

SUBBOTINA, A.I.; YEFIMOVA, Ye.S.; PETROV, A.M.

Chromatographic separation of silver and cadmium. Trudy po khim.i
khim.tekh. no.1:106-109 '63. (MIRA 17:12)

SUBBOTINA, A.I.; PETROV, A.M.; KUBATKINA, G.I.

Chromatographic concentration of radioisotopes and various substances
in dilute solutions. Report No.2. Trudy po khim.i khim.tekh. no.1:110-
113 '63. (MIRA 17:12)

SUBBOTINA, A.I.; ARKHANGEL'SKAYA, Ye.A.; PETROV, A.M.

Chromatographic separation of sulfate and chromate ions. Trudy po
khim.i khim.tekh. no.1:118-120 '63. (MIRA 17:12)

SUBBOTINA, A.I.; YEFIMOVA, Ye.S.

Recovery of metals and their compounds from diluted solutions.
Part 2: Ion-exchange recovery of silver. Trudy po khim.i
khim.tekh. no.1:144-148 '64.

(MIRA 18:12)

1. Submitted October 16, 1963.

SUBBOTINA, A.P., uchitel'nitsa, GAYDUKOVA, T.A., uchitel'nitsa,
BARABASH, A.D., unchitel'nitsa, PAVLOVA, M.I.; SOPKIN, G.A.;
ADAYEV, M.U.

Speeches of delegates to the All-Union Teachers' Congress. Biol.
v shkole no.5:10-16 S-0 '60. (MIRA 13:11)

1. Goryachevodskaya srednyaya shkola, predgornogb rayona, Stavropol'-
skogo kraya (for Subbotina). 2. Kantemirskaya srednyaya shkola,
Voronezhskoy oblasti (for Gaydukova). 3. Srostinskaya srednyaya
shkola, Altayskogo kraya (for Barabash). 4. Direktor Yermishinskoy
sredney shkoly, Ryazanskoy oblasti; chlen-korrespondent Akademii
pedagogicheskikh nauk RSFSR (for Pavlova). 5. Direktor Tigil'skoy
sredney shkoly, Kamchatskoy oblasti (for Sopkin). 6 Direktor Kad-
garonskoy sredney shkoly, Severo-Osetinskoy ASSR (for Adayev).
(Agriculture--Study and teaching)

SOBOTINA, A.S., kand.biologicheskikh nauk; PARSENYUK, L.N.

Sanitary characteristics of the Dnieper River in the
Kremenchug-Dneprodzerzhinsk section. Vest. Dnep. nauch.-issl.
inst. gidrobiol. 12:257-265 '60. (MIRA 14:12)
(Dnieper River--Water--Composition)

SUBBOTINA, G.

25-12-31/39

AUTHOR: Subbotina, G.

TITLE: Sekurenin (Sekurenin)

PERIODICAL: Nauka I Zhizn', 1957, # 12, p 50 (USSR)

ABSTRACT: The All Union Institute for Aromatic and Medical Substances (Vsesoyuznyy institut aromaticsikh i lekarstvennykh sredstv) extracted sekurenin from a plant called sekurenega (sekurenega vetvetsvetnaya) which is widely found in the Far East, in eastern Siberia, in northern China and in Manchuria. Experimental research has disclosed that sekurenin activates the central nervous system, respiration, breathing, increases blood pressure and muscular tonicity, stimulates the systole without interfering with its rhythm, but it is ten times less toxic than strychnine. Sekurenin was tested by Professor E. K. Sepp at the Hospital of the First Moscow Medical Institute of the Order of Lenin imeni Sechenov (Klinika I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova). General use of sekurenin, which was found to be an effective drug for curing a number of nervous disorders, was approved by the Committee of the Scientific Medical Council of the USSR Ministry of Health (Komitet uchenogo meditsinskogo soveta

Card 1/2

• Sekurenin (Sekurenin)

25-12-31/39

• Ministerstva zdravookhraneniya SSSR). Commercial production
of this drug is being prepared at present.

AVAILABLE: Library of Congress

Card 2/2

SUBBOTINA, G.A.; MANZHOSOV, I.P.

Use of the FES-1 photoelectric flaw detector at the Chelyabinsk
Metallurgical Plant. Zav.lab. 29 no.11:1395-1396 '63.

(MIRA 16:12)

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653720003-4

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653720003-4"

37115109/11/11/12
MAZIN, I.P.; BOROVNIKOV, A.M., red.; SUBBOTINA, G.B., red.; ZAREKH, I.M.,
tekhn.red.

[Physical principles in aircraft icing] Fizicheskie osnovy obleden-
nenia samoletov. Pod red. A.M.Borovnikova. Moskva, Gidrometeor.
izd-vo (otd-nie), 1957. 119 p. (MIRA 11:2)
(Airplanes--Ice formation)

YAKUBOVSKIY, Boris Vasil'yevich, prof.; TOKAR', M.I., inzh., red.;
SUBBOTINA, G.B., red.; VELITSYN, B.L., tekhn.red.

[Using prestressed construction elements in constructing
the Volga Hydroelectric Power Station] Primenenie predvari-
tel'no napriazhennykh konstruksii pri stroitel'stve Volzhskoi
gidroelektrostantsii imeni V.I.Lenina. Moskva, Orgenergostroi,
1959. 61 p. (MIRA 14:2)
(Volga Hydroelectric Power Station--Prestressed concrete)

LEPESHKIN, Dmitriy Dmitriyevich; SUBBOTINA, G.B., red.

[Organization of invention and innovation in an industrial enterprise] Organizatsiia izobretatel'skoi i ratsionalizatorskoi raboty na promyshlennom predpriatii. Izd.2., ispr. Moskva, TSentr. nauchno-issl. in-t patentnoi informatsii i tekhniko-ekonom.issl., 1962. 85 p. (MIRA 16:8)
(Technological innovations)

11/21/57, G.I.
YEFIMOVA, A.A., kand.med.nauk; MAKAROV, N.N.; VASIL'YEV, A.V., vrach; YARINA,
L.N., vrach; POLIKARPOVA, M.G., vrach-kosmetolog; POPOV, I.P., kand.
biol.nauk; SUBBOTINA, G.I., vrach

Advice from "Zdorov'ya". Zdorov'ya 3 no.12:28-29 D '57. (MIRA 11:1)
(HYGIENE)

SUBBOTINA, G.I.

Measures to improve inventions and the work of efficiency promoters.
Med.prom. 11 no.1:10-12 Ja '57. (MLRA 10:2)
(MEDICAL SUPPLIES)

SUBBOTINA, G.I.

Drugs in diabetes. Zdorov'e 6 no.12:29 D '60.
(DIABETES)

(MIRA 13:12)

-SUBBOTINA, G.I., vrach (Moskva)

New preparations for the resorption of scars. Med.vestra 19
no.8:30 Ag '60. (MIRA 13:7)
(ENZYMES) (CICATRICES)

SUBBOTINA, G.I., vrach: (Moskva)

Tincture of Echinopanax elatum. Med. sestra 20 no.7:33 J1 '61.
(MIRA 14:10)

(GINSENG)

SUBBOTINA, G.I. (Moskva)

Hearing aids. Med. sestra 21 no.2:51 F '62.
(HEARING AIDS)

(MIRA 15:3)

SUBBOTINA, G. V.

"A Magnetic Amplifier With Parallel Load," Cand Tech Sci. Inst of Automatics and
Telemechanics, Acad Sci USSR, 23 Dec 54. (VM, 13 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational
Institutions (12)

SO: SUM No. 556, 24 Jun 55

SUBBOTINA, G.V. (Moskva)

Shunted-load magnetic amplifier and its application for
protective relays. Avtom. i. telem. 17 no.6:540-548 Je (MLRA 9:10)
'56.

(Magnetic amplifiers) (Electric relays)

SUPPOSTNA, G. U.

