

VEKSLER, Grigoriy Solomonovich, kand. tekhn. nauk; MACHINSKIY,
Vladimir Kondrat'yevich [Machyns'kiy, V.K.], inzh.; SHYIL'MAN,
Viktor Il'ich, inzh.; GERASIMOV, S.M. [Herasymov, S.M.], prof.,
retsenzent
[Transistorized smoothing filters] Tranzystorni zhladzhuichi
fil'try. Kyiv, Tekhnika, 1964. 170 p. (MIRA 18:4)

GERASIMOV, S.M., mayer meditsinskoy sluzhby; KLOCHKOV, N.D., mayer
meditsinskoy sluzhby.

Fourth All-Union Congress of Pathoanatomists. Voen.-med.
zhur. no. 1:90-91 Ja '66 (MIRA 19:2)

GERASIMOV, S. S.

Oxidation inhibitors for aqueous solutions of hydrogen peroxide. S. S. Gerashin and S. B. Gershinsky, *Uchenye Zapiski Kazansk. Universiteta. Fiziko-Matematicheskie Nauki*, No. 5, 88-9 (1958) *Soviet Chem.*, 1954, No. 13788. — The effect of inhibitors and accelerators (promoters) of acid-catalyzed oxidation on the rate of oxidation of said aq. H₂O₂ was studied. The appearance of turbidity indicated pH_{1/2} of S. Addn. of 0.5% HCl completely stopped oxpn. of S. HCHO and urtropine retarded oxidation while uric acid accelerated it. M. Hosh.

NG
JF
JF

AUTHOR: Gerasimov, S.P., Engineer SOV/118-58-2-4/19
TITLE: The Efficiency of the Stamping of the Processed Wooden Articles
(Effektivnost' shtampovki drevesnykh izdeliy)
PERIODICAL: Mekhanizatsiya trudoyemkikh i tyazhelykh rabot, 1958, Nr 2,
pp 12-14 (USSR)
ABSTRACT: With the increased use of plywood for the industrial production
of composite parts for furniture and articles of mass consumption, the Scientific Research Institute for Wood Working
Machinebuilding (NIIDREVMASH) studied the possibility of the
mechanization of their production by stamping them from
veneer sheets and plywood 3 to 12 mm thick. The experiments
were done on the Amsler punching machine with use of the
interchangeable dies and punches. The results of these experiments, described in detail, showed that by choosing the
best gap between the die and the punch (not more than 0.02 mm)
and applying the proper pressure, the method of stamping the
required parts from plywood up to 12 mm thick can be adapted
to industrial production. The pressure applied to birch

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SOV/118-58-2-4/19

The Efficiency of the Stamping of the Processed Wooden Articles

plywood (GOST 3916-47, brand AV) 3 to 12 mm thick varies
from 80 to 230 kg/cm.

There are 3 photos and 1 graph.

ASSOCIATION: Nauchno-issledovatel'skiy institut derevoobrabatyvayushchego
mashinostroyeniya (The Scientific Research Institute for
Wood-Working Machine-Building - NIIDREVMASH)

1. Furniture--Production 2. Plywood--Processing 3. Dies--Per-
formance

Card 2/2

1ST AND 2ND COPIES										3RD AND 4TH COPIES									
PROCESSING AND PROPERTIES INDEX																			
<p>Production of briquetted straw halfstuffs at (beet) sugar plants. L. A. Skul'skaya and S. Ya. Gerasimov. <i>Sovetskaya Prom.</i> 16, No. 4, 19-20 (1938). --Tech. and economical aspects of utilization of the facilities and equipment (diffusion batteries) of a beet-sugar mill during the idle seasons for straw pulping are discussed. A method for expel. procedure and a proposed layout are described. Chan. Blanc</p>																			
<p>ASH-51-6 METALLURGICAL LITERATURE CLASSIFICATION</p>																			
13000 111-01010										11000 000100									
13000 111-01010										11000 000100									

GERASIMOV, Serefim Yakovlevich; PUSEN, Feodosiy Avdeyevich, kand.sel'skhoz.nauk; KABOZOV, S.M., kand.sel'skhoz.nauk, spetsred.; FEDOSOVA, N.I., red.; KUZ'MINA, N.S., tekhn.red.; GOLUBKOVA, L.A., tekhn.red.

[Mixed feeds] Kombinirovannye korma. Spetsred. S.M.Kabozov. Moskva, Izd-vo tekhn.i ekon.lit-ry po voprosam mukomol'no-krupianoi, kombikormovoi promyshl. i elevatorno-skladskogo khoz. Pt.1. 1959. 140 p. Pt.2. 1959. 93 p. (MIRA 13:1)
(Feeds)

GERASIMOV, Serafim Yakovlevich; VYSOTSKAYA, R.S., red.; GOLUBKOVA, L.A.,
tekhn. red.

[Enrichment of mixed feeds with vitamins, trace elements, and
antibiotics] Obogashchenie kombikormov vitaminami, mikroelementa-
mi i antibiotikami. Moskva, Zagotizdat, 1961. 97 p.
(MIRA 15:4)

(Feeds)

GERASIMOV, T.

Biblioteca Classica Orientalis, an extremely useful publication
of the Academy of Sciences of Berlin. Spisanie BAN 7 no.1/2:155-156
'62.

Polysynthetic
Mineral of the palygorskite group from the Bolsharokh beds in the Kungurak complex of the northern Sub-Ural T. P. Gerasimov, T. H. Grushko, and P. N. Chirvinok. Zapiski Vuzovsk. Mineral. (Mosk. univ. russ. mineral.) 78, No. 2, 105-100 (1979). Palygorskite is observed as an asbestoslike fibrous vein mineral occurring in partly dense, partly porous, or cellular limestones and dolomites. The fibers may have lengths up to 7 cm. and are perpendicular to the walls. The limestones and dolomites are associated with anhydrite and mixed anhydrite-dolomite rocks. The birefringence of the palygorskite is about $\gamma = 0.020$; $\beta = 0.008$; the elongation of the fibers is 100. The n_x are 1.500-1.515. The needle-shaped crystals show an excellent pinacoidal cleavage (100) and are therefore easily reduced to single fibers.

They are partly water clear, partly brown colored by Fe hydroxide ("xylolite"), with a weak pleochroism, and rather heterogeneous. The angle $2V$ is probably small, the axial plane is oriented in the length direction. Symmetry is probably orthorhombic. The mineral is easily colored by methylene blue with a vivid pleochroism. Chem. analysis of the accompanying carbonate rocks shows that most of the MgO of dolomite migrated to the palygorskite, the compn. of which is SiO₂ 38.48, Al₂O₃ 0.57, Fe₂O₃ 1.72, CaO 18.86, MgO 18.36, CO₂ 0.57 (as CaCO₃), H₂O* 0.51, H₂O* 0.20 total ignition loss 22.30%. If the mineral is treated with 10% acetic acid and 2% HCl for 2 hrs., the compn. is MgO 28.63, SiO₂ 21.41, but this formula is not that of palygorskite but of a "para-sepiolite". Density after acid treatment is at $d = 2.06$. Evidently, the palygorskite is partly decomposed by extn. of CaO and MgO even by a mild acid treatment. The particularly low Al₂O₃ and Fe₂O₃ content of the mineral may be responsible for this low stability. W. Fritzel

GERASIMOV, V., kand.tekhn.nauk, inzh.-kapitan 2 ranga

Atomic submarines. Voen. snan. 39 no.3:20-21 Mr '63.

