NEGINSKAYA, I.F., uchitel'nitsa

Young naturalist circle of a village school. Biol.v shkole no.3:74-75 My-Je '59. (MIRA 12:9)

1. Semiletnyaya shkola No.27 st.Medvedovskaya Timashevskogo rayona Krasnodarskogo kraya.
(Timashevskaya District--Nature study)

SHIROKIKH, D.P., kand.pedagogicheskikh nauk; NEGINSKAYA, I.F., uchitel'nitsa

Combining biology instruction with practical work of students on a school lot. Biol. v shkole no.5:45-48 S-O '62. (MIRA 16:2)

1. Krasnodarskiy pedagogicheskiy institut (for Shirokikh).
2. Vos'miletnyaya shkola No.27 stanitsy Medvedovskoy Timashevskogo rayona Krasnodarskogo kraya.
(Biology--Study and teaching)
(Agriculture--Experimentation)

NEGINSKIY, I., insh.

Experience with the construction and operation of apartment houses built according to the system of V. Lagutenko, engineer. Zhil. stroi. no.2:24-26 '62. (MIRA 16:1)

(Leningrad--Apartment houses)

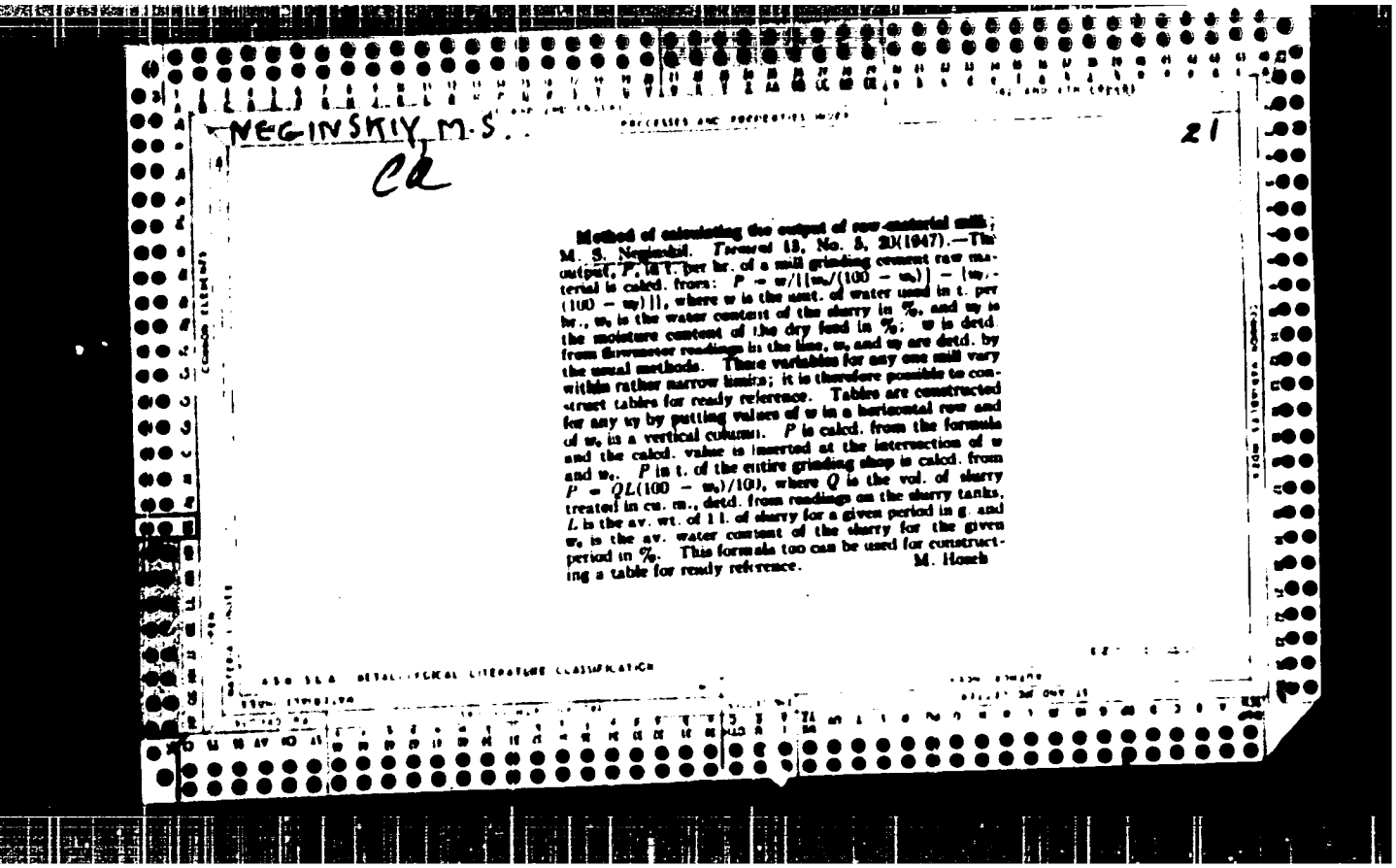
[illegible]GINSKIY, I.S., inzh.

Manufacturing cables for city suspension bridges. Trans. st[illegible]. no.12:16-18 D '57. (MIR 11:)
(Bridges, Suspension) (Cables)

VASIL'YEV, Gennadiy Andreyevich, inzh.; NEGINSKIY, Izrail' Samuilovich; KOBISHCHANOV, V. V., inzh., red.

[Industrial television at a construction project; practices of the No.2 Housing Construction Combine of the Main Leningrad Construction Administration] Promyshlennaia televizionnaia ustanovka na stroitel'stve; opyt Domostroitel'nogo kombinata No.2 Glavleningradstroia. Moskva, Gosstroiizdat, 1961. [illegible] p. (MIRA 17:8)

1. Akademiya stroitel'stva i arkhitektury SSSR. Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu. 2. Otdel glavnogo energetika Domostroitel'nogo kombinata No.2 Glavnogo Leningradskogo upravleniya po zhilishchnomu i grazhdanskomu stroitel'stvu (for Vasil'yev). 3. Nachal'nik uchastka Domostroitel'nogo kombinata No.2 Glavnogo Leningradskogo upravleniya po zhilishchnomu i grazhdanskomu stroitel'stvu (for Neginskiy).



NEGINSKIY M.S.

21

Method of calculating the output of raw-material mills. M. S. Neginskii. *Tsement* 13, No. 5, 20(1947).—The output, P, in t. per hr. of a mill grinding cement raw material is calcd. from: $P = w/[(w_0/(100 - w_0)) - (w_f/(100 - w_f))]$, where w is the amt. of water used in t. per hr., w_0 is the water content of the slurry in %, and w_f is the moisture content of the dry feed in %; w is detd. from flowmeter readings in the line, w_0 and w_f are detd. by the usual methods. These variables for any one mill vary within rather narrow limits; it is therefore possible to construct tables for ready reference. Tables are constructed for any w_f by putting values of w in a horizontal row and of w_0 in a vertical column. P is calcd. from the formula and the calcd. value is inserted at the intersection of w and w_0. P in t. of the entire grinding shop is calcd. from $P = QL(100 - w_0)/10$, where Q is the vol. of slurry treated in cu. m., detd. from readings on the slurry tanks, L is the av. wt. of 1 l. of slurry for a given period in g. and w_0 is the av. water content of the slurry for the given period in %. This formula too can be used for constructing a table for ready reference. M. Hosch

NEGINSKIY, M.S.

4101* Study of the Erosion of Cements for Hydraulic-Engineering Concretes. Issledovanie istirania tsementov dlia gidrotekhnicheskikh betonov. (Russian.) V. N. Ionas, Iu. M. Butt, M. E. Neginskii, and E. O. Barbakadze. *Tsement*, v. 21, no. 6, Nov.-Dec. 1955, p. 5-9.

Effect of fast-flowing water. Compositions, erosibility, and compressive strength of cements. Effect of additives on erosibility. Tables.

USSR/Chemical Technology - Chemical Products and Their Application. Silicates. Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62384

Author: Yung, V. N., Butt, Yu. M., Neginskiy, M. S., Barbakadze, Ye. C.

Institution: None

Title: Attrition Resistance of Hydraulic Engineering Concrete

Original Periodical: Tr. Mosk. khim.-tekhnol. in-ta, 1956, No 21, 147-154

Abstract: A study of attrition resistance of concrete exposed to a flow of water carrying suspended rock particles. The experiments have shown that inclusion in the cement of hydraulic and microfiller additives lowers the resistance of concrete to attrition. Finer grinding of cement increases the resistance to attrition of concrete made therefrom. To obtain a concrete resistant to attrition it is important to take into account the hardness of aggregate particles. It is recommended to use as coarse aggregate in such a concrete crushed granite or other hard rock which must be subjected to preliminary

Card 1/2

USSR/Chemical Technology -- Chemical Products and Their Application. Silicates. Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62384

Abstract: tests. Resistance to attrition of 1:2:3 concrete and 1:2.5 solutions made from the same cement is found on comparison to be 2 times higher in the case of concrete, within all of the investigated periods, and strength of concrete is 1.3 times greater. Increase of water/cement decreases resistance of concrete to attrition. On raising water-cement from 0.5 to 0.6 attrition wear of concrete increases by about 1.4 times. Addition of sulfite-alcohol liquor lowers water/cement and results therefore in an increased resistance of the concrete to attrition.

Card 2/2

YUNG, V.N., doktor tekhnicheskikh nauk, professor; BUTT, Yu.M., doktor tekhnicheskikh nauk, professor; MEGINSKIY, M.S., kandidat tekhnicheskikh nauk; BARBAKADZE, Ye.O., inzhener.

Resistance of hydraulic engineering concretes to water attrition. Gidr. stroi. 25 no.4:34-38 My '56. (MLRA 9:9)
(Concrete) (Hydraulic engineering)

LEKAYE, V.N.; YELKIN, L.N.; MUGINSKIY, M.S.; LIN FA-ZIN

Utilizing the loose residue of sulfur limestone ores for the production of cement. Trudy MKHTI no.36:151-159 '61. (MIRA 15:7)
(Cement--Testing)

NEGINSKIY, N., inzh.

Integrated building development of a residential block. Zhil. stroi. no.[illegible]-15 '62. (MIRA 15:6)
(Leningrad--City planning)

NEGINSKIY, N., inzh.

Warehouses with stacking cranes. Prom. stroi. 42 no.4147-48 '65. (MIRA 18:4)

SOV/136-58-5-15/22

AUTHORS. Davankov, A.E., Laufer, V.M., Tarusin, V.P., Neginskiy, O.Ye and Ruzhnikov, M.S.

