"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

L 18308-63

ACCESSION NR: AP3004979

catalyst. The yellow peroxymolybdates of the composition $MeMoO_6$ serve only as a basis for the formation of red peroxymolybdates. The yellow peroxymolybdates also serve as catalysts on account of their peroxide grouping -O-O-. The presented scheme represents the molecular mechanism of the catalytic decomposition of hydrogen peroxide by sodium molybdate together with sodium or strontium chloride. Orig. art. has: 4 figures and 2 tables.

ASSOCIATION: Moskovskiy energiticheskiy institut (Moscow power institute)

SUBMITTED: 24Oct61 DATE ACQ: 06Sep63 ENCL: 00

SUB CODE: CH, PH NO REF SOV: 008 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

VETYUKOV, M.M.; SHCHERBININ, V.I.

Viscosity and density of eutectic mixtures of fused salts.
Zhur. prikl. khim. 36 no.11:2385-2391 N '63. (MIRA 17:1)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

20705

S/120/61/000/001/043/062
E194/E184

26.2351

AUTHORS: Kalgancv, A.F., and Shcherbinin, V.P.

TITLE: A Self-Exciting Rotor Type Electrostatic Generator With Output Voltage of Given Polarity

PERIODICAL: Pribory i tekhnika eksperimenta, 1961, No.1, pp.142-144

TEXT: Small high-voltage sources with outputs of up to a few watts may be built as electrostatic generators with cylindrical transporter-conductors. The authors, assisted by the graduate of Tomskiy politekhnicheskiy institut (Tomsk Polytechnical Institute) P.P. Galinskiy, have designed, built and investigated a generator of this kind for 75 kV, 100 microamps. Fig.1 shows a section through the generator. The generator rotor is a solid of rotation, 14, with two systems of metallic plates, main and auxiliary each consisting of four plates. The rotor turns about the centre line 15 and is retained by bearings on the flanges 1 and 9 which are made of insulating material. The generator stator consists of four metal plates rigidly connected to the same flanges. The assembled generator is contained within a steel frame 3 and operates in an atmosphere of compressed gas.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

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E194/E184

A Self-Exciting Rotor Type Electrostatic Generator With Output Voltage of Given Polarity

The generator operates as follows. If an accidental charge appears, for example, on stator plate 4, a charge of opposite sign is induced on the transporter 6 of the auxiliary rotor. A charge of the same sign as the exciting charge is drawn to the earthed casing by the brush 8 through the commutator plate 7. After half a turn of the rotor the transporter 6 occupies the position of the transporter 11 and a charge passes through the brush 10 to a stator plate 12. This induces a charge of opposite sign on the transporter 13 of the main rotor which at this instant is connected through the brush 7 and the commutator 16 with the earthed frame. The charge induced on the transporter 13, the polarity of which is the same as that on plate 4 of the stator, is transferred to the brush 2 which is electrically connected to the plate 4. The charge on this latter plate is thus increased and this increases the charges induced on the additional plates of the rotor and transmitted by plate 12 of the stator which still further increases the charge on plate 4 of the stator and so on

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A Self-Exciting Rotor Type Electrostatic Generator With Output Voltage of Given Polarity

until an equilibrium condition is set up. In general, a generator with m-plates on the main rotor may be designed from the following formula (from the condition s of obtaining the maximum power):

$$P_m = m^2 nC(1/2\ Ed)^2 (2 + \alpha m)^{-1},$$

$$I = 1/2\ mnCEd,$$

$$U_2 = 1/2\ Edm/(2 + \alpha m),$$

$$U_1 = Ed(1 + \alpha m)/(2 + \alpha m),$$

where P_m is the maximum power, I and U_2 are the output current and voltage, U_1 is the field voltage, E is the working field intensity in the gap between the stator and rotor, d is the gap length, n is the rotor speed, C is the maximum capacitance between the transporter of the main rotor and the main exciting plate, α is a stray capacitance coefficient equal to

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E194/E184

A Self-Exciting Rotor Type Electrostatic Generator With Output Voltage of Given Polarity

the ratio of the stray capacitance of the transporter to the maximum capacitance C. The optimum number of rotor plates is determined from the empirical formula

$$m = (0.15 - 0.2)\ D/d$$

where D is the rotor diameter. From the given values of current, voltage, stress and speed it is possible to determine the necessary maximum capacitance C and to design the transporters of the main rotor. The dimensions of the auxiliary rotor are selected experimentally to make up current leakage over the insulation of the main exciting plates of the stator. In the example built, the length of transporters of the main rotor was 9 cm. All the plates were made of duralumin. The gap between rotor and stator and plate thickness was 3.5 mm. All insulating parts were made of transparent plastic. Other constructional details are given. The rotor was driven by a motor type ДШС -2 (DShS-2), of variable speed up to 3000 rpm. The generator

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

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E194/E184

A Self-Exciting Rotor Type Electrostatic Generator With Output Voltage of Given Polarity

together with the motor are located in a steel cylindrical casing with an internal diameter of 99 mm and length of 0.5 metres. The cylinder was filled with carbon dioxide at a pressure of 22 atm. Tests of the generator with external excitation, with the additional rotor cutout, showed that the stray capacitance factor $\alpha = 0.4$. At a speed of 3000 rpm the generator operating with self-excitation develops a maximum output of 5 W at a voltage of 55 kV and a current of 92 microamperes. E = 278 kV/cm. Thus there was good agreement between the calculated and experimental results. The generator output pulsates at a frequency of 4 n. The main disadvantage of the self-exciting electrostatic generator with transporter conductors is that the polarity of the output voltage cannot be predetermined because the accidental charges may be of either polarity. A simple circuit based on diodes was used to overcome this defect (see Fig.4). Diodes were connected in the earthing circuits of the brushes as shown in Fig.4a when it was necessary to obtain a voltage of negative polarity. In this case,

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S/120/61/000/001/043/062
E194/E184

A Self-Exciting Rotor Type Electrostatic Generator With Output Voltage of Given Polarity

of charges induced on the rotor transporters only those of definite sign can be passed to earth. By use of the change-over switch shown in circuit Fig.46 the polarity of the output voltage can easily be changed. This circuit for obtaining a given polarity can be simplified by using a common diode connected in the brush circuit of the main rotor and both types of circuit have been tried.
There are 4 figures and 5 references: 1 Soviet and 4 non-Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy institut yadernykh issledovaniy, elektroniki i avtomatiki TPI (Scientific Research Institute of Nuclear Research, Electronics and Automatics, TPI)

SUBMITTED: December 2, 1959

Card 6/7

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

MIZINOV, N.V.; KRAVCHENKO, L.M.; DYADYUK, N.P.; SHCHERBININ, V.S.

Prospects for finding oil and gas in the southwestern part of the West Siberian Plain in connection with the opening of the Lenin (Karabash) oil field. Neftegaz.geol. i geofiz. no.1:9-14 '65. (MIRA 18:5)

1. Tyumenskaya kompleksnaya geologorazvedochnaya ekspeditsiya Tyumenskogo territorial'nogo geologicheskogo upravleniya.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

ACC NR: AP6025655 SOURCE CODE: UR/0413/66/000/013/0108/0108

INVENTOR: Gorel'kov, L. A.; Shcherbinin, V. V.

ORG: None

TITLE: An analog pseudorandom number generator. Class 42, No. 183487

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 108

TOPIC TAGS: number, random process, generator, analog system

ABSTRACT: This Author's Certificate introduces an analog pseudorandom number generator. The installation contains a cadence device, functional converter and memory unit connected to the output of a generator which includes an integrator, comparison amplifier and limiter. To simplify the circuit and produce quantities with a given continuous distribution function directly at the output of the memory unit, the functional converter is made with grounded potential diodes and is connected at the input to the integrator, while the converter output is connected to the comparison amplifier of the periodic oscillation generator.

 UDC: 681.142.07

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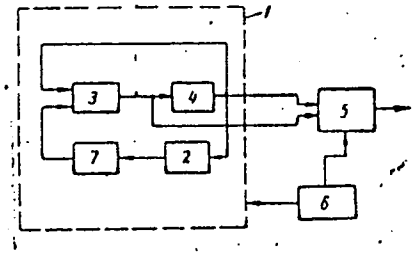
"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

ACC NR: AP6025655



1—periodic oscillation generator; 2—integrator; 3—comparison amplifier; 4—limiter; 5—memory unit; 6—cadence device; 7—functional converter

SUB CODE: 09/ SUBM DATE: 20Aug65

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APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

ZATSEPIN, N.N.; SHCHERBININ, V.Ye.

Method for lowering the level of noise-signals due to local cold hardening when testing objects with remanent magnetization for surface defects. Izv. vys. ucheb. zav.; fiz. no. 3:56-61 '64. (MIRA 17:9)

1. Institut fiziki metallov AN SSSR.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

ZATSEPIN, N.N.; SHCHEGLOVITOV, V.Ye.

Optimum distribution of ferrosonde elements in the examination of ferromagnetic products. Zav. lab. 30 no.8:957-958 '64. (MIRA 18:3)

1. Institut fiziki metallov AN SSSR.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

L 61520-65 EWT(d)/EWT(m)/EWP(w)/EWP(c)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(b)/EWP(1)/EWA(c) Pf-4 JD/HW

ACCESSION NR: AP5012115 UR/0381/65/000/001/0028/0032

620.179.14

32

26

B

AUTHOR: Zatsepin, N. N., Shcherbinin, V. Ye.

TITLE: Applied field method in the ferro-probe surface defect control of pipe blanks (skelp)

SOURCE: Defektoskopiya, no. 1, 1965, 28-32

TOPIC TAGS: metal quality control, ferro-probe quality control, applied magnetic field method, nondestructive quality control, surface defect detection, defectoscopy, pipe blank inspection

ABSTRACT: The authors call attention to the fact that the residual magnetization method presently used in ferro-probe quality control has the disadvantage of being sensitive to structural and other non-uniformities, particularly in the case of items which have not been heat treated and have been severely cold-hardened (for example, rolled stock). This may result in a substantial reduction of the selectivity of the ferro-probe method from the point of view of the detection of actual defects. In the authors' view, the applied magnetic field method is one of the most reliable and effective techniques for reducing the level of interference signals. They note that previous work has shown that, in an applied circular a-c

Card 1/3

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ACCESSION NR: AP5012115

5

or d-c magnetic field, the useful signal originating from real defects can be sharply increased as opposed to the signal from local hardening on rods of bearing steel. The stronger the magnetizing field, the greater the resolving power for the detection of defects, with this resolution reaching its maximum when the item to be checked is brought to a state approximating magnetic saturation. The purpose of the present article was to test the applied magnetic field method under conditions typical of actual production processes. The authors demonstrate the feasibility of an effective utilization of this applied-field method under production and industrial conditions when making ferro-probe quality control tests of skelp (pipe billets or blanks) of carbon steel for such surface defects as cracks, hairlines, scabs, rolls, etc. It is shown in the article that this method has a high degree of sensitivity to defects of these and related types, combined with a low noise level. Finally, the authors succeed in establishing a correlation between the signal of the ferro-probe and the depth of the surface defect in the skelp. Such defects may be detected to a depth of 0.2 - 0.3 mm and more from the surface by means of the applied-field method. "The authors wish to express their gratitude to E. V. Aronson, M. I. Klimovskiye and N. M. Yezhov for their valuable assistance in carrying out this work, and to L. Kh. Fridman for his useful counsel while the work was being discussed." Orig. art. has: 3 figures and 1 table.