TOPCHIYEV, A.V., akademik, glavnyy redaktor; SOTSKOV, B.S., doktor
tekhnicheskikh nauk, otvetstvennyy redaktor; AGEYKIN, D.I., redaktor;
SUBBOTINA, G.V., redaktor; SHORYGIN, A.P., redaktor; YARMOL'CHUK, G.G.,
redaktor; KISELEVA, A.A., tekhnicheskiy redaktor

[A session of the Academy of Sciences of the U.S.S.R. on scientific
problems in automatization of production, October 15-20, 1956;
scientific principles for setting up technical means of automatization]
Sessia Akademii nauk SSSR po nauchnym problemam avtomatizatsii
proizvodstva, 15-20 oktiabria 1956 g.; nauchnye osnovy postroeniia
tekhnicheskikh sredstv avtomatiki. Moskva, 1957. 186 p.

(MLRA 10:5)

(Automatic control)

KRUTOVA, I.N.; SUBBOTINA, G.V.; UTKIN, I.V.; KOBRINSKIY, A.Ye.; GAVRILOV, M.A.;
PANTYUSHIN, S.V.

Conference of the Academy of Sciences of the U.S.S.R. on Automation.
Avtom. i telem. 18 no.2:182-192 F '57. (MLRA 10:3)
(Automatic control)

Subbotina, G.V.

AUTHOR Subbotina, G.V. (Moscow) 103-10-6/10

TITLE Characteristics of Magnetic Materials Used to Design
Cores of Magnetic Amplifiers with Increased Supply Frequency.
(Kharakteristiki magnitnykh materialov dlya serdechnikov
magnitnykh usiliteley s povyshennoy chastotoy pitaniya.)

PERIODICAL Avtomatika i Telemekhanika, 1957, Vol. 18, Nr 10,
pp. 927-933 (USSR)

ABSTRACT The cores investigated were produced in the Institute
for Fine Alloys of the Central Scientific Research Insti-
tute for Metallurgy of Iron. They had 6 windings, a width
of 10 mm and 10 or 20 μ . The band was wound up on a
ceramic shelf with an inside diameter of 10 mm. The core
was annealed simultaneously with the shelf. The identity
of the cores was examined by a comparison of the basic
magnetization curves at 5000 Hz. The following comparison
of the Hysteresis loops at the oscillograph at 50 and
500 Hz showed the same results. On the basis of the
recorded curves it is demonstrated that in the case of a
change of the frequency from 500 to 20 000 Hz the maximum
magnetic permeability of the 20 μ . band of the 80 NKhS -
alloy decreases by the 2,2 fold. A transition to the 10
 μ - band in the same range leads to a decrease of the

CARD 1/2

103-10-6/10

Characteristics of Magnetic Materials Used to Design Cores of Magnetic Amplifiers with Increased Supply Frequency.

magnetic permeability of only the 1,3 fold. In the case of the 50 NP alloy the curves at 500 and 1000 Hz practically coincide for the thickness of 10 μ while in the case of higher frequencies the curves for the thickness of 10 and 20 μ gradually approach each other. In the case of 20 000 Hz the curve for 10 μ is somewhat higher than that for stronger bands. Thus, the properties of a 50 NP band of a thickness of 10 μ are worse up to 10 000 Hz than in a band of a thickness of 20 μ . At higher frequencies the properties compensate and at frequencies of more than 20 000 Hz bands of a thickness of 10 μ should be preferred. Characteristics of further alloys are given: 79 NMA, 80 NKhS.

(There are 2 tables, 9 illustrations and 5 Slavic References)

ASSOCIATION: None given.
SUBMITTED: September 29, 1956
AVAILABLE: Library of Congress.

CARD 2/2

AUTHOR: Subbotina, G. V. 103-19-4-12/12

TITLE: Bibliography (Bibliografiya) List of Publications Concerning
Magnetic Amplifiers and Contactless Magnetic Elements (Spisok
literaturny po magnitnym usilitelyam i beskontaktnym magnitnym
elementam)

PERIODICAL: Avtomatika i Telemekhanika, 1958, Vol. 19, Nr 4,
pp. 379 - 388 (USSR)

ABSTRACT: In this list are contained altogether 206 Soviet and non-
Soviet references. The classification is as follows: General
problems: 5 references; Magnetic materials: 19; General prob-
lems of the theory and of the computation of non-linear magnetic
chains: 4; Magnetic amplifiers: 135; Magnetic contactless ele-
ments : 20; Description of magnetic amplifiers: 25.

AVAILABLE: Library of Congress

1. Magnetic amplifiers---Bibliography

Card 1/1

BOYARCHENKOV, M.A.; VOLODIN, V.S.; KHRBNIKOV, F.I.; KOZLOV, G.D.; SUBBOTINA,
G.V.; TRIFILOVA, I.S.

All-Union conference on magnetic elements of automatic and remote
control and computer techniques. Avtom. i telem. 19 no.6:614-620
Je '58. (MIRA 11:6)

(Automatic control--Congresses)
(Magnetic amplifiers)

28(1)

PHASE I BOOK EXPLOITATION

SOV/2338

Magnitnyye elementy avtomatiki, telemekhaniki i vychislitel'noy tekhniki; annotirovannyi ukazatel' literatury za 1957 god (Magnetic Components in Automatic Control, Telemechanics, and Computers; Annotated Index of Literature for 1957) no. 1. Moscow, Izd-vo "Sovetskoye radio," 1959. 69 p. Nr 1. of copies printed not given.

Compilers: G.V. Subbotina, Candidate of Technical Sciences, and I.S. Trefilova, Eds.: M.A. Rozenblat, Doctor of Technical Sciences, Professor, and K.I. Kuchumova; Tech. Ed.: B.V. Smurov.

PURPOSE: This index is intended for engineering and technical personnel and others interested in the theory, development, and application of various magnetic components,

COVERAGE: According to its authors, the index is the first attempt at publishing an annotated bibliography on magnetic amplifiers and other magnetic components used in automatic and remote control systems and in computers. The index includes a list of basic Soviet and non-Soviet works published in 1957 and contains monographs, textbooks, collections of articles, works of institutes, and booklets ,

Card 1/4

Magnetic Components in Automatic Control (Cont.)

SOV/2328

as well as Soviet dissertations, articles in periodicals, and Soviet and some non-Soviet patents, announcements concerning which appeared in 1957. The 383 works listed in the index are divided into nine basic sections according to subject, with further subdivisions in more detail. The numerical sequence of sources follows the alphabetic sequence of authors in each sub-chapter, the Soviet authors appearing first with the non-Soviet following. No personalities are mentioned.

TABLE OF CONTENTS:

Foreword	3
Main Bibliographic Sources	4
1. General Problems. Terminology, Bibliography, Standardization, etc.	5
2. Ferromagnetic Materials. Cores	7
a. Magnetic materials	7
b. Magnetizing processes and dynamic characteristics of ferromagnetic materials (losses, eddy currents, viscosity, etc.)	10
c. Types of cores and technology of production	12

Card 2/4

Magnetic Components in Automatic Control (Cont.)

SOV/2328

3. General Problems of the Theory of Nonlinear Magnetic Circuits (General Methods of Calculating Iron-cored Circuits, Ferroresonance, etc.)	14
4. Magnetic Amplifiers. Surveys and Applications	16
a. Surveys	16
b. Application in servo systems and for controlling electrical machines	20
c. Application in current and voltage regulators and stabilizers	28
d. Application in measuring devices	31
e. Other applications	31
5. Magnetic Amplifiers. Theory, Circuits, and Calculation	34
a. Books, monographs, dissertations	34
b. Single-cycle magnetic amplifiers	34
c. Push-pull magnetic amplifiers	41
d. Multistage amplifiers	43
e. Multiphase amplifiers	44
f. A-c and high-frequency amplifiers	44

Card 3/4

Magnetic Components in Automatic Control (Cont.)	SOV/2328
6. Magnetic Voltage Amplifiers. Modulators. Probes (Magnetometers)	46
7. Magnetic Components of Discrete Action	48
a. Books,, dissertations	48
b. Surveys and application of discrete-action components in control systems and in computers	43
c. Components in the form of magnetic amplifiers with feedback	52
d. Hysteresis components	54
e. Ferroresonance components	57
f. Transistor-magnetic Components	58
8. Magnetic Generators and Frequency Converters	59
9. Magnetic Measurements and Methods of Testing Magnetic Components	61
Name Index	64
Source Index	68
Abbreviations	70
AVAILABLE: Library of Congress	
Card 4/4	JP/gmp 10-21-59

0.0000

77834

SOV/103-21-2-14/14

AUTHORS:

Subbotina, G. V. and Trefilova, I. S.

