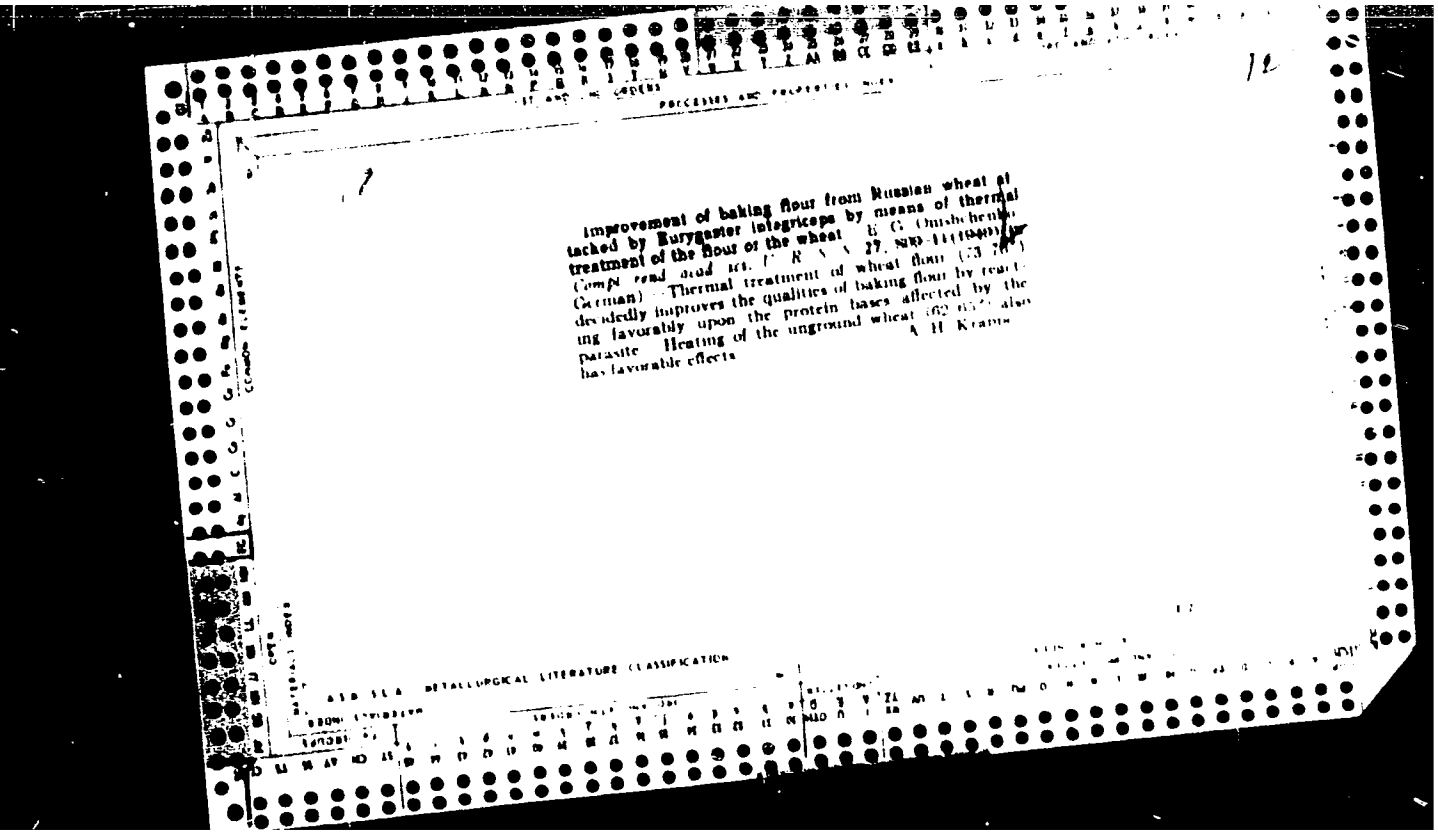
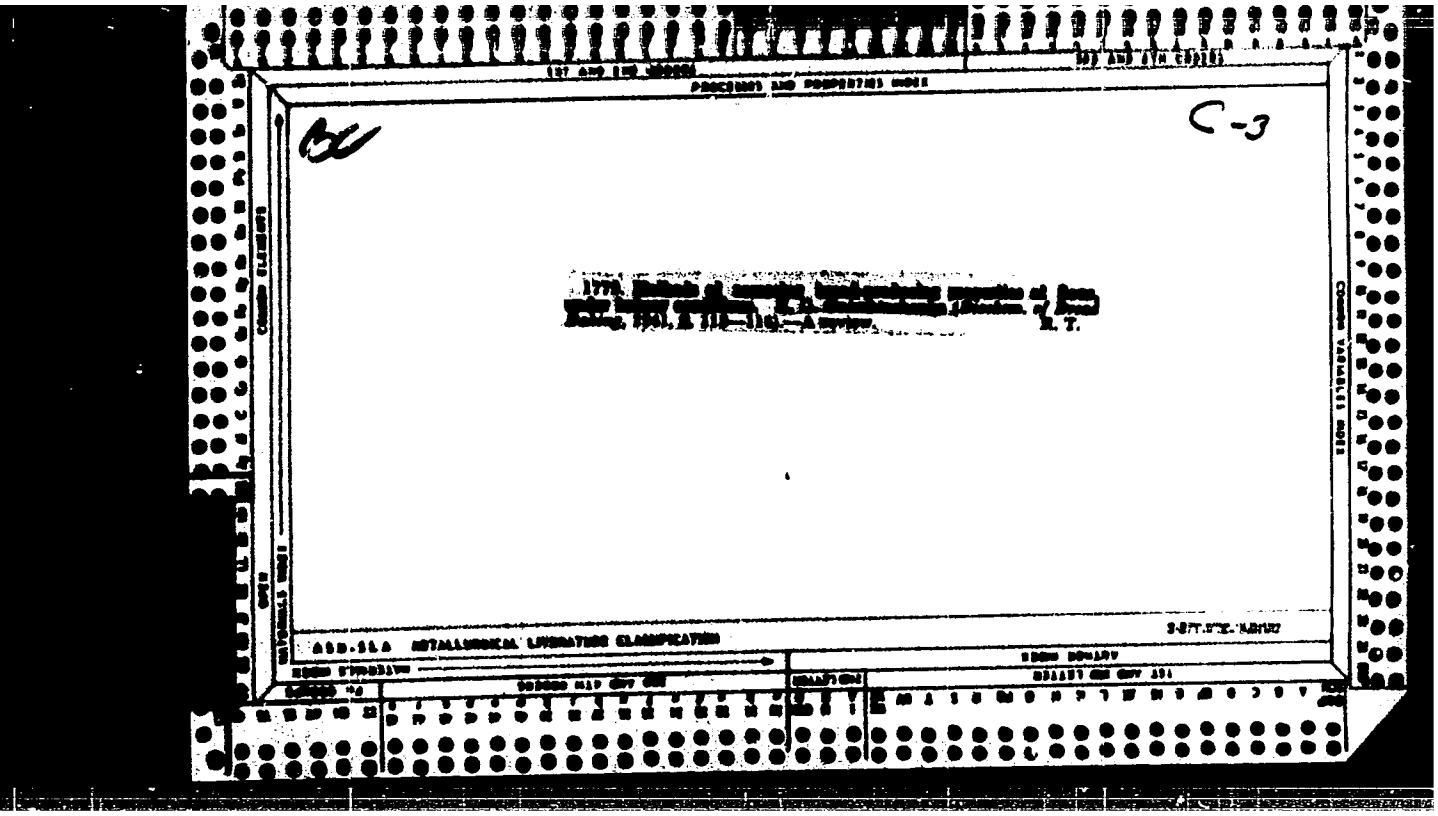


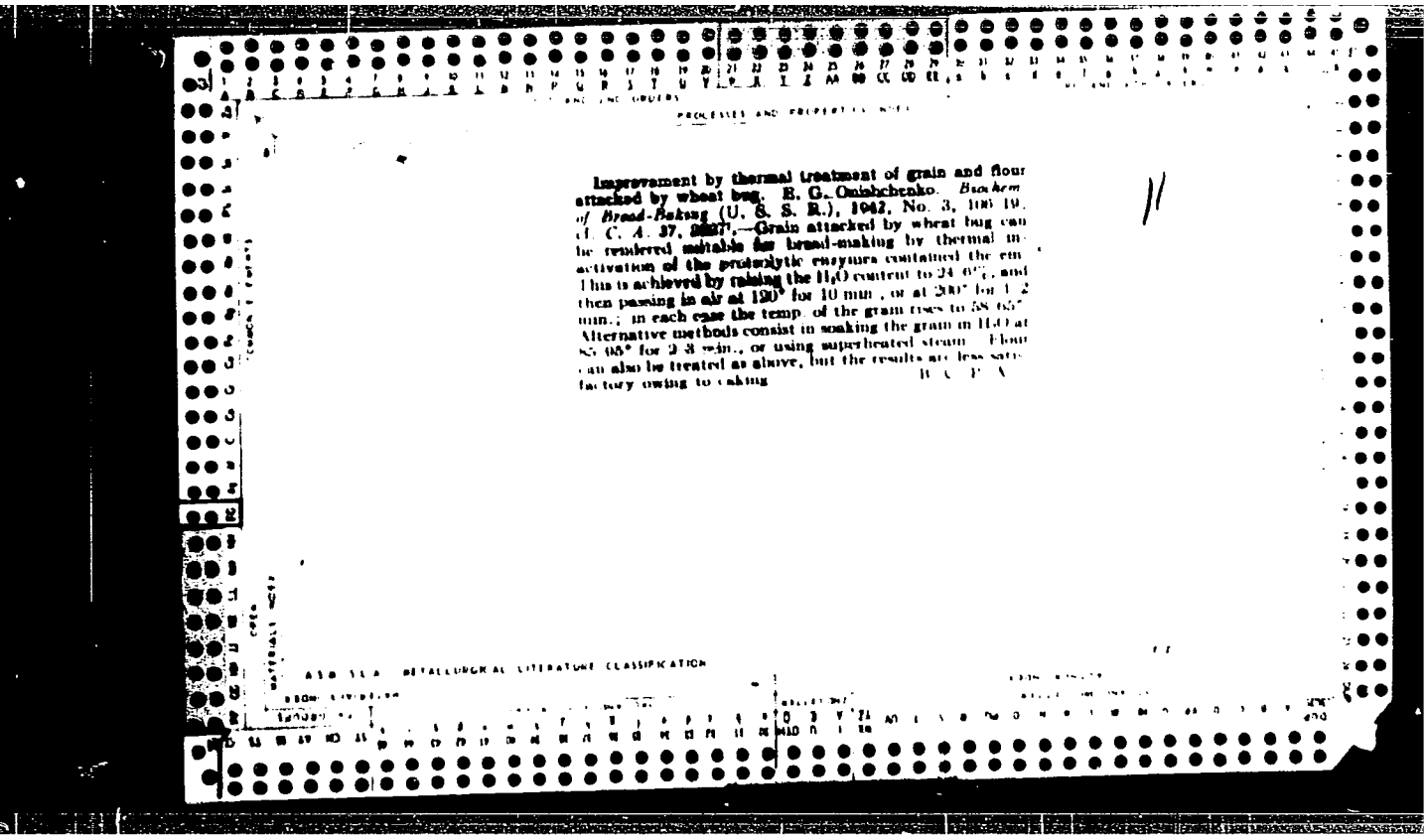
Improvement of baking flour from Russian wheat attacked by Eurygaster integriceps by means of thermal treatment of the flour or the wheat

[illegible] G Onishchenko

Compt rend acad sci [illegible] R S S 27, No 9 (1940) (In German) -- Thermal treatment of wheat flour (53 [illegible]) decidedly improves the qualities of baking flour by reacting favorably upon the protein bases affected by the parasite. Heating of the unground wheat (62 [illegible]) also has favorable effects

A H Krauss





Improvement by thermal treatment of grain and flour attacked by wheat bug. E. G. Onishchenko. *Bacterm of Bread-Baking* (U. S. S. R.), 1942, No. 3, 10[illegible] cf. C. A. 37, [illegible].—Grain attacked by wheat bug can be rendered suitable for bread-making by thermal inactivation of the proteolytic enzymes contained the em[illegible] This is achieved by raising the H_2O content to 24-6[illegible], and then passing in air at 120° for 10 min., or at 200° for 1-2 min.; in each case the temp. of the grain rises to 58-65° Alternative methods consist in soaking the grain in H_2O at 85-95° for 2-3 min., or using superheated steam. Flour can also be treated as above, but the results are less satisfactory owing to caking

ONISHCHENKO, E. G.