TITLE: A Pilot-plant Scale Experiment on the Extraction of Gold from Ion-exchange Resins After Adsorption (Opytno-promyshlennyy opyt vydeleniya zolota iz ionoobmennykh smol posle adsorbtsii)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 5, pp 81 - 82 (USSR)

ABSTRACT: The authors discuss some examples of [illegible] ion-exchange resins being effected after [illegible]. They describe work at an enterprise controlled by Ministerstvo finansov SSSR (Finance Ministry USSR) in which gold was extracted from spent electrolyte [illegible] the AG type N-O resin in two 1 365-litre [illegible] (73 mm dia.) in series. 9% c litres of spent electrolyte was passed at 10 litres/hr [illegible] containing 73% gold was finally obtained. The gold extracted from the ash by high-frequency melting [illegible] borax in a graphite crucible in separate [illegible] experimental data are tabulated, [illegible]

Card 1/2

SOV/136-58-[illegible]-16/24

A Pilot-plant Scale Experiment [illegible] the Extraction [illegible] exchange Resins After Adsorption

the gold present in the original sol [illegible]. The [illegible] found that with careful ashing in ceramic [illegible] and fusion under borax, complete extraction [illegible] the ashed residue was obtained
There are 1 table and 4 Soviet references

1. Ion exchange resins--Adsorptive properties [illegible]
3. Gold--Production 4. High frequency heating--Apparatus

Card 2/2

NEGINSKIY, Ye., inzh.

Rollers made of moulded plastic. Na stroi.Ros. no.4:25 Ap '61. (MIRA 14:6)

(Plastics—Molding) (Painting, Industrial)

VIBERG, D., insh.; NEGINSKIY, Ye., insh.

Redesigning the production line. Na stroi. Ros. 3 no.2:32 F '62. (MIRA 16:2)

(Gypsum products)

NEGINSKIY, Ye.

Let us introduce progressive practices. Na stroi.Ros. 3 no.8: 10-11 Ag '62. (MIRA 15:12)

1. Starshiy inzh. TSentral'nogo byuro tekhnicheskoy informatsii Kostromskogo soveta narodnogo khozyaystva.
(Kostroma Province—Building—Technological innovations)

L 2526-66 EWT(d)/FSS-2/EWT(1)/EWA(h) JM
ACCESSION NR: AP5021347 UR/0120/65/000/004/0136/0139
621.385.633.2:621.3.029.66

AUTHORS: Golant, M. B.; Vilenskaya, R. L.; Zyulina, Ye. A.; Kaplun, Z. F.; Negirev, A. A.; Parilov, V. A.; Rebrova, T. B.; Savel'yev, V. S. 37 C

TITLE: A series of wide-range low-power generators of millimeter and submillimeter waves 14 15

SOURCE: Pribory i tekhnika eksperimenta, no. 4, 1965, 136-139

TOPIC TAGS: short wave radiation, backward wave tube, oscillator

ABSTRACT: Backward wave tubes represent the principal type of wide-range low-power generators of waves in the millimeter and submillimeter range. The purpose of this article is to acquaint scientists and technical workers with such devices. The characteristics of seven backward wave tubes are tabulated: OV-612, OV-613, OV-614, OV-622, LOV-0.5, LOV-1.0, and LOV-1.5. Wavelengths range from 0.49 to 8 mm, frequencies from 37.5 to 375 Gc, voltage changes from 2 to 4000 v, current from 30 to 50 ma, power from 1 to 200 mw, and weight from 5 to 10 kg. Ranges overlap, and it is possible with these tubes to cover the entire range from one-half to eight millimeters. Orig. art. has: 8 figures and 2 tables. [04]

Card 1/2

L 2526-66
ACCESSION NR: AP5021347

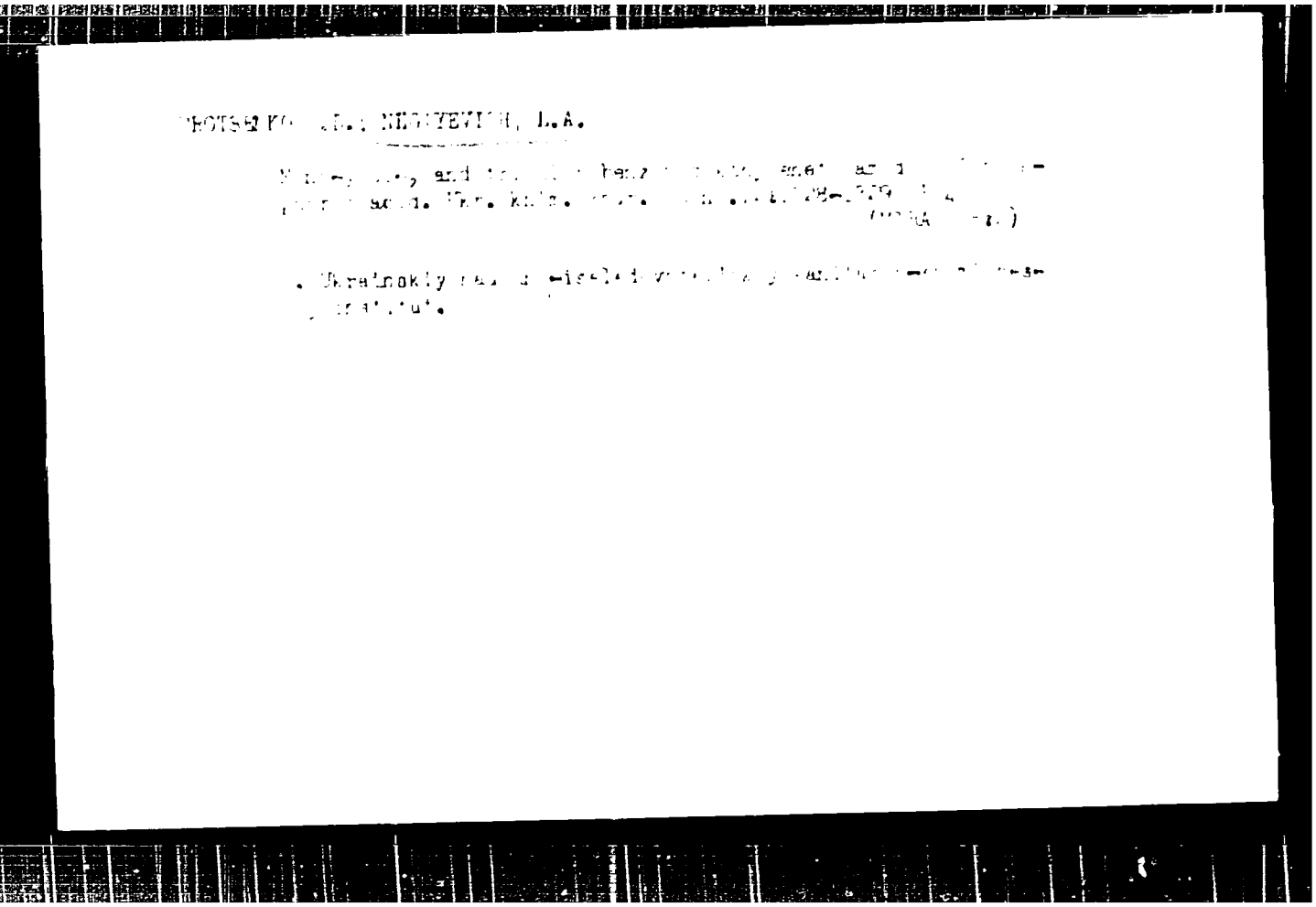
ASSOCIATION: none

SUBMITTED: 20Nov64 ENCL: 00 SUB CODE: EC

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4108

Card 2/2

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00113



L 25599-66 EWT(m) RM

ACC NR: AP6016686 SOURCE CODE: UR/0079/65/035/009/1564/1566

AUTHOR: Protsenko, L. D.; Negiyevich, L. A.

ORG: none

TITLE: Iodine-containing acyldiethylenetriamides of phosphoric acid

SOURCE: Zhurnal obshchey khimii, v. 35, no. 9, 1965, 1564-1566

TOPIC TAGS: phosphoric acid, amide, iodinated organic compound, organic imine compound, organic synthetic process, phosphorus chloride, formic acid, organic azo compound, chlorinated organic compound

ABSTRACT: Mono-, di-, and tri-iodo-acetyldiethylamine triamides of phosphoric acid were synthesized by the action of ethyleneimine in the presence of triethylamine on dichlorides of the corresponding iodobenzoylamidophosphoric acids. The initial dichlorides of iodobenzoylamidophosphoric acids were synthesized from the corresponding acid amides and phosphorus pentachloride or by the action of water or formic acid on trichlorophosphazoacyls. In addition, previously undescribed amides of 3,4-diiodobenzoic, 3,5-diiodobenzoic, 2,4,5- and 3,4,5-triiodobenzoic acids were prepared by the action of ammonia on the acid chlorides for the synthesis of the initial acid dichlorides. The iodine-containing acetyldiethylenetriamides of phosphoric acid are cream-colored or light pink crystalline compounds, which decompose above 200° without melting when heated slowly or melt within a range of 1-2° when heated at a rate of 10-12° per minute. The new compounds will be used to study the influence of the position of the iodine atoms and their number in the benzene ring on the physiological activity. Orig. art. has: 3 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: 02Oct64 / ORIG REF: 001 / OTH REF: 001

UDC: 546.185:547.539.4

Card 1/1

NEGLINSKIY, S.; OLEYNIKOV, M. (Lomonosovskiy rayon, Leningradskoy oblasti)

The Pioneer battle group. IUn. nat. no.10:4-8 O '59.
(MIRA 13:2)
(Leningrad Province--Children--Employment)

NEGIN, L. G.

NEGIN, L. G. -- "The Clinical Manifestations of Gunshot Wounds and Injuries of the Eyeball According to Data of Evacuation Hospitals During World War II, 1941-1945." Sub 15 Apr 52, Central Inst for the Advanced Training of Physicians. (Dissertation for the Degree of Candidate in Medical Sciences).

So: Vechernaya Moskva January-December 1952

SOV/10-59-5-14/15

AUTHOR: Ulanov, Kh.K. and Neglyad, K.V.

TITLE: On the Classification and Denomination of the Science of the Seas

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geograficheskaya, 1959, Nr 5, pp 98-100 (USSR)

ABSTRACT: At present there is no generally accepted classification and denomination of the science for the study of the World Ocean. The author proposes the name of "Oceanology" for this science. Up to now many names are used, such as oceanography, oceanology, sea hydrology, sea hydrometeorology, physics of the sea, or even (especially in foreign scientific literature) hydrography. The author cites the following scientists who introduced one of the above names: Yu.M. Shokal'skiy, G.R. Zhukovskiy, Yu.V. Istoshin, V.G. Nazarov, A.M Muromtsev, V.A. Snezhinskiy, N.N. Zubov, A.D. Loydis, L.A. Zenkevich, N.V. Malinovskiy, V.G. Fort, P.A

Card 1/2

On the Classification and Denomination of the Science of the Seas

Shipov, I.B. Shpindler, B.P. Orlov, A.K. Leonov, M.A. Belinskiy, M.V. Klenova, A.V. Ogiyevskiy, and B.A. Apollov. According to the author "Oceanology" is a science which studies the substance of all phenomena and processes occurring in oceans and seas, the regular connection among them, their reaction in specific physical and geographical conditions and the possibility of their forecast. There are 14 Soviet references.