TITLE:

Bibliography. A List of Literature for 1958 on the Magnetic Elements of Automation, Telemechanics, and Computing Technology. (Continued from Avtomatika i Telemekhanika, Nr 1, 1960. Our Abstract 77491, SOV/103-21-1-22/22

PERIODICAL:

Avtomatika i telemekhanika, 1960, Vol 21, Nr 2, pp 271-278 (USSR)

ABSTRACT:

This list contains 5 topical groupings of articles that have appeared in various foreign publications in 1958. The title of each article and the name of publication is given in its original language with a Russian translation added. A breakdown of the groupings is as follows: Magnetic amplifiers: Theories, diagrams, computation: (a) Single track magnetic amplifiers; there are 9 U.S., 1 U.K., 1 German, 1 Rumanian, and 2 French articles listed. (b) Push-pull magnetic

Card 1/2

German articles listed.

S/103/60/021/010/010/010
B012/B063

AUTHOR: Subbotina, G. V.

TITLE: Proceedings of the All-Moscow Seminar on Magnetic Elements
for Automation

PERIODICAL: Avtomatika i telemekhanika, 1960, Vol. 21, No. 10, p. 1435

TEXT: The Obshchemoskovskiy seminar po magnitnym elementam avtomatiki (All-Moscow Seminar on Magnetic Elements for Automation) continued its work during the first half of 1960. The Seminar works at the Institut avtomatiki i telemekhaniki AN SSSR (Institute of Automation and Telemechanics AS USSR) under the supervision of Professor M. A. Rozenblat, Doctor of Technical Sciences. At the meeting of February 27, 1960, M. A. Rozenblat and G. V. Subbotina delivered a lecture on the "Stability of Multi-stage Magnetic Amplifiers". On March 23, 1960, M. A. Boyarchenkov and M. A. Rozenblat spoke about "High-efficiency Reversible Direct-current Magnetic Amplifiers". On April 13, 1960, N. P. Vasil'yeva and I. S. Gashkovets lectured on "Stability of Long Circuits With Logical Elements". On April 27, 1960, R. A. Lipman and A. I. Moskalev gave a report on an investigation

Card 1/2

Proceedings of the All-Moscow Seminar on
Magnetic Elements for Automation

S/103/60/021/010/010/010
B012/B063

of magnetic amplifiers with self-excitation and a d-c output. On May 11, 1960, L. N. Kiselev held a lecture on "Magnetic and Transistor Pulse Amplifiers With Direct-current Supply". On May 25, 1960, M. A. Ol'shvang reported on the development of magnetic semiconductor amplifiers with alternating-current output. On June 8, 1960, Yu. A. Avakh spoke about the "Control of Cores With a Right-angled Hysteresis Loop". This was the last meeting in the first half of 1960. The publication of the above-mentioned lectures and reports was recommended. ✓

Card 2/2

SUBBOTINA, G.V.; TREFILOVA, I.S.

Bibliography on magnetic elements of automatic and remote control
and computer technology for 1959. Avtom. i telem. 21 no.10:1436-
1450 0 '60. (MIRA 13:10)

(Bibliography--Automatic control)

(Bibliography--Electronic calculating machines)

88817

S/103/61/022/007/009/012
B019/B056

9.2530
AUTHORS:

Rozenblat, M. A., Subbotina, G. V. (Moscow)

TITLE:

The Stability of Multistage Magnetic Amplifiers With Negative Feedback

PERIODICAL: Avtomatika i telemekhanika, 1961, Vol. 22, No. 1, pp. 97-106

TEXT: It is the purpose of the present work to determine the stability conditions and to clarify the development problems of amplifiers connected with these conditions, which contain magnetic-amplifier stages with negative feedback. For their studies the authors assume that every amplifier stage operates in the linear part of its static characteristic; the coupling of the amplifier stages by the current source is neglected and it is assumed that the latter has a sufficient power. In the first part of the paper, the dynamic characteristic of a single-stage magnetic amplifier is studied. For the transmission function the following relation is obtained:

Card 1/9

88017

The Stability of Multistage Magnetic Amplifiers With Negative Feedback

S/103/61/022/001/009/012
B019/B056

$$W_j(p) = \frac{\bar{U}_{out}(p)}{\bar{U}_{contr}(p)} = \frac{K_U e^{-pT/2}}{1 + p\tau_j} \quad (2),$$

where U_{out} is the output voltage and U_{contr} is the voltage of the control circuit. For the time constant τ_j and the voltage amplification coefficient K_{Uj} the relation

$$\tau_j = K_{Uj} \frac{w_{yj}}{2\eta_j f w_{\sim j}} \quad (3)$$

holds. Here, η_j is the efficiency of the load circuit, w_{yj} and $w_{\sim j}$ denote the number of turns of the control and power coils, f - the feeding voltage. The transmission function of an N -stage magnetic amplifier without feedback is obtained by means of the relation

$$W(p) = K_U e^{-pT_a} \prod_{j=1}^N \frac{1}{1 + p\tau_j} \quad (4),$$

where $T_a = \sum_{j=1}^N T_j$ and $K_U = \prod_{j=1}^N K_{Uj}$, and T_j and K_{Uj} are the attenuation-
Card 2/9

88817

The Stability of Multistage Magnetic Amplifiers With Negative Feedback

S/103/61/022/001/009/012
B019/B056

for the critical amplification coefficient of a two-stage magnetic amplifier. Further, the limits of the ratio $\alpha = \tau_2/\tau_1$ and of the product $K_{U_1} K_{U_2} \beta$ are calculated, for which formula (19) warrants an accuracy of about 10%. The result is graphically represented in Fig.3. Application of the stability conditions obtained here to calculating amplifiers is briefly discussed, following which a report is given on an experimental study of the stability of a two-stage magnetic amplifier. A study was made of four of each of the two-stage magnetic amplifiers with internal feedback in each stage, which are shown in Figs.4 and 5. The data of the corresponding amplifiers are given in Table 1. There are 5 figures, 1 table, and 6 references: 5 Soviet and 1 US.

SUBMITTED: May 14, 1960

Card 4/9

SUBBOTINA, G.V.; TREFILOVA, I.S.

List of foreign literature using magnetic elements of automatic control, remote control, and computer engineering for 1959. Avtom. i telem. 22 no.3:413-423 Mr '61. (MIRA 14:9)
(Bibliography--Automatic control) (Bibliography--Remote control)
(Bibliography--Electronic calculating machines)

S/103/61/022/006/014/014
D229/D304

AUTHOR: Subbotina, G.V.

TITLE: All-Union conference on contactless magnetic elements
in automation and computers

PERIODICAL: Avtomatika i telemekhanika, v. 22, no. 6, 1961,
811 - 814

TEXT: The conference took place on February 23-25, 1961 in Minsk, and was organized by the Solid State and Semiconductor Department of AS BSSR, the NTO Council of the Belorussian republic, the Scientific and Technical State Committee of SM BSSR and the commission of AS USSR for contactless magnetic elements in automation. More than 400 representatives of scientific institutes and industrial establishments were present and about 10 lectures and communications were heard. The conference was opened by N.N. Sirota (Minsk), chairman of the Organization Committee. The following reports were heard: B.S. Sotskov (Moscow) on "Application Range of Electromechanical Magnetic and Semiconductor Elements" considered
Card 1/7

All-Union conference on ...