Improvement of bread-baking properties of wheat grain by means of hydrothermic treatment and methods of determination of its amylolytic activity. E. G. Onishchenko and I. A. Popadich (Technol. Inst. Food Ind., Moscow). *Biokhim. Zerna, Sbornik* 1956, No. 3, 129-44.—Heat treatment of wheat grain markedly reduces the amylolytic activity, and this allows the utilization of this grain for the prepn. of grade flour. The activity of α- and β-amylases decreases considerably more after hydrothermic treatment than by thermic treatment alone. The inactivation of amylolytic enzymes during thermic treatment is partially reversible. Comparative studies of methods of detg. amylolytic activity indicated that, under practical manufg. conditions, the method of Proskuryakov and Kraleynikova (*C.A.* 36, 5007[1]) is preferable. In cases where the content of water-sol. components in the samples exceeds 50%, the addn. of starch to the sample is desirable. I. A. Stekol

L 61636-65 EWT(d)/EED-2/EWP(1) Pq-4/Pg-4/Pk-4 IJP(c) BB/GO/GS/JXT(EF)
ACCESSION NR: AT5014723 UR/0000/65/000/000/0156/0163

AUTHOR: Sukhomlinov, M. M., Ferents, N. K., Onishchenko, E. I., Pelipenko, N. I., Shikalov, V. S., Kholmskaya, Ye. V., Dodonova, G. M., Strotin, V. G.

TITLE: Memory with magnetostriction delay lines for series computers

SOURCE: Operativnyye i postoyannyye zapominayushchiye ustroystva (Rapid and nonvolatile storage); sbornik statey. Leningrad, Izd-vo Energiya, 1965, 156-163

TOPIC TAGS: magnetostriction delay line, small computer memory, inexpensive longlife memory, small rapid memory, delay line memory

ABSTRACT: Dynamic delay-line memories seem to be the most suitable for small consecutive-action computers. The present paper describes one type of such memories based on magnetostriction delay lines. The block diagram of the memory is shown in Fig. 1 of the Enclosure. After outlining the necessary theory and describing the construction and operation of the device, the authors conclude that the advantages of the magnetostriction delay line memory are: 1) low cost; 2) possibility of memory alterations without disturbing the basic circuitry; 3) input and output of information through several branches; 4) high speed; 5) easy matching with transistorized circuits; 6) economical operation; and 7) longlife. Orig. art. has: 5 formulas, 5 figures, and 1 table.

Card 1/3

L 61636-65 EWT(d)/EED-2/EWP(1) Pq-4/Pg-4/Pk-4 IJP(c) EM/GG/GS/JXT(EF)
ACCESSION NR: AT5014723 UR/0000/65/000/000/0156/0163

AUTHOR: Sukhomlinov, M. M., Ferents, N. K., Onishchenko, E. L., Pelipenko, N.I., Shikalov, V. S., Kholmskaya, Ye. V., Dodonova, G. M., Sirotin, V. G.

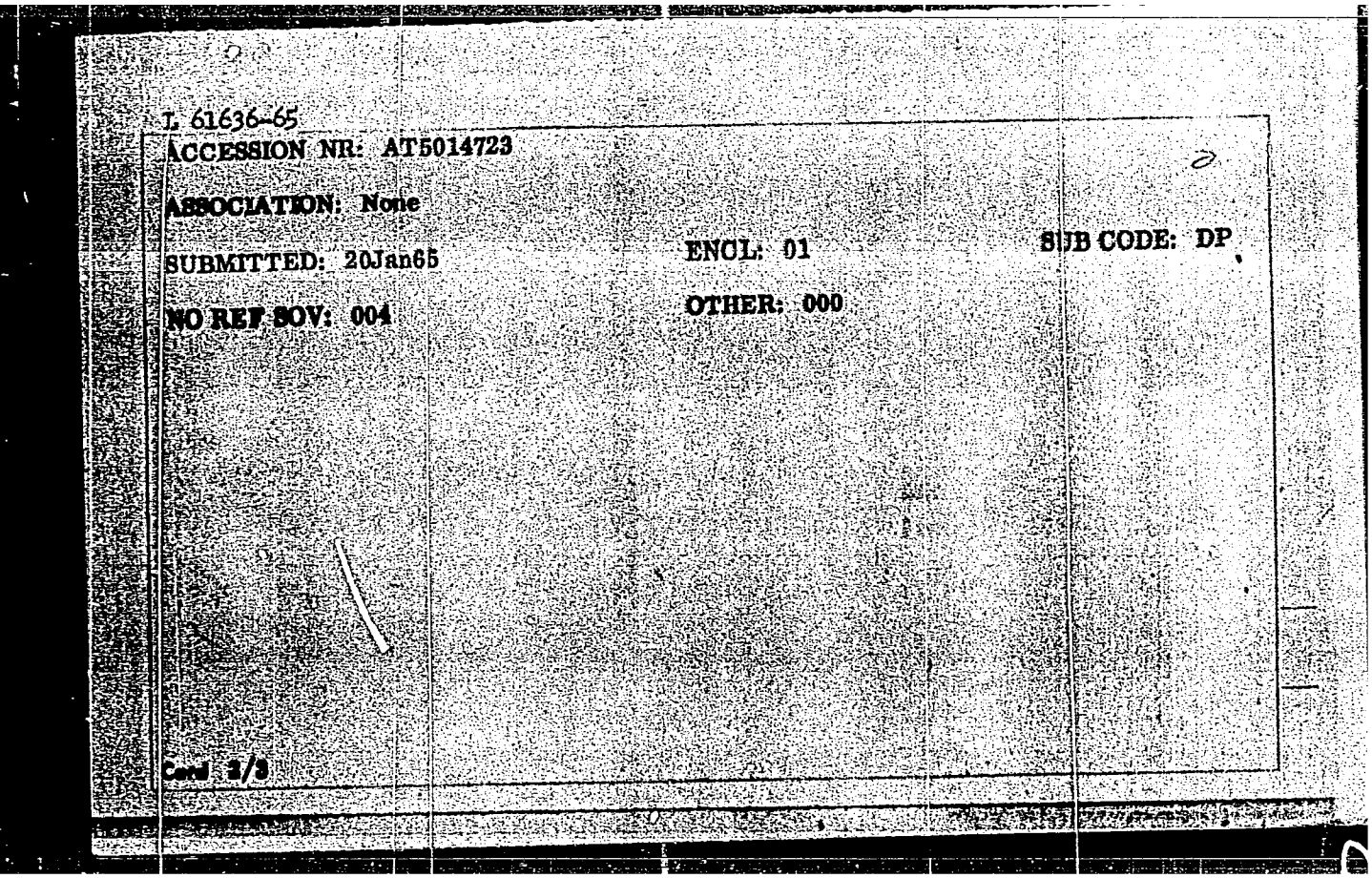
TITLE: Memory with magnetostriction delay lines for series computers

SOURCE: Operativnyye i postoyannyye zapominayushchiye ustroystva (Rapid and nonvolatile storage); sbornik statey. Leningrad, Izd-vo Energiya, 1965, 156-163

TOPIC TAGS: magnetostriction delay line, small computer memory, inexpensive longlife memory, small rapid memory, delay line memory

ABSTRACT: Dynamic delay-line memories seem to be the most suitable for small consecutive-action computers. The present paper describes one type of such memories based on magnetostriction delay lines. The block diagram of the memory is shown in Fig. 1 of the Enclosure. After outlining the necessary theory and describing the construction and operation of the device, the authors conclude that the advantages of the magnetostriction delay line memory are: 1) low cost; 2) possibility of memory alterations without disturbing the basic circuitry; 3) input and output of information through several branches; 4) high speed; 5) easy matching with transistorized circuits; 6) economical operation; and 7) long-life. Orig. art. has: 5 formulas, 5 figures, and 1 table.

Card 1/3



L 61636-65

ACCESSION NR: AT5014723

ASSOCIATION: None

SUBMITTED: 20Jan65 ENCL: 01 SUB CODE: DP

NO REF SOV: 004 OTHER: 000

Card 1/3

L 61636-65
ACCESSION NR: AT5014723

ENCLOSURE: 01

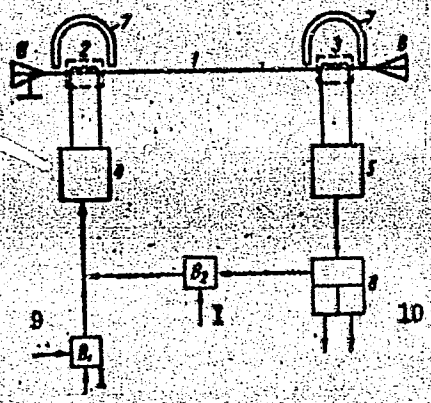


Figure 1. Block diagram of the magnetostriction delay line memory: 1 — Sound duct; 2, 3 — emitter and receiver information converter; 4 — input signal shaper; 5 — output signal amplifier; 6 — attenuator; 7 — permanent magnets; 8 — pulse widener; 9 — input; 10 — output [other symbols are not explained].

Card 3/3

L 4497-66 EWT(1)/EWA(h)

ACC NR: AP5023274 UR/0302/65/000/003/0035/0037

534.232.45

AUTHOR: Gorban', A.M.; Gridin, G.K.; Dodonova, G.M.; Onishchenko, E.L.; Sirotyan, V.G.; Ferenets, N.K.; Kholmskaya, Ye. V.; Shikalov, V.S.; Sukhomlinov, M.M. (Candidate of Technical Sciences)

TITLE: Magnetostriction delay lines

SOURCE: Avtomatika i priborostroyeniye, no. 3, 1965, 35-37

TOPIC TAGS: magnetostriction, circuit delay line, ferromagnetic material, delay circuit

ABSTRACT: Magnetostriction delay lines are based on the fact that ferromagnetic materials transmit ultrasound with a speed which is lower than the speed of electrical signals through conventional circuits. The Institut avtomatiki Gosudarstvennogo komiteta po priborostroyeniyu, sredstvam avtomatizatsii i sistemam upravleniya pri Gosplane SSSR (Institute of Automation, State Committee for the Design of Instruments, Means of Automation, and Control Systems attached to Gosplan SSSR) developed three such delay lines with delay times of 80, 640, and 2560 μsec, respectively. The block diagram of the devices is shown in Fig. 1 of the Enclosure. The sound conductor is made of an "N-1, hard" nickel alloy wire 0.7 mm in diameter. Its Young's modulus is about 21,000 — 23,000 kg/mm^2, specific density is 8.9 g/cm^3, ultrasound velocity is 4,750 — 5,050 μsec, and the temperature coefficient of delay is $1.4 \cdot 10^{-4}$ per °C. The article presents the pertinent circuit diagrams and a detailed description of the delay line operation. Orig. art. has: 1 formula and 4 figures.

Card 1/3

L 4497-66

ACC NR: AP5023274

ASSOCIATION: none

SUBMITTED: 00 ENCL: 01 SUB CODE: EC, IE

NO REF SOV: 002 OTHER: 000

Card 2/3

L 4497-66

ACC NR: AP5023274

ENCLOSURE: 01

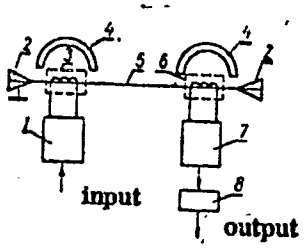


Figure 1. Block diagram of the magnetostriction delay line = 1 - Input signal shaper; 2 - muffler; 3 - transmitter magnetostriction converter; 4 - permanent magnets; 5 - sound duct; 6 - receiver magnetostriction converter; 7 - output signal amplifier; 8 - pulse spreader.

Card 3/3

0046

L 9797-66 EWT(1)/EWA(h) GG

ACC NR: AP5028509 SOURCE CODE: UR/0286/65/000/020/0095/0095

AUTHORS: Sukhomlinov, M. M.; Polipenko, N. I.; Ferenets, N. K.; Onishchenko, E. L.; Shikalov, V. S.; Gorban', A. M.; Sirotyan, V. G.

