"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

L 22440-65
ACCESSION NR: AP5000485

Orig. art. has: 1 formula

ASSOCIATION: Institut neftekhimicheskogo sinteza im. A. V. Topchieva Akademii nauk SSSR (Institute of Petrochemical Synthesis, Academy of Sciences SSSR)

SUBMITTED: 12Mar64 ENCL: 00 SUB CODE: GC, OC

NR REFSOV : 002 OTHER: 001

Card 2/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

L 34857-65 EWG(j)/EWT(m)/EPF(c)/EWP(j)/T/EWA(h)/EWA(1) Pc-4/Pr-4/Peb RM

ACCESSION NR: AP5007200 S/0286/65/000/003/0064/0064

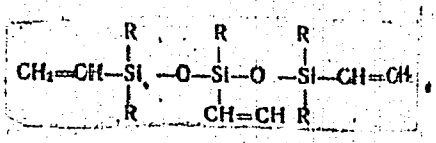
AUTHOR: Gusel'nikov, L. Ye.; Nametkin, N. S.; Polak, L. S.; Chernysheva, T. I.

TITLE: Polymerization method for organosilicon compounds. Class 39, No. 168023

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 3, 1965, 64

TOPIC TAGS: organosilicon compound, siloxane, polysiloxane trivinyltrisiloxane, polymer, soluble polymer

ABSTRACT: An Author Certificate has been issued for a polymerization method for organosilicon compounds. This method involves irradiation of the silicon-containing monomer with ionizing radiation, e.g., gamma radiation from a Co^{60} source. In order to obtain a soluble polymer, trivinyltrisiloxane monomers are used which have the general formula:



$$CH_2{=}CH{-}\underset{R}{\overset{R}{Si}}{-}O{-}\underset{CH{=}CH}{\overset{R}{Si}}{-}O{-}\overset{R}{Si}{-}CH{=}CH_2$$

Card 1/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

L 34857-65

ACCESSION NR: AP5007200

In order to raise the soluble polymer yield, the monomer is irradiated in a solvent such as benzene at 0—100C, (0.2—1.0) 10^8 r, and 10^2—10^3 r/sec. Orig. art. has: 1 formula. [SM]

ASSOCIATION: Institut neftekhimicheskogo sinteza AN SSSR (Institute of Petrochemical Synthesis, AN SSSR)

SUBMITTED: 28Aug63 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 000 OTHER: 000 ATD PRESS: 3211

Card 2/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]; RAZ[illegible]OVSKAYA, E.A.

Relation between the molecular weight and intrinsic [illegible] of some organosilicon polymers. Vysokom. soed. 7 no.5:860-865 My '65. (MIRA 18:9)

1. Institut [illegible].

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

L 64555-65 EWT(m)/EPF(c)/EWP(j)/T RM

ACCESSION NR: AP5020969 UR/0190/65/007/008/1400/1405

542.64+66.095.26+678.84

AUTHOR: Gusel'nikov, L. Ye.; Yegorov, Yu. P.; Nametkin, N. S.; Polak, L. S. Chernysheva, T. I.

TITLE: Synthesis and polymerization of certain polyfunctional vinylsiloxanes

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 8, 1965, 1400-1405

TOPIC TAGS: vinylsiloxane, polymerization, cyclopolymerization, organic synthetic process

ABSTRACT: The possibility of obtaining linear high molecular weight polymers by polymerizing polyfunctional vinylsiloxanes was investigated. Tetra- and hexafunctional monomers were synthesized by hydrolysis of the appropriate vinylchlor(ethoxy)silane and cohydrolysis of mono-and di-functional vinylethoxysilanes. 1,3-Divinyl-1,1,3,3-tetramethyldisiloxane, 1,3-divinyl-1,3-dimethyl-1,3-diphenyldisiloxane and 1,3,5-trivinyl-1,1,3,5,5-pentamethyltrisiloxane were synthesized and then subjected to polymerization initiated by γ-irradiation or by tertiary butyl peroxide. The polymers produced by either method were essentially the same. Soluble high molecular weight polymers were produced, but the