S/103/61/022/006/014/014
D229/D304

the principal parameters that can be used for comparison of the elements, such as input and output power, wear time, input and output resistance etc. Technical and economical advantages depend on reliability, therefore, it was stated that magnetic elements are preferable to semiconductor elements and these to electromechanical elements. M.A. Rozenblat (Moscow) on "Modern Contactless Magnetic Elements" proposed a possible classification of the elements according to their principle of action: 1) Parametrical elements using the non-linear character of the magnetization curve; 2) Magnetic modulation elements - those with the action of two fields with different frequencies; 3) Hysteresis elements (memory devices, recording devices etc.). Principal direction of development of the elements were also considered -- increase of response quickness, of efficiency etc. -- . N.N. Sirota on "Ferrites with a Rectangular Hysteresis Loop and Demagnetization Processes in Ferrites", gave results of investigations on the dependence of properties of ferrites on their composition and general facts of variations of characteristics in solid alloys of 2 and 3 components. The form of

Card 2/7

All-Union conference on ...

S/103/61/022/006/014/014
D229/D304

the hysteresis loop depends, apart from composition, temperature and field strength on the homogeneity of structure, density, presence of cavities, thermomagnetic treatment in the neighborhood of the Curie point and addition of small components allow changing of characteristics in the required direction. K.D. Mart'yanova (Moscow) spoke on new developments of soft ferromagnetic Fe-Ni-Co alloys with a rectangular hysteresis loop in the interval 60-300°C. V.G. Baranovskiy and I.A. Petrusenko (Leningrad) spoke on the design of a two-stroke magnetic bridge amplifier with a positive feedback in even harmonics and general alternating current output. Application of the design allowed diminishing of size and weight of the output cascade. A.I. Moskalev (Moscow) spoke on the communication on design of a push-pull magnetic d.c. amplifier with one core. With its aid specimens with zero stability of 10^{-13} volts were obtained under industrial conditions, at temperatures up to 600°C. F.I. Kerbnikov and M.A. Rozenblat (Moscow) on a "Two-phase Magnetic Modulator with a Low Sensitivity Threshold of 10^{-18} volts", referred to pass band of 1 cycle, supply frequency of 500

Card 3/7

All-Union conference on ...

S/103/61/022/006/014/014
D229/D304

cycles. M.A. Rakov and L.A. Sinitskiy (L'vov) spoke on similar modulators. V.G. Anikin and I.A. Okorokov (Moscow) spoke on "Magnetic Pulse Amplifiers" and the increase in sensitivity of a self-saturation magnetic amplifier by changing the form of supply voltage: Sensitivity up to 10^{-10} - 10^{-11} volts reached. Ye.I. Gurvich and L.B. Shchukin (Moscow) spoke on methods of measuring characteristics of storage transformers with diameters between 2 and 7 mm. G.D. Koslov (Moscow) on methods of designing the principal characteristics of cores with an approximation of hysteresis loops in parallelogram form. K.Ye. Volkovitskiy (Moscow) on the influence of the core form on processes of reversal of magnetism. V.V. Sarv (Tallin) on "Acceleration of Growth of a Magnetic Set with the Aid of Storage and Repeated Use of the Energy of a Decreasing Magnetic Field". Ye.L. L'vov (Moscow) on determining the transmission function of a choke-coil magnetic amplifier with an active-inductive load and the use of d.c. V.V. Kokhanov (Frunze) on the development of a contactless automatic pulse generator, designed for operating together with a pickup which transforms a non-electrical

Card 4/7

All-Union conference on ...

S/103/61/022/006/014/014
D229/D304

quantity into an a.c. voltage. N.P. Podlipenskiy (Kiyev) spoke on "Some Design Relations for Magnetic Elements of Logical Action". L.V. Shopen (Moscow) spoke on the design of magnetic logical elements based on push-pull registers and transformer circuits with a sinusoidal voltage supply. I.A. Baranov and N.L. Prokhorov (Moscow) spoke on applications of magnetic logical elements designed at IAT AS USSR for control circuits of electric and hydraulic drives of machine sets and automatic built-up lines. K.R. Lebedev (Kalinin) spoke on types of logical elements planned for serial production at Kalinin Electric Instrument Factory. (Petrozavodsk) B.V. Serov discussed applications of magnetic elements in the automation of sorting large timber. M.G. Kogan (Sverdlovsk) spoke on control devices with magnetic logical elements. V.S. Matorina and O.A. Sedykh (Moscow) on "A Delay Element for Systems of Magnetic Logical Elements" [Abstractor's note: Time delay elements based on the use of dependence of the time of magnetisation reversal of cores on voltage applied to its winding]. M.M. Lotosh (Moscow) discussed large smoothly regulated time lags in magnetic cores (up to several

Card 5/7

All-Union conference on ...

S/103/61/022/006/014/014
D229/D304

hours) and comparative analysis of circuits containing a low frequency generator and circuits with frequency dividers. N.A. Yar-mosh (Minsk) on a ferrite-triode cell as a delay line. A.L. Pisarev and G.N. Derimoglu on designing a series of magnetic output amplifiers for circuits of contactless automation (amplifiers for control of electric contacts up to 350 watts and a.c. devices). M.A. Rozenblat and G.V. Subbotina (Moscow) discussed "Transformation of Digital Codes into Analogue Codes on Magnetic Amplifiers." V.I. Semenov and E.F. Stepura (Leningrad) spoke on "Applying Magnetic Amplifiers for Multiplying two or Several Electric Signals". V.G. Anikin and I.A. Okorokov (Moscow) spoke on "A Magnetic Amplifier with Combined Feedback". A.M. Bamdas, S.V. Shapiro, Yu.A. Savinovskiy and I.V. Blinov (Gor'kiy) on logical frequency transformers, voltage stabilizers with submagnetized shunts, design of single phase and three-phase voltage stabilizers with submagnetized autotransformers, on new static frequency multipliers. O.N. Sitnikov (Sverdlovsk) and G.Ya. Karasik (ibid.) spoke on the "Parametron Theory" - analysis of operation of a parametron, taking

Card 6/7

All-Union conference ...

S/103/61/022/006/014/014
D229/D304

into account the variation of dynamical permeability of the core. V.S. Toporov (Moscow) discussed a new method of information recording in a magnetic memory device. A.B. Gorodetzkiy (Moscow) spoke on the "Outlook for the Development of Magnetic Amplifier Techniques" - a comparative review of existing designs and parameters of Soviet- and non-Soviet- magnetic amplifiers, some proposals of terminology and methods of graphical representation. V.M. Kurotchenko and N.I. Babanov (Frunze) spoke on the design of a contactless code pulse device for measuring rotation angles. A resolution was adopted with proposals for accelerating the application of the most modern contactless elements in the national economy.

Card 7/7

29254
S/103/61/022/010/013/018
D274/D301

16,4006 (329,1013,1132)

AUTHORS: Minina, O. M., Serzhers, V. S., and Subbotina, G. Y.
TITLE: Proportional-integrating and proportional-differentiating elements as RC-networks with magnetic amplifiers
PERIODICAL: Avtomatika i telemekhanika, v. 22, no. 10, 1961, 1373-1385

TEXT: The use of magnetic amplifiers enhances considerably the reliability of proportional-integrating (PI) and proportional-differentiating (PD) elements of control devices. PI- and PD- elements are elements with transfer functions of type

$$W_{PI}(p) = k + \frac{1}{T_I p} \tag{1a}$$

$$W_{PD}(p) = k (1 + T_D p) \tag{1b}$$

Card 1/8

2225h

S/103/61/022/010/013/018

D274/D301

Proportional-integrating...

where k is a proportionality constant, T_I --the time constant of integration, T_D --the time constant of differentiation. Fig. 1a represents a block-diagram of an RC-magnetic amplifier. The integrating elements are obtained by connecting the capacitor C and resistor R_{NFB} to the negative-feedback loop. The gain of the amplifier is increased by the positive feedback through coil W_{PFB} . Formulas are given for the voltage, gain, time constants, etc., of the circuit. It is noted that leakage resistance depends on the temperature of the surroundings; therefore, the time constant T_C decreases with increasing temperature. This may lead to unstable operation of such devices. With large resistance of W_{NFB} , or with additional resistances in the feedback loop, the RC-magnetic amplifier can be considered as a proportional-integrating element, as $T_{feedb.} < T + T_{feedb.}$. The parameters of this element are determined from the transient process during a single step-wise change in the input

Card 2/8
7

Proportional-integrating...