ORG: none

TITLE: A memory device with magnetostrictive delay lines. Class 42, No. 175740 [announced by Institute of Automation of the State Committee on Instrument Manufacture and Means of Automation and Control Systems of Gosplan, SSSR (Institut avtomatiki gosudarstvennogo komiteta po priborostroyeniyu i sredstvam avtomatiki i sistemam upravleniya pri gosplane SSSR)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1965, 95

TOPIC TAGS: electromagnetic memory, circuit delay line, storage device

ABSTRACT: This Author Certificate presents a memory device using magnetostrictive delay lines. The device contains input and output converters, regeneration circuits, and a synchronizing generator. In order to increase reliability, one of the digital columns of the device is used as the synchronizer. Its regeneration circuit has two input converters spaced at a distance equal to a prime wavelength number (excluding two) (see Fig. 1). The distance between the input and output converters is not a multiple of the distance between the input converters.

Card 1/2 UDC: 681.142:621.374.5

L 9797-66

ACC NR: AP5028509

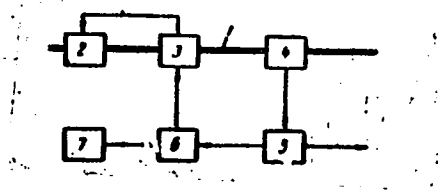


Fig. 1. 1 - Magnetostrictive line; 2 and 3 - input converters; 4 - output converter; 5 - reading amplifier; 6 - shaper; 7 - circuit of a single start-up.

Orig. art. has: 1 figure.

SUB CODE: 09/ SUBM DATE: 29Sep64

Card 2/2

L 00405-01 EWT(d)/EWT(l)/EWP(v)/EWP(k)/EWP(h)/EWP(l) GD

ACC NR: AT6029231 SOURCE CODE: UR/0000/66/000/000/0143/0152

AUTHOR: Sukhomlinov, M. M.; Ferenets, N. K.; Onishchenko, E. L.; Pelipenko, N. I.; Shikalov, V. S.; Kholmskaya, Ye. V.; Sirotyan, V. G.; Dodonova, G. M.

ORG: none

TITLE: Digital-analog computer system using magnetostrictive delay lines

SOURCE: Vsesoyuznaya konferentsiya-seminar po teorii i metodam matematicheskogo modelirovaniya. 4th, Kiev, 1964. Vychislitel'naya tekhnika v upravlenii (Computer technology in control engineering); trudy konferentsii. Moscow, Izd-vo Nauka, 1966, 143-152

TOPIC TAGS: digital differential analyzer, circuit delay line, magnetostriction, computer control system

ABSTRACT: The authors describe the design and performance of a digital differential analyzer using magnetostrictive delay lines as memory elements. The authors claim that such a memory has the advantages of a high speed ferrite core memory and the economy of a magnetic drum. The digital differential analyzer has the following parameters: 32 integrators, binary operational code, 20 bit words, 250 KHz cycle rate, 400 operations per second, and error not exceeding 0.01%. The operational program and the initial conditions are entered manually through switches on a control console. The data entry can be manual, using decimal or binary codes, or automatic. The digital

Card 1/3

L 06405-67

ACC NR: AT6029231

differential analyzer consists of a memory, computational unit, control unit, input and output equipment, control console and code converters. Of particular interest is the design and performance of the memory. The memory uses eight magnetostrictive delay lines, shown diagrammatically in fig. 1. The lines circulate the initial conditions data, the program, the increments, the intermediate results, and other information. The electrical pulses are converted into accustical signals utilizing the magnetostrictive phenomenon. The acoustic material should be a nickel-iron-titanium alloy, which reduces the temperature effects on the delay time; in the absence of such material, nickel wire of medium hardness can be used. The diameter of the wire is very important. It determines the resolution of the delay line and the magnitude of the output signal. The thinner the wire, the better the resolution and the lower the output signal. An optimum diameter for a 250-1000 Hz signal rate is 0.5-0.8 mm. To reduce the reflection coefficient and physical dimensions, the delay line is formed into a flat Archimedes spiral housed in a flat cylindrical enclosure. The performance specifications for the ultrasonic delay line are as follows: operating frequency 50-1000 kHz, delay time 800-3000 microseconds, resolution 0.5-2 microseconds, signal-to-noise ratio greater than 4, and power consumption 1.5 w. The other functional units of the digital differential analyzer are described in detail. Block diagrams and performance data are given. Orig. art. has: 1 table, 6 formulas, 4 figures.

Card 2/3

L 06405-67

ACC NR: AT6029231

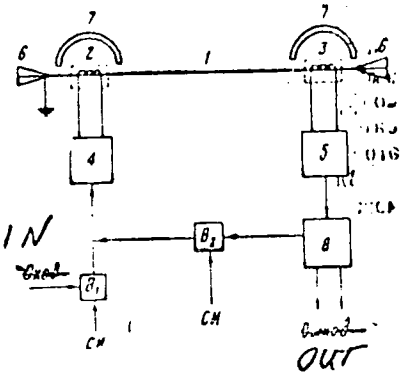


Fig. 1. A block diagram of the memory unit
1 - ultrasonic delay line; 2 - the electro-acoustic transducer; 3 - receiving coil; 4 - the input driver; 5 - output amplifier; 6 - dampers; 7 - permanent magnets; 8 - pulse stretcher; B_1 and B_2 - signal gates.

SUB CODE: 09/ SUBM DATE: 12Feb66/ ORIG REF: 005/ OTH REF: 000

Card 3/3

AVKSENT'YEV, G.A., inzh.; CHISHCHENKO, G.A., inzh.; YAKOVENKO, I.M., MIROSHNICHENKO, V.V.

Collective responsibility for the enforcement of safety rules. Bezop. truda v prom. 2 no. 6:27-29 Je '58. (MIRA 11:7)

1. Predsedatel' shakhtkoma shakhty No. 32(for Yakovenko). 2. Predsedatel' komissii okhrany truda(for Miroshnichenko).
(Donets Basin--Coal mines and mining--Safety measures)

S/196/62/000/006/013/018
E194/E154

AUTHORS: Yun'kov, M.G., Onishchenko, G.B., and Zverev, G.A.

TITLE: Industrial studies of rectifier-invertor fed induction motor drive

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.6, 1962, 3-4, abstract 6 K11. (Vestn. elektroprom-sti, no.10, 1961, 13-18).

TEXT: Results are given of tests in service on an a.c. induction motor drive controlled by rectifier-invertor chain used to drive centrifugal compressors of the gas pipeline between Stavropol' and Moscow. In this system the speed of the 4500 kW wound-rotor induction motor with a rated speed of 1490 r.p.m. can be changed smoothly in the range 100-70% of rated speed, thus allowing the gas compressor rating to be varied between 100% and 35%. The rectifier-invertor circuit uses a slip frequency convertor with an explicit d.c. circuit. The uncontrolled rectifier valves convert the rotor slip frequency current to d.c. and the invertor converts the d.c. into power frequency (50 c/s) a.c. The invertor valves are grid controlled so that the

invertor e.m.f. can be controlled from the rectified current side, thus the rotor current, torque and motor speeds. The rotor and invertor valves are mercury-arc rectifiers type [illegible] x 6 (RMNV-1000 x 6). With the rectifier-convertor circuit the utilization of the motor is not impaired so that its rating can be chosen by the usual methods. The rectifier-convertor circuit has high efficiency, namely, 0.92-0.88 within the given speed control range. A disadvantage of the rectifier-convertor circuit is the low power factor which is 0.67 at maximum speed and 0.43 at 70% rated speed. Experimental curves are given for power factor of the valves and the motor and also curves of the changes in reactive power consumption of individual parts of the system as function of slip. Tests showed that the rectifier-invertor circuit operates well and has good control characteristics, the motor and valves operate reliably, current waveform distortion in the supply lines to the rectifier is slight, no influence of higher harmonics on the operation of other equipment was observed. Further improvement in the asynchronous rectifier-invertor circuit presupposes the use of rotor valves controlled by slip frequency

Industrial studies of rectifier- ... S/196/62/000/006/013/013
E194/E154

and improvement in the power factor.
4 literature references.

Abstractor's note: Complete translation.

Card 3/3

ONISHCHENKO, G.B., kand. tekhn. nauk (Moskva); SAMOVER, M.L., inzh. (Moskva)

Principal trends in the development of automated electric drives in the chemical industry. Elektrichestvo no.7:49-52 Jl '65. (MIRA 18:7)

ONISHCHENKO, G.K.

ZNACHKOVSKIY, B.P.; ONISHCHENKO, G.K.

Cases of foreign bodies of the pancreas. Khirurgiia no.3:78-79 Mr '54. (MLRA 7:5)

1. Iz 2-y Belotserkovskoy bol'nitsy Kiyevskoy oblasti.
(PANCREAS, foreign bodies, *in child) (FOREIGN BODIES, *pancreas, in child)

ONISHCHENKO, G.N.; KHOROL'SKIY, I.S.

Cooperation of the State Testing laboratory and the State Inspection of Quality and Commerce. Standartizatsiia 26 no.8:44-45 Ag '62. (MIRA 15:8)

(Standardization)

ONISHCHENKO, G.N.

Drieper Economic Council violates a state standard. Standartizatsiia 24 no.1:60 Ja '65. (MIRA 18:4)

TARANTAYEV, T.M.; TOKAR', S.Kh.; KUVSHINNIKOV, S.M.; ZUBOVA, Ye.Kh.; MINEYEVA, R.G.; ONISHCHENKO, G.P.

Seroprophylaxis of Botkin's disease. Zhur.mikrobiol.,epid.i immun. 30 no.11:11-15 N '59. (MIRA 13:3)

1. Iz Kirgizskogo instituta epidemiologii, mikrobiologii i gigiyeny i kafedry organizatsii zdravookhraneniya Kirgizskogo meditsinskogo instituta.

(HEPATITIS, INFECTIOUS prev. & control)
(GAMMA GLOBULIN ther.)

ONISHCHENKO, G. V.

Cand Tech Sci - (diss) "Study of the possibility and expediency of using asynchronous valve cascade for the drive of mine elevators." Moscow, 1961. 20 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Sverdlovsk Mining Inst imeni V. V. Vakhrushev); 200 copies; price not given; (KL, 6-61 sup, 222)

ONISHCHENKO, I., inzh.; YAKOVLEV, V., inzh.

Housing construction in Karaganda in view. Zhil. [illegible]
n.10:20-23 '54. [illegible]

ONISHCHENKO, I.I. [Onyshchenko, I.I.]

Gummosis and changes caused by it in tissues of the plum subfamily.
Ukr. bot. zhur. 17 no.5:93-96 '60. (MIRA 13:12)

1. Umanskiy pedagogicheskiy institut, kafedra botaniki.
(Gummosis) (Plum--Diseases and pests)

ONISHCHENKO, I.I.; TOLSTOVA, L.G.

Concerning the book "Materials and parts for constructing mining enterprises." Shakht. stroi. 7 no.10:32 O '63. (MIRA 16:10)

1. Glavnyy inzh. tresta Aglostroy, Krivoy Rog (for Onishchenko).
2. Direktor Krivorozhskogo filiala Yuzhnogo nauchno-issledovatel'skogo instituta promyshlennogo stroitel'stva (for Tolstova).

USSR / Human and Animal Physiology. Physiology of Work and Sport. T

Abs Jour: Ref Zhur-Biol., No 22, 1958, 102330.

Author : Onishchenko, I. M.
Inst : Not given.
Title : The Peculiarities of Development of Motor Sensations in Those Engaged in Gymnastic Sports.

Orig Pub: Teoriya i praktika fiz. kul'tury, 1957, 20, No 8, 606-610.

Abstract: In athletes and certain other groups of sportsmen the exactness of reproduction of the assigned body position, effort and duration of the movement was investigated. The athletes of the 1st and 2nd sport categories fulfilled these tasks with greater exactness than light-weight athletes and skiers of the same categories. This testifies that sport

Card 1/2

ACCESSION NR: AT4025305 S/0000/63/000/000/0154/0162

AUTHORS: Konovalov, I. I.; Krupnik, L. I.; Onishchenko, I. N.; Shulika, N. G.