Card 2/3

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

L 61520-65

ACCESSION NR: AP5012115

ASSOCIATION: Institut fiziki metallov AN SSSR (Institute for the Physics of Metals, AN SSSR)

SUBMITTED: 31Mar64 ENCL: 00 SUB CODE: IE, MM

NO REF SOV: 002 OTHER: 001

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Card 3/3

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

L 60125-65 EWP(c)/EWP(k)/EWT(d)/EWT(m)/ETC(m)/T/EWA(d)/EWP(1)/EWP(w)/EWP(v)/EWP(t)/EWP(b) Pf-4 WW/JD

ACCESSION NR: AP5018238 UR/0381/65/000/003/0037/0043

620.179.14

26
25
B

AUTHOR: Zatsepin, N. N.; Burtsev, G. A.; Shcherbinin, V. Ye.

TITLE: Increasing the selectivity of the ferroprobe examination of ferromagnetic products for extended surface defects

14

SOURCE: Defektoskopiya, no. 3, 1965, 37-43

TOPIC TAGS: ferroprobe selectivity, multielement ferroprobe, electron beam indicator, magnetic inhomogeneity, ferromagnetic product defectoscopy, surface crack detection

ABSTRACT: Three methods are described for increasing the selectivity of the ferroprobe surface-defect control of ferromagnetic products. These are: 1) the visualization of the magnetic relief (e.g., by means of the electron beam indicator described by two of the authors in the book Nerazrushayushchiye metody kontrolya materialov i izdeliy, M., ONTIPRIBOR, 1964, p. 357) which permits the separation of real defects such as fine cracks, fissures, laps, etc. from local magnetic inhomogeneities during relatively slow displacements of the examined products;

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L 60125-65

ACCESSION NR: AP5018238

2) the reading of a series of signals by means of triggers and a multielement sensing device which allows the separation of magnetic inhomogeneities from real defects having a given minimum size; and 3) the use of a multielement sensing device which significantly reduces the overall level of perturbing signals from random inhomogeneities within the examined samples. (These signals generally have opposite phases.) The operating characteristics of a six-element experimental ferroprobe are also given. Orig. art. has: 7 figures.

ASSOCIATION: Institut fiziki metallov AN SSSR (Institute of the Physics of Metals, AN SSSR)

SUBMITTED: 02Apr65 ENCL: 00 SUB CODE: MM, IE

NO REF SOV: 002 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

L 24823-66 EWT(d)/EWT(m)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(l) IJP(c) JD/HW

ACC NR: AP6006951 (N) SOURCE CODE: UR/0381/65/000/006/0003/0008

AUTHORS: Zatsepin, N. N.; Shcherbinin, V. Ye.; Yezhov, N. M.; Kokhman, L. V.; Novikov, M. K.; Lyubynskiy, Ye. A.

ORG: Institute of Physics of Metals, AN SSSR (Institut fiziki metallov AN SSSR); Pervoural New Pipe Factory (Pervoural'skiy Novotrubnyy zavod)

TITLE: Ferroprobe defectoscope for steel tubes in applied circular magnetic fields

SOURCE: Defektoskopiya, no. 6, 1965, 3-8

TOPIC TAGS: steel, ferromagnetic material, magnetic field, defectoscope, measuring instrument

ABSTRACT: A method is described for locating defects in ferromagnetic tubes made of hot-rolled and cold-drawn steels. The technique consists of measuring both surface and internal defects simultaneously by an externally placed ferromagnetic probe counter. The method is applied under both static and dynamic conditions with equal success. In the dynamic case, the probe is rotated around the tube at the rate of 1000 rev/min. Curves are obtained depicting the probe emf versus the depth of surface defects and the depth of defects on the internal surface of the tube. A large amount of scatter observed in the data is caused primarily by the varied configurations of the defects. For a 4-mm wall thickness, surface defects

Card 1/2 UDC: 620.179.14

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

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ACC NR: AP6006951

appear to start at depths of 0.1--0.2 mm, in the internal surface defects, at 0.2--0.3 mm. The authors express their gratitude to R. I. Yanus for his valuable advice in evaluating this work. Orig. art. has: 6 figures.

SUB CODE: 14/ SUBM DATE: 16Oct65/ ORIG REF: 003

Card 2/2dda

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

L 22235-66

ACC NR: AP6010771 SOURCE CODE: UR/0146/66/009/001/0029/0034

AUTHOR: Aliyev, T. M.; Trakhtenberg, L. A.; Shcherbinin, Yu. V.; Ter-Khachaturov, A. A.

ORG: Azerbaydzhan Institute of Petroleum and Chemistry im. M. Azizbekov (Azerbaydzhanskiy institut nefti i khimii)

TITLE: A dynamic electrometer with a low input capacitance

39
B

SOURCE: IVUZ. Priborostroyeniye, v. 9, no. 1, 1966, 29-34

TOPIC TAGS: electrometer, capacitor, electric capacitance, voltmeter, millivoltmeter/VZ-3(MVL-3) millivoltmeter

ABSTRACT: The authors have developed an electrodynamic capacitor in the form of an attachment to the standard "VZ-3 (MVL-3) millivoltmeter," which made it possible to produce a dynamic electrometer with a low input capacitance for measuring point surface charges. The construction of the electrodynamic capacitor is shown in the figure where *1* is a fixed plate, while plate *2* is the armature of an electromagnetic system whose magnetic circuit *3* is made in the form of a high-permeability steel cup with permanent magnet *4* fastened in the center. Coil *5* is fed by alternating current with a frequency ω to create a variable magnetic flux which excites oscillatory motion of armature *2* fastened to spring *6* made from a material with stable elastic properties, e. g. beryllium bronze. The electrometer has an input impedance of 10^{15} Ω and an in-

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

L 22235-66

ACC NR: AP6010771

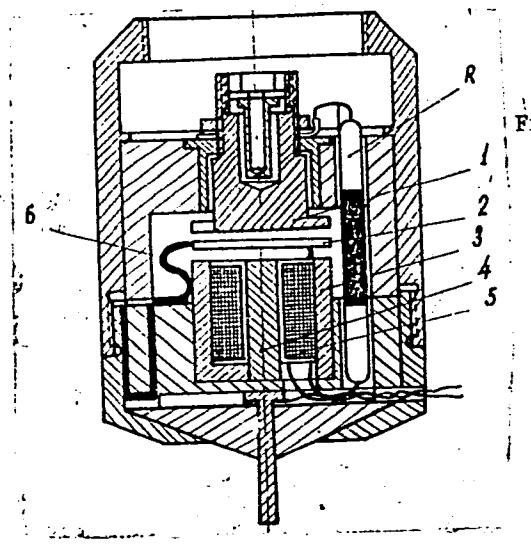

Fig. 1. Electrodynamic capacitor.

put capacitance of 2 μμf and may be used for measuring small charges at up to 1000. 1000 cps. Orig. art. has: 4 figures and 4 formulas. [14]

SUB CODE: 09/ SUBM DATE: 03Nov64/ ORIG REF: 004/

Card 2/2 nst

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

SHCH[illegible], [illegible]; [illegible], M.P.

[illegible] of state standards for the dry cocoons of mulberry silkworms and reeled silk. Tekst. prom. 25 no.7:71-72 Jl '65. (MIRA 18:8)

1. Nachal'nik TSentral'nogo nauchno-issledovatel'skogo instituta Bukhinskogo shelkokombinata imeni Lenina (for Shcherbinina).
2. Starshiy inzhener TSentral'nogo nauchno-issledovatel'skogo instituta Bukhinskogo shelkokombinata imeni Lenina, rukovoditel' eksperimental'noy gruppy (for Efendiyeva).

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

LOBACHEVA, V.P.; SHCHERBININA, A.P.; KAFAROV, Z.Z.

Printing of white fabrics with substantive turquoise and lightfast colors. Tekst.prom. 23 no.5:71-72 My '63. (MIRA 16:5)
(Textile printing)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

LOBACHEVA, [illegible], inzh.-khimik, [illegible], M.P., [illegible], A.P.

Nonwoven fabrics from pure silk wastes. Tekst. prom. 25 no.5: 53-54 My '65. (MIRA 18:5)

1. Tsentral'naya nauchno-issledovatel'skaya laboratoriya Nukhinskogo shelkovogo kombinata (for Lobacheva).

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

SHCHERBININ, I.V.; SHCHERBININA, G.S.

Unusual tick adherence to a human. Med.paraz. i paraz.bol. supplement to no.1:61 '57. (MIRA 11:1)

1. Iz kafedry parazitologii Odesskogo sel'skokhozyaystvennogo instituta i ginekologicheskogo otdeleniya Odesskogo oblastnogo onkologicheskogo dispansera.
(TICKS)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

SHCHERBININA, L.A.

Improving the working board of the engineer-designer. Rats. i izobr. predl. v stroi. no.129:42-43 !56. (MLRA 9:9)
(Drawing-room practice)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

EL'KINA, E.I.; GORDINA, Z.V.; GREBENEVA, Z.F.; v rabote prinimali uchastiye; YAKOVLEVA, G.V.; SHCHERBININA, L.G.

Production and purification of antibiotics of the tetracycline series. Report no.2. Med.prom. 13 no.1:10-14 Ja '59. (MIRA 12:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(TETRACYCLINE)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

KIBAKIN, V.V.; SHCHERBININA, O.Kh.

Studying the parasites of limnophilous birds from the Kara Kum Canal region. Izv.AN Turk.SSR.Ser.biol.nauk no.3:44-51 '62. (MIRA 15:9)

1. Institut zoologii i parazitologii AN Turkmenskoy SSR.
(KARA KUM CANAL REGION--PARASITES--BIRDS)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

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[illegible]

[illegible] the [illegible] of [illegible] from the [illegible] Kom Canal region.
Av. AN Turk. SSR. Ser. biol. nauk no. [illegible]

(MIRA [illegible])

1. Institut zoologii i parazitologii AN Turkmenskoy SSR.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

SHCHERBININA, G.Kh.

Fauna of birdlice of gulls. Izv. AN Turk. SSR. Ser. biol. nauk no.2:92-94 '65. (MIRA 18:5)

1. Institut zoologii i parazitologii AN Turkmenskoy SSR.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

SHCHERBININA, V., arkhitektor

Layout of winegrowing collective farms. Sel'. stroi. 15 no. 3:15 Mr '61. (MIRA 14:5)
(Rostov Province--Viticulture)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

L 45392-65 EWA(h)/EWP(c)/EWP(k)/EWT(d)/EWT(1)/T/EWP(1)/EWP(v) Pf-4/Peb

ACCESSION NR: AP5010941 UR/0286/65/000/007/0124/0125

23
B

AUTHORS: Dovnar, B. P.; Uspenskiy, Ye. I.; Shcherbinina, V. A.