2:25h
S/103/61/022/010/013/018
D274/D301

current i_y (see Fig. 1b). The proportionality factor k of the element is defined as

$$k = \frac{\int i_H dt_{t=0}}{\int i_y dt_{t=0}} = k_1 \frac{T_{\text{feedb.}}}{T_{\text{feedb.}} + T} \quad (6)$$

where i_H is the load current. Formulas for the time constant of integration T_I , and for the steady-state error k_{SE} are given. In order to obtain small k_{SE} , it is necessary to increase the gain factor k_1 (as k_{SE} and k_1 are inversely proportional); this leads, however, to much smaller T_I . Hence, an RC-magnetic amplifier as a PI-element, is only recommended for systems with small T_I . The magnetic amplifier with ideal RC-network of Fig. 1a constitutes an aperiodic circuit. Further, PI-

Card 3/8
7

Proportional-integrating...

20051
S/103/61/022/010/013/018
D274/D301

elements formed of two magnetic amplifiers are considered. In this case, the time constant of integration can be increased; hence, such a circuit can be recommended for systems with large time constants. The main requirement with regard to magnetic amplifiers with RC-networks is a large time-constant T with high zero-stability. The stability of differential systems of magnetic amplifiers was experimentally studied. It was found that highest stability was obtained in systems with external positive feedback (of current difference across inductances). Some of the parameters of such amplifiers are given: $u_{ind} = 100$ volt, $R_{load} = 5.1$ kilohm, $C_{load} = 1$ μ farad, $C = 30$ μ farad, $R_{neg. feedb.} = 350$ ohm. Such a circuit is recommended for magnetic amplifiers with RC-networks. The zero drift of the magnetic amplifier is negligible for a 10% change in input voltage, for a temperature change of 20 to 50°C, and for continuous 8-hour operation. A figure shows the transient characteristics of the magnetic amplifier: $T \approx 100$ sec. (for linear working conditions); $k = 220$; $T_I = 30$ sec.; $k_{SE} = 1.05 \cdot 10^{-3}$. Fig. 6a represents a block-diagram of the PD-element,

Card 4/8
7

Proportional-integrating...

29251
S/103/61/022/010/013/018
D274/D301

consisting of 2 magnetic amplifiers MA_1 and MA_2 . MA_1 is identical with the aperiodic unit of Fig. 1a; MA_2 is an adder. The proportionality factor k is expressed by

$$k = \left[\frac{di_{H2}}{dt} \right]_{t \rightarrow \infty} / \left[\frac{di_{y2}}{dt} \right]_{t \rightarrow \infty} \quad (14) \quad \#$$

where i_H denotes the load current. The time constant of differentiation T_D is determined from

$$i_{H2}(t + T_D) = ki_{y2}(t) \quad \text{for } t \rightarrow \infty \quad (15)$$

A table lists the parameters (k , T_D , and the differentiation factor k_Q) of the PD-element. It is evident from the table that these parameters depend on the transfer ratio of MA_1 and MA_2 , which is equal to $k_1 k_4 k_D$ (which are gain factors). For best differentiation performance,

Card 5/8₇

39254
S/103/61/022/010/013/018
D274/D301

Proportional-integrating...

$k_1 k_4 k_D \gg 1$. Thereby, T_D of the ideal PD-element will be maximal (equal to T of the aperiodic unit), and T_D of the actual element will differ from T by a factor of $(1+T/T_c)$. The parameters and the stability of the PD-elements are the better, the closer the RC-network is to an ideal network. The parameters of the PD-element are: $k = 5.9$ (or lower); $T_D = 97.5$ sec.; $k_0 = 36.4$. The constructed PD-element was tested together with the modeling device EMU-8. It was found that the experimental and calculated parameters are in good agreement. Tables show that the parameters of PI- and PD-elements are mainly determined by the quality of the magnetic amplifiers used. The time constants of the PI- and PD-elements can be increased by increasing the capacitance of the RC-capacitors, as well as by increasing the size of the cores of the magnetic amplifiers. There are 9 figures, 3 tables and 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: H. W. Platten, Magnetic Integrating Amplifiers, Proc. CMA, AIEE, Los Angeles, 1958.

Card 6/8

SUBBOTINA, G.V.; TREFILOVA, I.S.

List of foreign literature on magnetic elements of automatic control, remote control, and computer engineering for 1960.
Avtom. i telem. 23 no.5:688-710 My '62. (MIRA 15:5)

(Bibliography--Automatic control)

(Bibliography--Remote control)

(Bibliography--Electronic calculating machines)

SUBBOTINA, G.V., kand.tekhn.nauk; BOYARCHENKOV, M.A., kand.tekhn.nauk

Magnetic units in automation. Vest. AN SSSR 32 no.12:111-112
D 162. (MIRA 15:12)
(Automation—Congresses) (Magnetic units)

SUBBOTINA, G.V.; TREFFLOV, I.S.

A listing of studies on magnetic elements of automatic control and computer engineering for 1961. Avtom.i telem. 24 no.1:119-130 Ja '63. (MIRA 16:1)

(Bibliography--Automatic control)
(Bibliography--Magnetic materials)
(Bibliography--Electronic computers)

ACCESSION NR: AT4035416

S/0000/63/000/000/0240/0254

AUTHOR: Rozenblat, M. A.; Subbotina, G. V.

TITLE: Conversion of digital codes into analog values by magnetic amplifiers

SOURCE: Vsesoyuznoye soveshchaniye po ferritam i po beskontaktny*m magnitny*m elementam avtomatiki. 3d, Minsk. Ferrity* i beskontaktny*ye elementy* (Ferrites and noncontact elements); doklady* soveshchaniya. Minsk, Izd-vo AN BSSR, 1963, 240-254

TOPIC TAGS: automation, control system, programmed control, magnetic amplifier, digital analog converter, code converter, multicascade amplifier, feedback

ABSTRACT: To meet the requirements of certain specific types of industrial automation (for example, programmed lathe control), the authors developed a procedure for conversion of digital codes into analog values, applicable to codes with any radix. A magnetic amplifier was used as the converter; this proved especially expedient in handling simultaneous signals from the computer because of the amplifier's ability to add a practically unlimited number of simultaneous signals. The most important design features of a converter, governing its parameters, are its accuracy and pass-band. Its accuracy and the maximum possible number of code digits which can be converted are determined: 1) by accurate maintenance

Card 1/3

ACCESSION NR: AT4035416

of the set values of input signals corresponding to individual digital positions, and 2) by the stability of the zero position and the amplifier's amplifying coefficient. The authors examined the converter error, determined the parameters and the negative feedback coefficient, studied the limitations imposed on a multicascade amplifier by a negative feedback and derived basic equations for the conversion design. The principles of multicascade adding amplifier design are discussed with emphasis on the magnetic converters developed by the Institut avtomatiki i telemekhaniki AN SSSR (Institute of Automation and Telemechanics, AN SSSR), capable of adding and amplifying signals from a reversible binary counter with an error of less than half the first digit and a required minimum digit number of 7. A theoretical and experimental study showed that a 7-8 digit binary-code converter could be constructed from a monocascade magnetic amplifier and that conversion of seven binary-code digits is feasible in a two-cascade operation, using a magnetic modulator as the first cascade with subsequent amplification of the alternating voltage by transistors. Orig. art. has: 4 figures and 28 formulas.

ASSOCIATION: None

Card 2/3

ACCESSION NR: AT4035416

SUBMITTED: 04Dec63

SUB CODE: IE, DP

DATE ACQ: 07May64

NO REF SOV: 004

ENCL: 00

OTHER: 000

Card 3/3

S/103/63/024/003/015/015
D405/D301

AUTHORS: Boyarchenkov, M.A. and Subbotina, G.V.