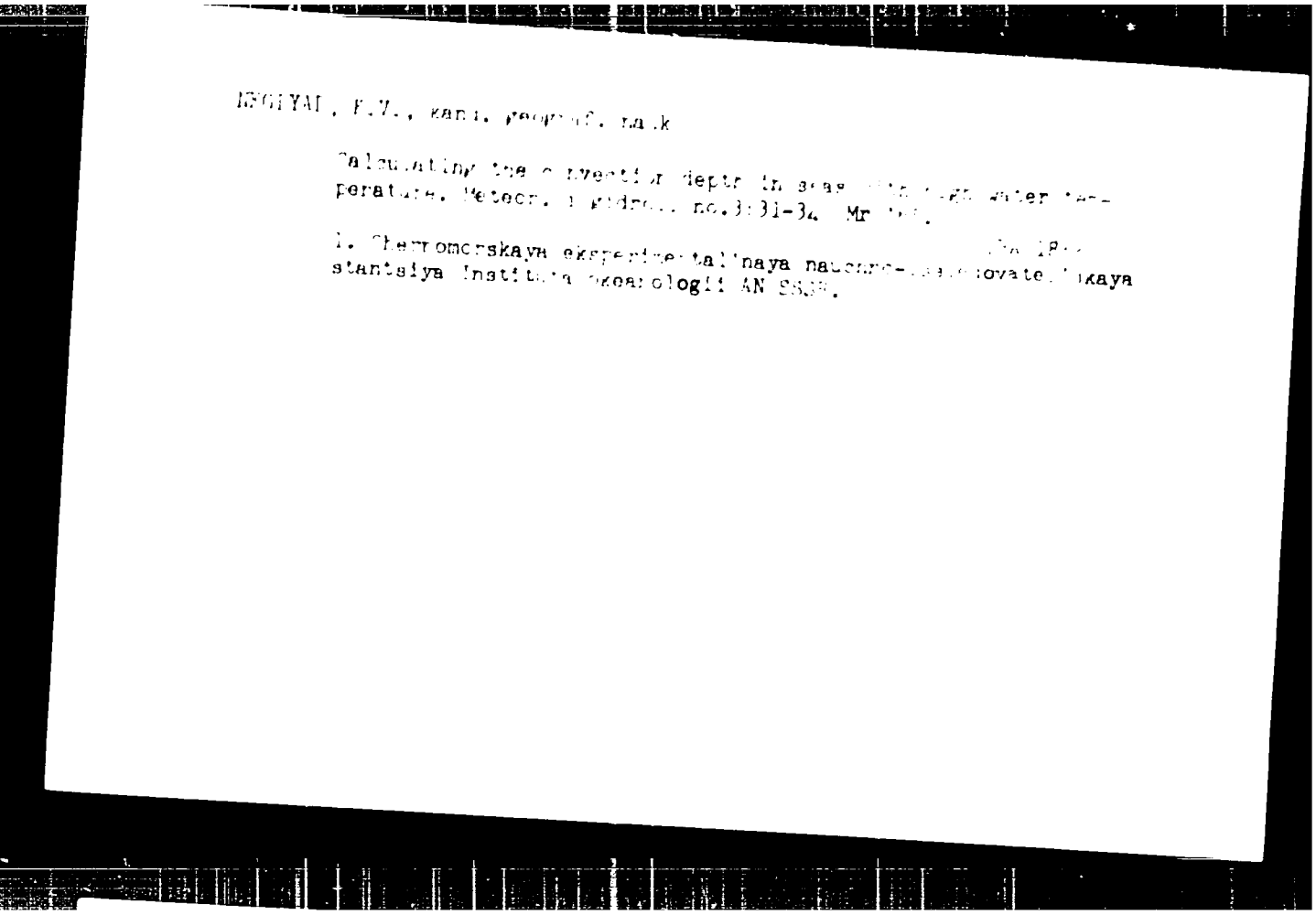
Card 2/2

NEGLYAD, K.V.

Errors in the determination of sea currents by the differential method. Trudy Inst.okean. 60:190-197 '62. (MIRA 17:1)

NEGLYAD, K.V.

First Mediterranean cruise of the research ship "Akademik S.Vavilov"
Okeanologiia 2 no.1:172-180 '62. (MIRA 15:2)
(Mediterranean Sea--Oceanographic research)



KOGIYAI, P.V., kand. geograf. nauk

Calculating the convective depth in seas with cold water temperature. Meteor. i gidrol. no.3:31-34 Mr '57.

1. Chernomorskaya eksperimental'naya nauchno-issledovatel'skaya stantsiya Instituta okeanologii AN SSSR.

KHOMATULINA, N.Ya.

Problems in diagnosis of Botkin's disease. Zhur.mikrobiol.epid.i immun. no.3:82-86 Mr '55. (MLRA 8:7)

1. Iz Gor'kovskogo instituta vaktsin i syvorotok (dir. A.A. Golubev, nauchnyy rukovoditel' prof. F.T.Grinbaum).
(HEPATITIS, INFECTIOUS, diagnosis,)

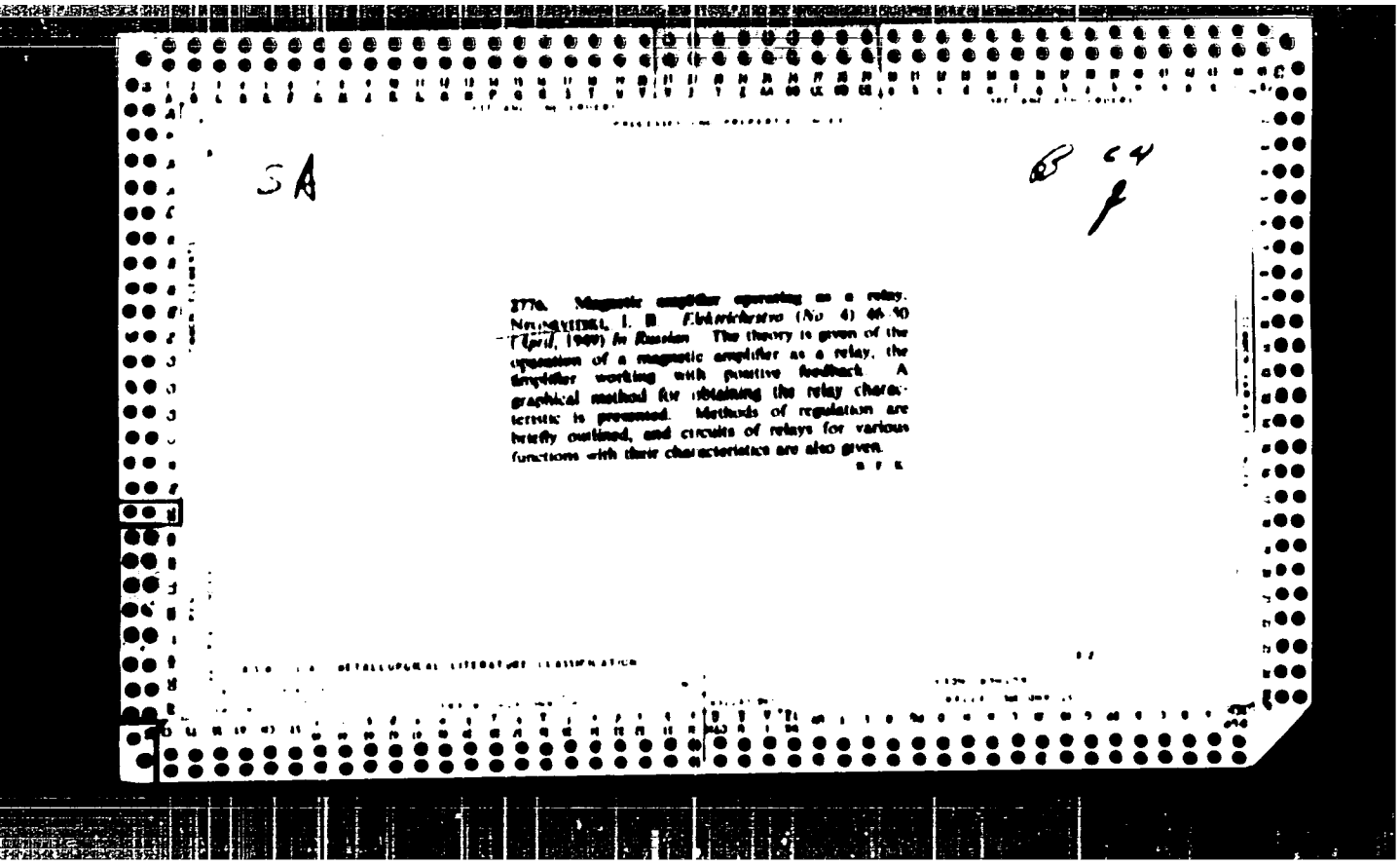
NEGMATULLAYEV, B.N.; YUSUPOV, I.A.

Echinococcosis of the thyroid gland. Med. zhur. Uzb. no.6:
73 Je'63 (MIRA 17:3)

1. Iz obshchekhirurgicheskogo otdeleniya (zav. - G.S. Saidov)
Bukharskoy oblastnoy bol'nitsy.

UZILEVSKAYA, P.Sh; NEGMATULLIN, R.; GROMOVA, M., red.; RAKHIMOV, T., tekhn. red.

[Eshkuvvat Kucharov, rabbit breader] Krolikovod Eshkuvvat Kucharov. Tashkent, M-vo kul'tury UzSSR TSentr. Kom-t LKSM Uzbekistana Izd-vo "Esh gvardiia," 1961. 14 p. (MIRA 15:1)
(Uzbekistan--Rabbits)



5A

65 C4

f

2776. Magnetic amplifier operating as a relay. NEUSTADTEL, I. B. *Elektrichestvo* (No. 4) 46-50 (April, 1949) *In Russian* The theory is given of the operation of a magnetic amplifier as a relay, the amplifier working with positive feedback. A graphical method for obtaining the relay characteristic is presented. Methods of regulation are briefly outlined, and circuits of relays for various functions with their characteristics are also given. G. F. K.

USSR/Electricity Apr 49
Relay Systems
Amplifiers, Magnetic

"Magnetic Amplifiers in Relay Performance," I. B. Negnevitskiy, Engr, Moscow Power Eng Inst imeni Molotov, 4 pp

"Elektrichestvo" No 4

Discusses operation of a magnetic amplifier with positive feedback, so-called "relay" operation. Characteristics of magnetic amplifiers in different-type relay operations. Basic advantage is that magnetic amplifier is a sensitive contactless relay. Disadvantage is that a small current

39/49T21

USSR/Electricity (Contd) Apr 49

flows when contacts are open, due to variations of voltage, frequency, temperature, or load resistance.

39/49T21

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001136

NEGNEVITSKIY, I. B.

4

4 [illegible]

11135 Transient Processes in Contactless Magnetic Relays. I. B. Negnevitzky and L. I. Samuin[illegible] [illegible] geal, v. 15 Apr 1951, p. 11-150 (Digested from [illegible] Electro, 1950, no. 4, Apr., p. 16-30, 1951 [illegible] 34-60.)

Magnetic amplifier with a positive feedback operates as a relay and can be applied where a contactless relay is required. Diagrams, graphs.

NEGNEVITSKIY, I. B.