TITLE: Method for rapid electromagnetic flaw detection of rails. Class 42, No. 169857

14

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 7, 1965, 124-125

TOPIC TAGS: railroad track, flaw detector, electromagnetic device

25

ABSTRACT: This Author Certificate presents a method for rapid electromagnetic flaw detection of rails by magnetizing them in the field of a pi-shaped dc electromagnet with identical field coils. The signals from defects and noise (of rail surface defects) are separated by placing induction probes at various places between the electromagnet poles. To amplify the effect of rail magnetization inhomogeneity, the current, which is supplied to the first (in the direction of motion) electromagnet coil, is less in magnitude than that to the second coil. This insures the reliability of separating the signals from defects and rail surface defects.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta (All-Union Scientific Research Institute of Railroad Transportation)

Card 1/2

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L 45392-65

ACCESSION NR: AP5010941

SUBMITTED: 23Apr63 ENCL: 00 SUB CODE: IE

NO REF SOV: 000 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

AKHIYEZER, N.I. prof. (Khar'kov); SHCHERBINA, V.A. (Khar'kov)

Conversion of certain singular integrals. Uch.zap.KHGU 80: 191-198 '57. (MIRA 12:11)

(Integrals)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

DOVNAR, B.P.; SHCHERBININA, V.A.

Investigating defect fields in high-speed electromagnetic flaw detection in rails. Defektoskopiia no.1:32-40 '65. (MIRA 18:6)

1. Ural'skoye otdeleniye Vsesoyuznogo nauchno-issledovatel'skogo instituta zheleznodorozhnogo transporta Ministerstva putey sooobshcheniya, Sverdlovsk.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

ACC NR: AP7006050 SOURCE CODE: UR/0381/65/000/001/0032/0040

AUTHOR: Dovnar, B. P.; Shcherbinina, V. A.

ORG: Urals Branch, TsNII MPS, Sverdlovsk (Ural'skoye otdeleniye TsNII MPS)

TITLE: Investigation of defect fields in high-speed electromagnetic defectoscopy of rails

SOURCE: Defektoskopiya, no. 1, 1965, 32-40

TOPIC TAGS: magnetization, railway track, crack propagation, ultrasonic flow detector

ABSTRACT: This paper deals with an experimental study of the fields from natural defects in rails under dynamic and static magnetization conditions, together with a comparison of the results obtained. A study is made of the fields from natural defects in rails and the type of transverse fatigue cracks under conditions of static magnetization and in motion. The magnitudes of the static and dynamic fields from defects are found as a function of the applied magnetizing field. It is found what effect the velocity and direction of motion have on the mechanism by which the defect fields are formed.

The study of defect fields under static conditions was made with 4 defects consisting of transverse fatigue cracks occurring in pieces of type R-50 rails, each three meters long. Defect number 1 came out on the rolling surface of the rail head, and on the lateral face; defect number 2 only on the lateral face; and defects No 3 and 4 were internal

Card 1/4 UDC: 620.179.14

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and did not come out on the surface of the rail. Defect No 3 was of a large size, while defect No 4 was small. The sizes of the defects were determined preliminarily with an ultrasonic defectoscope. In addition to the defects the rails had 3 weld joints, and 1 dent from a blow on the surface of the head.

The rails were magnetized with a U-shaped electromagnet with a maximum magnetomotive force of 50,000 ampere-turns. On the surface of the rail, half way between the poles, a field could be produced of up to 8500 A/m -- (flux density 1.5 tl). The length of the uniform field between the poles was about 10 cm. During measurements the rail was placed under the electromagnet in such a way that the defect was in the middle of the uniform field. The tests consisted in measuring the longitudinal component of the magnetic field intensity at the surface of the rail in the vicinity of the defects. Use was made of a ferro-proble field meter with longitudinal excitation, consisting of two elements: wire windings of 2500 turns each, with permalloy cores, 7 mm long and 0.25 mm in diameter, with an excitation current frequency of 5 kc. The measurements were made in a closed magnetic circuit with the ferroprobe at a distance of 5 mm from the lateral face of the head of the rail.

The study of defect fields in motion were made in a standard car defectoscope on an experimental section of track formed by type R-50 rails with fatigue cracks which did and did not come to the surface of the head, as well as those having various types of surface damage and

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ACC NR: AP7006050

variable sign, and the magnitude depends on the rate of motion. The fields from defects that come to the surface increase with increase in velocity regardless of how the defect is located between the poles of the electromagnet, while the fields from internal defects only increase in the zone of the second pole of the electromagnet in the direction of motion and have their maximum value at that point, whereas in the zone of the second pole, they decrease, starting at velocities of 6--7 m/sec.

The magnitude and shape of the dynamic fields from fatigue cracks depend on the direction of motion, the maximum value occurring from motion in the "forward" direction.

When working with a car defectoscope, to make it easier to detect internal defects in the rails, it is necessary to increase the magnetizing fields and bring the detecting device closer to the second pole of the electromagnet in the direction of motion, particularly when working at high rates of motion. Orig. art. has: 5 figures and 2 tables. [JPRS]

SUB CODE: 13,20

Card 4/4

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

SHCHERBINA, V.M. [Shcharbina, V.M.]

Pripet salt basin. Vestsi AN BSSR.Ser.fiz.-tekh.nav. no.2: 76-80 '59. (MIRA 12:11)

1. Chlen-korrespondent AN BSSR.
(Pripet Valley--Salt)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

ZATSEPIN, N.N.; SHCHERBININ, V.Ye.; YANUS, R.I.

Measurement of inhomogenous magnetic fields by means of magnetometric probes. Fiz. met. i metalloved. 14 no.1:30-34 Jl '62. (MIRA 15:7)

(Magnetic fields--Measurement)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

L 2496-66 EWT(1)/ETC/EPF(n)-2/EWG(m)/EPA(w)-2 IJP(c) AT

ACCESSION NR: AP5020729 UR/0057/65/035/008/1419/1422

64

AUTHOR: Bakulin, Ye. A.; Stepin, Ye. V.; Shcherbinina, V. V.

44,55 44,55 44,55 55

B

TITLE: Investigation of the electric double layer in a plasma 21,44,55

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 8, 1965, 1419-1422

TOPIC TAGS: discharge plasma, plasma structure, electric capacitance, mercury, space charge

ABSTRACT: The authors have determined the thickness of the double layer at the boundary of a cylindrical object in a mercury plasma by measuring its capacitive reactance. The plasma was produced by a low-voltage mercury vapor discharge between a hot cathode and a 7 cm diameter cylindrical anode and diffused into the interior of a 11 cm diameter 30 cm long metallic cylinder which was electrically connected to the anode. Centrally located within and coaxial with this cylinder was a 1.16 cm diameter 7 cm long cylindrical electrode, the double layer at the boundary of which was the object of investigation. The concentration and temperature of the plasma were measured with an 0.1 mm diameter 5 mm long cylindrical probe. The capacitance of the cylindrical electrode was measured at electrode potentials from 20 to 100 V below the anode potential by a resonance method at 0.7

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ACCESSION NR: AP 5020729

9

Mc/sec, and the measured capacitance is presented graphically as a function of electrode potential for discharge currents of 2, 3, and 4 A. It is concluded after some discussion that the measured capacitance is due almost entirely to the double layer, and the thickness of the double layer is calculated with the formula for the capacitance of a cylindrical capacitor with unit dielectric constant. The double layer thicknesses were also calculated with the 3/2 power law. The thicknesses calculated with the 3/2 power law were approximately 15% less than the measured thicknesses. It is suggested that this may be due to the fact that the 3/2 power law gives essentially the thickness of the ionic layer and not that of the whole space charge layer. "The authors are very grateful to V.Ye.Golant 44,55 and N.I.Vinogradov for valuable discussions of the results of the work." Orig. art. has: 3 formulas and 4 figures.

44,55

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A.F.Ioffe AN SSSR, Leningrad (Physico-technical Institute, AN SSSR)

44,55

SUBMITTED: 17Nov64 ENCL: 00 SUB CODE: ME

NR REF SOV: 003 OTHER: 007

PC

Card 2/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

BAKULIN, Ye.A.; SHCHERBININA, V.V.

Measuring the relative difference in mobility of isotope ions in fractionation columns without a filler. Zhur. fiz. khim. 39 no.6:1328-1330 Je '65. (MIRA 18:11)

1. Leningradskiy fiziko-tekhnicheskiy institut imeni Ioffe. Submitted June 19, 1963.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

24-6-3/24

AUTHORS: Drits, M. Ye., Kadaner, E.S., Sviderskaya, Z.A. and Shcherbinina, Ye. L. (Moscow).

TITLE: A study of the distribution of iron in aluminium using the method of autoradiography. (Izucheniye raspredeleniya zheleza v alyuminii metodom avtoradiografii).

PERIODICAL: "Izvestiya Akademii Nauk, Otdeleniye Tekhnicheskikh Nauk" (Bulletin of the Ac.Sc., Technical Sciences Section), 1957, No.6, pp.12-17 (U.S.S.R.)

ABSTRACT: Results are reported of an investigation into the distribution of iron in aluminium, and also its redistribution on heating. The method of quantitative autoradiography (4,5) has allowed an estimate to be made of the change in micro-nonuniformity in the structure of aluminium as the iron content is increased. The radio-isotope Fe^{59} was used in a 99.985% pure aluminium. Figs. 1 and 2 show microradiograms of various Al-Fe alloys. The blackened areas show the presence of iron. As can be seen, when very small amounts of iron are introduced, areas of different structural character are observed even in a given specimen (Fig.1a and 6). Evidently, this is connected with the larger size of grains which are visible in the plane of the section. The iron is concentrated not only on the boundaries of the grains but

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

24-6-3/24

A study of the distribution of iron in aluminium using the method of autoradiography. (Cont.)

also within them. The introduction of iron into aluminium in larger quantities (up to tenths of a percent) leads to a break up of the grains and appearance of a clear dendritic structure with iron distributed in the interaxial spaces (Fig.1B). Fig.2 shows (for comparison) the microstructure of the same specimens, shown up by the usual etching. There is a practically total absence of solid solutions in the system Al-Fe, but a separation of the compound $FeAl_3$ is observed in cast samples, beginning at thousandths of a percent. Two coefficients are defined:

$$K = (100-n)/100 \quad \text{and} \quad C = C_{max}/C_{min}$$

where n is the number of micro-volumes, per 100 measured micro-volumes, which have an iron concentration equal to the average iron concentration in the specimen; C is the ratio of the maximum to minimum concentrations of iron in separate micro-volumes in the region investigated. Photometric measurements were carried out using a micro-photometer having a square aperture of 1 mm^2 and a magnification of 24 times.