TITLE: Eighth scientific-technical conference on magnetic elements in automation, remote control, and measuring and computing technique

PERIODICAL: Avtomatika i telemekhanika, v. 24, no. 3, 1963, 428-434

TEXT: The conference was held at L'vov (from 10-16 September 1962). It was called at the initiative of the Commission on Non-Contact Magnetic Elements of the AS SSSR, the Scientific Council of the AS UkrSSR on 'Scientific Instrument Construction', the Institute of Science of Machines and Automation of the AS UkrSSR, and several L'vov institutions. Over 500 participants from 130 research organizations, industry, and education of the Soviet Union were present. Over 120 reports on theory, design, manufacture and applications of magnetic and magnetic-semiconductor elements were presented. Five sections of the conference were simultaneously in session: Mag-

Card 1/3

Eighth scientific-technical ...

S/103/63/024/003/015/015
D405/D501

netic amplifiers and modulators. Digital magnetic elements. Magnetic memory devices and magnetic polarity reversal. Magnetic materials and cores; their control. Magnetic converters. The following reports were heard at plenary sessions: On non-contact magnetic switching of continuous signals (by Doctor of Technical Sciences M.A. Rozenblat); on measurement and control of magnetic variables by magneto-modulation pickups (by V.N. Mikhaylovskiy, Corresponding Member of the AS UkrSSR); on electromagnetic devices of antisymmetric character having gyroscopic connections (by Doctor of Technical Sciences A.N. Milyash). The reports presented to the various sections dealt (among others) with the following subjects: Methods of designing measuring and operational amplifiers of low threshold sensitivity and high stability under temperature and voltage fluctuations. Simulation of magnetic amplifiers on analog computer. Theory and applications of magneto-modulation pickups and magnetic modulators. Magneto-logical inverter elements with a line frequency of 400 cycles. Automatic control using non-contact magneto-logical elements. Logical systems using inductive parametrons. Multi-stable magnetic elements. Ferrite-transistor elements. Operating mem-

Card 2/3

S/103/63/024/005/015/015
D405/D301

Eighth scientific-technical ...

ory devices using thin ferromagnetic films. Semiconductor controlled fast response memory devices. Temperature characteristic of perm-alloys. Permalloy cores for ferrotransistor circuits. Preparation of temperature stable cores for resonance circuits. Inductive capacitive converters. Development of new statical ferromagnetic and magneto-transistor frequency converters for automatic systems.

Card 3/3

L 7942-66, EWT(d)/EWP(1) IJP(c) BB/GG

ACC NR: AP5023118

SOURCE CODE: UR/0103/65/026/009/1592/1598

AUTHOR: Kasimov, R. S. (Moscow); Subbotina, G. V. (Moscow)

39
B

ORG: none

TITLE: Analysis of stable transfer of "ones" in a magnetic register with varying clock currents

166,44

SOURCE: Avtomatika i telemekhanika, v. 26, no. 9, 1592-1598

TOPIC TAGS: magnetic register, digital computer

ABSTRACT: The use of simple nonstabilized clock pulse sources supplying the magnetic digital elements is investigated. The clock pulse sources are assumed to be so designed that the maximum readout current does not cause undesirable recording of 1 (i.e., the stable transfer of zeros is guaranteed). The magnetic cores are assumed to operate as perfect transformers; hence, they are

UDC: 62-523
Z

Card 1/2

L 7942-66

ACC NR: AP5023118

represented by their average dynamic resistances in the equivalent circuit used in the analysis. Equations of the emf in the circuit and the dynamic state of the cores are set up and solved; inequalities describing the condition of stable transfer of 1 in the magnetic register are formulated. The stable-transfer region is delimited by a hyperbola in dimensionless-parameter coordinates. The theoretical results were verified on a 10-digit ring-type shift register designed with ferrite cores; a variation of $\pm 20\%$ in the clock current did not affect the limit of stable operation of the register. Orig. art. has: 5 figures, 28 formulas, and 1 table.

SUB CODE: 09 / SUBM DATE: 13Feb65 / ORIG REF: 005 / OTH REF: 001

② ③

Card 2/2

POPOLOV, A.S.; SUBBOTINA, I.V.

Laying cement-concrete pavement in the Far North. Avt.dor. 25
no.4:9-11 Ap '62. (MIRA 15:5)
(Russia, Northern--Pavements, Concrete)

KONOVALOV, S.V., kand.tekhn.nauk; SUBBOTINA, I.V., inzh.

Ultrasonic testing of the density of asphalt-concrete pavement.
Avt.dor. 28 no.6:9 Ja '65. (MIRA 18:8)

SUBBOTINA L A Treatment of thromboangitis obliterans by operation on
the sympathetic trunk Sovjetskaya Meditsina, Moscow 1949, 12 (6-7)

Four cases (two of the thoracic and two of the abdominal sympathetic trunk), which all ended in complete clinical recovery (observation period 1-2 years). The operation proved to be successful even where all four extremities were attacked by the disease.

Boerman - Chaam (VIII, 6,9)

So: Neurology & Psychiatry Section VIII Vol. 3 No. 7-12

SUBBOTINA, K.

Regularizing expenditures for maintenance of general schools. Fin.
SSSR 17 no.11:48-54 N '56. (MLRA 9:12)
(Education—Finance)

SubBOTINA, K.

GOLOSHCHAPOV, V.A.; TSILINSKIY, Ya.Ya.; YAKIMOV, V.A.; SUBBOTINA, K., red.;

LEBEDEV, A., tekhn.red.

[Budget accounting] Biudzhetni uchët. Avtorskii kollektiv pod
rukovodstvom V.A.Goloshchapova. Moskva, Gosfinizdat, 1957. 295 p.
(Budget) (Accounting) (MIRA 11:5)

SUBBOTINA, K.

Improve practice in financing schools. Fin. SSSR 19 no.9:19-22
s '58. (MIRA 11:10)
(Education--Finance)

ARTEMOV, Yu.M., kand. ekonom. nauk; GAL'PERIN, N.S., kand. ekon. nauk; GUBIN, B.V., kand. ekon. nauk; ZHUKOV, V.N., kand. ekon. nauk; OCHKOV, M.S., kand. ekon. nauk; OSKORDOV, V.P., starshiy ekonomist; BARGOL'STS, S.B., dotsent, kand. ekon. nauk; SIBIRYAKOV, L.Ye.; IVANOV, N.N.; RABINOVICH, M.A., ekspert; LIPSITS, V.B., kand. ekon. nauk; VOLKOV, S.I., kand. ekon. nauk; KOROLEVA, Ye.P., aspirantka; RYUMIN, S.M., red.; SUBBOTINA, K., red.; TELEGINA, T., tekhn. red.

[Planning and calculating the cost of industrial production] Voprosy planirovaniia i kal'kulirovaniia sebestoimosti promyshlennoi produktsii. Moskva, Gosfinizdat, 1961. 183 p. (MIRA 14:8)

1. Moscow. Nauchno-issledovatel'skiy finansovyy institut. 2. Sotrudniki Nauchno-issledovatel'skogo finansovogo instituta (for Artemov, Gal'perin, Gubin, Zhukov, Ochkov, Oskordov). 3. Vsesoyuznyy zaochnyy finansovo-ekonom. institut (for Bargol'ts). 4. Glavnyy bukhgalter Moskovskogo elektrozavoda (for Sibiriyakov). 5. Starshiy konsul'tant Upravleniya bukhgalterskogo ucheta Ministerstva finansov SSSR (for Ivanov, Rabinovich). 6. Nachal'nik podotdela obshchikh ekonomicheskikh voprosov tsenoobrazovaniya Byuro tsen pri Gosplane SSSR (Lipsits). 7. Moskovskiy ekonomiko-statisticheskiy institut (for Koroleva)

(Costs, Industrial)

LAVROV, Vasil'iy Vasil'yevich; KUDRYASHOV, Rafail Aleksandrovich;
SEUVALOV, Aleksandr Mikhaylovich; SUEBOTINA, K., red.;
KONDHAT'YEVA, A., red.; LEBEDEV, A., tekhn. red.

[State budget] Gosudarstvennyi biudzh. Moskva, Gosfinizdat,
1961. 239 p. (MIRA 15:2)

(Budget)

SHIRKEVICH, Nina Aleksandrovna; LAVROV, V.V., prof., otv. red.
SUBBOTINA, K., red.; KONDRAT'YEVA, A., red.