Card 1/2

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

L 64155-65
ACCESSION NR: AP5020969

3

polymerization yield was reduced as functionality of the monomer increased. IR spectra of the monomers and polymers and the decrease in residual unsaturation led to the conclusion that cyclopolymerization took place in addition to polymerization at one vinyl group of the monomer. Orig. art. has: 3 figures, 1 table, and 2 equations

ASSOCIATION: Institut neftekhimicheskogo sinteza AN SSSR (Institute of Petrochemical Synthesis, AN SSSR)

44,55

SUBMITTED: 17Sep64 ENCL: 00 SUB CODE: OC, GC

NR REF SOV: 004 OTHER: 013

Card 2/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

ACC NR: AP6010121 (A) SOURCE CODE: UR/0190/66/008/003/0553/0556

AUTHOR: Konobeyevskiy, K. S.; Gusel'nikov, L. Ye.; Nametkin, N. S.; Polak, L. S.; Chernysheva, T. I.

ORG: Institute of Petrochemical Synthesis, AN SSSR (Institut neftekhimicheskogo sinteza AN SSSR)

52

B

TITLE: Investigation of radiation polymerization of polyfunctional vinyl-siloxanes

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 3, 1966, 553-556

TOPIC TAGS: radiation polymerization, vinyl siloxane, siloxane, monomer, polymer, styrene, graft copolymer, vinyl plastic

ABSTRACT: The paper deals with radiolysis, polymerization, and the effect of Gamma rays on monomeric polyfunctional vinyl siloxanes. The existence of stabilized free radicals confirms its microgel nature. The possibility of preparing graft copolymers is demonstrated by initiating styrene polymerization with microgel of 1, 3, 5-trivinyl-1, 3, 5-pentamethyltrisiloxane. Orig. art. has: 3 figures and 1 table. [Based on authors' abstract.] [NT]

SUB CODE: 07/ SUBM DATE: 24Apr65/ ORIG REF: 002/ OTH REF: 006/

Card 1/1 BLG UDC: 66.095.26+678.745

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

L 22746-66 EWT(m)/EPF(n)-2/EWP(j)/T/EWA(h)/EWA(1) IJP(c) GG/RM

ACC NR: AP6010122 (A) SOURCE CODE: UR/0190/66/008/003/0557/0559

AUTHOR: Boken, Yu.; Gusel'nikov, L. Ye.; Nametkin, N. S.; Polak, L. S.; Chernysheva, T. I.

ORG: Institute of Petrochemical Synthesis, Academy of Sciences SSSR (Institut neftekhimicheskogo sinteza AN SSSR)

66

B

TITLE: Radiation-induced polymerization of polyfunctional allylsilanes

SOURCE: Vysokomolekulyarnyye soyedinediya, v. 8, no. 3, 1966, 557-559

TOPIC TAGS: radiation polymerization, radiation effect, temperature effect, conversion rate, monomer, silane, allylsilane

ABSTRACT: An experimental study of the effect of solvents, dose rate, and temperature on radiation-induced polymerization of diethyldiallylsilanes (DEDAS) was made. The dependence of shrinkage of the system on the radiation dose, in the process of radiation-induced polymerization of various diallylsilanes, was determined by the dilatometric rate of 2.5 ml and the scale value of 0.01 ml at 25C, and the dose rate of 350 rad/sec. The shrinkage of the DEDAS system at the dose rate of 700 r/sec and at 50C was determined by the dilatometer scale rate of 0.005 ml. The effect of solvents was determined by comparing the yield of a polymer in the presence of solvents to the yield of a polymer in bulk polymerization, using the same dose of radiation. The dose rate and activation energy were plotted against the monomer con-

Card 1/2 UDC: 66.095.26+678.745

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

L 22746-66

ACC NR: AP6010122

version rate in the initial stage of the polymerization (up to a 15% yield). Orig. art. has: 3 figures and 1 formula. [Based on author's abstract.] [AM]