TITLE: Use of mass spectrograph to obtain quantitative data on the composition of plasmoids

SOURCE: Diagnostika plazmy* (Plasma diagnostics); sb. statey. Moscow, Gosatomizdat, 1963, 154-162

TOPIC TAGS: plasmoid, plasma source, mass spectrograph, ionized plasma, plasma research, magnetic mirror

ABSTRACT: In order to prevent the polarization of a slow plasma and other effects from distorting the results of mass-spectrographic analysis of the plasma, an instrument is proposed in which the ion beam is drawn out from the analyzed plasma and is simultaneously accelerated to 20 keV in the gap of the mass spectrograph. The ener-

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ACCESSION NR: AT4025305

gy spectrum of the plasma ions appears as a corresponding spread over this constant level. The construction of the mass spectrograph is described briefly. The ions were registered with thin-layer emulsions which could be moved in and out of the mass spectrograph without breaking the vacuum. Individual experiments were made to study the density of the image produced on the emulsion as a function of the number of H_1, H_2, H_3, He_4, C_{12}, N_{14}, and O_{16} positive ions with energies from 10 to 20 keV. The apparatus used to calibrate the photographic emulsions is described. Much space is devoted in the article to the various factors influencing the emulsion density. The method described was used to obtain the mass-spectroscopic and energy characteristics of conical and coaxial plasma sources. It is concluded that the described method can be used to extract a great variety of information on the properties and behavior of the plasma. Orig. art. has: 9 figures and 1 table.

ASSOCIATION: None

Card 2/5

ACCESSION NR: AT4025305

SUBMITTED: 19Oct63 DATE ACQ: 16Apr64 ENCL: 02

SUB CODE: ME NR REF SOV: 001 OTHER: 003

Card 3/5

ACCESSION NR: AT4025305

ENCLOSURE: 01

Ion

Ион	H_2^+	H_3^+	O^+	C^+	Si^+	N^+	C^{2+}	O^{2+}, N^{2+} и др.
%	53	1,5	17	11	5	4	3,7	5

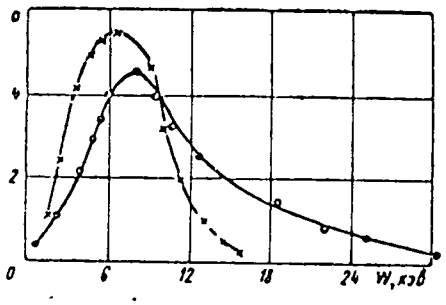
etc

Percentage content of ions in a plasmoid from a conical source

Card 4/5

ACCESSION NR: AT4025305 .

ENCLOSURE: 02



Dependence of the number of ions on the energy in a plasmoid obtained from a coaxial plasma gun
o - 15 keV, × - 20 keV

Card 5/5

ACCESSION NR: AP4013415 S/0057/64/034/002/0280/0287

AUTHOR: Voytsenya, V.S.; Borbanyuk,A.G.; Onishchenko,I.N.; Safronov,B.G.

TITLE: Motion of dense plasma bursts in the magnetic field of a toroidal solenoid

SOURCE: Zhurnal tekhn.fiz., v.34, no.2, 1964, 280-287

TOPIC TAGS: plasma, plasma burst, plasma burst purification, toroidal solenoid, toroidal magnetic field, hydrogen ion, oxygen ion, carbon ion

ABSTRACT: Because of the technical importance of toroidal magnetic fields as means of purifying plasma bursts (B.G.Safronov, V.S.Voytsenya, I.I.Konovalov,ZhTF,32,No.6, 678,1962) and in order to test the theory developed by N.A.Khizhnyak (Sb.dokladov III konferentsii po fizike plazmy,FTI AN USSR. Izd.AN USSR,Kiev,1963), the motion of dense plasma bursts in a toroidal magnetic field was investigated experimentally. The plasma bursts were produced by a conical plasma gun; they had densities exceeding 10^{13} cm^{-3} and velocities of the order of 10^7 cm/sec. The 6 cm diameter glass drift tube formed a quarter of a torus having a radius of curvature of 60 cm. A solenoid about the drift tube produced a magnetic field of up to 1000 Oe in the tube. At the end of the drift tube the composition of the plasma bursts was determined by

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ACCESSION NR: AP4013415

a mass spectrometer. The electric polarization field was also measured, and the density was determined by microwave absorption. The initial composition of the bursts was determined. For comparison, the composition of bursts was determined after they had traversed a straight drift tube identical in all other respects with the toroidal tube. The plasma bursts originally contained about 20% hydrogen ions, with the remainder consisting mostly of O I, O II, C I, C II, C III, and C IV. After traversing the straight drift tube with a 1000 Oe magnetic field the bursts still contained about 20% hydrogen; with smaller magnetic fields the hydrogen content was less. After traversing the toroidal drift tube a burst contained as a whole about 80% hydrogen. The heavy ions traversing the toroidal field, mostly C I, were concentrated in the "tail" of the burst, and the forward 60% of the burst contained only 2% heavy ions. Electric polarization fields due to centrifugal drift were found to be absent or small except at the foremost portion of the burst where the densi' is small. The reason for the short duration of the polarization field is not understood. It is concluded that Khizhnyak's theory (loc.cit.supra) gives a correct qualitative description of the purification process, that the plasma bursts cannot reach the wall of the chamber, and that very pure plasma bursts can be obtained with the aid of a toroidal magnetic field provided only the forward portion of the burst is accepted. "In conclusion we consider it our pleasant duty to thank K.D.Sinel'nikov

Card 2/3

ACCESSION NR:AP4013415

and N.A.Khizhnyak for constant interest in the work and for valuable discussions."
Orig.art.has: 2 formulas and 8 figures.

ASSOCIATION: none

SUBMITTED: 03Dec62	DATE ACQ: 26Feb64	ENCL: 00
SUB CODE: PH	NR SOV REF: 004	OTHER: 002

Card 3/3

L 19022-65 EWT(l)/EWG(k)/EPA(sp)-2/EPA(w)-2/E[illegible]t)/T/EEC(b)-2/EWA(m)-2
Pi-4/Po-4/Pz-6/Pab-10 IJP(c)/RAEM(a)/AFTC(p)/[illegible]SD(f)-2/SSD/SSD(b)/AEDC(b)/AFWL/
ACCESSION NR: AP4049054 ASD(a)-5/AFETR/ESD(gs) AT S/0057/64/034/011/2083/2085

AUTHOR: Voytsenya,V. S.; Gorbanyuk,A.G.; Onishchenko,I.N.; Safronov,B.G.; Shkoda,V.V.

TITLE: Concerning the polarization of a plasma burst in a uniform axially symmetric magnetic field

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.11, 1964, 2083-2085

TOPIC TAGS: plasma, plasma polarization, plasma electric field, magnetic field plasma effect, plasma gun

ABSTRACT: The authors have measured the radial electric field in plasma bursts moving axially in a 6 cm diameter glass drift tube in a uniform longitudinal magnetic field. The investigated range of plasma velocities and magnetic field strengths is not given, but it included a velocity of 1.2×10^7 cm/sec and a field strength of 700 Oe. After leaving the conical plasma gun in which it was produced, the plasma burst passed successively through a grounded metal screen and three 2 cm diameter collimating openings at 5 cm intervals before entering the magnetic field. The electric field in the plasma was measured with two radially adjustable probes located 50 cm from the plasma gun. Radial electric fields with strengths up

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ACCESSION NR: AP4049054

to 10 V/cm were observed; these fields were directed toward the axis. The electric field strength was not strongly dependent on the magnetic field strength, but the half-width of the potential curve decreased with increasing magnetic field. The effect of sharpening the transition from the field-free region to the uniform field by the use of iron was investigated in order to determine whether the electric polarization of the plasma might be due to processes occurring in the non-uniform field. Altering the magnetic field in the non-uniform region had very little effect on the electric field, and it is concluded that the electric field was due to the difference between the ion and electron Larmor radii in the uniform magnetic field, to an uncompensated negative space charge, or to a rotation of the plasma. A decision between these three probabilities cannot be reached on the basis of the present experiments. "The authors express their gratitude to K.D.Sinel'nikov for his support of the present work and for valuable discussions." Orig.art.has: 5 figures.

ASSOCIATION: none

SUBMITTED: 20Feb64

SUB CODE: ME, EM NR REF SOV: 003 ENCL: 00

OTHER: 004

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L 60325-65 EWT(1)/EPF(n)-2/EWG(m)/EPA(w)-2 Pz-6/Po-4/Pl-4 IJP(c) AT

ACCESSION NR: AP5018319 UR/0057/65/035/007/1330/1332
533

AUTHOR: Voytsenya, V. S.; Gorbanyuk, A. O.; Onishchenko, I. N.; Shkoda, V. V.; Safronov, B. O.

21 49 47 B

TITLE: On the polarization of a plasma moving in a curved magnetic field

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 7, 1965, 1330-1332

TOPIC TAGS: plasma, plasmoid, plasma polarization, nonhomogeneous magnetic field

ABSTRACT: The authors have previously measured with probes the electric fields in plasma (from a conical plasma gun) which were moving in a uniform magnetic field (ZhTF, 34, 847, 1964) and shown that there is present a "radial" electric field directed toward the axis of the plasma. In the present paper they report similar measurements on plasmas moving in a toroidal magnetic field. In both groups of experiments the plasmas were produced by a conical plasma gun, passed through 2 cm diameter openings in two grounded plane electrodes, and drifted in a 6 cm diameter glass tube. In the present group of experiments the drift tube was bent into a 50 cm radius circle, thus forming a torus. Electric potentials were measured along the two principal diameters of the drift tube, i.e., parallel to the axis and to the large radius of the torus, respectively. When the radial

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field that was previously found to arise in a plasma moving in a uniform magnetic field was subtracted, the residual electric field was found to be in qualitative agreement with the polarization field expected theoretically in a plasma moving in a curved magnetic field. In a 600 Oe magnetic field the residual polarization field was 8 V/cm in the direction of the torus axis and 6 V/cm in the direction of the large radius. This latter value is several times larger than that calculated by N.A.Khizhnyak (ZhTF, 35, 847, 1965). This discrepancy can be due either to a less efficient short circuiting of the polarization field than was assumed in the theoretical derivation, or to the presence in the experimental plasmas of significant quantities of heavy ions. "In conclusion, the authors thank K.D. Sinel'nikov and N.A.Khizhnyak for valuable discussions." Orig. art. has: 1 formula and 3 figures.

ASSOCIATION: none

SUBMITTED: 21Sep64 ENCL: 00 SUB CODE: ME, EM

NO REF SOV: 006 OTHER: 000

ACC NR: AT6020409 SOURCE CODE: UR/0000/65/000/000/0119/0129

AUTHOR: Voytsenya, V. S., Gorbanyuk, A. G.; Onishchenko, I. N.; Safronov, B. G., Shkoda, V. V.

ORG: none

TITLE: Motion of the fast plasmoids in a magnetic field of toroidal solenoid

SOURCE: AN UkrSSR. Issledovaniye plazmennykh sgustkov (Study of plasma clusters) Kiev, Naukovo dumka, 1965, 119-129

TOPIC TAGS: plasmoid, solenoid, plasma magnetic field, plasma density, plasma injection, interferometer, mass spectroscope, ion distribution

ABSTRACT: The behavior of a plasmoid moving with several kev energy was studied in order to determine its upper density limit, its purity, and attainable velocity in longitudinal magnetic fields. This work is based on the theoretical predictions of B. A. Khizhnyak (ZhTF, 1965, 35, 947) who stated that due to short-circuiting of polarization fields by electron currents rather high densities are attainable in the plasmoids. The experimental apparatus is described showing a curved region preceded by a straight section connecting with the plasma injector. The plasmoid properties were studied with a mass spectrograph, time-of-flight mass analyzer, microwave interferometer and electric and thermocouple probes. In the experiments with low density plasma, the ion dis-

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ACC NR: AT6020409

tribution was found to be considerably distorted. At 10^{12} cm^{-3} density, long high energy tails appear. In higher density experiments, the mean ion energy was found to be 3 to 5 kev, with an impurity content of 40%. A study of the solenoidal guiding field indicates that plasma densities higher than 10^{13} ions/cm^3 are possible if fields are increased above the 8 koe fields available to the authors. Orig. art. has: 10 figures.

SUB CODE: 20/ SUBM DATE: 11Nov65/ ORIG REF: 007/ OTH REF: 002

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TKACHEV, V.V.; LEYCHENKO, I.Ya.; OGANESOV, V.N.; ONISHCHENKO, I.S.; NELIDOV, V.A.; SERKACHEV, O.V.; BOGIN, A.M.