USSR/Electricity - Amplifiers, Magnetic Magnetization Curves — Oct 51

"Curves of Simultaneous Magnetization by Constant and Varying Fields of a Magnetic Amplifier With Feedback," I. B. Negnevitskiy, Engr, Moscow Power Eng Inst imeni Molotov

"Elektrichestvo" No 10, pp 66-73

Gives a method for caln and qual analysis of a choke megnetic amplifier with feedback on the basis of simultaneous magnetization curves by const and varying fields. Gives examples

201T48

USSR/Electricity - Amplifiers, Magnetic (Contd) — Oct 51

of graphical calcn of the characteristics and points out the possibility of using the magnetic amplifier for current and voltage regulation and as an ac voltage or frequency relay. Submitted 21 Feb 51.

201T48

NEGNEVITSKIY, I. B. Cand Tech Sci

"Curves of Simultaneous Magnetization by Ac and Dc Fields," Elektrichestvo, No.3, pp 63-64, 1953

Presents curves of simultaneous magnetization of permalloy and E4A steel for moderate values of Ac component of magnetizing intensity on 400-cycle supply (necessary when calcg magnetic amplifiers with feedback) and curves of resultant induction as functions of Dc magnetizing force and Ac component of induction (necessary when calcg transient processes in magnetic amplifiers). Submitted 8 Aug 52 254T42

NEIGNEVITSKIY, I.E.

Electrical Engineering Abstracts
May 1954
Reactors and Relays

3838. Experimental investigation of transient processes in contactless magnetic relays. I. E. NEIGNEVITSKII AND Z. L. RAKHMANOV. *Elektrichestvo*, 1953, No. 9, 64-9. In Russian.

The influence of various parameters on the transient processes of reactor-type magnetic relays was experimentally investigated. The results are qualitatively investigated and various methods of controlling the relay response time are compared. It was found that the best method of varying the response time within a wide range without impairing the sensitivity of the response was by a flexible negative feedback. The problem of the transient processes of magnetic amplifiers operating as relays is theoretically difficult; for this reason only a qualitative assessment of the influence of the various parameters could be obtained, although the relative merits of the regulating methods tested are clearly represented by the graphs and oscillograms presented. B. V. [illegible]

MAKADZE, I.S., kandidat tekhnicheskikh nauk; MIKHEVITSKIY, I.B., kandidat tekhnicheskikh nauk.

Magnetic time relay without contacts. Trudy MEI no.14:53-62 '53.
(Electric relays) (MLRA 8:7)

[illegible]

[illegible], I. [illegible].

"A Magnetic Self-oscillator," [illegible]-22, [illegible], [illegible]

Abst: [illegible] the basis for its theory and its use. It is [illegible] that the prospects for applying the self oscillators, in particular, as a generator of almost square pulses of relatively low frequency available for telecontrol and telesignalization, are [illegible].

[illegible]: Trudy Moskovskogo energeticheskogo instituta. [illegible]. Issuing. Trudy works of the Moscow Energetics Institute Imeni [illegible] Ministry of Higher Education USSR, Section, Electric Machines Technology and Instrument Building, Moscow-Leningrad, Gosenergoizdat, 1956

Jun 1954

NEGNEVITSKII, I.B.

621.375.3 : 621.318.435.3

3115. THEORY OF THE IDEAL REACTOR-TYPE MAGNETIC AMPLIFIER. I.B. Negnevitskii (aklad. im D.A. Lipman. Elektrichestvo, 1956, No. 1, 8-16. In Russian.

With certain assumptions the application of a magnetic

units may be regarded as universal, since they enable the required characteristics of any practical magnetic amplifier to be quantitatively predetermined, without any need for repeating the plotting of the universal characteristics, or the calculations on which they are based. The method is evolved from first principles and the characteristics of the simplest reactor-type amplifier are given. A further advantage of the method is that it enables the upper limit of a whole series of important amplifier parameters to be estimated, e.g. current and power amplification factors, value of the maximum load current, limits of the linear zone of the input-output current for variable circuit parameters, degree of deviation of the current form from the sinusoid, effect of the reduction of the effective value of the current when the resistance of the control circuit is varied, magnitude of the even harmonics, etc. Satisfactory agreement between theory and experiment is obtained for high-permeability materials.

B.F.Kraus

Moscow Power Engr. Inst. im Molotov.

MEGNEVITSKIY, I.B., kandidat tekhnicheskikh nauk, dotsent.

Conference on magnetic amplifiers. Elektrichestvo no.10:93 O '56.
(MLRA 9:11)

(Magnetic amplifiers)

NEGNEVITSKIY, I.B., kandidat tekhnicheskikh nauk, dotsent.

Magnetic self-oscillator. Trudy MEI no.18:211-228 '56.
(MLRA 10:1)

1. Kafedra teoreticheskikh osnov elektrotekhniki.
(Magnetic amplifiers) (Oscillators, Electron-tube)

PA - 2837

AUTHOR: LIPMAN,R.A., NEGNEVITSKIY,I.B.

TITLE: On the Theory of a Half-Wave Magnetic Amplifier, I. (K teorii odnopoluperiodnogo magnitnogo usilitelya, I., Russian)

PERIODICAL: Avtomatika i Telemekhanika, 1957, Vol 18, Nr 4, pp 349 - 370 (U.S.S.R.)

Received: 5 / 1957 Reviewed: 6 / 1957

ABSTRACT: Reference is made to the paper by R.RAMEY ("On the Mechanics of Magnetic Amplifier Operation". Trans. AIEE Vol 70, part II, 1951), in which a new scheme of magnetic amplifier, which is distinguished from the usual systems by its rapid effect, was described. In the present paper the modification of the current in the control current circuit is analyzed, the range of the application for the formula obtained for current under load is given together with that for the voltage amplification coefficient, and the question of power amplification is investigated. The scheme investigated here is the simple scheme by RAMEY. The results obtained in form of formulae and curves in relative units may be described as generalizing. With their aid it is possible to find the necessary characteristics of a concrete amplifier. The generalized characteristics are computed only once, and it is not necessary to repeat this computation. The basic characteristics are here mentioned. The experiment showed good agreement between computed and experimental data in the case in which good magnetic materials with a rectangular hysteresis loop

Card 1/2

PA - 2837

On the Theory of a Half-Wave Magnetic Amplifier, I.

was used. The results obtained here can be extended to the more general kind of "single core" magnetic amplifiers with interior back-coupling. In conclusion it is stated that both theoretically and experimentally it was possible to prove that the presence of the valve B_y in the control circuit can only deteriorate the operation of the amplifier, but that, conditions otherwise being the same, the lack of this valve does not change the amount of the average current value under load. (14 illustrations).

ASSOCIATION: Not given
SUBMITTED:
PRESENTED BY:
AVAILABLE: Library of Congress.

Card 2/2

NEGNEVITSKIY, I. B.

AUTHOR LIPMAN R.A., NEGNEVITSKIY I.B. PA - 3231

TITLE On the Theory of a Half-Wave Magnetic Amplifier, II.
(K teorii odnopoluperiodnogo magnitnogo usilitelya, II.- Russian.)

PERIODICAL Avtomatika i Telemekhanika 1957, Vol 18, Nr 5, pp 449-465 (USSR)

Received: 6/1957 Reviewed: 7/1957

ABSTRACT The paper under review actually represents a further analysis or continuation of the topic investigated in the paper in Avtomatika i Telemekhanika 1957, Vol 18, Nr 4, pp 349-370. Here we obtain the mathematical interrelationships between the parameters of the amplifier and its construction parameters (dimensions of the impedance coil etc.). The control electromotive force is assumed to be sine-shaped and this with the same frequency as the supply frequency of the amplifier. First of all, the paper under review investigates the operation of the amplifier if the valve in the control circuit is lacking, and then the operation when there exists a shifting, taking into account the finite greatness of the dynamic magnetic permeability. The mathematical interrelationship between the parameters of the amplifier and the construction parameters of the impedance coil

CARD 1/2

PA - 3231

On the Theory of a Half-Wave Magnetic Amplifier, II.

and the magnetic properties of the core is derived, and the amplifier described here is compared with the normal magnet amplifier with internal regeneration. The conclusion is drawn that the inductive resistance of the impedance coil must be determined in different ways depending on whether there exists or does not exist a shifting. It is shown that in the amplifier described, contrary to normal amplifiers, the amplification coefficient for the performance can be increased only at the expense of an increase in the dimensions of the core and in the supply frequency (while maintaining the same operational speed).
(11 reproductions, 3 Slavic references.)

ASSOCIATION: not given.
PRESENTED BY:-
SUBMITTED: 27.7. 1956
AVAILABLE: Library of Congress.

CARD 2/2

LIPMAN, R.A. (Moskva); MEGNEVITSKIY, I.P. (Moskva).

On the theory of a half-wave magnetic amplifier [ith summary in English]. Avtom. i telem. 18 no.5:449-465 My '57. (MLRA 10:8)
(Magnetic amplifiers)

AUTHORS: Lipman, R A., Engineer,
Negnevitskiy I. B., Docent, Candidate of Technical Sciences

TITLE: Magnetic Choke-Coupled Amplifier
(Drossel'nyy magnitnyy usilitel')

PERIODICAL: Elektrichestvo, 1958, Nr 6, pp. 49-55 (USSR)

ABSTRACT: The foundation of the theory of a stabilized and of a transient process in the most simple magnetic amplifier of the impedance-type without reaction coupling with a c. windings connected in series and an effective induction load are explained here. It is a subsequent development of the problems dealt with by the author in reference 1. The magnetization curve is assumed to be an ideal one. The fundamental assumptions and the methods of analysis are the same as in reference 1. The amplifier is investigated with a finite effective resistance of the control-circuit for even harmonics. That method of operation where the reduced resistance of the control circuit is much smaller than the resistance of the a. c. circuit

Card 1/5

viz. where the natural magnetization takes place is investigated most thoroughly. The formulae for the parameters of the amplifier - (the degree of saturation ε, the loading angle φ, the ratio k of the reduced resistance and the degree of magnetization p) are written down. According to the amount of induction, three states of circuit diagram (Reference 1) are possible: 1) Both cores are not saturated. 2) one core is saturated, 3) both cores are saturated and both the load- and control-circuit are completely uncoupled. Any problem for the circuit diagram given here can be solved by means of the equations written down here for the parameters. The stabilized method of operation is investigated here and this investigation is carried out under the condition, that the state 3) does not obtain, viz. the amplifier is normally operated by "proportional amplification". The equations (15) and (16) are derived. They produce the relation of the angles α and β with the parameters p, k and φ. With $\varepsilon \leq$ the angles do not depend on ε. The case with $\varepsilon >$ is not dealt with here, since the state 3 does not occur hereby.

calculation of the characteristics with finite value of k is relatively voluminous. The investigations have shown that already with $k \geq 10$ all characteristics practically coincide with the characteristics with $k = \infty$ (natural magnetization). The subsequent analysis is therefore carried out only for the case $k = \infty$. The input-output characteristics are investigated. It is shown that the amplification-factor must be calculated according to the apparent power. Formula (22) is derived for the relative factor of amplification according to the apparent power. - The case of natural magnetization is only taken into consideration with the investigation of the transition processes (state 3 lacks). Equation (29) for the dependence of B on I_y is derived. The time-constant of the control-circuit is simultaneously also the time-constant of the amplifier as a whole. The equation (35) is derived for this. The important fact, that the transition-process for the mean values can be considered as exponential within the whole working range of the amplifier characteristic only in case of

effective load, is pointed out. But even in this case the law for the change of the maximum value or of the value effective during a period will differ from an exponential law. Further it is of importance for practice that a certain retardation exists with reduced supply voltage and only after this time the current begins to increase under load according to the time-constant. It is shown that the retardation-time with $\xi < 1$ is the greater, the smaller the supply-voltage and the amount of reduced e.m.f. of the input-signal with respect to the supply e. m. f. This time does not depend on the factor of amplification according to the output, the amount and character of the resistance in the control-circuit and on the load. The quality of the magnetic amplifier is characterized by the so-called dynamic efficiency factor D - the ratio of the factor of amplification according to the output with respect to the time-constant. The formula (42) is written down for the static efficiency factor D^0. The formulae for the time-constant and the dynamic efficiency factor hold on the condition that the time-constant is not greater than the half period.