SUB CODE: 07, 20/ SUBM DATE: 24Apr65/ ORIG REF: 002/ OTH REF: 005/

Card 2/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

L 31884-66 EWT(m)/EWP(j)/T RM/WW

ACC NR: AP6012538 SOURCE CODE: UR/0062/66/000/003/0584/0585

42

AUTHOR: Nametkin, N. S.; Vdovin, V. M.; Gusel'nikov, L. Ye.; Zav'yalov, V. I. 41 B

ORG: Institute of Petrochemical Synthesis im. A. V. Topchiyeva, Academy of Sciences SSSR (Institut neftekhimicheskogo sinteza, Akademii nauk SSSR)

TITLE: Formation of 1,3-disilacyclobutanes in protolytic condensation reaction of 1-silacyclobutanes

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 3, 1966, 584-585

TOPIC TAGS: organic synthesis, silicon compound, condensation reaction

ABSTRACT: 1,1-dimethyl-1-silacyclobutane was passed in a stream of helium through a quartz tube, 14 mm in diameter and 200 mm in length, heated to 600°C at the rate of 3 g/hr. The reaction mixture consisted of gaseous and liquid products. Gas-liquid chromatography and IR spectroscopy showed the gaseous products to consist of ~ 95% ethylene and ~ 5% methane. As a result of separation by distillation, it was established that the condensate contains unreacted monosilacyclobutane and 1,1,3,3-tetramethyl-1,3-disilacyclobutane, produced with ~ 55% yield. The disilacyclobutane

Card 1/2 UDC: 546.287 + 542.954

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

L 31884-66

ACC NR: AP6012538

obtained has the following characteristics: b.p. 118-120°C, n_D^{20} 1,4411; d_4^{20} 0.7988, m. wt. 139. 1,1-dichloro-1-silacyclobutane was similarly converted to crystalline 1,1,3,3-tetrachloro-1,3-disilacyclobutane at 680°C with high yield. The gaseous product consisted of only ethylene.

SUB CODE: 07/ SUBM DATE: 28Dec65/ ORIG REF: 001/ OTH REF: 000

Card 2/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

ACCESSION NR: AT 4007054 S/2598/63/000/010/0307/0316

AUTHOR: Livanov, V. A.; Bukhanova, A. A.; Kolachev, B. A.; Gusel'nikov, N. Ya.

TITLE: Hydrogen embrittlement of titanium alloys

SOURCE: AN SSSR. Institut metallurgii. Titan i yego splavy*, no. 10, 1963. Issledovaniya titanovy*kh splavov, 307-316

TOPIC TAGS: titanium alloy, VT-3-1 titanium alloy, titanium alloy embrittlement, titanium alloy hydrogen embrittlement, hydrogen embrittlement, VT-3-1 alloy embrittlement, VT-4 titanium alloy, VT-5 titanium alloy, VT-10 titanium alloy

ABSTRACT: It has been stated that hydrogen exerts a detrimental effect on the mechanical properties of titanium and its alloys. Introduction of small quantities of hydrogen into titanium and its alpha alloys drastically reduces their impact strength. Unlike alpha alloys, the alpha-beta alloys do not exhibit hydrogen embrittlement during impact ductility tests, but only in tests at small strain velocities. Hydrogen embrittlement of the alpha-beta alloy VT-3-1 and of the alpha alloys VT-4, VT-5, and VT-10 was studied by the authors at various hydrogen concentrations (0.002 — 0.05%) and strain velocities (0.1 — 4 mm/min), and after different heat and natural aging treatments. The mechanical