Using separator mills in making cements of various specific surface areas. TSement 26 no.2:13-20 Mr-Ap '60. (MIRA 13:6)

(Cement) (Milling machinery)

ONISHCHENKO, I.T., inzh.; VISHNEVETSKIY, Ye.A., inzh.; GROKHOL'SKIY, M.M., inzh.; LANEVSKIY, V.A., inzh. (Khar'kov)

Speeding up locomotive circulation at the Kharkov terminal. Zhel. dor. transp. 40 no.6:80-81 Je '58. (MIRA 11:6)
(Kharkov--Locomotives)

RYLEYEV, G.S.; KRYUGER, P.K.; KAZAKOV, V.N.; VIL'KEVICH, B.I. Prinimal uchastiye BELEN'KIY, P.N.; FEDOTOV, I.I., kand. tekhn. nauk, retsenzent; LUGININ, N.G., kand. tekhn. nauk, retsenzent; CHEBYKIN, V.N., kand. tekhn. nauk, retsenzent [deceased]; OPISHCHENKO, I.T., kand. tekhn. nauk, retsenzent; TELICHKO, V.G., inzh., retsenzent; ISIKOV, Ye.N., inzh., retsenzent; ROZHDESTVENSKIY, A.S., inzh., retsenzent; MEDVEDEVA, M.A., tekhn. red.

[Management and operation of diesel locomotives] Teplovoznoe khoziaistvo. Izd.2., perer. i dop. [By] G.S.Ryleev i dr. Moskva, Transzheldorizdat, 1963. 290 p.
(MIRA 17:3)

ZHAROV, N.T., kand.tekhn.nauk; [illegible]NISHCHENKO, K.I., inzh.; KUSHCH, M.M., inzh.; CHERTORYZHSKIY, K.K., inzh.

Automation of the preparation of molding sand in milling machines. Mashinostroenie no.6:27-31 N-D '63. (MIRA 17:12)

ONISHCHENKO, L. F.

"Investigation of Rectifier Systems With a Leading Angle of Regulation and Control by Inductance Coils." Cand Tech Sci, Kiev Order of Lenin Polytechnic Inst, 28 Dec 54. (PU, 17 Dec 54)

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

SO: SUM No. 556, 24 Jun 55

CHIZHENKO, I.M.; ONISHCHENKO, L.F.

New method for control of current converters having switching devices.
Izv. KPI 22:337-351 57. (MIRA 11:3)
(Electric current converters)

ONISHCHENKO, L.

The biological method helps. Zashch. rast. ot vred. i bol. 10 no.5:22 '65. (MIRA 18:6)

1. Zaveduyushchaya oblastnoy biologicheskoy laboratoriyey, Zastavna, Chernovitskoy oblasti.

ONISHCHENKO, L.I.

Formation of green plastids. Ukr. bot. zhur. 17 no.4:20-28 '60.
(MIRA 13:9)

1. Belotserkovskiy sel'skokhozyaystvennyy institut. Kafedra botaniki.
(Chlorophyll)

ONISHCHENKO, L.I. [Onyshchenko, .I.]

Effect of soil moisture on the development of chlorophyll-bearing organs in the sugar beet. Ukr.bot.zhur. 18 no.4:22-29 '61. (MIRA 14:8)

1. Belotserkovnyy sel'skokhozyaystvennyy institut, kafedra botaniki i fiziologii rasteniy.
(Sugar beets—Water requirements)

KAS'YANENKO, A.I., doktor sel'khoz. nauk; ONISHCHENKO, L.I., red.; NEMCHENKO, I.Ye., tekhn. red.

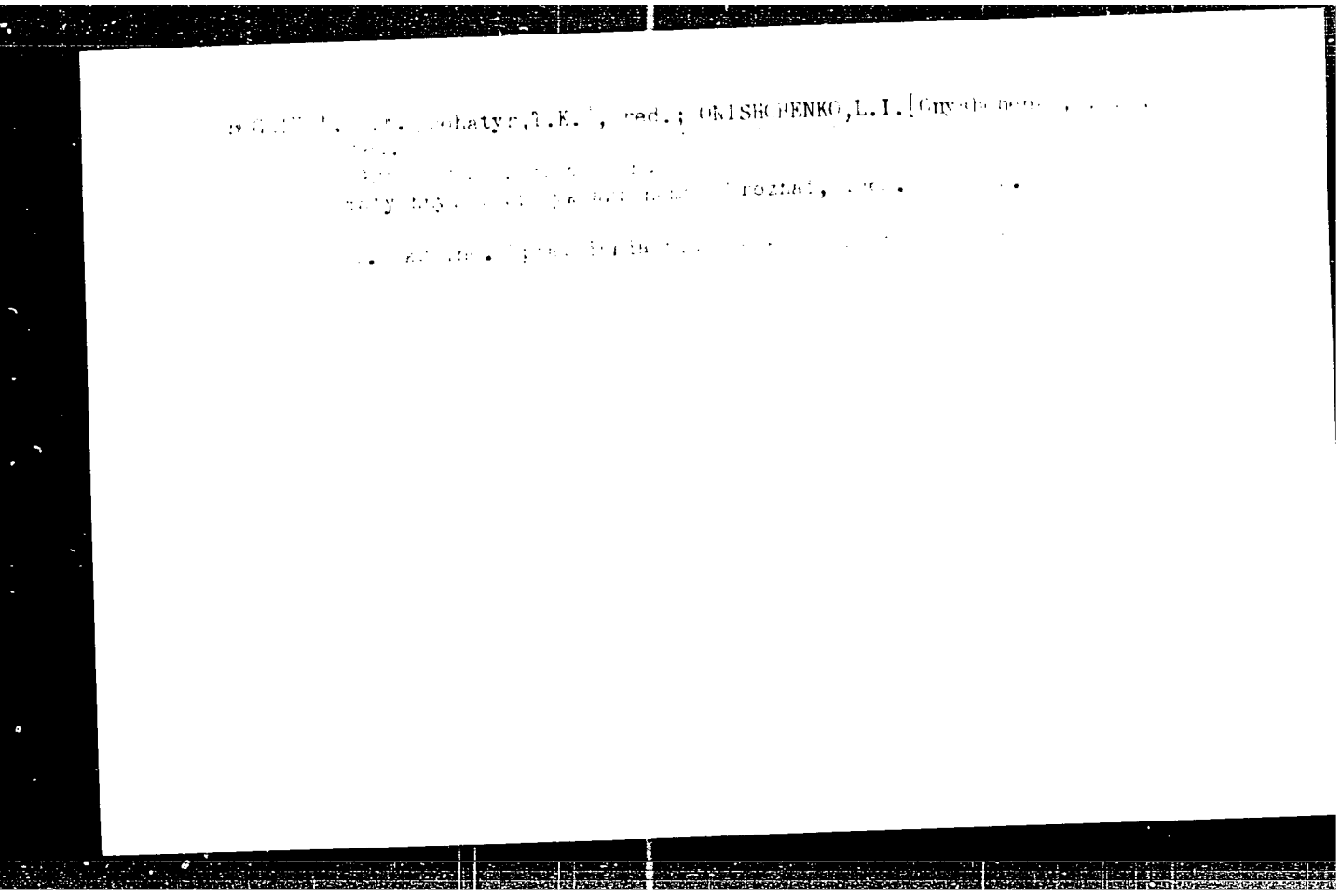
[Fruit culture with dwarf rootstock] Plodovodstvo na karlikovykh podvoiakh. Kiev, Gossel'khozizdat USSR, 1963. 243 p. (MIRA 17:3)

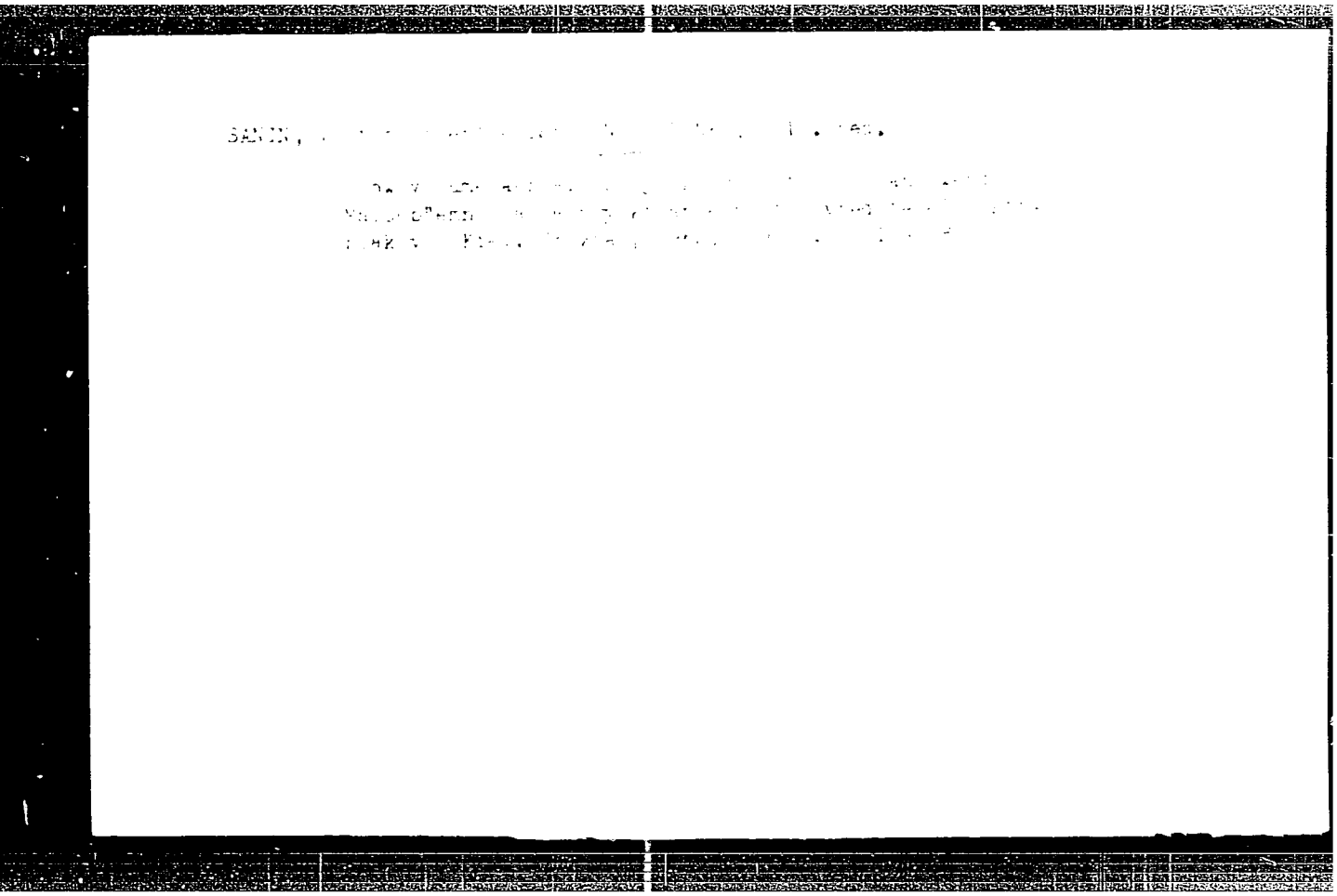
MEN'SHOV, V.V., kand. sel'khoz. nauk; ONISHCHENKO, L.I., red.

[Experience in transplanting full-grown fruit trees] Opyt peresadki vzroslykh plodovykh derev'ev. Kiev, Urozhai, 1964. 125 p. (MIRA 18:4)

ALIYEV, Eduard Arkad'yevich; DYNKALEV, Yuriy Akseni't'yevich; LATENKO, Boris Vasil'yevich; ...EVAL'KO, I.G., doktor biol. nauk, red.; ONISHCHENKO, L.I., red.

[Soilless growing of vegetables in greenhouses] Vyrashchivanie ovoshchei v teplitsakh bez pochvy. Kiev, Gosse1'-khozizdat USSR, 1964. 141 p. (MIRA 17:6)





ONISHCHENKO, L.I. [Onyshchenko, L.I.]

Amount of chloroplasts as the productivity index of plants.
bot. zhur. 22 no.2:20-23 '65.