[Local budgets of the U.S.S.R.] Mestnye biudzhety SSSR.
Moskva, Finansy, 1965. 167 p. (MIRA 18:3)

KOVALENKO, I.; SUBBOTINA, K.

Training of qualified workers for the service industries in
Yugoslavia. Prof.-tekh.obr. 22 no.5:30-31 My '65.

(MIRA 18:5)

SUBKREINA, I. A.
(# 4345)

The influence of sympathectomy on neurological syndromes in obliterating arteritis (Russian text) Vop. Neirohir. 1951, 15/6 (11-17)
Report on 102 patients. Regardless of the fact that endangitis obliterans is arterio-sclerotic in origin and thrombangiitis inflammatory, both conditions are studied and described together, since the ischaemic effect in both is identical and the same treatment effective. Fifty-eight cases were followed up for periods up to 3 years. The damage of the affected limb is due to anatomical changes of the vessels and reflex disturbances of the vascular innervation, the pathological signs being caused by ischaemia both of tissue and peripheral nerve trunks. In many cases preganglionic sympathectomy TII to III or LII to III, respectively, gives satisfactory results. Presumably, the operating acts by interruption of efferent vaso-constrictor impulses and of sensory afferent stimuli as well.

Happner - Graz

SO: LAD. VA. MEDIC. Vol. 5 No. 11 Sec. VIII November 1952

SOBOLEVA, L.I.; TSENGHOREV, A.P.; GRADOVENCOVA, R.A.

Clinical and epidemiological characteristics of enterovirus
disease in Tomsk. Trudy Tomskogo Universiteta '63. (MIRA 17:7)

1. Tomskiy meditsinskiy institut.

SUBJECTIVE, L. G.:

"Simple and safe method of castration of boars." Kawan, Tatar State
Publishing House, 1952. 16 pages with illustrations, price 15 kopcks,
2,079 copies.

SO: Veterinariya; ~~26~~₃₀(5). May 1953

1. UBBOTINA, L. G. Decent
2. USSR (600)
4. Swine
7. Castration of old boars. Veterinariia 29 no. 12, 1952.

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

USSR/Farm: Animals. Swine

Q-3

Abs Jour : Ref Zhur - Biol., No 19, 1958, No 88117

Author : ~~Subbotina~~ L.G.

Inst : Kazan State Veterinary Institute

Title : Artificially Guided Sterility of Boars and Young Pigs

Orig Pub : Uch. zap. Kazansk. gos. vet. in-ta, 1956, 64, No 1, 57-61

Abstract : No abstract

Card : 1/1

AKATOV, V.A., prof.; SUBBOTINA, L.G., dots.

"Veterinary obstetrics, gynecology, and artificial insemination"
by F.A. Troitskii. Veterinariia 35 no.4:89-90 Ap '58. (MIRA 11:3)

1. Voronezhskiy zooveterinarnyy institut (for Akatov). 2. Kaza-
nskiy veterinarnyy institut (for Subbotina).

(Veterinary obstetrics)
(Troitskii, F.A.)

1. VIKOTINA, L.A., SUBLOTINA, M.M.
2. USSR (600)
4. Tomatoes
7. Effect of methylene blue on growth and development of tomatoes. Biul. Glav. bot. sada No. 11, 1952.

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

SUBBOTINA, M.P.

Experimental plant for degreasing and painting of products. Lake-
kras. mat. i ikh prim. no.3:67-69 '63. (MIRA 16:9)
(Painting, Industrial--Equipment and supplies)

SUBBOTINA, M.P., inzh.

Degreasing and painting parts in trichloroethylene vapors. Mashino-
stroenie no.4:82-83 JI-Ag '63. (MIRA 17:2)

1. Tsentral'noye konstruktorsko-tekhnologicheskoye byuro velisoped-
nogo stroyeniya, Khar'kov.

SHCHUKAREV, S.A.; VASIL'KOVA, I.V.; ORANSKAYA, M.A. [deceased];
TSINTSIUS, V.M.; SUBBOTINA, N.A.

Determination of the enthalpy of vanadium tribromide formation.
Vest LGU 16 no.16:125-129 '61. (MIRA 14:8)
(Vanadium chloride)
(Enthalpy)

L 01230-66 EWT(m)/EPF(c)/ETC/ENG(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) DS/JD

ACCESSION NR: AP5022146

UR/0364/65/001/009/1096/1098
541.135.8.534.-8

AUTHOR: ^{44,55} Kuznetsov, V. V.; ^{44,55} Subbotina, N. I.

TITLE: Effect of ultrasound on diffusion of electrolytic hydrogen through iron membranes ²⁷

SOURCE: Elektrokimiya, v. 1, no. 9, 1965, 1096-1098 ¹⁶

TOPIC TAGS: hydrogen, electrochemical process, ^{44,55} electrode, iron, ultrasonic radiation

ABSTRACT: The effect of ultrasonic waves on diffusion of electrolytic hydrogen through iron membranes has not been investigated before. Assuming that the amount of hydrogen which penetrates the metal depends on the rate of the removal of hydrogen from the surface of the metal, ultrasonic waves should facilitate degassing of the solution as well as desorption of hydrogen from the surface of the metal. In the experiments annealed Armco iron membrane, 0.017 cm thick, with apparent working surface of 6 cm² was inserted by a special ring between two halves of an electrolytic cell. The diffusion side of the cell contained a microburet sealed hermetically to enable measurements of the hydrogen which passed into that compartment with

Card 1/3

L 01230-66

ACCESSION NR: AP5022146

3

accuracy of 0.01 ml. The diffusion side of the cell was filled with glycerine. The electrolysis were conducted in 1 N H₂SO₄ using a platinum anode. The cathodic current density was 7.5 a/dm², the frequency of ultrasound was 24.5 kc and the intensity was 3 W/cm². The ultrasound was directed perpendicularly to the surface of the membrane. The types of curves obtained are shown in Fig. 1 of the Enclosure. It was found that ultrasound changes significantly the rate of the diffusion of hydrogen through the iron membrane. The rate of diffusion decreases when the polarization side is irradiated and it increases when the ultrasound acts on the diffusion side of the membrane. It was discovered that the ultrasonic treatment of the membrane surface on the polarization side practically stops the diffusion of hydrogen not only during the time of ultrasonic irradiation, but also when the irradiation is terminated. The cause of this phenomenon has not been determined. Orig. art. has: 1 figure and 1 table.

ASSOCIATION: Estesvennonauchny institut pri permskom gosudarstvennon universiteta im. A. M. Gor'kogo (Institute of Natural Sciences, Perm' State University) 44/55

SUBMITTED: 18Jan65

ENCL: 01

SUB CODE: EM, GC

NO REF SOV: 003

OTHER: 000

Card 2/3

L 01230-66
ACCESSION NR: AP5022146

ENCLOSURE: 01

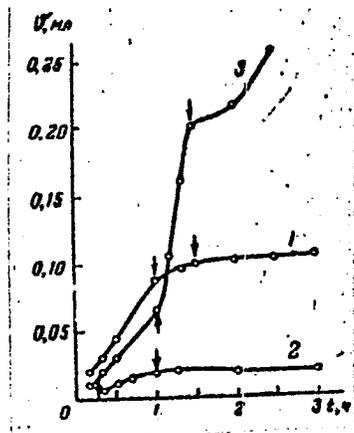


Fig. 1. Diffusion of electrolytic hydrogen through iron during ultrasonic irradiation from the polarization (1, 2) and from the diffusion (3) side of the membrane. Arrows indicate the time of start and finish of ultrasonic irradiation.

Card ^{LC} 3/3

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653720003-4

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653720003-4"

ACCESSION NR AP5015883

...stimulators (selenium or arsenic). Under these conditions, hydrogen
...characteristics increase with

Card 2.2

SUB OTIRA, N. N.

FA 58T43

USSR/Geology
Fossils

Aug 1947

"Comparison of the Foraminiferous Layers of the Northern Caucasus With the Nummulite Layers of Africa,"
N. N. Subbotina, All-Union Petroleum Sci Res Geol
Prospecting Inst, 3 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVII, No 5

Describes investigations and research which show that five microfaunistic zones in Northern Caucasus correspond to nummulite layers developed in Morocco. Submitted by Academician S. I. Mironov, 1 Mar 1947.