(MIRA 16:7)

(Atomic submarines)

publikatsiya

GERASIMOV V. N.

GERASIMOV, V.; POKROVSKIY, V.

"Technique of investigating water-tapping wells in the Volga-Ural region" by I.K.Zerchanikova. Reviewed by V.Gerasimov, V. Pokrovskii. Geol.nefti i gaza 6 no.8:60-62 Ag '62.

(MIRA 15:9)

(Volga-Ural region--Oil field brines) (Zerchanikova, I.K.)

PROTOD'YAKONOV, M.M., prof., doktor tekhn. nauk; KUDRYA, N.A., kand.
tekhn. nauk; GERASIMOV, V., red.

[Quick method for determining the ultimate resistance to
compression and the modulus of elasticity of rocks]Ekspress-
metod opredelenia vremennogo soprotivleniia szhatiia i mo-
dulia uprugosti gornykh porod. Moskva, In-t gornogo dela im.
A.A.Skochinskogo, 1962. 21 p. (MIRA 16:1)
(Rocks--Testing)

GERASIMOV, Y.

Schools of progressive work methods at enterprises. Sov.prof-
soynny 3 no.8:19-22 Ag'55. (MLRA 8:10)

1. Zaveduyushchiy otdelom proizvodstvenno-massovoy raboty Sverdlovskogo oblastnogo soveta profsoyuzov
(Sverdlovsk--Technical education)

PETROV, I., inzh.; OMERASIMOV, V., inzh.

Mechanical fire sprinklers. Pozh.delo 5 no.11:23 N '59.
(MIRA 13:4)

(Fire sprinklers)

GERASIMOV, V., kand.tekhn.nauk, inzhener-kapitan 2-go ranga

"Polaris"; on a submarine (as revealed by foreign press data),
Starsh.-serzh. no.8:36-37 Ag '61. (MIRA 14:10)
(Polaris (Missile))

GERASIMOV, V., kand, tekhn. nauk, inzhener-kapitan 2-go ranga

Business, stars, and handcuffs. Starsh.-serzh. no. 6:36-37 Je '62.
(MIRA 15:7)

(United States--armed forces--Foreign countries)

GRIGOROV, V., Irzhenskiy-kapitan

For the complex training of signalmen. Tekh. i voyenn. no. 2,
36-39 F '64. (MIRA 1964)

GERASIMOV, V., inzh.-kapitan 1 ranga, kand.tekhn.nauk

Aircraft carriers, weapons of aggression. Voen.znan. 41
no.11:44-45 N '65. (MIRA 18;12)

12 3100

28030 S/081/61/000/015/083/139
B117/B110

AUTHORS: Gerasimov, V. A., Petrov, I. I., Reutt, V. Ch.

TITLE: Extinction of flames of petroleum products with atomized air

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 15, 1961, 332, abstract
151371 (Sb. "Novyye sposoby i sredstva tusheniya plameni
nefteproduktov". M., Gostoptekhizdat, 1960, 84 - 98)

TEXT: The authors describe mechanical water atomizers for extinguishing fires of petroleum products in containers, and characterize atomizers of the centrifugal type. A table shows recommended sizes of some nozzles and their hydraulic characteristics. The authors describe an atomizer of the screw type without the drawbacks of a centrifugal atomizer. They mention extinction tests with atomized water for fighting flames of gasoline and other liquid fuels. They noted the effect of the height of the free container edge on extinction results. They found that the ratio between the minimum height of the edge, at which extinction succeeds, and the container diameter is equal for all containers. They give a formula for determining the minimum height of the free edge at which extinction

Card 1/2

Extinction of flames of...

28030 S/081/61/000/015/083/139
B117/B110

with atomized water is warranted. Under the action of atomized water, the rate of burning-out of gasoline was reduced to about one-fifth. Extinction of a neglected fire in a gasoline or petroleum tank shows characteristic features: (1) Bubbling up of the burning gasoline immediately after applying atomized water to the hot container, and overflowing the edge; (2) extension of the time of extinction depending on the thickness of the heated layer determined by the duration of fire. [Abstracter's note: Complete translation.]

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Card 2/2

12 3100

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S/081/61/000/015/080/139

B117/B102

AUTHORS: Gerasimov, V. A., Petrov, I. I., Reutt, V. Ch.,
Tsygan, R. M., Yagubyan, L. K.

TITLE: Combined methods of extinguishing burning petroleum
products in containers

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 15, 1961, 331, abstract
154364 (Sb. "Novyye sposoby i sredstva tusheniya plameni
nefteproduktov". M., Gostoptekhizdat, 1960, 99-124)

TEXT: The principles of a combined extinguishing method "atomized water
(AW) and mechanical air foam (MAF)" were examined. The fire-extinguishing
effect of MAF is lower if it is used for extinguishing fires of heated
petroleum products without prior cooling of the layer being heated. A
combined application of AW and MAF to extinguish flames of petroleum
products burning in containers and forming a heated layer during free
burning is described. A relationship was established between the
temperature of the petroleum product after cooling and the cooling time,
depending on the intensity of atomized water supply, the time of open

Card 1/2

Combined methods of extinguishing...

28029 S/081/61/000/015/080/139
B117/B102

burning, the temperature of the heated layer, etc. Constants were calculated for gasoline. Tests conducted to fight burning gasoline in containers of different diameters using mechanical and chemical foam are described. In these tests, the heated gasoline layer was first cooled with atomized water. Tests made with the combined method of atomized water to extinguish fires in containers ≤ 5.3 m in diameter yielded positive results. [Abstracter's note: Complete translation.]

X

Card 2/2

GERASIMOV, V.A.

Potassium and calcium concentration in leaves of chlorotic grapevines. Soob. AN Gruz. SSR 27 no.1:73-78 JI '61. (MIRA 16:8)

1. Gruzinskiy sel'skokhozyaystvennyy institut, Tbilisi. Prestavleno akademikom AN GruzSSR L.I.Dzhaparidze.

(Chlorosis (Plants)) (Calcium) (Potassium)

15-1957-3-2783D

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 3,
p 38 (USSR)

AUTHOR: Gerasimov, V.A.

TITLE: Geomorphology and Problems of the Ancient Glaciation in
the Valley of the Bayankol River (Khan-Tengri) [Geomor-
fologiya i voprosy drevnego oledeneniya doliny r. Ba-
yankol (Khan-Tengris)]

ABSTRACT: Bibliographic entry on the author's dissertation for
the degree of Candidate of Geological and Mineralogical
Sciences, presented to the In-t geol. AN UzSSSR (Institute
of Geology, Academy of Sciences, UzSSR), Tashkent, 1956.

ASSOCIATION: In-t geol. AN UzSSSR (Institute of Geology, Academy of
Sciences, UzSSR)

Card 1/1

GERASIMOV, V.A.