Card 4/5

Magnetic Choke-Coupled Amplifier 105-58-6-13/33

There are 7 figures and 4 Soviet references.

ASSOCIATION: Moskovskiy energeticheskiy institut
(Moscow Institute for Power Engineering)

SUBMITTED: July 2), 1957

1. Magnetic amplifiers--Theory 2 Magnetic amplifiers--Performance 3 Mathematics

Card 5/5

SOV/105-58-7-6/32

Author: Lipman, M. A., Engineer
Nagovitsyn, I. N., Docent, Institute of Technical Sciences

Title: Transition-processes in a Magnetic Amplifier Working as a Relay (Perekhodnyye protsessy v magnitnom usilitele, rabotayushchem v releynom rezhime)

Publication: Elektrichestvo, [illegible], pp. [illegible]

Abstract: A physical explanation and a rigorous mathematical analysis of the considerable retardation (lagging) taking place in some cases in practice in connection with the responding and releasing of the relay which considerably exceeds the values mentioned in Ref 1, is given here on the basis of an example of the most simple contactless magnetic relay. - Formulae are derived by means of which the lagging time and the time required for full responding or releasing in the presence of an initial displacement may be calculated. The magnetization curve of the cores, and also the valves are assumed to be ideal for the purpose of simplification. The influence exercised by the eddy currents is not taken

Transition-Processes in a Magnetic Amplifier Working as a Relay

into account. The basic parameters characterizing the oper - tion of a contactless magnetic relay are determined in relative units. The transition process in this relay is investigated in connection with the sudden connection of the electromotive force of the signal. It is assumed in this connection that the displacement current is supplied by the power source. In the case of positive displacement the relay will show a "normally open contact". If displacement - -ind.ance act in conformity with the reaction winding relate "normally closed contact" the investigation is carried out in the same manner. - The time required for the response and loosening of the relay may be determined from the formulae (2.1) and (2.7). - (2.1) obtained in this case - corresponds to the known reserve factor k_r, reversely to r (..., ... coupling factor k_c, the ... of ..., ... without reaction coupling k_c, at the amount of relative supply voltage e. All these values are given as known from the static characteristic of the relay. Determination of the time required for the responding and loosening of the relay by means of relative factors and not by means of absolute magnitudes of the control, of response, etc. is -

Transition-processes in a Magnetic Amplifier Working as a Relay

according to the described method - of considerable advantage for the calculation and investigation of the influence exerted by various parameters upon these times $t_{response}$ and $t_{loosening}$.

The results obtained by experimental examination are given and it is said that triggering in connection with the responding (or loosening) of a contactless magnetic relay might be utilized for the manufacture of contactless time-limit relays. The latter will be found to be more advantageous than similar contactless relays because the current under load practically does not change during the interval. In spite of the assumed ideal form of the magnetization curve, the formulae for the calculation of the time required for responding and loosening agree well with the tests. This is the case if the values k_{β}, k_{U} and Δ^{0} are determined in accordance with the experimentally obtained static relay-characteristics. Δ^{0} is the relative width of the relay characteristic (loop). - The transition process in connec-

SOV/[illegible]-59-1-6 [illegible]

Tran[illegible]ition-by-passes in a Magnetic Amplifier Working as a Relay

[illegible]tion with the response of the relay according to individual stages corresponding to the different curve-sectors in Fig 2, is investigated in this [illegible]. There are 5 figures, 1 table, and 5 Soviet references.

[illegible]TI N: Moskovskiy energeticheskiy institut (Moscow Institute of Power Engineering)

[illegible]BM TT[illegible]: February [illegible], 1958

1. Magnetic amplifiers--Mathematical analysis 2. Magnetic amplifiers --Transients

Card 4/[illegible]

PHASE I BOOK EXPLOITATION SOV/4704

Lipman, Roydzhoy Aleksandrovich, and Iosif Borisovich Negnevitskiy

Bystrodeystvuyushchiye magnitnyye i magnitno-poluprovodnikovyye usiliteli (High-Speed Magnetic and Transistor-Magnetic Amplifiers) Moscow, Gosenergoizdat, 1960. 403 p. 10,000 copies printed.

Ed.: R.A. Baryshnikova; Tech. Ed.: K.P Voronin.

PURPOSE: The book is intended for technical personnel of scientific research institutes, laboratories, and factory design offices concerned with the development of amplifiers. It may also be used as a textbook for special courses at electrical engineering divisions of schools of higher education.

COVERAGE: This book sets forth the fundamentals of circuit design, describes physical processes, basic quantitive relationships, and characteristics (in terms of relative units) of various high-speed magnetic and transistor-magnetic amplifiers. Simple technical methods of designing the saturable reactor (core, windings) of magnetic amplifiers are included. The authors state that the theory and practice of high-speed magnetic amplifiers are

Card 1/8

Insufficiently treated in contemporary technical literature. Several problems are discussed in separate articles in Soviet and foreign periodicals, however, without any organic connection between them. This book appears to be an initial effort to fill this gap. Chapters IX and X were written by R.A. Lipman and the remaining chapters jointly by the two authors. Sections 3-9, 6-1, and Chapter VII were written with the permission of L.L. Samurina and are based on her doctoral dissertation. The authors thank Professor M.A. Rozenblat, Doctor of Technical Sciences, and R.A. Baryshnikova for their help. There are 78 references: 40 Soviet, 1 Czech, 36 English, and 1 French.

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Ch. I. Transients in Self-Saturating Magnetic Amplifiers and Constructional Principle of High-Speed Magnetic Amplifiers 9
1-1. Introduction 9
1-2. "High-speed" action conditions of a magnetic amplifier 10
1-3. Transients in "conventional" self-saturating magnetic amplifiers 15
1-4. Characteristic features of a transient in "conventional" self-saturating magnetic amplifiers and a-c output 31

Vsesoyuznoye ob"yedinennoye soveshchaniye po avtomatizatsii proizvodstvennykh protsessov v mashinostroyenii i avtomatizirovannomu elektroprivodu v promyshlennosti. 3d, Moscow, 1959

Elektroprivod i avtomatizatsiya promyshlennykh ustanovok; trudy soveshchaniya (Electric Drive and Automation in Industrial Systems; Transactions of the Conference) Moscow, Gosenergoizdat, 1960. 470 p. 11,000 copies printed.

General Eds.: I.I. Petrov, A.A. Sirotin, and M.G. Chilikin; Eds.: I.I. Sud, and B.P. Silayev; Tech. Eds.: K.P. Voronin, and G.Ye. Larionov.

PURPOSE: The collection of reports is intended for the scientific and technical personnel of scientific research institutes, plants and schools of higher education.

COVERAGE: The book is a collection of reports submitted by scientific workers at plants, scientific institutes and schools of higher education at the third Joint All-Union Conference on the Automation of Industrial Processes in Machine Building and Automated Electric Drives in Industry held in Moscow on May 12-16, 1959. The Conference was called by the Academy of Sciences USSR, the Gosplan SSSR (State Planning Commission USSR), the GNTK SSSR, the Gosudarstvennyy komitet po avtomatizatsii i mashinostroyeniyu (State Committee on Automation and Machine Building) and the Natsional'nyy komitet SSSR po avtomaticheskomu upravleniyu (USSR National Committee on Automatic Controls) and prepared by the Nauchno-tekhnicheskiy komitet po avtomatizirovannomu elektroprivodu (Scientific and Technical Committee on Automated Electric Drives), the MEI (Moscow Institute of Energetics), the VNIIEM, the IAT (Institute of Automation and Telemechanics) of the Academy of Sciences USSR, and the Komissiya po tekhnologii mashinostroyeniya Instituta mashinovedeniya AN SSSR (Commission on the Technology of Machine Building of the Institute of Science of Machines of the Academy of Sciences USSR). It was the purpose of the Editorial Board to arrange the reports in a way which would ensure a relatively systematic presentation of theoretical and practical problems relating to electric drives and automatic controls of industrial mechanisms used in various branches of industry. Basic problems of automated electric drive and their solution are outlined. The book also contains articles on electric machinery and means of automation. Considerable attention is paid to noncontact automatic control systems, including systems with semiconductor devices and magnetic amplifiers, and to computers intended both for the analysis and the synthesis of linear and nonlinear automatic regulation and control systems. Reports already published in journals or official publications have been considerably abbreviated; those which have appeared in volume V of STI EP transactions or in the journal "Elektrichestvo" are marked with an asterisk. No personalities are mentioned. References accompany some of the papers.

PART I. GENERAL PROBLEMS CONCERNING THE THEORY AND PRACTICE OF ELECTRIC DRIVE AND AUTOMATION OF CONTROL

Botvinnik, M.M., Doctor of Technical Sciences, and Yu.G. Shakaryan, Engineer. Synchronous Induction Machine and Prospects of Its Application* 421

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Kopylov, I.P., Candidate of Technical Sciences. Motor-Amplifiers Combining a Magnetic Amplifier With an Electric Machine* 430

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Barybin, Yu.G., and M.I. Zalozhitskiy, Engineers. Interlocking Control With the Use of Standard Units of Low-Current Equipment 451

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[Noncontact magnetic relays] Beskontaktnye magnitnye rele. Moskva, Gos. energ. izd-vo, 1961. 127 p. (Biblioteka po avtomatike, no.39) (MIRA 14:10)

(Electric relays) (Magnetic amplifiers)

ZAYDEL', Khristina Eduardovna, starshaya prepodavatel'nitsa
NEGNEVITSKIY, Iosif Borisovich, kand.tekhn.nauk, dotsent
SOLOVKIN, Eduard Leonidovich, aspirant

Device for testing the cores of self-saturating magnetic amplifers. Izv. vys. ucheb. zav.; elektromekh. 4 no.3:146-156 '61. (MIRA 14:7)

1. Kafedra obshchey elektrotekhniki Moskovskogo energeticheskogo instituta (for Zaydel', Solovkin). 2. Kafedra teoreticheskikh osnov elektrotekhniki Moskovskogo energeticheskogo instituta (for Negnevitskiy).
(Magnetic amplifiers)
(Cores(Electricity)—Testing)

[redacted], R.A.; NEGNEVITSKIY, I.B.