Card 2/4

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

A study of the distribution of iron in aluminium using the method of autoradiography. (Cont.)

Fig.3 shows plots of the average number of cells (in %) versus iron concentration for three different mean concentrations (0.0085%, 0.19% and 0.74% Fe). Table 2 gives the values of K and C for various alloys, and a plot of K and C versus percentage of iron is given in Fig.4. Both K and C fall at first and then tend to reach a steady value. The "knee" of the C-curve corresponds to the change in the character of the distribution of iron in aluminium as can be seen by comparing Figs. 1B, 1a and 1б . The effect of prolonged heating at 605 C (up to 100 hours) is shown in Figs. 5 and 6. In Fig.5, K and C are plotted versus heating time in hours. Fig.6 shows microradiograms of Al + 0.194% Fe after heating at 605 C for 50 and 100 hours respectively. All the data indicate that the micro-nonuniformity in the distribution of iron in aluminium, which is produced during the process of crystallisation, is very stable and is not much affected by homogenizing treatment. The large size of the surfaces of division at which the evolution of the intermetallic compound $FeAl_3$ takes place produce favourable conditions for blocking sliding processes which develop as a result of plastic deformation and this apparently has a

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24-6-3/24

A study of the distribution of iron in aluminium using the method of autoradiography. (Cont.)

favourable influence on the creep resistance of aluminium and aluminium alloys in presence of iron.
There are 6 figures, 3 tables and 6 references, 5 of which are Slavic.

SUBMITTED: February 26, 1957.

Card 4/4

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

ACC NR: AP6034642 (A,N) SOURCE CODE: UR/0337/66/000/008/0038/0042

AUTHOR: Truskanov, M. D.; Shcherbino, M. N.

ORG: VNIRO

TITLE: Hydroacoustic methods of defining fish shoals

SOURCE: Rybnoye khozyaystvo, no. 8, 1966, 38-42

TOPIC TAGS: acoustic detection, shipborne acoustic detection, hydrology

ABSTRACT: After experimental work at the Sukhumi Maritime Scientific Station (Sukhumskaya morskaya nauchnaya stantsiya), the PINRO experimental base, and on the open sea, the authors developed a method for continuous estimation of fish density at any point in a shoal. Formulas are given for relating density and volume of a shoal, also for relating the dispersion amplitude of a reflected echosignal to the number of fish in a given volume of water or its proportionality coefficient. Tests were first made with foam-plastic balls 4 cm in diameter floating in simulated shoals at densities of 0.36 to 3.6/m^3, using an Atlas 658 echosounder with a frequency of 30 kc and acoustic capacity of 223 W. Formulas were evolved for energy dispersion according to strength and length of echos reflected by each target, and a table relates density with theoretic and actual echo amplitudes. Experiments were then conducted in natural surroundings by photographing and simulataneously echosounding shoals of herring

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

ACC NR: AP6034642

wintering north of the Faeroe Islands, using an "Elak Senior" echosounder (sonar) with C1-4 oscillograph and PFA-3, PFA-4, and PFA-5 submersible cameras designed by VNIRO. About 100 sets of such photographs were taken, each including 60 to 70 m^3 of water and showing herring densities of 0.09 to 4.27/m^3. Density was also recorded simulataneously by echosounders attached to cables below the drifting ship; the Atlas 658 and "Belatriks" apparatus both exhibited high resolution and broad reception of echo signals. The "Elak Senior" has an acoustic capacity of 350 W and frequency of 30 kc. Formulas are given for translating its signals into volumes of water occupied by each shoal of fish, their density and estimated number, calculable while the ship is directly over a shoal. A table lists average thickness of herring shoals, total area occupied in the Atlantic, average density of shoals, and total supply of herring in tons and number in five years from 1956 to 1964. Orig. art. has: 7 formulas, 2 tables, and 4 figures.

SUB CODE: 17/ SUBM DATE: none

Card 2/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

TSATSENKIN, I. A., MAKSIMOVA, V. F.,
SHCHERBINOVSKAYA, T. N.

Botany - Geographical Distribution; Pastures; Meadows

Geobotanical territorial division of pastures and hay fields of the western Caspian region; the Ergeni, the Sarpa Lowlands and the Chernozem belt. Biul. MOIP. Otd. Biol. 57 no. I. 1952

SO: Monthly List of Russian Accessions, Library of Congress, _____ 1953, Uncl.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

SHCHERBINOV, KAYA, T. N.

"Features of the Western Caspian Basin in Connection With Their Utilization in Winter." Cand Agr Sci, All-Union Sci Res Inst of Fodder, Moscow, 1953. (RZhBiol, No 1, Sep 54)

SO: Sum 432, 29 Mar 55

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

STANYUKOVICH, Kirill Vladimirovich, prof.; SHCHERBINOVSKAYA, T.N., red.; NOGINA, N.I., tekhn.red.

[Along the path of the argali] Tropoiu arkharov. Moskva, Gos. izd-vo geogr.lit-ry, 1959. 180 p. (MIRA 12:9)
(Soviet Central Asia--Scientific expeditions)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

CHISTOVSKIY, Oleg Grigor'yevich. Prinimala uchastiye CHISTOVSKAYA. T.M. SHCHERBINOVSKAYA, T.N., red.; ZORKINA, G.P., mladshiy red.; GLEYKH, D.A., tekhn.red.

[In the land of great mountains] V strane velikikh gor. Moskva, Gos.izd-vo geogr.lit-ry, 1959. 195 p. (MIRA 13:9)
(Pamirs--Surveys)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

KHLUDOVA, Ol'ga Florent'yevna, khudozhnik-zoolog; SHCHERBINOVSKAYA, T.N., red.; MALKES, B.N., mladshiy red.; VILENSKAYA, E.N., tekhn.red.

[Waves over us] Volny nad nami. Moskva, Gos.izd-vo geogr. lit-ry, 1960. 214 p. (MIRA 13:5)
(Black Sea--Marine fauna)
(Azov Sea--Marine fauna)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

SHCHERBINOVSKAYA, T.N.

General annual meeting of the Department of Biological Sciences of the Academy of Sciences of the U. S. S. R. Izv. AN SSSR. Ser. biol. no.3:473-476 My-Je '62. (MIRA 15:6)
(BIOLOGICAL RESEARCH)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

L 13065-63 EWT(1)/BDS/ES(a)/ES(b)/ES(c)/ES(k) AFFTC/ASD Pb-4 A/DD

ACCESSION NR: AP3001544 S/0216/63/000/003/0489/0492

AUTHOR: Shcherbinovskaya, T. N. 70 61

TITLE: Chronicle: General annual meeting session of the Department of Biological Sciences of the Academy of Sciences, USSR

SOURCE: AN SSSR. Izv. Seriya biologicheskaya, no. 3, 1963, 489-492

TOPIC TAGS: biological science, meeting, seven year plan, biological specialist training

ABSTRACT: Secretary N. M. Sisakyan reported on the role of the biological sciences in the Seven Year Plan and on the achievements of the Institutes during the past year. He pointed out that biological sciences now rank first in the natural sciences and that biology is developing in the direction taken by Michurian. N. D. Iyerusalimskiy reported on activities of individual members and on training of specialists. As of January 1, 1963 the Department of Biological Sciences had 20 Academicians, 38 Associate Members, 268 Doctors of Science, 1,168 doctoral candidates, and 999 staff members without degrees. The small increase in number of Doctors and the high average age (Doctors of Science - 57 yrs, doctoral candidates - 43

Card1/2

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ACCESSION NR: AP3001544 9

yrs, and staff members without degrees - 36 to 37 yrs) are cause for some alarm, especially with the need for specialists in the newly built institutes. Yu. B. Rakitin stated that efforts are being made to strengthen the ties between the Ministry of Agriculture and the Institutes. In his report on the Scientific Council, V. N. Chernigovskiy indicated that problems in physiology should be more closely coordinated among the Scientific Council, Academy of Medicine, and the Ministry of Health. He (and G. M. Frank, V. L. Ryzhkov, and A. Ye. Braunshteyn) expressed concern in regard to training of specialists and inadequate laboratory equipment. It was recommended that the Department and Scientific Council develop basic theoretical research related to practical agricultural problems, continue to eliminate unessential research, and improve scientific equipment. In conclusion three reports were read: A. A. Krasnovskiy on "Principles of Energy Conversion during Photosynthesis," V. N. Bukin on "The Role of Biochemical Preparations in Increasing Animal Productivity," and G. K. Skryabin on "The Utilization of Microorganism Transformation Activities for Production of Physiological Active Substances." Orig. art. has: None.

Card 2/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

SHCHERBINOVSKAYA, T.N.

Resolutions of the 22d Congress of the CPSU and biological sciences; general assembly of the Department of Biological sciences of the Academy of Sciences of the U.S.S.R., Nov.14, 1961. Izv. AN SSSR. Ser.biol. no.2:314-316 Mr-Ap'62. (MIRA 16:7)

(BIOLOGICAL RESEARCH)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

KHLUDOVA, Ol'ga Florent'yevna; PROKHODTSEVA, S.Ya., red.; SHCHERBINOVSKAYA, T.N., red.; MATVEYEVA, G.Ye., mlad. red.; KOSHELEVA, S.M., tekhn. red.

[Behind the blue threshold] Za golubym porogom. Moskva, Gos.izd-vo geogr. lit-ry, 1963. 228 p. (MIRA 16:12)
(Japan, Sea of--Marine biology)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

SHCHERBINOVSKAYA, T.N.

Jubilee session of the General Assembly of the Department of Biological Sciences dedicated to the one-hundredth anniversary of the birth of Academician V.I.Vernadskii. Izv. AN SSSR Ser. biol. 28 no.4:635-637 Jl-Ag'63 (MIRA 16:11)

A.N. Bach prize. Ibid.:638

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APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

SHCHERBINOVSKAYA, T.N.

Session of the Academy of Sciences of the U.S.S.R. Session of the departments. Dokuchaev Gold Medal. Izv. AN SSSR. Ser. biol. no.6:922-923 N-D '63. (MIRA 17:2)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

SHCHERBINOVSKIY, N. S.

SHCHERBINOVSKIY, N. S. "Present Status of the Problem of Transmission of Plant Viruses by Insects," in Abstracts of Reports of the All Union Conference on the Study of Ultra-microbes and Filtrable Viruses (14-18 December 1935), Publishing House of the Academy of Science USSR, Moscow, 1935, pp. 42-44. 448.39 Ak1

SO: SIRA SI-90-53, 15 Dec 1953

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

SHCHERBINOVSKIY, N. S.

SHCHERBINOVSKIY, N. S. "On the Problem of Transmission of Plant Viruses by Insects," in Virus Diseases of Plants, Collection 2, Publishing Affiliate of the All Union Institute of Plant Protection, Moscow, 1939, pp. 217-219. 464.32 V96 v.2

SO: SIRA SI-90-53, 15 Dec 1953

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[illegible]

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[illegible]

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[illegible]

Locusts

Locusts [illegible] to control them. [illegible] 1952.