Glaciers of the Bayankol River basin in the north of the Khan
Tengri junction. Trudy Sekt.geog.AN Kazakh.SSR no.3:195-214
'59. (MIRA 12:7)

(Bayankol Valley--Glaciers)

GERASIMOV, V.A.

Geomorphology of the Bayankol River valley. Trudy Sekt.geog.
AN Kazakh.SSR no.4:5-41 '59. (MIRA 13:4)
(Bayankol Valley--Geology, Structural)

GERASIMOV, V.A.

Early glaciation of the Bayan-Kol River Basin. Trudy Sekt.
geog. AN Kazakh. SSR no.5:79-97 '59. (MIRA 13:4)
(Bayan-Kol Valley---Glacial epoch)

GERASIMOV, V.A.

Scheme of stratigraphic correlation of Quaternary sediments in the Bayankol Valley. Trudy Sekt.geog.AN Kazakh.
S.S.H. no.6:178-185 '60. (MIRA 13:7)
(Bayankol Valley--Geology, Stratigraphic)

GERASIMOV, V.A.

Main stages in the formation of the Bayankol Valley
Quaternary period. Trudy Sekt.geog. AN Kazakh. S.S.R.
no.6:186-193 '60. (MIRA 13:7)
(Bayankol Valley--Geology, Stratigraphic)

GERASIMOV, Y.A.; BARVENKO, N.Ya.

Eliminating the danger of flash floods in the Tyuksu moraine
region. Vest.AN Kazakh.SSR 17 no.4:102-103 Ap '61. (MIRA 14:5)
(Tyuksu moraine region—Drainage)

PANASEYKIN, Yu.V., inzh.; SHAPOSHNIKOV, V.V., inzh.; GERASIMOV, V.I.,
elektronaladchik

Improvement in the construction of the RZMO system. TSement: 31
no.5:17 S-O '65. (MIRA 18:10)

1. Chimkentskiy tsementnyy zavod.

GERASINOV, V.A.

Simple zeolite trap. Prib. i tekhn. eksp. 10 no.5:243
S-O '65.

(MIRA 19:1)

1. Zabaykal'skiy kompleksnyy nauchno-issledovatel'skiy
institut, Chita. Submitted Sept.1, 1964.

GERASIMOV, V.A.

The Issyk catastrophe and its reflection in the geomorphology
of the Issyk Valley. Izv. Vses. geog. ob-va 97 no.6:541-547
N-D '65. (MIRA 19:1)

SOV/144-58-10-10/17

AUTHORS: Sabadashev, V.P., Candidate of Technical Sciences, Assistant
Gerasimov, V.B., Assistant

TITLE: A Contactless Magnetic Device for Automatic and Semi-Automatic Self-Synchronisation of Synchronous Generators
(Beskontaktnoye magnitnoye ustroystvo dlya avtomaticheskoy i poluavtomaticheskoy samosinkhronizatsii sinkhronnykh generatorov)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Elektromekhanika, 1958, Nr 10, pp 104-114 (USSR)

ABSTRACT: Existing circuits for automatic and semi-automatic self-synchronisation have a number of contacts and tend to be unreliable. This article suggests for the purpose the use of contactless magnetic elements. The arrangement consists of a phase sensitive circuit (which has been investigated theoretically and experimentally by A.D.Drozdo, (Ref 4), a magnetic amplifier with feed-back for even harmonics and automatic equipment that serves to connect the generator to the circuit and to deliver field currents. The frequency comparison

Card 1/5 device consists of a phase sensitive circuit and an

SOV/144-58-10-10/17

A Contactless Magnetic Device for Automatic and Semi-Automatic
Self-Synchronisation of Synchronous Generators

amplidyne. The phase sensitive circuit consists of two peaking transformers. When the generator is nearing synchronous speed the voltage vectors of the system and of the generator to be connected to it coincide long enough for the relay to operate and connect the generator to the system provided that conditions are suitable. The processes that take place in the phase sensitive circuit during paralleling are then described. As the voltage phase of one saturating transformer alters relative to the other, the mean emf in their secondary circuit varies as shown graphically in Fig 2. It is shown that the load characteristic of the protection depends on the wave shape of the secondary current impulses of the saturating transformers. Formulae are given for calculation of the relay current. Finally, formula (15) is derived for the load current of the protective system, this formula gives the effective value of the load current in the secondary circuit of the saturated transformers of the phase sensitive system when the current impulses of the saturated transformers

Card 2/5

SOV/144-58-10-10/17

A Contactless Magnetic Device for Automatic and Semi-Automatic
Self-Synchronisation of Synchronous Generators

are of triangular wave shape as will occur in the operation of the system. Experimental and calculated values of mean and effective current are compared in Tables 1 and 2 and the maximum error that results from calculating the currents by formulae (7) and (9) does not exceed 10% which is quite acceptable. Fig 7 gives test and calculated load characteristics of the phase sensitive circuit and it will be seen that formula (15) is sufficiently accurate over the range considered. Further analysis is given of the conditions under which the relay will operate. The conditions under which synchronisation is possible are discussed. One of these devices for automatic and semi-automatic self-synchronisation of alternators was made and tested in the Novocherkassk Polytechnical Institute. The design and construction of the components is briefly described. The test results are briefly described. An oscillogram of the process of operation of the synchronising device when the speed of the generator is very different from

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SOV/144-52-10-10/17

A Contactless Magnetic Device for Automatic and Semi-Automatic
Self-Synchronisation of Synchronous Generators

the synchronous speed is given in Fig 12 and a similar oscillogram is given in Fig 13 for the case when the alternator is running at synchronous speed. This latter oscillogram shows that the generator was connected in parallel with the system. It is concluded that the contactless magnetic synchronising device is reliable and will not need much adjustment in operation. Variations in supply voltage have no influence on the operation of the device. The system frequency also has no influence on the operation of the device. When the difference between frequencies of the system and generator is 1 to 2 c/s the self-synchronising device operates reliably at accelerations of 0.45 to 2 c/s per second, which is better than with other frequency relays now used for self-synchronisation. By using an amplidyne with feed-back of even harmonics it was possible to use a phase sensitive circuit without rectifiers with beneficial effects on the sensitivity

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NOV/144-58-10-10/17

A Contactless Magnetic Device for Automatic and Semi-Automatic
Self-Synchronisation of Synchronous Generators

and life of the equipment. There are 13 figures,
2 tables and 6 Soviet references.

ASSOCIATION: kafedra avtomaticheskikh i Izmeritel'nykh Ustroystv
Novocherkasskogo Politehnicheskogo Instituta (Chair of
Automatic and Measuring Apparatus, Novocherkassk
Polytechnical Institute)

Card 5/5

GERASIMOV, V.E.

Network of a start-initiating unit for long-distance signaling
devices. Trudy NPI 124:19-22 '62. (MIRA 15:11)

(Electric relays)

(Remote control—Equipment and supplies)

(Electric controllers)

SARADASHEV, V.P.; GERASIMOV, V.B.; ZHMURIN, D.N.