Operating conditions in a push-pull d.c. magnetic amplifier.
Elektrichestvo no.6:74-78 Je '61. (MIRA 14:6)

1. Moskovskiy energeticheskiy institut.
(Magnetic amplifiers)

S/103/61/022/010 [illegible] 018
D274/D301

9,7260

AUTHORS: Negnevitskiy, I. B., and Negnevitskiy, S. B. (Moscow)

TITLE: On increasing the accuracy and interference [illegible] integrating amplifiers

PERIODICAL: Avtomatika i telemekhanika, v. 22, no. 10, 1961, 1419-1421

TEXT: An integrating amplifier circuit is described which incorporates a principal and an auxiliary amplifier and has a large time constant and adequate stability. Both amplifiers can be in push-pull or single cycle. A figure (see Card 4) shows the circuit diagram of the amplifiers with parallel and with magnetic feedback respectively, the principal amplifier being magnetic. The time constant of the system is

$$T = \frac{\tau k_{uo}}{1 + R/R_o} (1 + k_{uB}) \qquad (1)$$

Card 1/4

On increasing the...

where k_{uo} and k_{uB} are the gains of the principal and of the auxiliary amplifier respectively; $\tau = RC$. The transfer function $W(p)$ and are

$$W(p) = \frac{k_F w_{in}}{1 + pT} , \qquad T = C w_{oc} k_F (1 + k_{uB})$$

if $|pt| \leqslant 1$ and R_{oc} (the resistance of the principal amplifier) $\ll (1 + k_{uB}) k_F w_{oc}$, which is normally the case. From Eq. (3) and Eq. (6) it is evident that T is larger by a factor of $(1 + k_{uB})$ as compared to other (analogous) integrating amplifiers not containing an auxiliary amplifier. Further, the influence of the voltage drift of the auxiliary amplifier on that of the principal amplifier is considered. It is found that under steady-state conditions, the voltage-drift of the principal amplifier is not increased by the auxiliary amplifier. In practice the maximum output voltage of the principal amplifier is 10 - 100 volt;

Card 2/4

k_{uB} can re 10 - 1.0 . It is found that the auxiliary amplifier can have a fairly high output resistance and low power (1 25 milliwatt). Further, the stability of the system is analyzed. It is assumed that both amplifiers are inertial with time constants $_{o}$ and $_{B}$ respectively. From the expression for the transfer function it follows that the system is stable; it is also aperiodic under certain conditions, viz.

$$Cw_{oc}(1 + k_{uB})^2 \geq \frac{4 \tau_B}{k_F} \qquad (14)$$

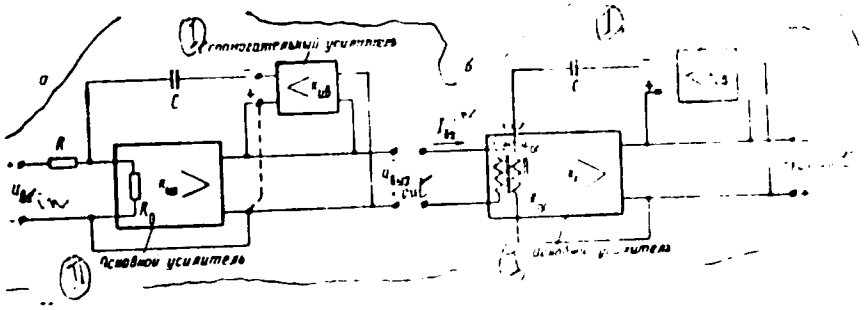
The described integrating amplifier was experimentally tested and found completely satisfactory. Both tube and magnetic amplifiers were tested. As an example, numerical values of the parameters are given; the introduct of the auxiliary amplifier increased the time constant 6 times, to approx. 800 sec. The time constants of both amplifiers may be even much larger. In conclusion it is noted that the described circuit is only

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

On increasing the...

complementary to the ordinary integrating circuits and should be used wherever certain requirements (stated at the beginning of the article) have to be met. There are 1 figure and 2 Soviet-bloc references.

SUBMITTED: February 20, 1961



Legend to figure: I--auxiliary amplifier; II--principal amplifier

Card 4/4

ANDREYEV, Georgiy Pavlovich; ANDREYEV, Sergey Nikolayevich; BOGOLYUBOV, Valentin Yevgen'yevich; BURDAK, Nadezhda Mironovna; ZHUKHOVITSKIY, Boris Yakovlevich; ZEVEKE, Georgiy Vasil'yevich; KARAYEV, Ruben Iosifovich; LEVITAN Semen Arkad'yevich; MUKHIN, Aleksandr Andreyevich; NEGNEVITSKIY, Iosif Borisovich; PEREKALIN, Mikhail Aleksandrovich; POLIVANOV, Konstantin Mikhaylovich, prof., doktor tekhn.nauk; FRIDKIN, L.M., tekhn. red.

[Problems of theoretical principles of electrical engineering; theory of networks]Zadachnik po teoreticheskim osnovam elektrotekhnik; teoriia tsepei. [By]G.P.Andreev i dr. Moskva, Gosenergoizdat, 1962. 159 p. (MIRA 15:12)
(Electric engineering) (Electric networks)

ACCESSION NR: AR4041523 S/0271/64/000/005/A008/A008

SOURCE: Ref. zh. Avtomatika, telemekhanika i vy*chislitel'naya tekhnika. Svodny*y tom, Abs. 5A52

AUTHOR: Belyayev, A. Ya.; Lipman, R. A.; Negnevitskiy, I. B.

TITLE: Presentation of magnetic amplifier in the form of equivalent controlled oscillator for purposes of analysis and calculation

CITED SOURCE: Sb. dokl. Tashkentsk. politekhn. in-t, no. 3, 1963, 20-39

TOPIC TAGS: magnetic amplifier, controlled oscillator

TRANSLATION: The magnetic amplifier is considered as a controlled source of current or voltage. The output of the magnetic amplifier within certain limits depends only on the input signal and not on resistance of load, frequency, and supply voltage. On this basis there is analyzed operation of magnetic amplifier of bridge type with self-saturation having output of direct current and one ballast resistor (magnetic amplifier with increased efficiency). There are shown advantages of calculation of characteristics of magnetic amplifier in the form of controlled

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ACCESSION NR: AR4041523

source over method of usual calculation. Under assumptions that hysteresis loop ideally is rectangular, active resistance of operation coils is equal to zero, diodes are ideal, and so forth, it is shown that magnetic amplifier has maximum efficiency of 50% during equality of load and ballast resistors. Results are given of experiment for magnetic amplifier with cores OL 20/25-5 at a frequency of 400 cps and a supply voltage of 23 v. Six illustrations. Bibliography: 5 references.

SUB CODE: EC ENCL: 00

Card 2/2

LIPMAN, R.A. (Moskva); NEGNEVITSKIY, I.B. (Moskva); ZAYDEL', Kh.E. (Moskva)

New operating modes and elements of the design of a two-cycle d.c. magnetic amplifier. Elektrichestvo no.4:63-67 Ap '63. (MIRA 16:5)
(Magnetic amplifiers)

S/103/63/024/002/014/020
D201/D308

AUTHORS: Zaydel', Kh.E., Negnevitskiy, I.B., Solovkin, E.L. and Tsareva, M.K. (Moscow)

TITLE: Dynamic demagnetization curves of cores of self-saturating magnetic amplifiers

PERIODICAL: Avtomatika i telemekhanika, v. 24, no. 2, 1963, 248-254

TEXT: The authors show that the dynamic demagnetization curve, as used in the Roberts method of control of magnetic amplifiers, makes it possible to calculate, with an accuracy sufficient for practical purposes, the input-output characteristic of a self-saturating magnetic amplifier and may be thus used for the amplifier design, control and core selection. The principle of the dynamic demagnetization curves has been used at the Moskovskiy energeticheskiy institut (Moscow Institute of Power Engineering) in the design of special equipment for the analysis of tape and toroidal cores of various dimensions and at various frequencies. The results obtained

Card 1/2

Dynamic demagnetization curves ... S/103/63/024/002/014/020. D201/D308

show clearly the dependence of curves on frequency and make it possible to determine the limiting frequency of the amplifier's supply and the corresponding material dimensions of cores. There are 7 figures.

SUBMITTED: April 9, 1962

AB

Card 2/2

MILOVZOROV, Vladimir Petrovich; SOTSKOV, B.S., retsenzent; MITYUSHIN, F.F., dots., retsenzent; [illegible], dots., retsenzent; NEGNEVITSKIY, I.B., dots., retsenzent; KOKOL'KOV, N.V., kand. tekhn.nauk, red.

[Electromagnetic techniques] Elektromagnitnaia tekhnika. Moskva, Energiia, 1964. 511 p. (MIRA 17:12)

1. Chlen-korrespondent AN SSSR (for Sotskov). 2. Kafedra vychislitel'noy tekhniki i elementov vychislitel'noy tekhniki Moskovskogo aviatsionnogo institute im. S. Ordzhonikidze (for Mityushin, Makhmanov). 3. Moskovskiy energeticheskiy institut (for Negnevitskiy).

ZHUKHOVITSKIY, Boris Yakovlevich; NEGNEVITSKIY, Iosif Borisovich;
POLIVANOV, K.M., prof., red.

[Theoretical principles of electrical engineering in three parts] Teoreticheskie osnovy elektrotekhniki v trekh chastiakh. Moskva, Energiia. Pt.2. [illegible]
(MIRA [illegible])

L 29951-66 EWT(1)

ACC NR: AP6016140 SOURCE CODE: UR/0103/66/000/005/0147/0156

AUTHOR: Kuznetsov, Ye. I. (Moscow); Negnevitskiy, I. B. (Moscow); Negnevitskiy, S. B. (Moscow)

26
B

ORG: none

TITLE: Logarithmic magnetic amplifiers 25

SOURCE: Avtomatika i telemekhanika, no. 5, 1966, 147-156

TOPIC TAGS: magnetic amplifier, logarithmic amplifier

ABSTRACT: Static characteristics of logarithmic magnetic amplifiers (LMA) whose feedback contains a logarithmic-characteristic diode are examined. LMA's with parallel, series, and magnetic feedbacks are described by similar input-output-voltage equations; the latter differ only by their constant coefficients. The logarithmic characteristic can also be ensured by a piecewise-linear approximation arrangement (Si voltage-regulating diodes). The systematic logarithmic-function error is due to (a) an output-voltage component proportional to the input voltage and (b) finite amplifier gain. The first error component can be removed by subtracting, from the output voltage, a special voltage proportional to the input voltage and equal to the absolute error. This special voltage can be derived from an auxiliary (isolating) magnetic amplifier. Thus the ultimate error will contain only the (b) error component. Heavier currents in the logarithmic element ensure lower drifts; in this respect, the approximating-element circuit is the most suitable

Card 1/2 UDC: 621.375.3[illegible]

L 29951-66

ACC NR: AP6016140

Recommendations for selecting the LMA circuit [illegible] specified conditions are given. Some results of an experimental verification, with particular reference to the above error-reduction method, are reported; single-ended, 40 [illegible] amplifiers were tested. Orig. art. has: 5 figures, 20 formulas, and 4 tables. [03]

SUB CODE: 09/ SUBM DATE: 14Jul65/ ORIG REF: 006/ OTH REF: 004/ ATD PRESS: 5011

Card 2/2 CC

8 (2)

AUTHOR: Negnevitskiy, S. B., Candidate of Technical Sciences (Moscow) SOV/105-59-6-8/28

TITLE: A New Method of Differentiating the Envelope of an Alternating Voltage (Novyy sposob differentsirovaniya ogibayushchey peremennogo napryazheniya)

PERIODICAL: Elektrichestvo, 1959, Nr 6, pp 30 - 34 (USSR)

ABSTRACT: The author presents a new method of differentiating the envelope of alternating voltages by means of a reactor-type magnetic amplifier, which has been developed by him and by Ye. K. Belyakov, and which they term a differentiating reactor. In figure 1 the principal circuit diagram of a simple differentiating reactor is shown and discussed. The two principal methods of operation are described (Ref 3). The assumptions made in discussing the different modes of operation are given. It is shown that under these assumptions such a reactor is an ideal differentiating circuit element. In reality a filter must be connected to the reactor output, whereby the performance of the reactor became almost equal to that under natural magnetization. Formula (8) for the output voltage is derived, which shows that with a finite burden the differentiating reactor can

Card 1/2

A New Method of Differentiating the Envelope of an Alternating Voltage SOV/105-59-6-8/28

be compared to an ordinary real passive differentiating circuit element with a time constant τ. The relationships obtained were checked experimentally, the results showing, that a correction factor of 0.85 must be inserted into formula (8), after which the results agree with the calculated data. The simple circuit for such a differentiating reactor has the disadvantage, that every grid voltage fluctuation is also differentiated, so that errors are introduced. This setback is exhibited to a much lesser degree by a push-pull reactor, the circuit diagram of which is given in figure 6. There are 6 figures, 1 table, and 6 Soviet references.