Card 1/3

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

ACCESSION NR: AT 4007054

properties measured in the tests conducted by the authors are the ultimate tensile strength, yield strength, specific elongation, and contraction of cross-sectional area of the test specimen. It was concluded that: (1) Alpha-beta alloys exhibit hydrogen embrittlement at low strain velocities and this embrittlement is assisted by low temperature and by the presence of notches. (2) A certain minimum hydrogen content is required for the development of alpha-beta alloy embrittlement. After standard heat treatment alloy VT-3-1 exhibits hydrogen embrittlement at a hydrogen content exceeding 0.03%; after quenching, however, alloy VT-3-1 shows hydrogen embrittlement at 0.01%. This embrittlement is accompanied by a reduction of plasticity and an increase of tensile strength. The decrease of plasticity appears, not immediately after quenching, but in the process of natural aging after quenching. (3) Titanium-base alpha alloys VT-4, VT-5, and VT-10 like the alpha-beta alloys, exhibit hydrogen embrittlement at low strain velocities. This can be explained by a regrouping of hydrogen under the influence of stresses. Consequently, it is necessary to revise the existing mechanism explaining the brittle fracture of alpha-beta alloys caused by hydrogen. It has been suggested that hydrogen embrittlement of alpha-beta alloys is caused by processes developing in both alpha and beta phases: hydrogen diffuses toward microdefects or grain boundaries where a formation of microvolumes enriched with hydrogen takes place; at hydrogen concentra-

Card 2/3

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

ACCESSION NR: AT 4007054

tions above a certain limit microfissures begin to develop in the microvolumes and lead to the failure of a manufactured item. Orig. art. has: 7 figures and 1 table.

ASSOCIATION: Institut metallurgii AN SSSR (Metallurgical Institute AN SSSR)

SUBMITTED: 00 DATE ACQ: 27Dec63 ENCL: 00

SUB CODE: MM NO REF SOV: 005 OTHER: 004

Card 3/3

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

L 61833-65 EWT(m)/EWP(w)/EPF(c)/EWA(d)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c)
Pf-4/Pr-4 IJP(c) MJW/JD/HW/EM

ACCESSION NR: AP5016350 UR/0149/65/000/002/0131/0135
669.295

AUTHOR: Kolachev, B. A.; Livanov, V. A.; Bukhanova, A. A.; Guselnikov, N. Ya.

TITLE: Effect of cooling rate on the tendency of α titanium alloys toward hydrogen brittleness

SOURCE: IVUZ. Tsvetnaya metallurgiya, no. 2, 1965, 131-135, and insert facing p. 134

TOPIC TAGS: titanium alloy, hydrogen brittleness, tensile stress, metal deformation

ABSTRACT: In order to study the hydrogen brittleness of α alloys, the effect of hydrogen on the structure and properties of VT5 and VT5-1 alloys (after furnace cooling in air and quenching in water) was investigated. Contrary to the prevailing view, it was shown that these alloys, like (α + β)-alloys, tend to display hydrogen brittleness under certain conditions, when the cross-bars of the tensile impact testing machine move at slow rates. This brittleness develops to the greatest extent in quenched α titanium alloys. The approach used in determining the hydrogen brittleness in these alloys is therefore the same as that used for (α + β)-alloys.

Card 1/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

L 61833-65

ACCESSION NR: AP5016350

3

In the case of annealed α alloys, the mechanical properties should be determined by tests involving high deformation rates, in particular, impact tests; in the case of quenched α alloys, the cross-bars of the machine should be displaced at slow rates. The hydrogen brittleness of quenched α titanium alloys which develops at slow deformation rates is due to the decomposition of supersaturated solutions of hydrogen in the α phase under the influence of the applied stresses. The hydrides separating from the supersaturated solutions under the influence of these stresses are preferentially arranged perpendicular to the direction of the tensile stresses, causing brittle failure. Orig. art. has: 4 figures.

ASSOCIATION: Kafedra metallovedeniya i termicheskoy obrabotki, Moskovskiy aviatsionnyy tekhnologicheskiy institut (Department of Physical Metallurgy and Heat Treatment, Moscow Aviation Technological Institute)

SUBMITTED: 03Jan64 ENCL: 00 SUB CODE: MM, TD

NO REF SOV: 003 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

L 58361-65 EWT(m)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/EWA(c) IJP(c) MJW/JD
ACCESSION NR: AP5013151 UR/0129/65/000/005/0009/0015

AUTHOR: Kolachev, B. A.; Livanov, V. A.; Bukhanova, A. A.; Gusel'nikov, N. Ya.