A remote control device for industrial use with phase
and qualitative method for selection. Trudy NPI 124:53-60
'62. (MIRA 15:11)

(Remote control—Equipment and supplies)

GERASIMOV, V.D.

Prolonged motor activity in lower animals [with summary in English].
Fiziol.khur. [Ukr.] 3 no.1:47-56 Ja-F '57. (MLRA 10:3)

1. Institut fiziologii im. O.O.Bogomol'tsya Akademii nauk URSS,
laboratoriya vishchoi nervovoi diyal'nosti.
(FATIGUE) (ANIMAL LOCOMOTION)

GERASIMOV, V.D. [Herasynov, V.D.]

Effect of light on the motot activity of Anodonta cygnea. Fiziol. zhur.
[Ukr.] 4 no.6:768-774 N-D '58. (MIRA 12:3)

1. Institut fiziologii im. A.A. Bogomol'tsa AN USSR, laboratoriya
vyshey nervnoy deyatel'nosti.
(LIGHT--PHYSIOLOGICAL EFFECT) (LAMELLIBRANCHIATA)

GERASIMOV, V. D. Cand Biol Sci -- "Fatigue in lower animals." Kiev, 1960
(Acad Sci UkSSR. Department of Biology Sci). (KL, 1-61, 167)

-111-

GERASIMOV, V.D.; MAYSKIY, V.A.

Electrical activity of the giant nerve cells of the snail
Helix pomatia. Fiziol. zhur. 49 no.9:1099-1104 S '63.

(MIRA 17:12)

1. From the A.A. Bogomolets Institute of Physiology, Academy
of Sciences of the Ukrainian S.S.R., Kiev.

GERASIMOV, V.D.

Effect of changes in the ion structure of the medium on the
processes of excitation in giant nerve cells in snails. Fiziol.
zhur. 50 no.4:457-463 Ap '64. (MIRA 18:4)

1. Laboratoriya obshchey fiziologii Instituta fiziologii imeni
Bogomol'tsa AN UkrSSR, Kiyev.

L 1594-66

ACCESSION NR: AP5024768

UR/0219/64/058/009/0003/0007

AUTHOR: Gerasimov, V. D.; Kostyuk, P. G.; Mayskiy, V. A.

30B

TITLE: Excitability of the giant nerve cells of various representatives of pulmoniferous mollusks (*Helix pomatia*, *Limnea stagnalis*, *Planorbis corneus*) in solutions free of sodium ions

SOURCE: Byulleten' eksperimental'noy biologii i meditsiny, v. 58, no. 9, 1964, 3-7

TOPIC TAGS: cytology, nervous system, ion, sodium, electrode neurology

ABSTRACT: Results of comparative study, using intracellular electrodes, of the excitability of giant nerve cells, chiefly from the parietal ganglia, in sodium-free CaCl_2 (BaCl_2) solutions. The *Helix* cells were persistently excitable, giving high action potential values, the amplitude of the latter and the membrane resistance increasing with an increase in the calcium (barium) ion concentration. In analogous conditions the *Limnea* and *Planorbis* cells lost their excitability and did not produce any action potentials under direct stimulation. The possible causes for the differences in the ionic mechanisms of nerve cell action potentials in animal

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L 1594-66

ACCESSION NR: AP5024768

species of close systematic affinity are discussed. One of the suggested reasons is the relatively high concentration of divalent ions in the hemolymph of the *Helix*, compared to the other two mollusks studied.

Orig. art. has 3 figures.

ASSOCIATION: Laboratoriya obshchey fiziologii Instituta fiziologii im A. A. Bogomol'tsa AN UkrSSR, Kiev (General Physiology Laboratory of the Institute of Physiology, AN UkrSSR)

SUBMITTED: 24 Feb 64

ENCL: 00

SUB CODE: L3

NR REF SOV: 004

OTHER: 005

JPRS

Card 2/2

I 29235-66

ACC NR: AF6019367

SOURCE CCDE: UR/0385/65/001/004/0360/0363

AUTHOR: Gerasimov, V. D.; Magura, I. S.

ORG: Laboratory of General Physiology, Institute of Physiology im. A. A. Bogomolets, AN UkrSSR, Kiev (Laboratoriya obshchey fiziologii Instituta fiziologii AN UkrSSR); Laboratory of Electrophysiology, Institute of Physiology im. A. A. Bogomolets, AN UkrSSR, Kiev (Laboratoriya elektrofiziologii Instituta fiziologii AN UkrSSR)

TITLE: Electrical activity of the giant neurons of the nudibranchiate mollusc Tritonia diomedea

SOURCE: Zhurnal evolyutsionnoy biokhimii i fiziologii, v. 1, no. 4, 1965, 360-363

TOPIC TAGS: neuron, electrophysiology

ABSTRACT: Data obtained in the study of the electrical activity of giant neuron cells of the mollusc Tritonia diomedea when in sea water are presented. The investigations were carried out primarily on a cerebral neuron cell immersed in sea water cooled to 13-15 degrees. Two glass microelectrodes filled with a trimolar solution of KCl were placed into the cell. One of the electrodes served to polarise the surface of the membrane; the other to record the difference of the potentials between the internal content of the cell and external solution. It was found that the potential of the nerve cell at rest fluctuates between 45 and 50 millivolts; a cell potential lower than 35 millivolts indicates a poor functional condition; the amplitude potential of the cell in action fluctuates between 80 to 100 millivolts. Nerve cells directly stimulated

Card 1/2

UDC: 577.32:576.32:591.18:594.36+612.8.014.3:612.8.014.422/423

I 29236-66

ACC NR: AP6019369

by impulses of a depolarizing current frequently generate action potentials with the formation of a protuberance on the descending section or a split peak. Hyperpolarization of the cell by an electric current usually removes the split action potential as well as the protuberance on the descending section. The input capacity and input resistance of the membrane of the nerve cell were determined by passing right angle impulses of a hyperpolarizing current through the polarizing electrode. Considerable variations in both were found, with the input capacity fluctuating between $4.0 \cdot 10^{-2}$ and $40 \cdot 10^{-2}$ microF, and input resistance --- between $2.5 \cdot 10^5$ ohm and $18 \cdot 10^5$ ohm. Orig. art. has: 3 figures and 1 table. [JPRS]

SUB CODE: 06 / SUBM DATE: 20Jan65 / ORIG REF: 007 / OTH REF: 002

Card 2/2 C.C.

GERASIMOV, V.D.; KOSTYUK, P.G.; MAYSKIY, V.A.

Ionic conductivity of the giant nerve cell membrane of an edible
snail. Biofizika 10 no.1:82-89 '65. (MIRA 18:5)

1. Institut fiziologii imeni Bogomol'tsa AN UkrSSR, Kiev.

GERASIMOV, V.D.; KOSTYUK, P.G.; MAYSKIY, V.A.

