANOV, R.Sh.; NENASHEV, A.A.

Automatic activity of the respiratory center. Fiziol. zhur. 51 no.6:723-731 Je '65. (MIRA 18:6)

1. Kafedra normal'noy fiziologii Meditsinskogo instituta, Kuybyshev.

SERGIYEVSKIY, N.D., dots., kand. tekhn. nauk.

Theory of most efficient fastenings of beam-frame systems. Trudy LVMI no.6:103-123 '57. (MIRA 11:5)
(Structures, Theory of)

MIROLYUBOV, Igor' Nikolayevich; YENGALICHEV, Sergey Aleksandrovich; SERGIYEVSKIY, Nikolay Dmitriyevich; ALMAMETOV, Fotyakh Zaynulovich; KURITSYN, Nikolay Aleksandrovich; SMIRNOV-VASIL'YEV, Konstantin Gennad'yevich; YASHINA, Lyudmila Vasil'yevna; KHRUSTALEVA, N.I., red.; GOROKHOVA, S.S., tekhn. red.

[Textbook for the solution of problems concerning the strength of materials] Posobie k resheniiu zadach po sopротivleniiu materialov. Moskva, Vysshaia shkola, 1962. 487 p. (MIRA 16:5)
(Strength of materials)

L 12582-63 EPR/EWP(j)/EPF(c)/EWT(m)/BDS AFFTC/ASD Ps-4/Pr-4/
Pc-4 RM/WW
ACCESSION NR: AP3003313 S/0191/63/000/007/0055/0058

AUTHOR: Mirolyubov, I. N.; Sergiyevskiy, N. D.; Loginov, V. G.; Tkachev, P. I; Shvalyuk, L. A.; Koly*gin, S. K.

TITLE: Effect of temperature on SNP thermoplastic

SOURCE: Plasticheskiye massy*, no. 7, 1963, 55-58

TOPIC TAGS: SNP thermoplastic, tensile stress, GOST 4646-49

ABSTRACT: Authors tested the stability of SNP-284 thermoplastic at temperatures from 0 to 60C. The effect of temperature on its maximum tensile stress and specific impact strength was determined. Samples were used which were produced from a sheet. Shape and size corresponded to GOST 4646-49. The samples were fractured on a TsDM-10A machine which had a maximum force of 2000 kg and deformation rate of 10 mm/min. in a special thermostat. A photograph of the machine is included in the article. Authors then construct curves for the data obtained in these tests and discuss each curve in detail. Orig. art. has: 8 figures and 2 tables.

Card 1/1

SERGIYEVSKIY, N.N.

USSR/Chemistry - Anticorrosion coatings

FD-513

Card 1/1 : Pub. 50-12/23

Author : Sergiyevskiy, N. N.

Title : Pipes coated with enamel on both sides

Periodical : Khim. prom., 299-300 (43-44), Jul/Aug 1954

Abstract : The production and applications of steel pipes covered with vitreous enamel on both sides are discussed. Four figures.

Institution :

Submitted :

SERGIYEVSKIY, S. A. PA 25/49T65

USSR/Medicine -- Hemorrhages Oct 48
Medicine -- Amputations

"Ezmarkh's Packing in Wounds Inflicted in Railroad Work," S. A. Sergiyevskiy, Surg Sec, Vologodskiy RR Hosp, 1 p

"Sov Med" No 10

Discusses results of 20 years' experience with amputations caused by accidents in railroad operations. States that Ezmarkh's packing has proved effective for checking hemorrhages after amputations.

[redacted] 25/49T65

[illegible], [illegible]

27379. [illegible], [illegible] A. Askaridy divertikula mekkelya, vyzyvavchiye kishechnuyu neprokhodimost'. Klinich. Meditsina, 1949, No. 8, s. 89-90

[illegible]: Letopis' Zhurnal'nykh Statey, Vol. 36, 1949

SERGIYEVSKIY, S.A.

27358- GAMALEYA, Nikolay Fedorovich. (mikrobiolog. 1859-1949. Nekrolog) Klinich. Meditsina. 1949. No. 8, s. 93-95, s portr. SERGIYEVSKIY, S.A. Askaridy divertikula mekkelya, vyzvavshiye kishechnu yu neprokhodimost'.--Sm. 27379

SO: Letopis' Zhurnal'nykh Statey, Vol. 36, 1949

SERGIEVSKII S. A.

Uproshchennaia metodika nalozheniia iskusstvennogo pnevmoperitoneuma. /Simplified method of artificial pneumoperitoneum/ Probl. tuberk., Moskva No. 5 Sept-Oct 50 p. 70-1.

1. Of Vologda Surgical Railroad Hospital, Vologda.
CLML Vol. 20, No. 2 Feb 1951

GRIGIYEVSKIY, S. A.

"Postoperative Pneumoperitoneum and Its Effect on Complications in Organs of the Chest and of the Abdominal Cavity." Sub 8 Mar 51, Central Inst for the Advanced Training of Physicians.

Dissertations presented for science and engineering degrees* in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

*[illegible] Medical Sci.

SERGIYEVSKIY, S.A.

S.A. Sergiyevskiy, Vliyaniye bol'nichnoy sredy v pred- i posleoperatsionniy period / Influence of the Hospital Environment During the Pre-And Post-Operative Period/ (Library of the Practicing Physician), Medgiz, 8 sheets. 1953

Sets forth in detail the significance of the hospital environment (surroundings, behavior of the medical personnel, etc) on the course of surgical diseases in the pre-and post-operative period.

Book intended for surgeons.

SO: U-6472, 15 Nov 1954

SERGIYEVSKIY, S.A.

Problem of prolonged retention of foreign bodies in the lung. Khirurgiia, Moskva no.5:82 May 1953. (CLML 25:1)

1. Candidate Medical Sciences. 2. Vologda.

SERGIYEVSKIY, S.A., doktor meditsinskikh nauk.

Role of nurses in protecting patients from excitement. Med.sestra no.4:23-26 Ap '54. (MLRA 7:5)

1. Iz TSentral'nogo instituta usovershenstvovaniya vrachey (Moscow).
(Nurses and nursing)

SERGIYEVSKIY, S.A.

ROSTOTSKIY, I.B.; ZAGROBYAN, S.T.

"Influence of hospital surroundings on patients during pre-and postoperative stages." S.A.Sergievskii. Reviewed by I.B.Rostotskii, S.T.Zagrovian. Sov. zdrav. 13 no.3:54-57 My-Je '54. (MLRA 7:8)
(HOSPITALS)

SERGIYEVSKIY, S.A., doktor meditsinskikh nauk

Scientific and practical conferences of nurses. Med.sestra 15 no.8: 23-26 Ag '56. (MIRA 9:10)
(NURSES AND NURSING)

SERGIYEVSKIY, S.A., doktor meditsinskikh nauk

Clinical aspects and treatment of hemorrhoids. Med. sestra 16 no.2:7-13 F '57 (MLRA 10:4)

1. Iz kafedry khirurgii TSentral'nogo instituta usovershenstvovaniya vrachey, Moskva.
(HEMORRHOIDS)