~~FBI~~

58T43

S. SBOFINA, N. N.

Subbotina, N. N. "A short survey of the stratigraphy of the paleogenic deposits of Gromy Oblast, based on the foraminifera fauna", Trudy Vsesoyuz. nauch.-issled. geol. nauch. in-ta, New series, Issue 34, 1949, p. 37-83, - Bibliog: p. 85-88.

SO: U-4392, 19 August 53, (Letovis 'Zhurnal 'nykh Statey, No 21, 1949).

UPPER EOCENE, H. V.

"Upper Eocene Lagenids and Bullinids of the South USSR," Tr. Vses. nef. n. -i. geol. -razved. inst., No 6, pp 115-255, 1953

The author analyzes the Upper Eocene deposits of the south USSR as a result of a study of foraminifera. He notes that the Upper Eocene deposits of the southern and northern regions of the European part of The USSR are considerably distinguished both by lithological composition and also by the character of the complex of microfossils. In the southern regions (Crimea, Caucasus, Mangyshlak Ustyurt) the Upper Eocene deposits are represented predominantly by limestone-marl rocks with large quantity of plankton foraminifera, mainly from the family Globigerinidae and Globorotulidae. These are also characterized by an almost complete absence of diatoms and radiolaria. In the northern regions (Ukraine, Donbass, Lower Volga) the Upper Eocene deposits are characterized chiefly by sandy-clayey rocks with diatoms, radiolaria, etc., and bentonite. (EtnGeol, No 4, 1955)

Sum. No. 481, 7 Oct 55

SUBBOTINA, N.N.; GLUSHKO, V.V.; PISHVANOVA, L.S.

Age of the lower Vorotyshchensk series in the outer Precarpathian depression. Dokl.AN SSSR 104 no.4:605-607 O '55. (MIRA 9:2)

Presented
1. Predstavleno akademikom S.I. Mironovym.
(Carpathian Mountain region--Geology, Stratigraphic)

STEPANOV, D.L., professor, redaktor; ZAHINA, I.Ye., redaktor, ROZALYNSKAYA,
Ye.A., redaktor; OVSEKHIN, N.K., redaktor; RENCARTEN, V.P., redaktor;
~~SURBOTINA, H.M.~~ redaktor; GOROKHOVA, T.A., redaktor izdatel'stva;
BUKOVA, O.A., tekhnicheskii redaktor

[Problems in paleobiogeography and biostratigraphy; proceedings of
the 1st session of the All-Union Paleontological Society (January
24-28, 1955)] Voorosy paleobiogeografii i biostratigrafii; trudy
I sessii Obshchestva (24-28 yanvaria 1955 g.). Moskva, Gosnauchno-
tekhn.izd-vo lit-ry po zeml. i okhrene nedr, 1957. 200 s. (MLPA 12:10)

1. Vsesoyuznoye paleontologicheskoye obshchestvo
(Paleontology)

ed-llian

FEDOROV, A.N. [deceased]; UR'YANOV, A.V. [deceased]; TEODOROVICH, G.I.;
USPENSKIY, V.A.; RADCHENKO, O.A.; FEDYNSKIY, V.V.; MAKSIMOV, M.I.;
SUBBOTINA, N.N.; STEPANOV, D.L.; MIRCHINK, Mikhail Fedorovich,
red.; IONINA, I.N., vedushchiy red.; YASHCHURZHINSKAYA, A.B.,
tekh. red.

[Dictionary of petroleum geology] Slovar' po geologii nefi. Izd.2.,
ispr. i dop. Leningrad, Gos. nauchno-tekh. izd-vo nefi i gorno-
toplivnoi lit-ry, Leningr. otd-nie, 1958. 776 p. (MIRA 11:10)

1. Chlen-korrespondent Akademii nauk SSSR (for Mirchink).
(Petroleum geology—Dictionaries)

BYKOVA, N.K.; BALAKHMATOVA, V.T.; VASILENKO, V.P.; VOLOSHINOVA, N.A.;
GRIGELIS, A.; DAIF, L.G.; IVANOVA, L.V.; KUZINA, V.I.; KUZNETSOVA,
Z.V.; KOZYREVA, V.F.; MORZOVA, V.G.; MYATLYUK, Ye.V.; SUBBOTINA, N.N.

New genera and species of Foraminifera. Trudy VNIIGRI no.115:5-106
'58. (MIRA 11:10)

(Foraminifera, Fossil)

STEPANOV, D.L., prof., nauchnyy red.; ZANINA, I.Ye., red.; MODZALEVSKAYA, Ye.A., red.; OVECHKIN, N.K., red.; RENGARTEN, V.P., red.; SUBBOTINA, N.N., red.; ABKEVICH, P.L., red. izd-va; IVANOVA, A.G., tekhn. red.

[Problems in the biostratigraphy of continental formations; transactions of the third session of the All-Union Paleontological Society, Jan. 24-29, 1957] Voprosy biostratigrafii kontinental'nykh toshch; trudy III sessii Vsesoiuznogo paleontologicheskogo obshchestva, 24-29 ianvaria 1957 g. Moskva, Gos. nauchno-tekhn. izd-vo lit. po geologii i okhrane neдр, 1959. 243 p. (MIRA 12:10)

1. Vsesoyuznoye paleontologicheskoye obshchestvo.
(Paleontology, Stratigraphic)

STEPANOV, D.L., prof., red.; ZANINA, I.Ye., red.; MODZALEVSKAYA, Ye.A.,
red.; OVECHKIN, N.K., red.; RENGARTEN, V.P., red.; SUBBOTINA,
N.N., red.; GOROKHOVA, T.A., red.izd-va; IVANOVA, A.G., tekhn.red.

[Problems in paleobiology and biostratigraphy; transactions of the
2d session of the All-Union Paleontological Society] Voprosy paleo-
biologii i biostratigrafii; trudy II sessii Vsesoiuznogo paleontolo-
gicheskogo obshchestva. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po
geol. i okhrane neдр, 1959. 270 p. (MIRA 13:4)

1. Vsesoyuznoye paleontologicheskoye obshchestvo.
(Paleontology--Congresses)

ORLOV, Yu.A., glavnyy red.; RAUZER-CHERNOUSOVA, D.M., otv.red.toma;
FURSENKO, A.V., otv.red.toma; MARKOVSKIY, B.P., zam.glavnogo red.;
RUZHENTSSEV, V.Ye., zam.glavnogo red.; SOKOLOV, B.S., zam.glavnogo
red.; VAKHRAMEYEV, V.A., red.; GERKER, R.F., red.; GROMOVA, V.I.,
red.; DAVITASHVILI, L.Sh., red.; KRYMGOL'TS, G.Ya., red.; LUPPOV,
N.P., red.; OBRUCHEV, D.V., red.; OVECHKIN, N.K., red.; POKROVSKAYA,
I.M., red.; PCHELINTSEV, V.F., red.; RADCHENKO, G.P., red.; RODEN-
DORF, B.B., red.; ROZHDESTVENSKIY, A.K., red.; SARYCHEVA, T.G.,
red.; SUBBOTINA, N.N., red.; TAKHMADZHAN, A.L., red.; FLEROV, K.K.,
red.; KHABAKOV, A.V., red.; CHERNYSHEVA, N.Ye., red.; EBERZIN, A.G.,
red.; KOTLYAREVSKAYA, P.S., red.izd-va; MOSKVICHEVA, N.I., tekhn.
red.; POLENOVA, T.P., tekhn.red.

[Fundamentals of paleontology; reference book in fifteen volumes
for paleontologists and geologists of the U.S.S.R.] Osnovy pale-
ontologii; spravochnik dlia paleontologov i geologov SSSR v
piatnadsati tomakh. Moskva, Izd-vo Akad.nauk SSSR. Vol.1.
[General part. Protozoa] Obshchaia chast'. Prosteishie. Otv.red.
D.M.Rauzer-Chernousova, A.V.Fursenko. 1959. 481 p. (MIRA 12:7)
(Protozoa, Fossil)