Changes in electric characteristics of the giant neuron membrane following increase in outer potassium ion concentration. Biofizika 10 no.2:272-280 '65. (MIRA 18:7)

1. Institut fiziologii imeni Bogomol'tsa AN UkrSSR, Kiyev.

L 27053-66

ACC NR: 6017432

SOURCE CODE: UR/0217/65/010/003/0447/0453

AUTHOR: Gerasimov, Y. D.; Kostyuk, P. G.; Mayeskiy, V. A. 28
B

ORG: Institute of Physiology im. A. A. Bogomolets AN UkrSSR, Kiev (Institut fiziologii AN UkrSSR)

TITLE: Effect of bivalent cations on the electrical characteristics of giant neuron membranes 22

SOURCE: Biophysika, v. 10, no. 3, 1965, 447-453

TOPIC TAGS: neuron, neurophysiology, cell physiology, cation

ABSTRACT: A report describing the effect of bivalent cations on the electrical characteristics of the resting and active membranes of the soma of the giant neurons of grape snail (*Helix pomatia*), with Ca or Ba substituted for Na in the solution. An increase in the concentration of Ca or Ba in a sodium-free solution resulted in slight hyperpolarization of the cell membrane. The resistance of the latter rose in proportion to the logarithm of the concentration of the bivalent ions. In sodium-free solutions containing Ca or Ba, the giant neurons were capable of generating action potential for a long time. The value of the "overshoot" was in linear relation to the logarithm of the concentration of the bivalent ions. This relationship was close to the theoretical for the calcium or barium electrodes. An unusual form of cell-reaction-prolonged action potentials - arose in solutions with a high Ba concentration. The transmembrane difference in potentials during the "plateau" of such action potentials is at approximately the zero level of the resting potential. Orig. art. has: 5 figures. [JPRS]

SUB CODE: 06 / SUMM DATE: 07Oct63 / ORIG REF: 008 / OTH REF: 021
Card 1/1 UDC: 577.37

L 28048-66

ACC NR: AP6018176

SOURCE CODE: UR/0239/65/051/006/0703/0710

AUTHOR: Gerasimov, V. D.; Kostyuk, P. G.; Mayskiy, V. A.

ORG: Laboratory of General Physiology, Institute of Physiology im. A. A. Bogomolets,
AN UkrSSR, Kiev (Laboratoriya obshchey fiziologii Instituta fiziologii AN UkrSSR)

TITLE: Reactions of giant nerve cells to a break in the hyperpolarization current

SOURCE: Fiziologicheskii zhurnal, v. 51, no. 6, 1965, 703-710

TOPIC TAGS: neuron, electrophysiology, neurophysiology, cell physiology

ABSTRACT: In an investigation, by means of two separate micro-electrodes inserted simultaneously, of the electric reactions of giant neurons of the molluscs *Helix pomatia* and *Planorbis* corneus to the breaking of a hyperpolarization current, it was established that if the neuron was first depolarized, the break in the hyperpolarization current induced generation, by the neuron, of an action potential (anode break excitation or anelectrotonic reaction). The threshold of the anode break excitation was lower than that of the response of the neuron to a depolarizing current pulse under the same conditions. The anode break action potential developed in the same manner as that arising in response to a

Card 1/2

UDC: 612.014.3

L 28048-66

ACC NR: AP6018176

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cathoelectrotonic polarization of the membrane: the activating factor was not cessation of anelectrotonic polarization, but a decrease in the transmembrane difference of potentials which followed and which was essentially a cathoelectrotonic change. The postanodic hyperpolarization that developed apparently constituted a selective activation of the transfer of K^+ ions through the cell membrane. Orig. art. has: 6 figures. [SPRS]

SUB CODE: 06/ SUBM DATE: 31Jan64/ ORIG REF: 003/ OTH REF: 008

Card

2/2

CC

1 28830-66

ACC NR: AP601866A

SOURCE CODE: UR/0239/65/051/012/1434/1441 24
B

AUTHOR: Gerasimov, V. D.; Kostyuk, P. G.; Mayevskiy, V. A.

ORG: Institute of Physiology im. A. A. Bogomolets, AN UkrSSR (Institut fiziologii AN SSSR)

TITLE: Prolonged action potentials of giant nerve cell 22

SOURCE: Fiziologicheskiy zhurnal, v. 51, no. 12, 1965, 1434-1441

TOPIC TAGS: neuron, electrophysiology, cell physiology

ABSTRACT: Prolonged action potentials (PAP) are the action potentials whose descending segment includes a section with a slower rate of repolarization (recovery of normal level of potential, as opposed to depolarization, when the changes in the transmembrane difference in potentials are such that it is smaller than when at rest). PAP are doubtless an anomalous form of functioning of the excited cell, but their investigation opens broad vistas for experimental intervention into the ion mechanisms of the activated cell membrane, which is highly important in determining the nature of the process of excitation. Potentials of this kind constantly arise in the giant neurons of molluscs when Ba++ is added to the solution around the cell. In this connection the authors perform pertinent experiments on neurons of the molluscs *Helix pomatia* and *Planorbis corneus*. It was found that the addition of barium ions to the circumambient solution leads to a synaptic or direct depolarization of the cell membrane which results in action potentials lasting several seconds. Membrane resistance during PAP is 20-30% of membrane resistance at rest. Brief hyperpolarizing current pulses applied to the neuron against a PAP background may produce active repolarizing responses and restore the membrane to a quiescent state: this represents an interesting possibility of artificially eliminating prolonged changes in the ion mechanisms of excitation. Orig. art. has: 6 figures. [JPRS]

SUB CODE: 06 / SUBM DATE: 24Apr64 / ORIG REF: 005 / OTH REF: 021

UDC: 612.014.3

Card 1/1 AC

GERASIMOV, V.D.; KUZNETSOV, G.A.

unclassified

Pulse apparatus for measuring the absorption and velocity of
ultrasound in polymers. Plast. massy no.11:54-56 '63.
(MIRA 16:12)

GERASIMOV, V.D.; KUZNETSOV, G.A.

Obtaining a viscoplastic state for crystalline polymers
below the melting point by mechanical means. Vysokom. soed.
5 no.12:1843-1846 D '63. (MIRA 17:1)

1. Vladimirskiy nauchno-issledovatel'skiy institut sinte-
ticheskikh smol.

GERASIMOV, V.D.; KUZNETSOV, G.A.; FOENKO, L.N.

Apparatus for the thermomechanical study of polymers. Zav. lab.
29 no.8:996-997 '63. (MIRA 16:9)

1. Vladimirovskiy nauchno-issledovatel'skiy institut sinteticheskikh
snol.

(Polymers---Thermal properties)

ACCESSION NR: AP4042187

S/0190/64/006/007/1261/1266

AUTHOR: Kuznetsov, G. A., Gerasimov, V. D., Sokolov, L. B.