9. Monthly List of Russian Accessions, Library of Congress, September 1952, Uncl.

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SHCHERBINOVSKIY, N.S., professor.

Creators of soil science. ("Vasilii Vasil'evich Dokuchaev." "Vasilii Robertovich Vil'iams." I. and L. Krupenikovy). Reviewed by N.S. Shcherbinovskii. Nauka i zhizn' 20 no.5:46-48 My '53. (MLRA 6:6)
(Soils) (Dokuchaev, Vasilii Vasil'evich, 1846-1903) (Vil'iams, Vasilii Robertovich, 1863-1939) (Krupenikov, I.)

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SHCHERBINOVSKIY, N. (S.) and YEFIMOV, A.

"The White American Butterfly over the Carpathian Forest," Sum. No. 358, 21 Feb 53

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

SHCHERBINOVSKIY, N. S.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

Name	Title of Work	Nominated by
Shcherbinovskiy, N. S.	"The Desert Locust - Schistocerca"	Ministry of Agriculture

SO: W-30604, 7 July 1954

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

SHCHERBINOVSKIY, N. S.

Seasonal phenomena in nature Izd. 3., perer. Moskva, Sel'khozgiz, 1954. 135 p.

1. Nature study. 2. Seasons.

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LYSENKO, T.D.; OL'SHANSKIY, M.A.; SINYAGIN, I.I.; GLUSHCHENKO, I.Ye.; VARUNTSYAN, I.S.; PREZENT, I.I.; SHCHERBINOVSKIY, N.S.; SHUNKOV, V.I.; YEVSTIGNEYEV, S.N.; BOCHEVER, A.M.; LITVIN, V.M.; YAYKOVA, A.T.; PODVOYSKIY, I.I.; SAKS, Ye.I.; KHALIFMAN, I.A.; FEYGINSON, N.I.; SHCHEGLOVA, Yu.N.; DLUGACH, G.V.; STERNIN, R.A.; LISOVSKAYA, O.V.; GUBINA, T.I.; ROZENFEL'D, M.I.: TSVETAYEVA, Ye.M.; PARKHOMENKO, Ye.V.; NEYMAN, N.F.

Sofia IAkovlevna Voitinskaia; an obituary. Agrobiologiia no.4:121 Jl-Ag '58. (MIRA 11:9)
(Voitinskaia, Sofi'ia Iakovlevna, 1898-1958)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

SHCHERBINOVSKIY, N.S.

Conference of the Scientific Technical Council of the Ministry of Agriculture of the U.S.S.R. on problems in the study and organization of measures for the elimination of wireworms as mass pests in the agriculture and forestry of the U.S.S.R. Zool.zhur. 39 no.6:954-955 Je '60. (MIRA 13:7)
(Wireworms--Congresses)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

SHCHERBINOVSKIY, N.S.

Winged enemy. Priroda 50 no.7:64-68 Jl '61. (MIRA 14:6)

1. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I.Lenina.

(Locusts)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

SHTERBINOVSKII, N. [Shcherbinovskiy, N.], prof.; USMANOV, R.

In rhythm with the sun. Priroda Bulg 13 no.5:78-79 S-O '62.

1. Corresponding Member, V.I.Lenin All-Union Academy of Agricultural Sciences (for Shcherbinovskiy). 2. Head, Department of Satellite Meteorolgy at the Central Institute of Weather Forecasts (for Usmanov).

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

SHCHERBINOVSKIY, N.S.

Effect of the sun on the cycles of extensive increase of the population of injurious insects and other organisms. Astron.sbor no.3/4:165-169 '60. (MIRA 14:11)

1. Vsesoyuznaya Akademiya sel'skokhozyaystvennykh nauk imeni Lenina.

(Solar radiation)
(Insects, Injurious and beneficial)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

BONDARENKO, N.V.; ISMAYLOV, A.V.; SHCHERBINOVSKIY, N.S.; DEKANOIDZE, G.I., dotsent

Anniversaries of our specialists. Zashch. rast. ot vred. i bol. 8 no.6:61-62 Je '63. (MIRA 16:8)

1. Dekan fakul'teta zashchity rasteniy Leningradskogo sel'skokhozyatstvennogo instituta (for Bondarenko). 2. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. Lenina (for Shcherbinovskiy).

(Bei-Bienko, Grigorii Iakovlevich, 1903-)
(Aleksandrov, Nikolai Vasil'evich, 1903-)
(Batiashvili, Iraklii Dmitrievich, 1903-)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

SHCHERBINSKAYA, N. N.

ANOSOV, F.V., inzh.; GAMUS, I.M., inzh.; GARKAVI, Yu.Ye., inzh.; GOL'SHMAN, G.S., inzh.; YEVDOKIMOV, A.A., inzh.; YEREMEYEV, A.S., inzh.; ZHMUD', A.Ye., inzh.; KELAREVA, N.N., inzh.; KLOCHKOV, A.P., inzh.; LANG, A.G., inzh.; MENGEL', E.Ya., inzh.; MOROZOV, A.A., prof., doktor tekhn.nauk [deceased]; SEREBRYAKOV, G.M., inzh.; SMIRNOV, I.N., dotsent, kand.tekhn.nauk; SMIRNOV, M.I., dotsent; SHCHAVELEV, D.S., prof., doktor tekhn.nauk; SHCHERBINSKAYA, N.N., inzh.; KOVALEV, N.N., red.; MOZHEVITINOV, A.L., red.; ZABRODINA, A.A., tekhn.red.

[Turbine equipment of hydroelectric power stations: handbook on designing] Turbinnoe oborudovanie gidroelektrostantsii; rukovodstvo dlia proektirovaniia. Izd. 2., perer. i dop. Pod obshchei red. A.A. Morozova. Moskva, Gos. energ. izd-vo, 1958. 519 p. (MIRA 12:1)

1. Vsesoyuznyy institut "Gidroenergoproyekt," Leningradskoye otdeleniye.

(Hydraulic turbines)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

Transition from derivatives of ethylenic hydrocarbons to the derivatives of the simplest polymethylene rings. IV. Reaction of phenylmethylallylcarbinol and methylphenyl- and methylethylcyclopropylcarbinols with formic acid. T. A. Favorskaya, N. V. Shcherbinskaya, and S. E. Chernobel'skaya (A. A. Zhdanov State Univ., Leningrad). *Zhur. Obshchei Khim.* (J. Gen. Chem.) **20**, 855-67 (1950); cf. C. A. **44**, 7784*f*.—Addn. of 78.5 g. PhBr and 42 g. acetyltrimethylene in 250 ml. Et_2O over 4 hrs. to 12 g. Mg in Et_2O gave, after the usual decompn., 53.7% *methylphenylcyclopropylcarbinol* (I), b_{15} 119-21°. Refluxing 30 g. I with 88 g. 48% HCO_2H 1.5 hrs. gave 40% *1-phenyl-1-cyclopropylethylene*, b_9 88-90°, d_4^{20} 0.9618, n_D^{20} 1.5421, and 41% of an ether, which apparently has the structure $MePhC:CHCH_2CH_2OCHO$, b_6 138-40°, d_4^{20} 1.058, d_4^{20} 1.040, n_D^{20} 1.5366. The former with $KMnO_4$ gave *benzoyltrimethylene* (isolated as the *semicarbazone*, m. 177-7.5°), HCO_2H, and *1-phenyl-1-cyclopropylethylene glycol*, m. 53°, which with $Pb(OAc)_4$ gave benzoyltrimethylene; ozonolysis of the ether gave HCO_2H and AcPh, hydrolysis was ineffective, but treatment with EtMgBr gave Et_2CHOH and *2-phenyl-2-penten-5-ol*, b_{12} 142-4°, d_4^{20} 1.032, n_D^{20} 1.5573, which on hydrogenation over Pt black gave *4-phenylamyl alc.*, b_{11} 132-3°, d_4^{20} 0.9962, d_4^{20} 0.9822, n_D^{20} 1.5164, oxidized by dichromate to *γ-phenylvaleric acid*, b_{13} 170°, isolated as *Ag salt*. The use of 45% HCO_2H in the reaction with I gave 53% ether deriv. and a correspondingly lower yield of the hydrocarbon. Addn. of 65 g. AcPh and 64 g. $CH_2:CHCH_2Br$ in Et_2O to 12 g. Mg in Et_2O gave 51% $MePh(CH_2:CH-CH_2)COH$, b_9 99-101°. This (30 g.) refluxed 1.5 hrs. with 90 g. 80% HCO_2H gave an unresolvable mixt.; stirring at room temp. 3 hrs. with 48% HCO_2H gave much unreacted alc. and 31% of a mixt. of *2-phenyl-1,4-pentadiene* and *4-phenyl-1,3-pentadiene*, b_{10} 88-90°, d_4^{20} 0.9608, d_4^{20} 0.9472, n_D^{20} 1.5429, as shown by the results of $KMnO_4$ oxidation; a small amt. of polymer also formed. The yield of hydrocarbons is raised to 54% if the reaction is run only 1.5 hrs. The same reaction performed with 98% HCO_2H and ice cooling (3 hrs.) gave 35% 2-phenyl-1,4-pentadiene and 25% formate of *methylphenylallylcarbinol*, b_{10} 112-14°, d_4^{20} 1.0397, n_D^{20} 1.5179, d_4^{20} 1.0105, which is readily sapond. by hot aq. K_2CO_3. EtMgBr with acetyltrimethylene gave 32% *methylethylcyclopropylcarbinol*, b. 141-2°, d_4^{20} 0.8869, n^{20} 1.4396, which (30 g.), refluxed 2 hrs. with 80% HCO_2H, gave 14 g. $C_{17}H_{16}O$, b. 119-21°, identified as *4-methyl-4-ethyltetrahydrofuran*, on the basis of oxidation by $KMnO_4$ to *γ-methyl-γ-hydroxycaprolactone*, b. 220-1°, d_4^{20} 1.0191, d_4^{20} 1.0025, n_D^{20} 1.4401, d_4^{20} 1.0009 (converted also to the *Ag salt* of the free acid), which yields the corresponding *amide*, m. 94-5°, in the cold with concd. NH_4OH. G. M. Kosolapoff

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SHCHERBINSKAYA, N. V.

Dissertation: "Reciprocal Action of Tertiary Alcohols of the Cyclo-propane Series With Mineral and Organic Acids." Cand Chem Sci, Leningrad State U, Leningrad 1953

W-30928

SO: Referativnyy Zhurnal, No. 5, Dec 1953, Moscow, AN USSR (XXXXXX)

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SHCHERBINSKAYA, N.V.