1. Belotserkovskiy sel'skokhozyaystvennyy institut, kafedra

BARBARICH, A.I.[Barbarych, A.I.], kand. biol. nauk; BRADIS,Ye.M., doktor biol. nauk; VISYULINA, O.D., doktor biol. nauk; VOLODCHENKO, V.S.; DOBROCHAYEVA, D.M., kand. biol. nauk; KARNAUKH, Ye.D.; KATINA, Z.F., kand. biol. nauk; KOTOV, M.I., doktor biol. nauk; KUZNETSOVA, G.O.[Kuznetsova, H.O.], kand. biol. nauk; OLYANITSKOVA, L.G.[Olianits'ka, L.H.]; OMEL'CHUK, T.Ya., kand. biol. nauk; POYARKOVA, O.M.; PROKUDIN, Yu.M., doktor biol. nauk; PROTOPOPOVA, V.V.; SLYUSARENKO, L.N.; SMOLKO, S.S.; KHRZHANOVSKIY, V.G. [Khrzhanovs'kyi, V.H.], doktor biol. nauk; ZEROV, D.K. akademik, otv. red., ONISHCHENKO, L.I., red.

[Key for the identification of plants in the Ukraine] Vyznachnyk roslyn Ukrainy. Vyd.2., vypr. i dop. Kyiv, Urozhai, 1965. 876 p. (MIRA 18:9)

1. Akademiya nauk URSR, Kiev. Instytut botaniky. 2. AN Ukr.SSR (for Zerov). 3. Moskovskaya sel'skokhozyaystvennaya akademiya im. K.A.Timiryazeva (for Khrzhanovskiy).

ACC NR: AP6025316 SOURCE CODE: UR/0433/66/000/006/0025/0025

AUTHOR: Kiselek, Ye. (Junior research associate); Onishchenko, L. (Head biological laboratory, Zastavna)

ORG: none

TITLE: Use of entobacterin

SOURCE: Zashchita rasteniy, no. 6, 1966, 25

TOPIC TAGS: insecticide, entobacterin, haphygma exigna, acrolis segetum, chloridea obsoleta, syonetia clerkella, pieris rapae, PLANT DISEASE

ABSTRACT:
The use of entobacterin in combating Laphygma exigua, Agrolis segetum, and Chloridea obsoleta was studied. At 30°C, the mortality of Ch. obsoleta increased from 33.3% with the application of a 0.1% entobacterin solution to 91.6% with a 2% solution. The effectiveness of entobacterin decreased with temperatures, at 15—18°C the mortality was only 5%. Entobacterin was more effective than the B. cereus Var. galleriase 63-3 and 128 strain. The use of entobacterin against Lyonetia clerkella (L.) and Pieris rapae (L) was also studied. At 23—30°C, a 1% solution

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of entobacterin in amounts of 1000 l/ha was 98% effective against L. clerkella and in a concentration of 0.15% in amounts of 400 l/ha it was 83.3% effective against P. rapae. [W.A. 50; CBE No. 10]

SUB CODE: 06/ SUBM DATE: none/

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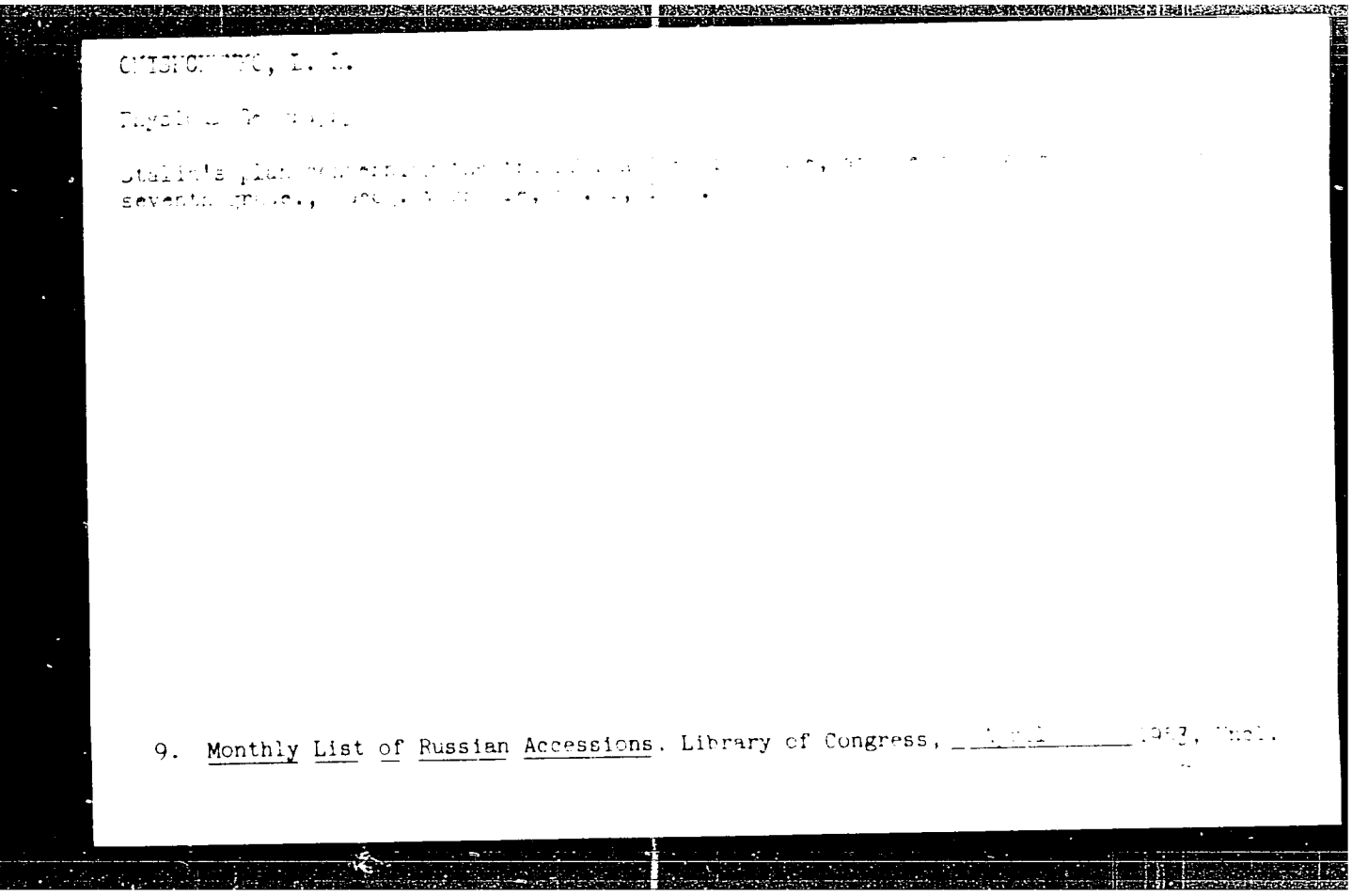

9. Monthly List of Russian Accessions. Library of Congress, _____ 19[illegible], Mthl.

GLAZOV, A.A.; KOCHKIN, V.A.; ONISHCHENKO, L.M.; SHVABE, E.

High frequency system for proton accelerators built as cavity resonators. Nukleonika 8 no.2:89-100 '63.

1. Ob"yedinennyy institut yadernykh issledovaniy, Dubna.

GLAZOV, A.A.; DZHELEPOV, V.P.; DMITRIYEVSKIY, V.P.; ZAMOLODCHIKOV, B.I.; KOL'GA, V.V.; KROPIN, A.A.; ONISHCHENKO, L.M.; SHVABE, Ye.

Effect of a space charge on the frequency of free oscillations of particles in an isochronous cyclotron. Atom. energ. 15 no.3:205-209 S '63. (MIRA 16:10)

(Cyclotron) (Oscillations)

ACCESSION NR: AP4018359 S/0120/64/000/001/0034/0037

AUTHOR: Glazov, A. A.; Kuzmyak, M.; Novikov, D. L.; Onishchenko, L. M.

TITLE: Ion source for a 1-Mev proton accelerator

SOURCE: Pribory* i tekhnika eksperimenta, no. 1, 1964, 34-37

TOPIC TAGS: proton accelerator, 1 Mev proton accelerator, ion source, impulse ion source, Penning discharge, ion beam focusing

ABSTRACT: A Penning-discharge impulse ion source in which a cold aluminum cavity-type cathode is used is described. The source is intended for mounting in the hollow projection of a torus-type resonator-accelerator. The anti-cathode aperture towards the ion escape is 120°, the drawing-electrode angle is 90°. The source is supplied by an electronic device which develops 50-microsec-long ignition pulses and 20-microsec-long ion-drawing pulses. It was experimentally found that a system of different-potential electrodes with grids ensures the best

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ACCESSION NR: AP4018359

focusing. The effects of the size of the emission aperture in the anti-cathode and of the drawing voltage upon the extraction current were experimentally determined (curves supplied). It was found that the source is capable of producing a current of 20-40 ma (pulse) at 20-25 kv, and a focusing of 10 mm. The cold cathode ensures the constancy of characteristics during long periods of operation. The source is used in a linear accelerator that employs a high frequency of 1.2 Mv and a pulse intensity of 10 ma. Orig. art. has: 5 figures.

ASSOCIATION: Ob"yedinenny*y institut yaderny*kh issledovaniy (Joint Nuclear Research Institute)

SUBMITTED: 01Feb63 DATE ACQ: 18Mar64 ENCL: 00

SUB CODE: PH, NS NO REF SOV: 004 OTHER: 005

Card 2/2

ACCESSION NR: AP4033120 S/0120/64/000/002/0100/0104

AUTHOR: Glazov, A. A.; Onishchenko, L. M.

TITLE: Device for reproducing current-pulse shape

SOURCE: Pribory* i tekhnika eksperimenta, no. 2, 1964, 100-104

TOPIC TAGS: current pulse, pulse shape, pulse shape reproduction, Rogovsky belt, toroidal transformer

ABSTRACT: A simple device is described which is based on the principle of a toroidal transformer (Rogovsky's belt) and can serve for measuring the shape of a current pulse passing a conductor or of a charged-particle cluster. The transformer-secondary signal is integrated by an electron-tube circuit as it was suggested by V. Elmor and M. Sands in their book, "Electronics in Nuclear Physics." The present article supplies elements of the theory involved and briefly reports on experiments with a ferrite toroid (OD = 121 mm; ID = 85 mm;

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thickness, 10 mm) wound with an insulated 0.65-mm wire. Its $\sqrt{LC}$ = 1.5 microsec; optimum resistance, 23 kohms; sensitivity, $\cdot 140 \times 10^{-6}$ v/a/sec. Three oscillograms illustrate the degree of true reproduction of the current-pulse shape. Orig. art. has: 6 figures and 12 formulas.

ASSOCIATION: Ob"yedinenny*y institut yaderny*kh issledovaniy (Joint Nuclear Research Institute)

SUBMITTED: 27Oct62 DATE ACQ: 11May64 ENCL: 00

SUB CODE: GE, NS NO REF SOV: 002 OTHER: 001

Card 2/2

L 2274-66 EWT(m)/EPA w)-2/EWA(m)-2 IJP(c) UR/0000/64/000/000/0611/0615

ACCESSION NR: AT5007943

AUTHOR: Glazov, A. A.; Dzhelepov, V. P.; Dmitriyevskiy, V. P.; Zamolodchikov, B. I.; Kol'ga, V. V.; Kropin, A. A.; Onishchenko, L. M.; Shvabe, Yu. I.