SUBMITTED: March 4, 1958

Card 2/2

S/103/61/022/010 [illegible] 018
D274/D301

9,7260

AUTHORS: Negnevitskiy, I. B., and Negnevitskiy, S. B. (Moscow)

TITLE: On increasing the accuracy and integration [illegible] integrating amplifiers

PERIODICAL: Avtomatika i telemekhanika, v. 22, no. 10, [illegible] 1409-1421

TEXT: An integrating amplifier circuit is described which incorporates a principal and an auxiliary amplifier and has a large time constant and adequate stability. Both amplifiers can be in push-pull or single cycle. A figure (see Card 4) shows the circuit diagram of the amplifiers with parallel and with magnetic feedback respectively, the principal amplifier being magnetic. The time constant of the system is

$$T = \frac{\tau k_{uo}}{1 + R/R_o} (1 + k_{uB}) \qquad (1)$$

Card 1/4

On increasing the...

where k_{uo} and k_{uB} are the gains of the principal and of the auxiliary amplifier respectively; $\tau = RC$. The transfer function $W(p)$ and T are

$$W(p) = \frac{k_F w_{in}}{1 + pT} \quad , \qquad T = C w_{oc} k_F (1 + k$$

if $|pT| \leqslant 1$ and R_{oc} (the resistance of the principal amplifier) $(1 + k_{uB}) k_F w_{oc}$, which is normally the case. From Eq. (3) and Eq. (6) it is evident that T is larger by a factor of $(1 + k_{uJ})$ as compared to other (analogous) integrating amplifiers not containing an auxiliary amplifier. Further, the influence of the voltage drift of the auxiliary amplifier on that of the principal amplifier is considered. It is found that under steady-state conditions, the voltage-drift of the principal amplifier is not increased by the auxiliary amplifier. In practice the maximum output voltage of the principal amplifier is 10 - 100 volt;

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k_{uB} can re... 10 - 1.0 . It is found that the auxiliary amplifier can have a fairly high output resistance and low power (1 25 milliwatt). Further, the stability of the system is analyzed. It is assumed that both amplifiers are inertial with time constants $_{o}$ and $_{B}$ respectively. From the expression for the transfer function it follows that the system is stable; it is also aperiodic under certain conditions, viz.

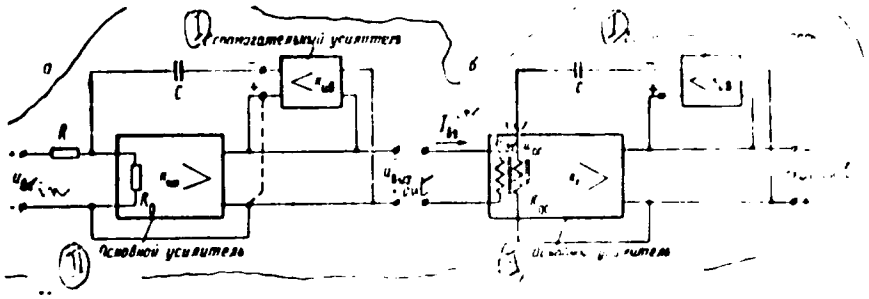
$$Cw_{oc}(1 + k_{uB})^2 \geq \frac{4 \cdot B}{k_F} \qquad (14)$$

The described integrating amplifier was experimentally tested and found completely satisfactory. Both tube and magnetic amplifiers were tested. As an example, numerical values of the parameters are given; the introduct of the auxiliary amplifier increased the time constant 6 times, to approx. 800 sec. The time constants of both amplifiers may be even much larger. In conclusion it is noted that the described circuit is only

On increasing the...

complementary to the ordinary integrating circuits and should be used wherever certain requirements (stated at the beginning of the article have to be met. There are 1 figure and 2 Soviet-bloc references.

SUBMITTED: February 20, 1961



Legend to figure: I--auxiliary amplifier; II--principal amplifier

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MEGNEVITSKIY, S.B. (Moskva)

Integrating magnetic amplifier with large time constant. Avtom. i telem. 24 no.10:1397-1404 O '63. (MIRA 16:11)

Negnevitskiy, Ya. I.

3(2), 3(4) SOV/6-59-7-4/25

AUTHOR: Sokolova, O. I.

TITLE: Results of the Competition for the Best Improving Suggestion (Itogi konkursa na luchsheye ratsionalizatorskoye predlozheniye)

PERIODICAL: Geodeziya i kartografiya, 1959, Nr 7, pp 17-21 (USSR)

ABSTRACT: In May 1959, the ordinary competition for the best improving suggestion in the field of topographic-geodetic and cartographic production was concluded at the Glavnoye upravleniye geodezii i kartografii MVD SSSR (Main Administration of Geodesy and Cartography of the Ministry of Internal Affairs of the USSR). 7 aerogeodetic services, 8 cartographic institutes and NRKCh took part. A total of 30 topographic-geodetic, and 31 cartographic, suggestions were submitted. The 1st prize of 1,000 rubles was awarded to V. A. Morozov and V. V. Grusev (Minskaya kartograficheskaya fabrika (Minsk Cartographic Plant)) for the "Seamless Fastening of Atlas Blocks". The 2nd prizes of 750 rubles were awarded to: 1) Ya. I. Bratslavskiy, V. M. Varsugin, Yu. B. Golitskiy, O. P. Shelkar and V. P. Stepanov (NRKCh) for "Technology of the Use of Standard Bases (Tipovaya osnova)". 2) I. V. Gurevich, V. M. Varsugin,

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B. O. Radovil'skaya, O. D. Shelker, [illegible] for "Technology of the Manufacture of Combined Diapositives" (NRKCh). 3) B. A. Larin (Moskovskoye AGP (Moscow AGP)) for "Reduction of Work in Evaluating the Accuracy of Symmetric Geodetic Nets Formed by Figures of Regular Shape". 4) B. V. Shreyber (Novosibirskoye AGP (Novosibirsk AGP)) for "Light Collapsible Ladder of Dural for Prospecting". - The 3rd prizes of 500 rubles each were awarded to : 1) A. F. Sharaltin (Yakutskoye AGP (Yakutsk AGP)) for "Establishment of Fixed Points by the Method of Thawing by Means of Vapor". 2) I. A. Ol'shanskiy (Yakutskoye AGP (Yakutsk AGP)) for "Construction of an Overhead Trolley for Timber Transport". 3) I. A. Kvain (Moskovskoye AGP (Moscow AGP)) for "Variation in the Attachment of Photographs on the STD-2". 4) V. P. Zarubin (Moskovskoye AGP (Moscow AGP)) for "Raising of Geodetic Signs by [illegible] Meters". 5) D. I. Smirnov, I. V. Gurevich, S. I. Aleksandrova, V. M. Varsugin, V. K. Kirillov and L. Ya. Kisaryakov (NRKCh) for "Technology of the Completion and Edition of Topographic Maps by the Photorelief Method". 6) N. F. Glushanin (Minskaya kartograficheskaya fabrika (Minsk Cartographic Institute)) for "Vertical Piling Machine for Brochures". 7) A. A. Tausov

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(Tashkentskaya kartograficheskaya fabrika (Tashkent Cartographic Institute)) for "Mechanism for the Loading of Trucks With Paper Rolls". 8) A. F. Tkachenko (Ukrainskoye AGP (Ukrainian AGP)) for "Replacement of the Arc Lamp for the Heliographic-printing Machine KP-1 by an Illuminating Device With Luminescent Lamps DS-40". 9) A. L. Grigor'yev (Sverdlovskoye AGP (Sverdlovsk AGP)) for "Ruler for Drawing in the Preparation of Map Compilations and Final Compilations". 10) [illegible] Israilev (Severo-Zapadnoye AGP (North-west AGP)) for "Improvement of the Contact Mechanism in the Micrometer by Vodar". 11) S. K. Andreyev (Moskovskoye AGP (Moscow AGP)) for "Formulae and Form for a More Rational Computation of Superelevations From the Trigonometric Leveling". 12) [illegible] Vil'ner (Sverdlovskoye AGP (Sverdlovsk AGP)) for "New Numbering and Painting of Leveling Staffs". [illegible] Kinberg (Moskovskoye AGP (Moscow AGP)) for "Formulae and Table for Extreme Divergences Between the Free Terms of Polar and Base Conditions Computed on a Plane and on a Ball". - Besides, the following suggestions were approved by the jury: 1) I. Z. Frykov (Sverdlovskoye AGP (Sverdlovsk AGP)), "Underframe for Observations From the Telescopic Tower" 2) [illegible]