Mechanism of transformation of tertiary alcohols of the cyclopropane series under the influence of mineral and organic acids. I. The reaction of dimethylcyclopropylcarbinol with formic acid. T. A. Favorskaya and N. V. Shcherbinskaya (A. A. Zhdanov State Univ., Leningrad). Zhur. Obshchei Khim. 23, 1485-93(1953).—In the reaction of HCO_2H with dimethylcyclopropylcarbinol (I), is formed. The product is in part converted to the formate and in part isomerized to *2,2-dimethyltetrahydrofuran* (III). Slow distn. of $Ac(CH_2)_3OH$ with HBr gave 75-80%, corresponding bromide which was shaken with excess KOH or NaOH (solid), yielding 75% *acetylcyclopropane* (IV), b. 109-12°, which with MeMgBr gave 68-70% crude, 54-5% pure I, b. 120-3°, d_{20} 0.8838, d_0 0.9053, n^{20}_D 1.4323. I (150 g.) refluxed 1.5 hrs. with 800 ml. 1:1 HCO_2H, and the mixt. neutralized with Na_2CO_3 and extd. with Et_2O yielded 5% unreacted I, 19.2% III, b. 90-2°, d_{20} 0.8477, n^{20}_D 1.4001 (with $KMnO_4$ III yielded *4-hydroxyisocaprolactone*, b. 203-4°, which gave the *Ag salt* of the corresponding *acid*), 5% IV, b. 108-12°, some 35 g. mixed II and its *formate*, b. 152-5°, d_{20} 0.9028-0.9038, n^{20}_D 1.4340-1.4364 (stirring with 10% K_2CO_3 8-10 hrs. with heating gave the pure II, b. 156-7°, d_{20} 0.8556, n^{20}_D 1.4464), and 8.6% *1,1-dimethyltetramethyleneglycol monoformate*, b_7 97.5-8.5°, d_{20} 1.0123, d_4 1.0250, n^{20}_D 1.4395 (hydrolysis with 10% K_2CO_3 gave $HO(CH_2)_3CMe_2OH$ (V), b_{11} 112-13°, d_{20} 0.9789, n^{20}_D 1.4560). Refluxing 10 g. V with 13 ml. 1:1 HCO_2H 1 hr. gave 28% III and up to 30% monoformate of V. Refluxing mixed II and its formate with 1:1 HCO_2H 2.5 hrs. gave 47.5% III. Heating 37 g. I with 80 ml. HCO_2H 1.5 hrs. at 60-70° gave 54% II and its formate; a small amt. of IV was also isolated, but no III. Refluxing 12 g. $CH_2:CHCH_2C(OH)Me_2$ (VI) with HCO_2H (1:1) 1.5 hrs. gave 51% unchanged VI and 1.0 g. mixed hydrocarbons corresponding to those formed from dehydration of VI (cf. C.A. 44, 7783a). Stirring VI with pure HCO_2H 6 hrs. at 0° gave no reaction, but refluxing 1.5 hrs. gave a low yield of a *trimeric hydrocarbon*, $C_{15}H_{24}$, b_{15} 142-3°, d_{20} 0.8680, n^{20}_D 1.4905, which did not react with $KMnO_4$ and evolved HBr with Br in $CHCl_3$. Possibly this was a cyclic product without double bonds or side chains. G. M. Kosolapoff

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SHCHERBINSKAYA, N. V.

5

Mechanism of transformation of tertiary alcohols of the cyclopropane series under the influence of mineral acids and organic acids. II. Reaction of methylethylcyclopropylcarbinol with dilute formic acid. T. A. Favorskaya and N. V. Shcherbinskaya (A. A. Zhdanov State Univ., Leningrad). Zhur. Obshchei Khim. 23, 1667-73(1953); cf. C.A. 48, 11358g.—Methylethylcyclopropylcarbinol(I) reacts with dil. HCO_2H analogously to the reaction with HCO_2H itself. I formed in 54% yield from acetylcyclopropane and EtMgBr, b. 141-3°; in addn. there was isolated 5% bromide, $C_7H_{13}Br$, b_{17} 70-2°, b. 170-2°, n^{20}_D 1.4789, d_{17} 1.1763 (cf. Slabey and Wise, C.A. 48, 549e). Refluxing 150 g. I 1.5 hrs. with 1:3 HCO_2H (pH 0.88) gave 23% of a hydrocarbon mixt., b. 104-6°, n^{20}_D 1.4430, d_{18} 0.7886, contg. acetylcyclopropane and 1,2-dimethyl-1-cyclopropylethylene, as well as $MeEtC{:}CHCH{:}CH_2$ and $MeCH{:}CMeCH_2CH{:}CH_2$ [with $KMnO_4$ it gave HCO_2H, AcOH, and $(CO_2H)_2$]. The other products included 2-methyl-2-ethylitetrahydrofuran(II) and a mixt. of *EtCMe:CHCH₂CH₂OH*(III) and its *formate*, b. 162-7°, d_{20} 0.8932, n^{20}_D 1.4398 (hydrolysis with aq. K_2CO_3 gave the *alc.*, b. 169-70°, d_{17} 0.8610, n^{20}_D 1.4510; oxidation of the mixt. with $KMnO_4$ gave MeCOEt, HCO_2H, and MeEtC(OH)CO_2H, m. 67°). Treatment of the alc.-formate mixt. with MeMgI and hydrolysis of the product with 1:5 H_2SO_4 gave II and III; hydrolysis with H_2O alone gave only III, showing that cyclization requires acidic catalysis. Extensive fractionation of the residual products of the original reaction of I with aq. HCO_2H gave a mixt. of inseparable products, b_{14} 112-14°, d_{18} 0.9667, n^{20}_D 1.4655; hydrolyzed with 20% K_2CO_3 to HCO_2H and *MeEtC(OH)CH₂CH₂CH₂OH*(IV), b_3 122-3°, n^{20}_D 1.4600; thus the original product was its *formate*. IV, obtained in 36% yield from EtMgBr and $Ac(CH_2)_3OH$, b_{20} 139-40°, d_{20} 0.9713, n^{20}_D 1.4575. II stirred 2 hrs. at room temp. with 1:1 HCl gave 62% II, and apparently some primary chloride (not purified). Similar treatment of I gave 65% *EtCMe:CHCH₂CH₂Cl*(V), b. 154-6°, yielding MeCOEt and $ClCH_2CH_2CO_2H$ on ozonolysis. $KMnO_4$ oxidation of substances with a double bond between secondary and tertiary C atoms can give misleading results, since hydration of the double bond instead of addn. of 2 HO groups can occur. Thus V with $KMnO_4$ gave some MeEtC(OH)CH_2CO_2H. Therefore the iodide formed in the reaction of EtMgI and acetylcyclopropane (cf. C.A. 42, 1210h) is probably *I(CH₂)₃CH₂CH·MeCH:CH₂* and not PrCMeICH:CH_2. G. M. K.

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SHCHERBINSKAYA, N.V.

Mechanism of transformations of tertiary alcohols of the cyclopropane series under the influence of mineral and organic acids. III. Reaction of dimethylcyclopropylcarbinol, methylethylcyclopropylcarbinol, and methylisopropylcyclopropylcarbinol with sulfuric acid. T. A. Favorskaya, N. V. Shcherbinskaya, and E. S. Golovacheva (Leningrad State Univ.). *Zhur. Obshchei Khim.* 23, 1878-84(1953); cf. *C.A.* 48, 13638*b*; Slabey, *C.A.* 47, 5800*f*; 48, 13638*g*.—*Dimethylcyclopropylcarbinol* (I), from acetylcyclopropane and MeMgI in 54% yield, b. 120-3°. Heating I at reflux 2 hrs. with 1:4 H_2SO_4 gave 31.1% *2,2-dimethyltetrahydrofuran* (II), 13.5% *bis-(2-methyl-3-penten-5-yl) ether* (III), and 8% polymeric residue. With 1:5 H_2SO_4, there was formed 44.1% II, 10% III, 1% *2-methyl-2-penten-5-ol* (IV), and 7.5% residue. Refluxing I with 1:10 H_2SO_4 1 hr. gave 51.6% II and 5% IV with only a trace of residue. IV b_{11} 61-3°, d_{20} 0.8573, n^{20}_D 1.4460. III b_{10} 101-3°, b_{33} 115-16°, d_{20} 0.8416, d_4 0.8570, n^{20}_D 1.4530. Thus the reaction of I proceeds through IV to both II and III. EtMgBr and acetylcyclopropane gave 54% *methylethylcyclopropylcarbinol* (V), b. 141-3°. This (50 g.) refluxed 2 hrs. with 120 ml. 1:5 H_2SO_4 gave 29% crude hydrocarbons, from which was isolated a product, b. 100-6°, that was very close in properties to the mixt. of hydrocarbons formed from V and HCO_2H (cf. *C.A.* 48, 13638*b*): *4-methyl-1,4-hexadiene* and *2-cyclopropyl-2-butene*. Acetylcyclopropane (5%) was also obtained, along with 24% *2-methyl-2-ethyltetrahydrofuran*, b. 119-21°, n^{20}_D 1.4228, and 0.5 g. *3-methyl-3-hexen-6-ol*, b_{11} 69-71°, n^{20}_D 1.4500, and polymeric residue. Acetylcyclopropane and iso-PrMgBr gave 26.0% *methylisopropylcyclopropylcarbinol* (Va), b_7 45-6°, b_{11} 61.5-2.0°, b_{33} 75-8°, n^{20}_D 1.4405, d_{20} 0.8888, and 6.17% *2,3-dicyclopropyl-2,3-butanediol* (VI), b_3 128-30°, m. 71-2°. Va (10 g.) refluxed 1 hr. with 1:10 H_2SO_4 gave *2-methyl-2-isopropyltetrahydrofuran*, b. 141-3°, n^{20}_D 1.4310, d_{20} 0.8624. Prolonged oxidation of this with $KMnO_4$ gave *γ,δ-dimethyl-γ-hydroxycaprolactone*, b_3 97°, n^{20}_D 1.4500, d_{20} 0.9970; the *Ag salt* of the free *acid* was isolated. VI refluxed 1 hr. with 1:10 H_2SO_4 gave only undistillable tarry products under usual conditions; when the reaction was repeated under a CO_2 atm., there was obtained a small amt. of distillable material which was resolved into a *ketone*, $C_{10}H_{16}O$, b_3 25°, d_{20} 0.8678, n^{20}_D 1.4300 (*2,4-dinitrophenylhydrazone*, m. 181.5-2.0°), and a very small amt. of, probably, ($HOCH_2CH_2CH_2CMe_2$), b_3 about 75°, n^{20}_D 1.4790. G. M. K.