TITLE: Effect of space charge on the free oscillation frequency of particles in an isochronous cyclotron

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963. Trudy. Moscow, Atomizdat, 1964, 611-615

TOPIC TAGS: high energy accelerator, space charge, cyclotron

ABSTRACT: Theoretical studies of the effect of space charge on the motion of particles in accelerators have been carried out in a number of works: Berestetskiy, V. V.; Gol'din, L. L.; Koshkarev, D. T. *Pribory i tekhnika eksperimenta*, 3, 26 (1956); Dmitriyevskiy, V. P.; Zamolodchikov, B. I.; Kol'ga, V. V. *Doklad na konferentsii po tsiklotronam* (Report on the Cyclotron Conference), Gracow, 1960; Kolomenskiy, A. A.; Lebedev, A. N. *Atomnaya energiya*, 7, 549 (1959). To create strong-current accelerators it is important to verify the theoretical conclusions with actual operating installations. The present work is concerned with the dependence of the frequency of axial oscillations upon the density of the space charge of the ac-

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ACCESSION NR: AT5007943

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celerated particles. Pertinent measurements were carried out on a cyclotron with spiral magnetic field for the specific case of molecular hydrogen ions accelerated up to the energy of 12 Mev (Vasilevskaya, D. P., et. al., *Atomnaya energiya*, 8, 189 (1960)). The results of the present work shows that the effect of the space charge does not prevent beam intensities of the order of several milliamperes in relativistic cyclotrons. A result of this space charge is the displacement of the zones of resonant interaction of the oscillations. Expressions are obtained which describe the effect of the space charge on the basis of linear equations for the free oscillations, taking account of the electromagnetic field of the accelerated particles. It is assumed that the particles in a condensed bunch are uniformly distributed along the azimuth and that the vertical size of the bunch is much smaller than the azimuthal extension. The main topics discussed are: (1) the density of the charged particles in a relativistic cyclotron and its influence upon the frequency of the axial oscillations; (2) measurement of the azimuthal extension of the bunch; (3) measurement of the frequency of the axial free oscillations; and (4) the limiting intensity of the internal beam in a relativistic cyclotron. Orig. art. has: 6 figures, 8 formulas.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy, Dubna (Joint Institute of Nuclear Research)

SUBMITTED: 26May64 65

ENCL: 00 SUB CODE: NP

NO REF SOV: 004 OTHER: 002

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L 4230-66 EWT(m)/EPA(w)-2/EWA(m)-2 IJP(c) GS

ACCESSION NR: AT5007967 S/0000/64/000/000/0946/0949

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25
B+1

AUTHOR: Glazov, A. A.; Kochkin, V. A.; Onishchenko, L. N.; Royfe, I. M.; Semenov, M. M.; Tuzov, I. V.; Shvabe, Ye.

TITLE: High-frequency system of the 700-Mev cyclotron 19

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963. Trudy. Moscow, Atomizdat, 1964, 946-949

TOPIC TAGS: high energy accelerator, cyclotron, proton accelerator

ABSTRACT: The accelerating system of the 700-Mev cyclotron must ensure a regime of continuous proton acceleration for a current at maximum radius up to 1 milliampere. It is necessary here to have the maximum possible collection of energy of the accelerated protons per revolution, with the restriction that the power of the high-frequency supply to the accelerating electrodes be technically possible and economically admissible. The configuration and structure of the region where the particle acceleration occurs and the design of the accelerator electromagnet are the determining factors in the selection of the scheme for the accelerating system. The small height of the acceleration region, the absence of gap variation accord-

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ing to azimuth, and insignificant variation according to radius ($2h_{min}$=146 mm, $2h_{max}$=220.4 mm) with maximum gap in the middle radii are the special features of the accelerator under consideration; namely, a high-field machine with small variation of the magnetic field strength and large spiral. A similar structure for the operating zone excludes the use of simple bulk resonators as accelerating systems even during operation at multiple frequencies of considerable multiplicity, because the vertical dimension of the resonator must amount to about one half of the wavelength of the accelerating voltage, and the period of revolution of a proton in the cyclotron field is 83.3 nanosecond ($f = 1/T = 12$ megahertz). It is also practically impossible to use a multi-electrode (three or more) accelerating system operating at multiple frequencies in the case of an effectively structured region where the acceleration of the protons occur. Even for operations at a frequency equal to twice the frequency of proton revolution, the radius of the accelerator turns out to be greater than a quarter of the wavelength of the accelerating voltage. Moreover it is hardly technically feasible to create a cantilever design more than three meters with supporting elements arranged in the small interpole gap, with rigid requirements upon the constancy and magnitude of the gap between the accelerating electrode and the chamber. A two-dee accelerating system with dees in

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ACCESSION NR: AT5007967

which the proton flight angle is close to 180° can be realized by various methods. The Joint Institute of Nuclear Research and the Scientific Research Institute of Electrophysical Apparatus have investigated theoretically and experimentally modifications of the accelerating system with semicircular dees, which are closed in a small part of the arch near the axis of symmetry, dees that are part of the homogeneous rectangular line, and dees that are part of the rectangular line with variable wave resistance. Of all the considered possibilities of accelerating system design, the accelerating system in the form of the rectangular line with increased wave resistance outside the gap of the electromagnet possesses the optimum characteristics from the viewpoint of the magnitude of the losses, excitation, and realization of the design. The accelerated system chosen is shown in the present report to satisfy the requirements imposed upon it. The radio-engineering and mechanical designs carried out at the mentioned two institutes and the modelling of the various accelerating system elements point to the possibility of realizing its design and construction and to the expediency of selecting the indicated scheme and principal parameters. Orig. art. has: 3 figures.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy, Dubna (Joint Institute of Nuclear Research)

SUBMITTED: 26May64 ENCL: 00 SUB CODE: , NP

NO REF SOV: 000 OTHER: 000

Card 3/3

ACCESSION NR: AP4042004 S/0057/64/034/007/1272/1284

AUTHOR: Glazov, A.A.; Kochkin, V.A.; Novikov, D.L.; Onishchenko, L.M.

TITLE: A high frequency resonant cavity for accelerating protons to 1 MeV

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.7, 1964, 1272-1284

TOPIC TAGS: particle accelerator, proton accelerator, injector

ABSTRACT: A re-entrant resonant cavity is described which, when operated as a single stage proton accelerator, produces 20 microsec 10 mA pulses of approximately 1 MeV protons at a repetition rate of 50 sec^{-1}. The accelerator was developed during the years 1960 to 1962 at the Joint Institute for Nuclear Research as an injector for the phasotron described elsewhere by D.P.Vasilevskaya and 13 other authors (Preprint OIYaI R-930, Dubna, 1962; Nucl. Instr. 21, 85, 1963). The accelerator consisted of a 1 m diameter 1 m long steel cylinder with 30 cm diameter copper cylinders projecting radially inward from each end to within 2 cm of the center. One of these cylinders was movable in the axial direction for adjustment of the 4 cm accelerating gap, and the other contained the cold cathode Penning discharge ion source. The interior of the cavity was covered with polished copper; a Q of 14 000 was thereby achieved.

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ACCESSION NR: AP4042604

The cavity was excited by a self-excited grounded grid oscillator of which the cavity was the frequency determining element. Difficulty was experienced with resonant reflex discharge in the accelerating gap at an amplitude of about 1000 V. The cavity was therefore pre-excited at each pulse by a separately excited oscillator, and the self-excited oscillator took over only after the resonant discharge region was past. When the instrument was operating under presumably typical conditions, the beam was 3 cm in diameter and contained protons with energies from 0.7 to 1.1 MeV with half the protons in the energy range from 0.83 to 0.95 MeV. The possibility of employing a buncher between the ion source and the accelerator to obtain a more nearly monoenergetic beam is discussed, and it is concluded that this would be feasible. It is pointed out that although the accelerator was designed as an injector for a phasotron, it would be suitable as a primary accelerator for low energy nuclear research. For this purpose it has over electrostatic accelerators the advantages of compactness, low cost, and high pulse current. "In conclusion, the authors thank V.P.Dmitriyevskiy for valuable advice in planning the work and for discussing the results, Ye.Shvabe and M.Kuzmyak for assistance in developing certain critical parts of the accelerator, and also comrades V.V.Kudryushov, V.A.Akkuratov, P.T.Rybakov and M.G.Akimov for participating in the assembly of the electronic accessories and the construction of the accelerator." Orig.art.has: 17 formulas and 8 fi-

Card
2/3

VASIL'YEVSKAYA, D.F.; GLAZOV, A.A.; DENISOV, Yu.N.; DZHELEPOV, V.P.; DMITRIYEVSKIY, V.P.; ZAKOLODOCHKA, S.I.; ZAPLATIN, N.L.; KOL'GA, V.V.; KROPIN, A.A.; KUZNYAK, M.; OVCHINNIKOV, L.N.; RYBALKO, V.S.; SARKISYAN, L.A.; SHVABE, Ye.; SAMOYLOVSKAYA, V.N., tekhn. red.

[Theory and the modeling of a circular synchro-cyclotron with a spiral magnetic field] Voprosy teorii i modelirovaniia kol'tsevogo sinkhrotrona so spiral'noi strukturnoi magnitnogo polia. Dubna, Ob"edinennyi in-t iadernykh issl., 1962. 7 p. (MIA 16:4)

(Synchrotron)

[illegible] [illegible]

Issledovaniye skhem vypryamleniya s operezhayushchim uglom regulirovaniya [illegible] upravlyayushchimi induktivnymi [illegible]. Kiev, 195[illegible]. [illegible] s. s chert. [illegible] sm. (M-vo vyssh. obrazovaniya SSSR. Kievskiy ordena Lenina politekhn. in-t. Kafedra tsentr. elektr. stantsiy). [illegible] - ([illegible])

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012381

ONISHCHENKO, M. [Onyshchenko, M.], inzh.

Foot gear for automobiles. Nauka i zhyttia 13 no.10:23 O '63. (MIRA 16:12)

1. Institut "Ukrndiplastmash."

OMEL'CHENKO, A.N., kand. tekhn. nauk; [illegible], M. ., inzh.

Establishing norms for [illegible] the depletion [illegible] during the mining [illegible] complex ore deposits. [Trudy] VNI[illegible]: 229)218 '67

ONISHCHENKO, Mikhail Kirillovich, stalevar; POMETUN, Grigoriy Konstantinovich, stalevar; STEPANENKO, Nikolay Aleksandrovich, stalevar; VERETEL'NIK, I.V., inzhener, redaktor; ISLANKINA, T.F., redaktor izdatel'stva; ISLENT'YEVA, P.G., tekhnicheskiy redaktor

[Our experience with a rapid oxygen steel making process] Nash opyt skorostnogo stalevareniia s primeneniem kisloroda. Moskva, Izd-vo "Znanie," 1953. 23 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser. 4 no.6) (MLRA 9:7) [Microfilm]

1. Ordena Lenina zavod "Zaporozhstal'" (for Onishchenko, Pometun, Stepanenko)
(Steel--Metallurgy)

POMETUN, G., stolevar; ONISHCHENKO, M., stolevar; STEPANENKO, N., stolevar.

Carrying out the directives of the Congress. Nauka i zhizn' 23 no.6:17-19 Je '56. (MLRA 9:9)

1. Ordena Lenina zavoda "Zaporozhstal'."
(Zaporozhye--Steel industry)

LIVSHITS, Ya.D.; ONISHCHENKO, M.M. (Kiyev)

Design of reinforced concrete slabs taking into account crack formation and creep. Stroi. mekh. i rasch. soor. 4 no.6:6-11 '62. (MIRA 16:1)

(Concrete slabs)

ONISHCHENKO, M.M., [illegible]

Calculating reinforced concrete slabs supported along their contour and bearing a prolonged acting load. Stroi.konstr. no.1:140-145 '65. (MIRA 18:1)

1. Kiyevskiy avtodorozhnyy institut.

ONISHCHENKO, Mikhail Nesterovich, kand.pedagog.nauk; YASHANIN, I.G., zasluzhennyy uchitel' shkoly RSFSR, red.; GARANINA, L.F., red.; BRULIKOVSKAYA, R.G., tekhn.red.

[Equivalence of equations, their solution and analysis] Ekvivalentnost' uravnenii, ikh reshenie i issledovanie. Pod red. I.G.Iashanina. Gor'kii, Gor'kovskoe knizhnoe izd-vo, 1959. 121 p. (MIRA 13:2)
(Equations)

ONISHCHENKO, M.F.