TITLE: Investigation of the pressure sintering of powdered polymers. I. Ultrasonic evaluation of the change in contact between the particles of polymer powders

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 7, 1964, 1261-1266

TOPIC TAGS: polymer, powdered polymer, ultrasound, sintering, polymer particle contact, polymer structure, amorphous polymer, crystalline polymer

ABSTRACT: The measurement of the absorption and velocity of ultrasound passing through samples of polymer powder subjected to different degrees of pressure clarifies many problems concerning the mechanism of coalescence of materials, their imperfections (such as pores, voids, density variations) and the kinetics of their changes (in size and amount of imperfection during sintering). Kapron, polyhexamethylene oxamide, polyhexamethylene terephthalamide, polyvinyl chloride and polystyrene samples (5-7 mm thick, 30 mm in diameter for amorphous and 10 mm in diameter for crystalline polymers) were investigated. During the sintering of amorphous polymers under pressure, complete contact between the particles of polymer

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ACCESSION NR: AP4042187

powder is attained over the softening temperature range. For crystalline polymers, no complete contact is obtained before melting. Their sintering below the melting point is due to the softening of the amorphous part. The annealing of crystalline powdered polymers renders sintering difficult. The curves plotted for the absorption and velocity of ultrasound for amorphous polystyrene and polyvinyl chloride samples against molding temperature at different frequencies show a sharp break. By increasing the frequency of the ultrasound, the beginning of the break is shifted toward higher temperatures and the sharpness of the break is increased. The variation in the steepness of the curves is explained by the correlation between the size of imperfections and the ultrasonic wavelength, assuming that there is a scattering of ultrasound on these imperfections due to powder particles or air inclusions. The velocity of ultrasound was near 2300 m/sec, at a frequency of 1 Mc/sec. for both polyvinyl chloride and polystyrene. This gives $\lambda = 2.3$ mm, and at 10 Mc/sec. $\lambda = 0.23$ mm. For crystalline polymer such as kapron, no plateau was found in the ultrasonic velocity-molding temperature plots, but after the inflection of the curve a monotonous rise was observed which becomes more pronounced in the melting temperature range. The curves and experimental data for amorphous and crystalline polymers are compared and discussed in detail. Orig. art. has: 4 figures, 1 table and 2 formulas.

2/3

Card

ACCESSION NR: AP4042187

ASSOCIATION: Nauchno-issledovatel'skiy institut sinteticheskikh smol, Vladimir (Scientific
Research Institute for Synthetic Resins)

SUBMITTED: 02Aug63

ENCL: 00

SUB CODE: OC, MT

NO REF SOV: 004

OTHER: 001

3/3

Card

L 2928-66

ACCESSION NR: AP5022606

diagrams of amorphous and crystalline phenylone were taken at 26, 100, 286, 356, and 433°C. The thermomechanical curve is interpreted on the basis of the data of differential thermal analysis and of x-ray study. After softening at 300°C, the polymer starts to crystallize. The range of steady deformation lying at 340-400°C corresponds to the crystalline state of phenylone. Heating above 400°C causes decomposition, while melting sets in at 430°C. The second moment of the absorption line of nuclear magnetic resonance is plotted against temperature for the initial amorphous polymer and for a specimen preheated to 360°C. The character of the curves is discussed. It was found that the increase in ΔH_2^2 of the preheated specimen over all temperature ranges produces a smaller mobility and better packing of the molecules, indicative of the crystallization process. The disappearance of the highly elastic state below the melting point of the crystalline substance explains the absence of the minimum on the ΔH_2^2 --temperature curve in the range of 290-320°C. Orig. art. has: 5 figures.

ASSOCIATION: Vladimirskiy nauchno-issledovatel'skiy institut sinteticheskikh smol (Vladimir Scientific Research Institute of Synthetic Resins), Kazanskiy gosudarstvenniy universitet (Kazan State University)

SUBMITTED: 19Oct61

ENCL: 00

SUB CODE: GC, OC

NO REF SOV: 005

OTHER: 001

Card 2/2

Heisenberg, W. K., Heisenberg, W. K., Heisenberg, W. K., Heisenberg, W. K.,
Heisenberg, W. K., Heisenberg, W. K., Heisenberg, W. K., Heisenberg, W. K., Heisenberg, W. K.

"Fission and total Cross-Sections of some heavy nuclei for monochromatic
neutrons as measured by a mechanical neutron velocity selector," a paper
presented at the Atoms for Peace Conference, Geneva, Switzerland, 1955.

GERASIMOV, V.F. [translator]; LEBEDEV, V.I. [translator]

[Advances in the field of nuclear energy] Uspekhi v oblasti
yadernoi energii. Moskva, Izd-vo inostr.lit-ry, 1958. 1 v.
(Nuclear engineering) (MIRA 13:7)

20684

S/120/61/000/001/018/062
E032/K114

26. 2245

AUTHOR: Gerasimov, V.F.

TITLE: A Gas Scintillation Counter for the Recording of
Fission Fragments

PERIODICAL: Priory i tekhnika eksperimenta, 1961, ⁶No.1, pp.61-64

TEXT: A description is given of the constructional details and the characteristics of a gas-filled scintillation counter for the detection of fission fragments against a background of 3×10^6 α -particles per second. The counter has been used to measure the fission cross-section of Am^{241} for monoenergetic neutrons in the energy region 0.004-0.4 eV. A sectional drawing of the counter is shown in Fig.1. In order to reduce neutron absorption by the cylindrical body 1, the latter is made of dural and is 1.5 mm thick. Materials with good vacuum properties are employed in order to prevent contamination of the gas. The glass viewing windows 3, which transmit the scintillation to the photomultipliers, and the various flanges are made vacuum tight with the aid of teflon. The target 2, which carries the substance under investigation, is located at the centre of the Card 1/ 7

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S/120/61/000/001/018/062
E032/E114

A Gas Scintillation Counter for the Recording of Fission Fragments
chamber and is perpendicular to the photomultiplier cathodes. On the other side of the target, and parallel to it, there are screens made of thin (1 mm) polished aluminium which limit the range of the fragments and α -particles, and also serve as reflectors of light. A. Sayers and C.S. Wu (Ref.2) and R.A. Nobles (Ref.3) have shown that O_2 , H_2 , CO , and CO_2 impurities considerably reduce the light yield of inert gases. Since the present detector was designed for continuous work without refilling, a special element 4 was introduced for the periodic purification of the working gas. The active element of the purifier is a double spiral 5 made of tantalum and zirconium wires 0.55 mm in diameter and placed inside a water cooled metal body. Spectroscopically pure xenon and commercial helium were used as the working gases. The helium was purified during the filling of the chamber by means of liquid nitrogen cooled, activated charcoal. The scintillations produced by fragments in the working volume were recorded by 15-28 (1B-2V) photomultipliers which have a time resolution of about 5×10^{-9} sec and an
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S/120/61/000/001/018/062
EO32/E114

A Gas Scintillation Counter for the Recording of Fission Fragments

amplification coefficient of about 10^7 . These photomultipliers can withstand large currents, which is very important in the presence of a large background due to α -particles. In order to record both fragments simultaneously, the present author has used very thin nickel foils (0.25 mg/cm^2) carrying a layer of Am^{241} , 0.5 mg/cm^2 thick. The working gas was at a pressure of 1.5 atm. In the case of helium, the mean free path of the fragments at this pressure is about 60 mm, so that with a working gap of 20 mm between the target and the aluminium plate only a part of the range is employed. Fig.3 shows the pulse height distribution obtained for this case with a target containing about 3 mg Am^{241} . The dotted curve in this figure corresponds to α -particles in the absence of the fission fragments. The fission cross-section of Am^{241} was measured using a mechanical neutron monochromator in the beam of the WPT-1000 (IRT-1000) reactor. The fission cross-section was calculated from

$$\sigma_{\text{fission}} \sim N^{\text{Am}}/N^{\text{B}} \sqrt{E}$$

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20634

S/120/61/000/001/018/062

E032/E114

A Gas Scintillation Counter for the Recording of Fission Fragments where N_{Am} and N_D are the counting rates in the scintillation chamber and the BF_3 proportional counter, respectively. The fission cross-sections were measured to an accuracy of 10% and the energy resolution was about 40%. Fig.4 shows the fission cross-section (in barns) as a function of the energy in eV. The curve is normalised to $\sigma = 3.1$ barn at the thermal point (E.K. Hulet et al., Ref.7). Calculations of Γ_f yielded a value of about 1.1×10^{-4} eV.