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Mechanism of transformations of tertiary alcohols of the cyclopropane series under the influence of mineral and organic acids. IV. Reactions of dimethylcyclopropylcarbinol with benzoic acid and methylphenylcyclopropylcarbinol with dilute formic acid. T. A. Favorskaya and N. V. Shcherbinskaya (A. A. Zhdanov State Univ., Leningrad). Zhur. Obshchei Khim. 23, 2009–14(1953); cf. C.A. 49, 1936.—The reactions of tertiary alcs. of the cyclopropane series follow the same mechanism regardless of whether org. acids or H_2SO_4 are employed. Refluxing 70 g. dimethylcyclopropylcarbinol with 170 g. BzOH in 170 ml. H_2O 4 hrs. gave 2-*methyl-2-penten-5-ol* and its *benzoate* (b_{10} 142–4°, b_{760} 272–4°, d_{20} 1.0103, d_0 1.0252, n^{20}_D 1.5125). The latter treated with excess PhMgBr gave 2-methyl-2-penten-5-ol and Ph_3COH. Refluxing 60 g. methylphenylcyclopropylcarbinol with 60 ml. 1:1 HCO_2H 1.5 hrs. gave 18.7% *CH_2: CPhR* (R = cyclopropyl), b_4 88–90°, d_{20} 0.9618, n^{20}_D 1.5421, and 63% mixed 2-phenyl-2-penten-5-ol and its formate, b_4 138–40°, which could not be sepd. by distn. After hydrolysis with 20% K_2CO_3 the alc. was isolated, along with AcPh (cf. C.A. 44, 9358h). Reaction of 17 g. acetopropyl alc. with PhMgBr from 52 g. PhBr gave 70% *α-methyl-α-phenyltetramethylene glycol*, b_{12} 200–5°, which refluxed with 80% HCO_2H 2 hrs. gave 57% *2-methyl-2-phenyltetrahydrofuran*, b_{11} 102–3°, d_{20} 1.0073, n^{20}_D 1.5161. The latter oxidized with $KMnO_4$ at room temp. to *γ-phenyl-γ-hydroxyvaleric acid*, isolated as the *Ag salt* and *lactone*, m. 94–5°. When the above glycol was heated 2 days with 20% K_2CO_3 no reaction took place and no AcPh was formed. Thus the tertiary cyclopropyl alcs. react with acids by isomerization to a primary ethylenic acid, which then undergoes the observed changes to the final products, the yields of which are affected by the pH of the medium. V. Reaction of methylbutylcyclopropylcarbinol with hydrochloric acid, and reaction of dimethylcyclopropylcarbinol, methylisopropylcyclopropylcarbinol, and methylbutylcyclopropylcarbinol with phosphorus trichloride in the presence of pyridine. T. A. Favorskaya, T. N. Gulyaeva, and E. S. Golovacheva (A. A. Zhdanov State Univ., Leningrad). *Ibid.* 2014–20.—Acetylcyclopropane and BuMgBr gave 84% *methylbutylcyclopropylcarbinol*, b_4 62–3°, d_{20} 0.8762, n^{20}_D 1.4463. This (33 g.) stirred 2 hrs. with 65 ml. 1:1 HCl gave 31% *2-cyclopropyl-2-hexene*, b_{14} 52–3°, d_{20} 0.7929, n^{20}_D 1.4500 (identified by $KMnO_4$ oxidation to acetylcyclopropane and $PrCO_2H$), and 43% *4-methyl-1-chloro-3-octene*, b_{14} 82–3°, d_{20} 0.8993, n^{20}_D 1.4550, confirmed by ozonolysis to MeBuCO and $ClCH_2CH_2CO_2H$. Hydrolysis of the chloride by 50% aq. alc. KOH gave a small amt. of *4-methyl-1,3-octadiene*, b_{24} 60–2°, n^{20}_D 1.4605, d_{20} 0.7699 (yields a rubbery maleic anhydride adduct), and crude *4-methyl-3-octen-1-ol*, b_{14} 91–5°, d_{20} 0.8199, n^{20}_D 1.4400, which on ozonolysis gave MeBuCO and CH_2:$CHCO_2H$ isolated as the Ag salt. To 12.2 g. PCl_3 was added a mixt. of 37.5 g. methylbutylcyclopropylcarbinol and 7.5 g. pyridine, with ice cooling; after 2 hrs. the org. layer was sepd. and distd. yielding 4-methyl-1-chloro-3-octene and 2-cyclopropyl-2-hexene. Similar reaction with dimethylcyclopropylcarbinol gave 2-methyl-5-chloro-2-pentene, b. 130–2°, and 19.2% *RCMe:CH* (R = cyclopropyl), b. 104–5°, d_{20} 0.9380, n^{20}_D 1.4395, Raman spectrum given. Reaction of 3.5 g. PCl_3, 10 g. methylisopropylcyclopropylcarbinol, and 1.9 g. pyridine similarly gave 0.7 g. crude RCMe:CMe, b. [illegible], [illegible] 3.5 g. *MeCl:CH* [illegible] $CHCl_2CH$:[illegible], b. 105 [illegible] 0.8530, n^{20}_D 1.4620, which on ozonolysis [illegible] PrAc and $ClCH_2CH_2CO_2H$. [illegible]

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MANYCH, A.D., inzhener-mekhanik; NOVOMIRSKIY, S.P., inzhener-mekhanik; DENISENKO, I.P., brigadir; [redacted], kombayner, Geroy sotsialisticheskogo truda; KISLYY, A.P., kombayner, Geroy sotisialisticheskogo truda; VASIL'CHENKO, G.A., Geroy sotisialisticheskogo truda; BUTENKO, V.I.; POLUYAN, V., kombayner.

Please think about it. Znan. sila 32 no.1:6-7 Ja '57. (MIRA 10:4)

1. Direktor Azovskoy ordena Lenina Mashinno-traktornoy stantsii (for Manych). 2. Zamestitel' direktora Azovskogo uchilishcha mekhanizatsii sel'skogo khozyaystva. No.2. (for Novomirskiy). 3. 10-ya traktornaya brigada Azovskoy ordena Lenina Mashinno-traktornoy stantsii (for Denisenko). 4. Azovskaya Mashinno-traktornaya stantsiya (for Shcherbinskiy, Kislyy, Vasil'chenko). 5. Master proizvodstvennogo obucheniya Azovskogo industrial'nogo tekhnikuma trudovykh rezervov (for Butenko). 6. Uchashchiysya gruppy perepodgotovki brigadirov traktornykh brigad Azovskogo uchilishcha mekhanizatsii sel'skogo khozyaystva, Samarskoy Mashinno-traktornoy stantsii (for Poluyan).

(Combines (Agricultural machinery))

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Sicherbinskii, V.G.

Determination of the porosity of rocks by the method of neutron-neutron core sampling with epithermal neutrons. F. Ia. Kron, V. P. Odinokov, M. G. Ovanesov, and V. G. Sicherbinskii. *Geol. Nefti* 1, No. 10, 52-8(1957).—A counter contg. BF_3, rich in B^{10}, was used in these investigations, and the original neutron source was a Po-Be source. After the counter registrations had been checked in the presence of H_2O, H_2O + NaCl, the probe contg. the source was immersed in wet sandstone, petroleum-bearing sandstone, clays, and siltstone. It is shown that the porosity can be measured more easily this way than with the already known neutron-γ-ray core-sampling device. Werner Jacobson

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Yadernaya geofizika; sbornik statey po ispol'zovaniyu radioaktivnykh izlucheniy i izotopov v geologii nefti (Nuclear Geophysics; Collection of Articles on the Use of Radioactive Radiation and Isotopes in Petroleum Geology) Moscow, Gostoptekhizdat, 1959. 370 p. Errata slip inserted. 4,000 copies printed.

Ed.: F.A. Alekseyev, Professor, Doctor of Geological and Mineralogical Sciences; Exec. Ed.: A.P. Kalantarov; Tech. Ed.: A.S. Polosina.

PURPOSE: This book is intended for petroleum geologists, geophysicists and scientists engaged in geological research who are interested in radiometric techniques of petroleum prospecting.

COVERAGE: The collection contains 28 articles compiled by staff members and aspirants of the Laboratory for Nuclear Geology and Geophysics of the Petroleum Institute (now the Institute for Geology and Mineral Fuel Processing) of the Academy of Sciences USSR, the Laboratory for Radioactive Logging of the All-Union Scientific Research Institute of Geophysics, and the heads of councils for planning research projects for petroleum enterprises. The articles treat new material on radiometric surveying in petroleum geology, describe radiometric instruments (counters, etc.) for registering neutrons and gamma rays, give the results of research with models of rock strata, introduce fundamentals of a new method for effectively utilizing radioactivity in the analysis of rock samples from petroleum-survey bore holes, etc. Problems of method in the study and interpretation of radiometric measurements in bore holes are reviewed, as well as the results of studies in the nonabsorption of tritium in tracing the movement of petroleum and water in a stratum. Finally, a new method of surveying based on measuring the radioactivity of the surface of a prospective petroleum deposit is described. No personalities are mentioned. References accompany each article.

Aksel'rod, S.M. Mapping Petroleum-Water Surfaces of Contact in Azerbaydzhan Oil Fields by the Method of Induced Radioactivity of Sodium 100

Ravvanov, R.A. Possibility of the Method of Induced Radioactivity for Quantitative Evaluation of the Petrolific Capacity and Other Characteristics of Strata 105

Blankova, T.N. The Effectiveness of the Methods of Induced Radioactivity of Sodium and Chlorine to Compute the Oil- and Water-Bearing Capacity of Devonian Sandstones 110

Burov, B.M., O.N. Darvoyd, F.Ts. Denisik, B.P. Odinokov, and V.G. Shtrykmanik, Utilization of Epithermal Neutrons in the Neutron-Neutron Method (NNM) of Evaluating the Porosity of Sand and Carbonate Collectors 121

Alekseyev, F.A., S.A. Denisik, V.V. Miller, and V.P. Odinokov. The Use of Gamma-Ray Spectrometry to Investigate Bore Holes 134

Ouberman, Sh. A. Gamma-Ray Spectroscopy of Natural and Artificial Radioactive Isotopes Under Bore Hole Conditions 146

Odinokov, V.P., S.A. Denisik, and Yu. S. Shimelevich. Determination of the Point of Water-Petroleum Contact From Data Obtained Using the Neutron Gamma Method With Scintillation Counters (NGM-LS) and the Neutron-Neutron Method Based on Thermal Neutrons (NNM-T) 154

Blankov, Ye.B. Separation of the Radiation of Different Elements During the Investigation of Petroleum-Survey Bore Holes by the Method of Induced Radioactivity of Sodium and Chlorine 170

Dvorkin, I.L., and R.A. Ravvanov. The Use of Scintillation Counters to Count Slow Neutrons in Petroleum Survey Bore Holes 187

Zolotov, A.V. Distribution of Slow Neutrons in a Homogeneous Medium 195

Oulin, Yu.A. Influence of the Conditions of Measuring Upon Evaluating the Porosity of Rock According to Data Obtained by the Neutron Gamma Method 201

Rudnev, O.V. Development of New Types of Radiometric Apparatus for Use in Petroleum Survey Operations 222

Yelav, L.Z. The Problem of Determining the Point of Water-Petroleum Contact Under Conditions of Cased Wells in Carbonate Deposits 228

Leyrunskaya, D.I., and Z. Ye. Gauer. Analysis of Rock Based on Neutron-Induced Activity 238

Alekseyev, F.A., V.I. Yermakov, and V.A. Filonov. The Problem of Radium and Uranium Content in Oil-Field Waters 252

Yermakov, V.I., A.I. Laubenbakh, M.O. Ovanesov, Yu. A. Romanov, and L.N. Skosyrova. Results of Investigations of Natural Gamma Fields in Oil-Bearing Regions, Using Aerial and Ground Radiometric Survey Methods 264

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L 27236-66 EWP(c)/EWP(k)/EWT(d)/ETC(m)-6/T/EWP(1)/EWP(v) IJP(c)

ACC NR: AP6009902 (N) SOURCE CODE: UR/0413/66/000/004/0100/0100

38
B

AUTHOR: Shcherbinskiy, V. G.