All-Union Branch Conference on [illegible] machinery construction.
Khim. prom. [illegible] no.1:86-87 Ja Mr '65. (MIRA 18:4)

4

L 20601-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(k) JD/HW
ACC NR: AP6010136 SOURCE CODE: UR/0133/66/000/003/0248/0250

AUTHOR: Rudoy, V. S. (Candidate of technical sciences); Alferova, N. S. (Doctor of technical sciences); Mlinarich, B. A. (Engineer); Bogdanova, T. M. (Engineer); Sadokov, G. M. (Engineer); Mel'nichenko, I. F. (Engineer); Kirvalidze, N. S. (Engineer); Kurilenko, V. Kh. (Engineer); Omishchenko, M. P. (Engineer)

ORG: none

TITLE: Production of tubes from OKh20N5T stainless steel

SOURCE: Stal', no. 3, 1966, 248-250

TOPIC TAGS: stainless steel, low nickel steel, stainless steel tube, tube rolling, hot rolling / Okh20N5T steel, EP299 steel

ABSTRACT: Technological properties of EP299 (OKh20N5T) stainless steel and the conditions for tube rolling this steel have been studied. The steel, annealed at 1050C for 15 min and air cooled, has a tensile strength of 101 kg/mm^2, a yield strength of 34 kg/mm^2, an elongation of 40.6%, and a reduction of area of 62.1%. Corresponding figures for test temperature at 350C are 52 kg/mm^2, 39.0% and 69.7%. The steel is very sensitive to the cooling rate: slow cooling sharply reduces the elongation and impact strength. The plasticity of EP299 steel does not change in the 1100—1250C range, but increases sharply with further increases in temperature and rapidly increasing content of α-phase. Up to 1250C the plasticity of EP299 steel is much

Card 1/2 UDC: 621.744.35

L 20601-66
ACC NR: AP6010136

lower, but at 1275C and over much higher, than that of Kh18N10T and EI-811 steels. The hot working of EP299 steel must be done at temperatures over 1250C. The steel, however, has a tendency to stick to guide bars. With guide bars made from G18 steel (1.4—1.8% C, 16—19% Mn) and piercing done at 1275—1300C, the tendency to stick was greatly reduced. The mechanical properties and surface quality of hot-rolled and heat-treated EP299 tubes were satisfactory, and the tubes were suitable for cold rolling and cold drawing. Orig. art. has: 2 figures. [AZ]

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 003/ ATD PRESS: 4225

Card 2/2

BRONZOV, A.S.; [illegible], A.M.; KOPYTOV, Yu.M.; [illegible]

Device for determining the angle of gradient of a well core.
Biul. nauch.-tekh. inform. VIMS no.2:77 '63. [illegible]

L 52327-65 EWP(e)/EWP(k)/EWP(z)/EWA(c)EWT(d)/EWT(m)/EWP(b)/T/EWA(d)/EWP(l)/EWP(v)/EWP(t) Pf-4 MJW/JD/HW

ACCESSION NR: AP5015685 UR/0133/64/000/012/1117/1119

AUTHOR: Kirvalidze, N.S.(Engineer); Korobochkin, I.Yu.(Engineer); Kurilenko, V. Kh.(Engineer); Dergach, A.Ya.(Engineer); Onishchenko, M.P.(Engineer); Samoylenko, V.D.(Engineer)

TITLE: Increasing the productivity of an automatic installation for rolling Kh18N10T tubing

SOURCE: Stal', no. 12, 1964, 1117-1119

TOPIC TAGS: pipe, steel, metal rolling

Abstract: The pierceability of Kh18N10T steel is sharply improved by increasing the mandrel slope up to 11° (critical reduction here reaches 13%, what a a slope angle of 9°--only around 10%).

Laboratory and industrial experiments showed that the mandrel rpm's (in the range of 70-140 rpm) have little effect on the pierceability of this steel. Increasing the number of rpm's of the mandrel made it possible to increase productivity by 15% for high-quality tubing.

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ACCESSION NR: AP5015685

The main factor, affecting the internal surface quality of casings, for a change of rpm, is the degree of strengthening and weakening processes. At substantially high rates of deformation the processes of weakening do not have time to occur and, therefore, a change of rpm of the mandrel in the piercing of Kh18N10T billets does not affect pierceability. Orig. art. has 2 figures and 3 formulas.

ASSOCIATION: Nikopol'skiy yuzhnotrubnyy zavod (Nikopol' Yuzhnotrubnyy Plant)

SUBMITTED: 00 ENCL: 00 SUB CODE: MM, IE

NO REF SOV: 005 OTHER: 000 JPRS

Card 2/2 mb

UkSSR/Physical Chemistry. Crystals.

Abs Jour: Ref Zhur-Khimiya, No 5, 1957, 14552

Author : M. Ya. Onishchenko
Inst : Kiyev University
Title : On the Problem of Artificial Preparation of Crystals from Aqueous Solutions

Orig Pub: Stud. nauk. pratsi, kiiv'sk. un-tu, 1956, zb, 19, 47-

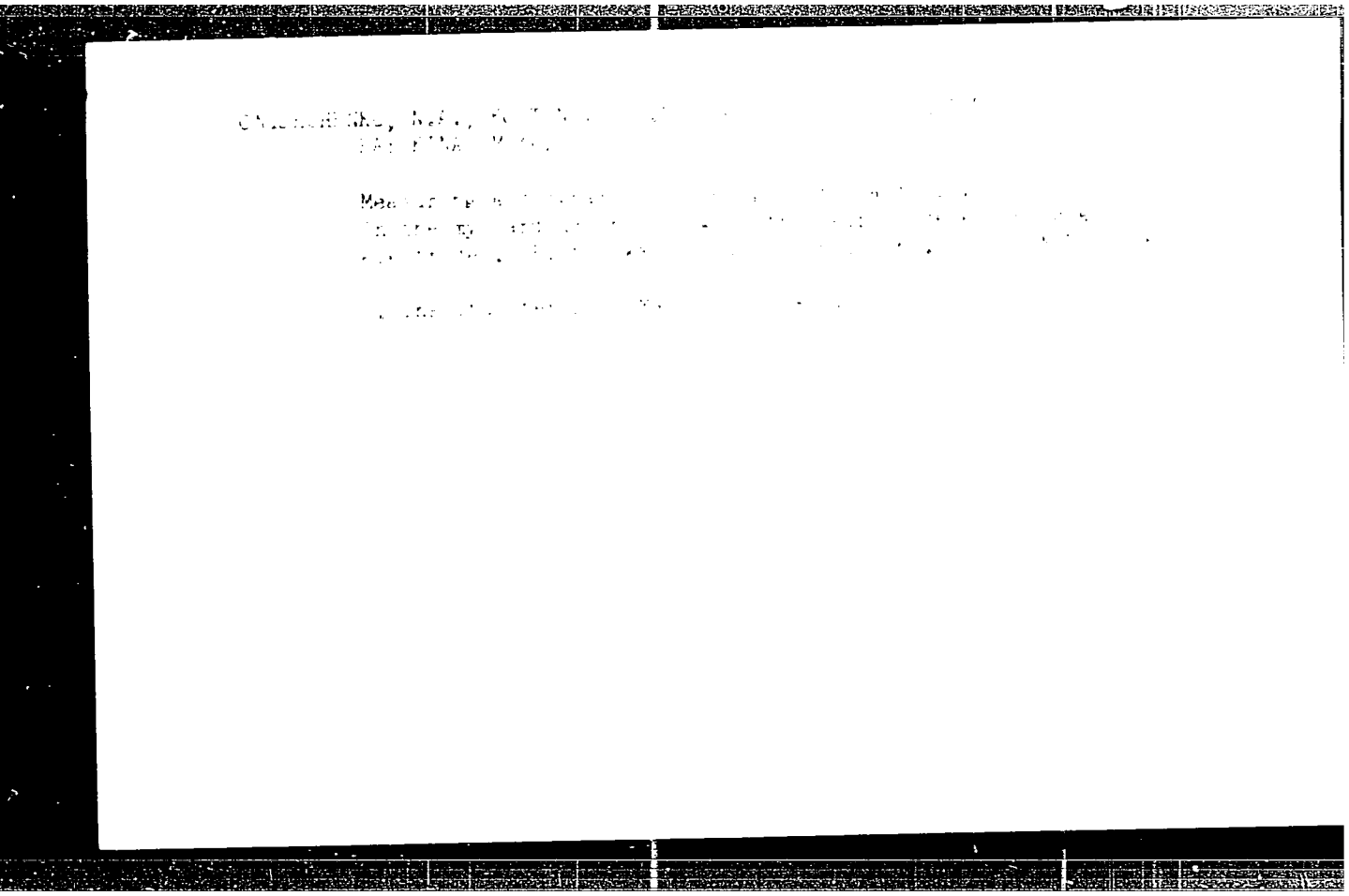
Abstract: The structure and principle of the action of a planetary type crystallizer were examined. A theoretical study was made of the influence of conditions of growth on the habit of the crystal. The results of the computations were checked experimentally on crystals of $K_2SO_4 \cdot Al_2(SO_4)_3 \cdot 24\ H_2O$.

Card 1/1

KOSHITS, Yu.I.; VELIKA, Z.R.[Velyka, Z.R.]; RAYKO, V.I.[Raiko, V.I.]; ONISHCHENKO, M.Yu.[Onyshchenko, M.IU.]; BUTSENKO, M.A.; KRAVCHENKO, V.Ya., red.; SLYN'KO, B.I., red.; GRISHKO, T.I. [Hryshko, T.I.], tekhn. red.

[Buildings on livestock farms] Budivli tvarynnyts'kykh ferm; budivel'na i proektna praktyka. Za red. V.IA.Kravchenka. Kyiv, Derzhbudvydav URSR, 1962. 89 p. (MIRA 16:5)

1. Akademiya budivnytstva i arkhitektury URSR. Naukovo-doslidnyi instytut arkhitektury sporud.
(Farm buildings--Design and construction)



25(5)
AUTHORS: Kozhukh, V. Ya., Ternokhud, N. V., Grishchenko, V. I.

TITLE: An Attempt to Make Use of Optico-Acoustic Gas Analyzers (Opyt ekspluatatsii optiko-akusticheskikh gazoanalizatorov)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr. 2, pp. 215 - 218 (USSR)

ABSTRACT: In the "Azovstal'" plant a pilot unit for the continuous determination of the CO, CO_2, and H_2 content of blast furnace gas has been erected. The unit consists of a set of gas analyzers, filters intended to remove dust and mechanical impurities, as well as flow regulators for the gas and for the solutions to the filters and for the gas filtering. Both the unit and the underlying principle have already been described (Ref 1). It was found that some of the unit's arrangements are not necessary for work in modern high blast furnaces. The modification of the unit which is now being used with all the furnaces in the plant has the following measuring ranges: 0-5% for CO, 0-20% for CO_2, 0-10% for H_2. In order to increase the accuracy of measuring the

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the CO, CH, and H gas ... were ... Lvov politekhnicheskiy institut (Lvov ... (CO ...-55%, ... 7-15%, H ...), and ... wiring (Fig ...) as well as the ... of the unit (Fig ...) were ... the gas analyzers and their ... (Table 2) were ... by means of ... mixtures. In 1957 optico-acoustical industrial ... types OA 2104 (for CO), OA 2... (for H), ... were introduced for use with all ... "Azovstal'" plant. The type ... experimental models by the method of ... amount of gas supplied. The ... references. The results of the testing ... given (Table 3). Moreover the rel... ... backs of the latter apparatuses and ... are pointed out. It is ... to set up expert teams for the assembly ... analytical apparatus for metall... ... be formed in the works by KIP and ...

Card 2/3

An Attempt to Make Use of [illegible] Gas analyzers [illegible]

mation). There are 3 figures, [illegible] tables and [illegible] Soviet references.

ASSOCIATION: Zavod "Azovstal'" ("Azovstal'" plant)

Card 3/3

ONISHCHENKO, N.

Pedal driven paint feeder. Stroitel' no.4:18 Ap '58. (MIRA 11:5)
(Painting, Industrial--Equipment and supplies)

SOV/115-59-7-1[illegible]/23

25(1), 28(1,2)

AUTHORS: Kozhukh, V.Ya., Onishchenko, N.P.

TITLE: A Device for Remote Control of Dial Balances

PERIODICAL: Izmeritel'naya tekhnika, 1959, Nr 7, pp 21-22 (USSR)

ABSTRACT: The authors designed a servo system for telemetring and recording shifts of the indicator dial needle of a balance used for weighing coke charges for blast furnaces. Usually, VK-5-RG balances of the plant "imeni Stalina" are used. The servo system was built by the authors in cooperation with K.G. Karimov, A.V. Dorokhin and Yu.V. Dokachev. It consists of an automatic bridge MSR1, selsyns BD-404A, BS-404A and self-recorders EPP-09 and EPP-120. A simplified kinematic diagram for the remote control of dial balances is shown in fig.1. The transmitter selsyn is installed on the indicator needle shaft of the balance. The receiver selsyn is installed in the automatic bridge and its stator winding is connected to an amplifier input. The principle electrical circuits are shown in fig.4. Self-recorders EPP-09 and EPP-120 may be used for recording the weight of the coke charges loaded on cars for feeding the blast furnaces. The technical specifications of

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