Acknowledgements are expressed to M.I. Pevzner and V.S.Zenkevich for help in the experiments and discussion of the results. There are 4 figures and 9 references: 2 Soviet and 7 non-Soviet.

SUBMITTED: January 4, 1960

Card 4/7

GERASIMOV, V.F.; ZENKEVICH, V.S.

Cross section of ^{235}U absorption on monochromatic neutrons in the
energy range. Atom. energ. 13 no.4:368-370 0 '62. (MIRA 15:9)
(Uranium--Isotopes) (Neutrons)

PETROSYAN, A.E., kand. tekhn. nauk; SERGEYEV, I.V., kand. tekhn.
nauk; SHAVRINA, R.F.; GERASIMOV, V.F.

[Methodology of determining the gas concentration of workings
in mining coal without men in the pits] Metodika opredeleniia
gazoobdli'nosti vyrabotok pri bezliudnoi vyemke uгля. Moskva,
In-t gurnogo dela im. A.A.Skochinskogo, 1962. 36 p.

(MIRA 16:1)

(Mine gases)

AKSENOV, V.V., kand. tekhn. nauk, nauchnyy rukovoditel'; D'YAKONOV,
D.N., inzh.; MIRONOV, N.T., inzh.; YAKOVLEVA, L.A., red.;
GERASIMOV, V.F., tekhnolog

[Optimum parameters of a system of working steep seams with
stoping machinery and the efficiency of mechanized mining]
Optimal'nye parametry sistemy razrabotki krutykh plastov
ochistnykh agregatami i effektivnost' agregatnoi vyemki;
kratkii nauchnyi otchet. Moskva, AN SSSR, 1963. 46 p.

(MIRA 16:10)

1. Akademiya nauk SSSR. Laboratoriya podzemnoy razrabotki
ugol'nykh mestorozhdeniy.

(Donets Basin--Coal mines and mining)

MAN'KOVSKIY, G.I.; DOLGOV, O.A., inzh.; YERSHOV, N.N., kand. tekhn.
nauk; POLYAKOVA, Z.V., red.; GERASIMOV, V.F., tekhnolog

[Nomograms for calculating the freezing of rocks] Nomo-
grammy dlia raschetov zamorashivaniia gornyykh porod. Mo-
skva, Institut gornogo dela, 1963. 50 p. (MIRA 16:10)

1. Chlen-korrespondent AN SSSR (for Man'kovskiy).
(Soil freezing)

GERASIMOV, V.F.

Device for facilitating the dismantling of the rod yoke drive of
the TGM1 diesel locomotive, Elek. i tepl. tiaga 7 no.4:14 Ap
'63. (MIRA 16:5)

1. Master teplovoznogo depo Karagandinskogo metallurgicheskogo zavoda.
(Diesel locomotives--Maintenance and repair)

SAVEL'YEV, G.P., kand. tekhn. nauk; GERASIMOV, V.F., tekhnolog

[Mine signaling; annotated bibliography of publications up to 1958 inclusive] Rudnichnaia signalizatsiia; annotirovannyi bibliograficheskii ukazatel' literatury po 1958 g. vkluchitel'no. Moskva, Institut gornogo dela, 1963. 130 p. (MIRA 16:12)

(Bibliography--Electricity in mining)

(Bibliography--Signals and signaling)

8(2)

AUTHORS:

Kifer, Isaak Iosifovich, Candidate of SOV/161-58-2-4/30
Technical Sciences, Docent at the Chair of General Electrical
Engineering of the Moscow Power Engineering Institute,
Gerasimov, Viktor Georgiyevich, Candidate of Technical Sciences,
Assistant at the Chair of General Electrical Engineering of
the Moscow Power Engineering Institute

TITLE:

Device for Detecting Iron Foreign Bodies in Wooden Trunks
(Ustanovka dlya obnaruzheniya zheleznykh predmetov v brevnakh)

PERIODICAL:

Nauchnyye doklady vysshey shkoly. Elektromekhanika i
avtomatika, 1958, Nr 2, pp 34 - 39 (USSR)

ABSTRACT:

Three methods of detecting iron substances were investigated.
The best results were achieved with the method based on measur-
ing the emf that is induced in the receiving coil. The best
results refer to the sensitivity of the device and the operation
stability. The method consists in generating an alternating
field in the area where the iron object is expected to be, and
the receiving coil being placed within the field. The value of
the emf induced in this coil is changed by the iron object
entering the responsivity zone of the coil. By experiments,

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Device for Detecting Iron Foreign Bodies in Wooden Trunks SOV/161-58-2-4/30

a circuit diagram of a generator consisting of two coils for the generation of the alternating magnetic field and of a receiving coil was developed. The device is described. Tests were made at 150 and 200 cps. The laboratory tests showed that this device is capable of detecting iron bodies of a minimum weight of 5 grams in wooden trunks. The performance of the device permits the automatic detection of the low-quality wood (with iron inclusions) and to separate the usable trunks from the useless ones. There are 3 figures.

ASSOCIATION: Kafedra obshchey elektrotekhniki Moskovskogo energeticheskogo instituta (Chair of General Electrical Engineering of the Moscow Power Engineering Institute)

SUBMITTED: April 14, 1958

Card 2/2

GERASIMOV, V.G., kand. tekhn. nauk.

Electrical appliances. Politekh. obuch. no. 6:57-64 Je '58.

(Electric apparatus and appliances) (MIRA 11:6)

ANVEL'T, Moyya Yur'yevich; GERASIMOV, Viktor Grigor'yevich; ZAYDEL',
Khristina Eduardovna; KOGEN-DALIN, Vladimir Viktorovich; LYSOV,
Nikolay Yegorovich; MOROZOV, Dmitriy Nikolayevich; NITUSOV,
Yevgeniy Vasil'yevich; PANTYUSHIN, Vasil'y Sergeyevich, prof.;
PUKHLYAKOV, Yuriy Kharlampiyevich; SMIRNOV, Vladimir Aleksandro-
vich; UTKIN, Ivan Vasil'yevich; SHAROKHIN, Grigoriy Ivanovich;
KASATKIN, A.S., retsenzent, red.; BORUNOV, N.I., tekhn.red.