ORG: none

TITLE: Piezoelectric probe for ultrasonic flaw detectors. Class 42, No. 179076

SOURCE: Izobreteniya, promyshlennye obraztsy, tovarnyye znaki, no. 4, 1966, 100

TOPIC TAGS: ultrasonic flaw detector, piezoelectric transducer

ABSTRACT: This Author Certificate presents a piezoelectric probe for ultrasonic flaw detectors. The probe contains a piezoelectric plate mounted in a hollow case filled with liquid forming an acoustic lens. For possible laminar irradiation of products according to a given program, i.e., to vary the focal length of the acoustic lens, an elastic membrane, such as rubber, divides the internal volume of the case into two parts filled with liquids having different velocities of ultrasound transmission (see Fig. 1). The part of the volume toward the piezoelectric plate is connected to a device for varying the pressure or volume of the liquid.

2

Card 1/2 UDC: 620.179.16

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ACC NR: AP6009902

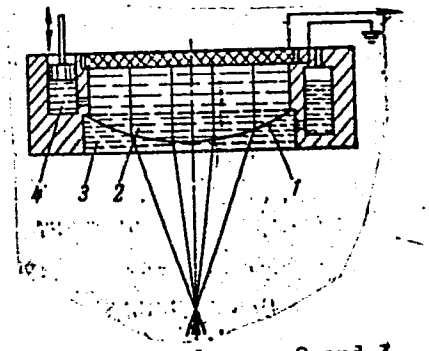

Fig. 1. 1 - elastic membrane; 2 and 3 - liquids with different refractive indices for ultrasound; 4 - device for varying volume.

Orig. art. has: 1 diagram.

SUB CODE: 14/ SUBM DATE: 17Mar65

Card 2/2

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L 62777-65 EWT(d)/EWT(1)/EWT(m)/EWP(c)/EWP(v)/T/EWP(t)/EWP(k)/EWP(b)/EWP(1)/
EWA(c) Pf-4/Pi-4 JD/HM

ACCESSION NR: AP5017483

UR/0135/65/000/007/0012/0013
621.791.053.004.5:620.179.16

AUTHOR: Shcherbinskiy, V. G. (Engineer); Kuz'min, A. A. (Technician)

TITLE: Ultrasonic scanning of relatively thin welds

SOURCE: Svarochnoye proizvodstvo, no. 7, 1965, 12-13

TOPIC TAGS: ultrasonic scanning, thin weld, defectoscopy, butt weld, flux welding, weld center, automatic welding, near weld zone, piezoelectric pickup

ABSTRACT: The current methods of ultrasonic quality control of reinforced welds up to 6-8 mm thick have one major shortcoming associated with the difficulty of decoding the pulses on the screen of the cathode-ray tube due to the presence of "spurious" signals from the reinforcement roll and the impossibility of using an automatic flaw signaling device. Moreover, if it is to be more reliable, the ultrasonic scanning must be performed from both sides of the weld which, of course, makes for a more time-consuming and less operational control. In this connection, the authors developed an ultrasonic testing method which is free of these shortcomings and makes it possible to increase labor productivity in ultrasonic defectoscopy of relatively thin (up to 6-8 mm thick) butt welds. The new method is based on the use of two piezoelectric pickups aligned so that they face one another, one each on each side of the weld, and attached to a special holder which

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ACCESSION NR: AP5017483

moves on guide rollers along the weld reinforcement (see figure). The pickups are alternately energized by means of an electronic commutator which alternately switches on and off the ultrasonic channels. Such a method makes it possible to use an automatic signal indicator with an electric or neon lamp. The device is suitable for detecting, among other things, that principal and most dangerous flaw in 3-5 mm thick welds produced by means of automatic flux welding -- the failure of the weld center to fuse, which often cannot be detected by X-ray examination. Other most frequently encountered flaws in welds of this thickness include: local underwelding, slag occlusions, and pores. The best use for the device can be found in scanning sheet weldments produced by automatic welding. This dispenses with the need to remove spattered metal from the near-weld zone prior to its examination, and thus makes it possible to increase the scanning rate to 40-60 m/hr. To increase the probability of flaw detection, the piezoelectric pickups can be mounted at different angles so long as the distances between them and the seam correspond to equal paths of passage of the ultrasound through the metal. Orig. art. has: 1 figure.

ASSOCIATION: none

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

NR REF SOV: 000 OTHER: 000

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ENCLOSURE: 01

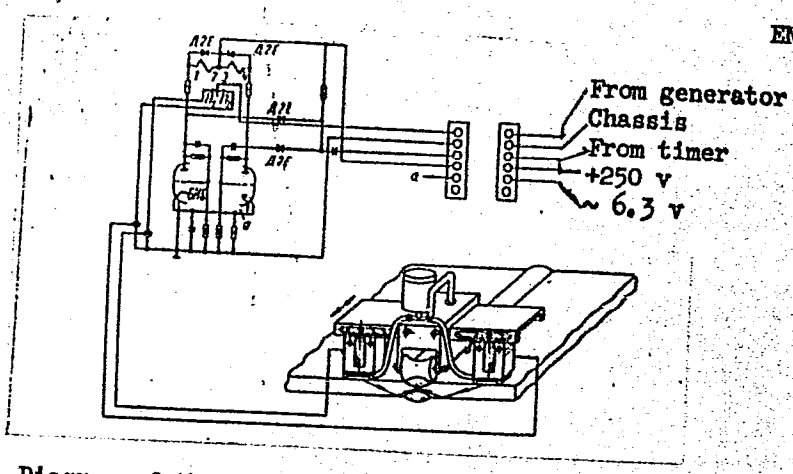

Diagram of the scanning or relatively thin welds, with commutation of ultrasonic channels

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L 62778-65 EWT(d)/EWT(m)/EWP(w)/EWP(e)/EWA(d)/EWP(v)/T /EWP(t)/EWP(k)/EWP(b)/
EWP(1)/EWA(c) Pf-4 LJP(c) JD/HM
ACCESSION NR: AP5017485

UR/0135/65/000/007/0018/0019
621.791.053.004.5

AUTHOR: Semenov, A. P. (Engineer); Shcherbinskiy, V. G. (Engineer)

TITLE: Laminar radiography of extra-thick butt welds

32
B

SOURCE: Svarochnoye proizvodstvo, no. 7, 1965, 18-19

TOPIC TAGS: butt weld, laminar radiography, geometric unsharpness, focal length, weld seam distance, aluminum alloy, thick weld

ABSTRACT: The authors performed experiments to elucidate the possibility of laminar scanning of 40, 60, 80, and 140 mm thick aluminum-alloy butt welds, both in hot and cooled state, with partly filled groove, by placing the film magazine at different distances from the weld seam. The radiography was performed with the aid of a Mosrentgen X-ray apparatus with a magazine containing RT-1 X-ray film (with two reinforcing screens and 0.09 mm thick lead foil). The experiments were carried out on special models with rectangular grooves of standard dimensions as well as drilled apertures simulating the pore-type defects most characteristic of aluminum alloys. The focal length F = 800 mm was kept constant. The geometric unsharpness was determined with the aid of an MF-4 microphotometer with a 0.2 mm wide slit. Considering that the minimum geometric unsharpness still clearly perceivable by the unaided eye is 0.25 mm, the X-ray pictures made at distances of up to 50 mm from the seam

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may be considered sufficiently sharp. If the distance from the seam is increased to 120 mm, geometric unsharpness increases to 0.37 mm which in practice still does not affect the detectability of defects during the decoding of X-ray pictures. Thus 120 mm may be considered the maximum acceptable distance between the weld seam and the film magazine. Another way of accelerating and simplifying the radiography of thick butt welds while they still are in heated state is to insert heat insulating pads with a low absorption factor (10-15 mm thick porolon or felt) between the magazine and the weld seam. Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: OP, MM

NR REF SOV: 000

OTHER: 000

Card 2/2

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

VASIL'YEV, A.V.; SHCHERBINSKIY, Ya.N., red.; ETUSH, L.A., red. izd-va.; KARASIK, N.P., tekhn. red.

[New method of floating lumber] Novyi metod splava drevesiny. Moskva, Goslesbumizdat, 1957. 19 p. (MIRA 11:11)
(Lumber--Transportation)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

VASIL'YEV, Anatoliy Vasil'yevich; SHCHERBINSKIY, Ya.N., red.; POLTEVA, B.Kh., red. izd-va; BACHURINA, A.M., tekhn. red.

[Distance-group method of log floating] Distantsionno-gruppovoi metod molevogo splava drevesiny. Izd.2., perer. Moskva, Goslesbumizdat, 1957. 31 p. (MIRA 11:9)

(Lumber—Transportation)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

TONKEL', Iosif Ignat'yevich; SHCHERBINSKIY, Ya.N., red.; MOROZOV, Yu.V., red.izd-va; IVANCHENKO, N.A., tekhn.red.

[Preparing hardwoods for floating] Podgotovka k splavu drevesiny listvennykh porod. Moskva, Goslesbumizdat, 1957. 52 p.
(Lumber--Transportation) (MIRA 11:2)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

NEFEDOV, Sergey Ivanovich; GONIK, A.A., retsenzent; NEVSKIY, Ye.G., retsenzent; SHCHERBINSKIY, Ya.N., redaktor; GORYUNOVA, L.K., redaktor izdatel'stva; [redacted], N.P., tekhnicheskiy redaktor

[Tackle for floating lumber] Takelazhnoe khoziaistvo na lesosplave. Moskva, Goslesbumizdat, 1957. 213 p. (MIRA 10:10)
(Lumber--Transportation)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

SELIVANOV, Petr Akimovich; SHCHERBINSKIY, Ya.N., red.; VALLAKH, T.G., red.izd-va; BRATISHKO, L.V., tekhn.red.

[Analysis of the economic operations of timber floating enterprises] Analiz khoziaistvennoi deiatel'nosti lesosplavnogo predpriiatiia. Moskva, Goslesbumizdat, 1959. 47 p. (MIRA 12:6)

(Lumber--Transportation)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548910016-6

PRIYEZZHIY, Ivan Ivanovich; SHCHERBINSKIY, Ya.I., red.; NIKITINA, L.V., red.izd-va; KORNYUSHINA, A.S., tekhn.red.

[Ways of expanding the water transportation of lumber in 1959-1965] Puti razvitiia vodnogo transporta lesa v 1959-1965 gg. Moskva, Goslesbumizdat, 1960. 63 p. (MIRA 13:11)
(Lumber--Transportation)

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