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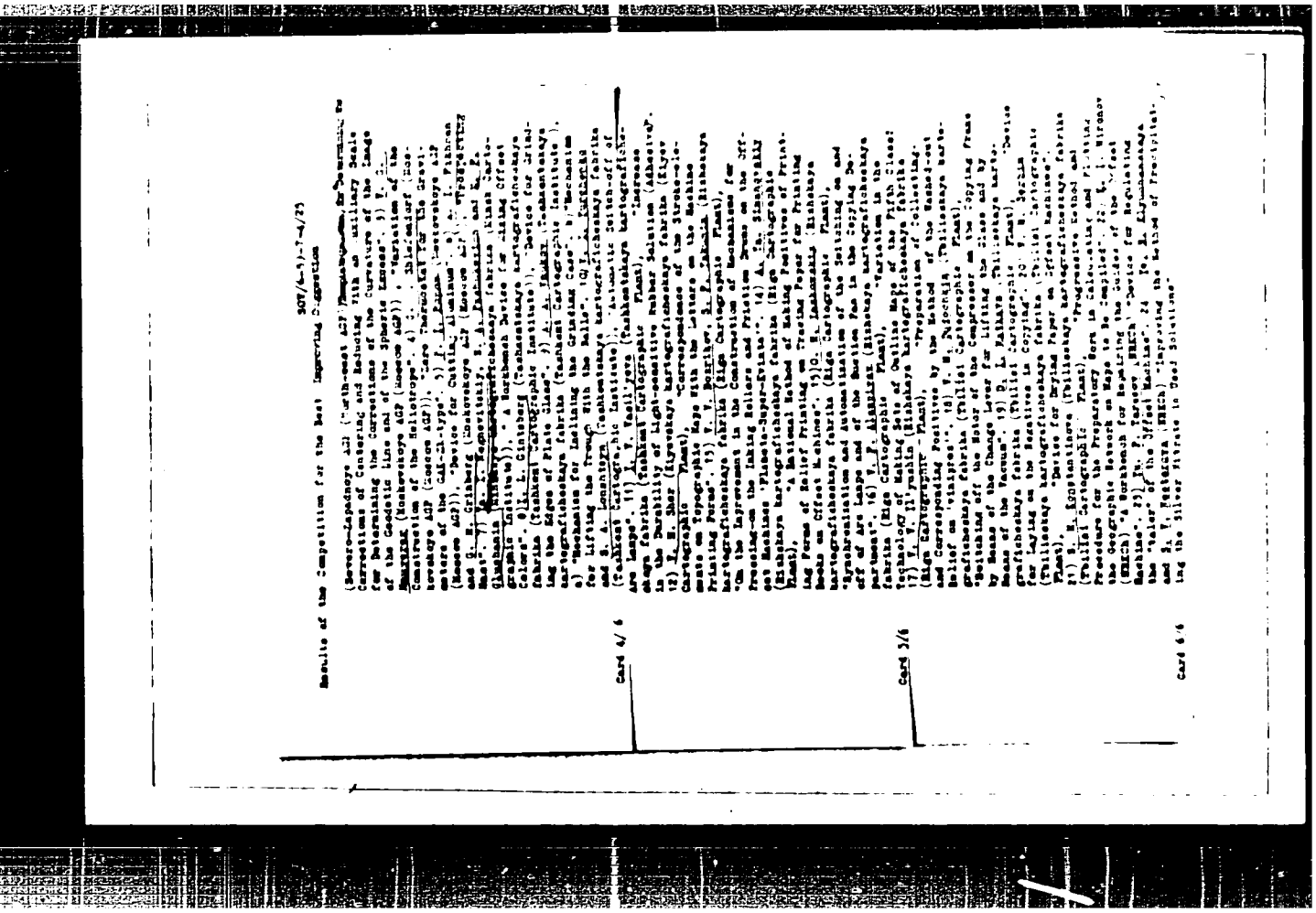

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(MLRA 7:7)

1. Direktor Khabarovskoy gorodskoy elektrostantsii.
(Khabarovsk--Electric power plants) (Electric power plants--Khabarovsk)

NEGODA, Grigoriy Pudovich, kontr-admiral; ZOTOV, M.N., red.; SOLOMONIK, R.L., tekhn. red.

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(World War, 1939-194)—Naval operations)

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1. Institut geologicheskikh nauk AN UkrSSR.

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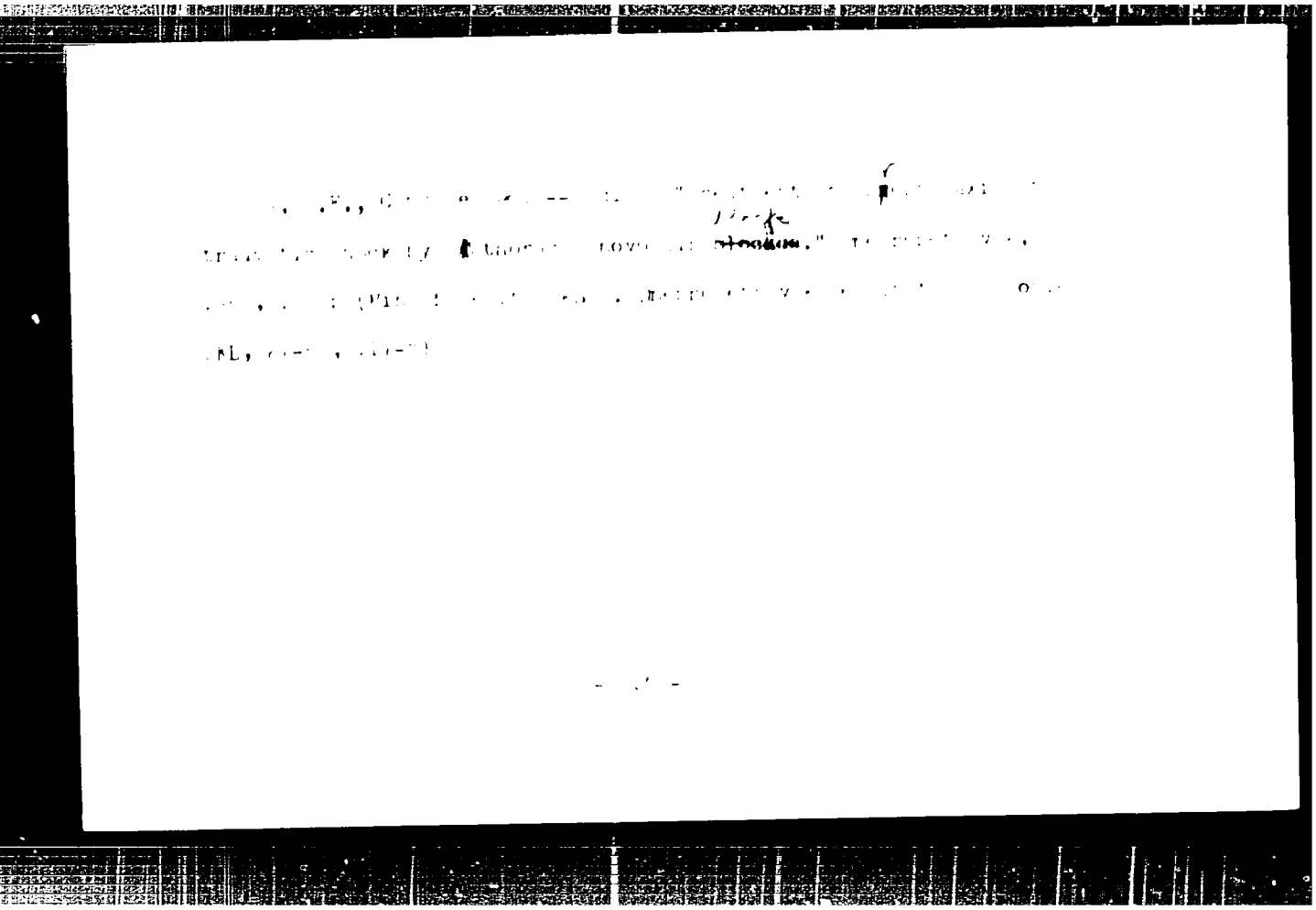
1. Kiivs'kiy medichniy institut imeni akademika O.O.Bogomol'tsya, kafedra gospital'noy khirurgii.
(LOCAL ANESTHESIA) (SHOCK)



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1. Kafedra gospital'noy khirurgii (zav. - prof.M.Ye.Dudko) Kiyevskogo meditsinskogo instituta.
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1. Vsesoyuznyy nauchno-issledovatel'skiy i proyektno-konstruktorskiy institut dobychi uglya gidravlicheskim sposobom.

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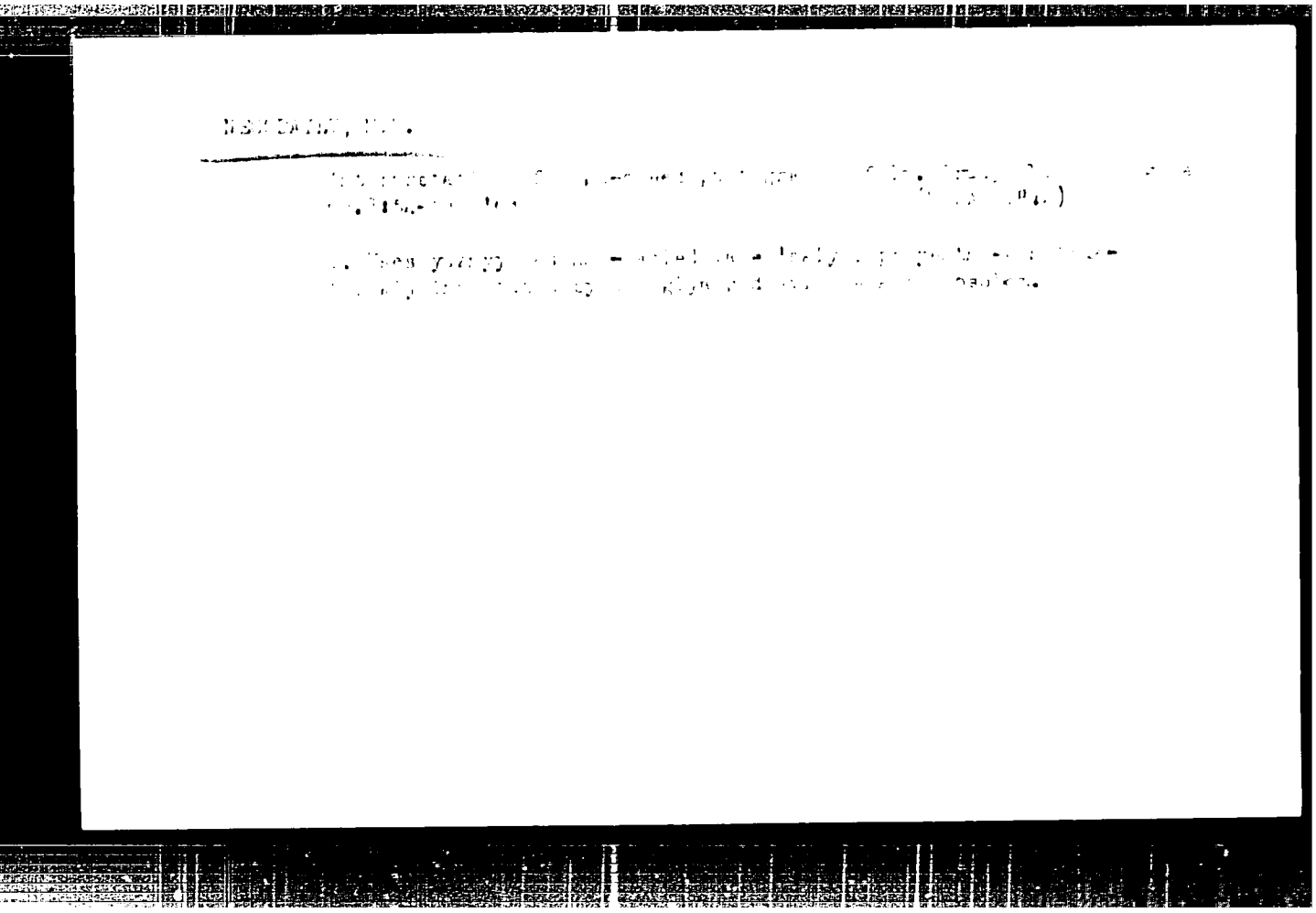

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