[Electrical engineering; general course] Elektrotehnika;
obshchii kurs. Pod red. V.S.Pantiushina. Moskva, Gos.energ.
izd-vo, 1959. 632 p. (MIRA 13:1)
(Electricity)

86647

16.9500 (1031, 1132, 1222)
6.7800 (also 1067)

S/119/60/000/011/003/009
B012/B054

AUTHORS: Varshaver, B. A. and Gerasimov, V. G.

TITLE: The Use of a Capacitive Transmitter to Control Geometrical Dimensions

PERIODICAL: Priborostroyeniye, 1960, No. 11, pp. 6 - 8

TEXT: The present paper studies a capacitive transmitter to control the diameters of conductive cylindrical bodies. For the control of cylinder diameters, it is most convenient to give the transmitter the form of a cylindrical capacitor. The body to be controlled plays the role of the cylindrical internal electrode. The error of diameter measurement primarily depends on how far it is possible to center the internal cylinder (the body to be controlled) (Fig. 1). To estimate the resolving power of the capacitive transmitter, the authors investigate the dependence of the capacity of the cylindrical capacitor both on the change in diameter and on the shift of the internal-cylinder center with respect to the external-cylinder center. They derive formulas for the relation between the increase in capacity ΔC of the cylindrical capacitor and the change in diameter Δd

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The Use of a Capacitive Transmitter to Control S/119/60/000/011/003/009
Geometrical Dimensions B012/B054

(d is the internal-cylinder diameter), as well as for the relation between ΔC and the shift b. Fig. 2 shows the relation (calculated from these formulas) $\Delta C/C_0$ in % of m at $q = 0.1$ and $q = 0.2$ in the form of a diagram.

$m = d/D$, $q = \frac{b}{D/2}$, and C_0 is the capacity of the cylindrical capacitor.

This diagram shows that the effect of b must be considered for a capacitive transmitter. At $m < 0.3$, $\Delta C/C_0$ is approximately constant. At $m > 0.3$, the

effect of the shift increases. The most frequent values of m lie between 0.05 and 0.3. The sensitivity of the capacitive transmitter is estimated from the relative shift $\Delta f/f_0$ of the resonant frequency of the oscillation

circuit (per unit deviation of the diameter to be controlled). The authors use a formula from the paper (Ref. 5): $\Delta C/C_0 \approx 2\Delta f/f_0$, where $C = C_0 + C^*$,

and C^* is the capacity acting in parallel to C_0 . It is shown that the

sensitivity is the higher, the smaller C^* becomes. The resonant frequency of the oscillation circuit is to be selected sufficiently high. The authors recommend $f_0 > (2 \div 3)$ megacycles per second. Finally, they derive

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The Use of a Capacitive Transmitter to Control S/119/60/000/011/003/009
Geometrical Dimensions B012/B054

the principal formula for calculations:

$$1 \approx 1.8 \frac{C^*}{Q} \cdot \frac{\ln n \nu \cdot \ln n}{\ln n \nu - \ln n}$$

$$Q = f_0 / \Delta f_0, \nu = d_{\max} / d_{\min}, n = D / d_{\max}$$

This formula indicates the relationship between the geometrical dimensions of the transmitter and the oscillation-circuit data, the capacity of the transmitter being an element of this oscillation circuit. The authors give recommendations for the use of this formula. There are 2 figures and 5 Soviet references.

Card 3/12

XX

GERASIMOV, V.G.; KHLBNIKOV, V.G.; SHKARLET, Yu.M.

Device for contactless measurement of the diameter of a copper
wire. Izv. AN Kir. SSR. Ser. est. i tekhn. nauk 4 no.8:41-50
'62. (MIRA 16:6)

(Electric wire--Measurement)

GERASIMOV, V.G.

Theory of the measurement of ferromagnetic cylindrical specimens
by the method of eddy currents. Zav. lab. 28 no.9:1094-1098 '62.
(MIRA 16:6)

1. Moskovskiy energeticheskiy institut.
(Magnetic materials--Testing)
(Electric currents, Eddy)

GERASIMOV, V.G., inzh.; KALITEYEVSKIY, R.Ye., kand. tekhn. nauk

Overall mechanization of board trimming and automatic control of
trimming units. Mekh. i avtom. proizvod. 17 no.12:11-15 D'63.
(MIRA 17:2)

GERASIMOV, V.G.; SHKARLET, Yu.M.; CHERNOV, L.A.

Apparatus for the separate control of the diameter and permeability
of ferromagnetic cylinders. Zav.lab. 29 no.4:497-499 '63.
(MIRA 16:5)

1. Moskovskiy energeticheskiy institut.
(Magnetic materials)

GERASIMOV, V.O.; CHERNOV, I.A.

Theoretical and experimental investigation of certain transducer
types. Defektoskopiia no. 5:47-57 '65 (MIRA 19:1)

1. Moskovskiy energeticheskii institut.

GERASIMOV, V.G.; KHALIKOVA, G.F.

Underground waters in the southeastern Tatar A.S.S.R. Trudy
VNIGNI no.20:112-116 '59. (MIRA 13:6)
(Tatar A.S.S.R.—Water, Underground)

GERASIMOV, V.G.; YEFIMOV, L.I., inzh.; KEL'TSEV, V.V., kand.tekhn.nauk;
MAKAROV, K.M., inzh.; PODKOPAYEV, V.F., inzh.

Steam conversion of natural gas in a water gas producer. Masl.-
zhir. prom. 27 no.9:31-34 S '61. (MIRA 14:11)

1. Moskovskiy gidrozavod (for Gerasimov). 2. Vsesoyuznyy nauchno-
issledovatel'skiy institut prirodnogo gaza (for Yefimov, Kel'tsev,
Makarov, Podkopayev).

(Gas, Natural) (Gas producers)

GERASIMOV, V.G.

Hydrogeological characteristics of the Devonian and Carboniferous
sediments of the Menzelinsk-Aktanysh region in the Tatar A.S.S.R.
Geol. nefti i gaza 8 no.4:39-43 Ap '64. (MIRA 17:6)

1. Tatarskiy neftyanoy nauchno-issledovatel'skiy institut.

GERASIMOV, V.G.

Particular analytical considerations in connection with the interpretation
of hydrogeological observation results in the water analysis of soil.
hydrological data 8 no. 7: 3-4, 1971, 1972.

(1) (1) (1) (1)

GERASIMOV, V.G., inst ; ABKIN, A.D., kand.tekhn.nauk

Role and objectives of design organizations of the Ministry
for Construction of Heavy Industry Establishments in the
development of progressive building technology. Stroi.prom.
27 no.3:1-3 № 49. (MIRA 13:2)

1. Glavstroyproyekt.
(Construction industry)

ANNINSKIY, Boris Aleksandrovich, kand. tekhn. nauk, dots.;
SHARANOVICH, Petr Antonovich, inzh.; BARTOSH, N.T.,
inzh., retsenzent; GERASIMOV, V.G., inzh., red.;
VASIL'YEVA, V.P., red. izd-va; PETERSON, M.M., tekhn.
red.

[Overall mechanization of the unloading of bulk materials;
machinery and devices for basic and auxiliary work] Kom-
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