TITLE: The effect of hydrogen on the mechanical properties of quenched Ti alloys

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 5, 1965, 9-15

TOPIC TAGS: titanium alloy, metal mechanical property

ABSTRACT: The structure and properties of VT3-1, VT8, and VT6 alloys were studied with respect to the effects of hydrogen. After processing, rods of 60-70 mm diameter were heat treated in various ways to retain or to remove hydrogen. The removal was done by heating in a vacuum furnace at 900°C for 6 hrs, and furnace cooling. The properties were then compared to samples annealed by standard procedures. Vacuum annealed samples had higher ductilities and retained approximately the same strength levels. The effects of hydrogen were related to the mechanical properties of the Ti alloys, both after quenching, and after quenching and room temperature aging. In general, strength increased and ductility diminished with increased hydrogen content (0.001 to 0.04% H). The aging treatment offset the curves of strength and ductility, with ductility gradually diminishing with increased aging

Card 1/2

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

L 58361-65
ACCESSION NR: AP5013151

times. Tests were run on VT8 alloy at high and low speeds of deformation. The mechanical properties did not change significantly, even at high contents of hydrogen. Microstructural analysis of all the alloys in the quenched condition shows the effect of increasing hydrogen contents. In general, increasing the H level resulted in an increased amount of martensitic phase in the β-matrix. No changes were noticed in the structures after prolonged room temperature aging.
Orig. art. has: 2 figures, 4 tables.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NO REF SOV: 000 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

L 5031-66 EWT(1)/EWT(m)/EWA(d)/EWP(t)/EWP(z)/EWP(b) IJP(c) MJW/JD

ACC NR: AP5022342 SOURCE CODE: UR/0149/65/000/003/0131/0135

AUTHOR: Kolachev, B. A.; Livanov, V. A.; Bukhanova, A. A.; Gusel'nikov, N. Ya. 44,55 44,55 44,55 44,55

ORG: Moscow Aviation Technological Institute (Moskovskiy aviatsionnyy tekhnologicheskiy Institut) 44,55

TITLE: Effect of hydrogen on the structure and properties of VT15 alloy

SOURCE: IVUZ. Tsvetnaya metallurgiya, no. 3, 1965, 131-135

TOPIC TAGS: alloy, titanium alloy, aluminum containing alloy, molybdenum containing alloy, chromium containing alloy, hydrogen containing alloy, alloy structure, alloy property/VT15 alloy

ABSTRACT: The effect of hydrogen on the structure and properties of VT15 β-aluminum alloy (3.7% Al, 7.35% Mo, 10.6% Cr, 0.11% Fe, 0.04% Si, 0.03%C, and 0.12% O_2) has been investigated. Forged bars 14 x 14 x 70 mm of twice vacuum-arc melted alloy were vacuum annealed at 900C for 6 hr, impregnated with hydrogen, annealed at 780C for 1 hr, and water quenched. Some bars after quenching were aged at 480C for up to 24 hr. It was found that the tensile and yield strengths of as-quenched alloy increased somewhat as the hydrogen content increased from 0.1 to 0.2%; the elongation and reduction of area dropped, however, the latter from 65.8% at 0.002% hydrogen to 53.4% at 0.2% hydrogen. At a

Card 1/2 UDC: 669.295

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

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L 5031-66

ACC NR: AP5022342

deformation rate of 4 mm/min, the tensile and yield strengths were higher than those obtained at a deformation rate of 0.4 mm/min at all hydrogen contents. The tensile strength of aged alloy is not affected by hydrogen at contents up to 0.05%, but drops with a further increase in hydrogen: at hydrogen contents of 0.002, 0.05, and 0.1% the tensile strength was 168, 169, and 152 kg/mm^2. Elongation and reduction of area increase from 3 and 10% at 0.002% hydrogen to 7 and 13% at 0.1% hydrogen. The structure of as-quenched alloy consisted of only the β-phase at all hydrogen contents. In aged alloy, the amount of precipitated α-phase decreases with increasing hydrogen content. Thus, hydrogen at contents up to 0.2% does not cause an embrittlement of heat-treated VT15 alloy at room temperature. It increases the stability of β-phase and reduces the rate of β-phase decomposition and the rate of α-phase formation. Orig. art. has: 4 figures. [AZ]

SUB CODE: MM/ SUBM DATE: 03Jan64/ ORIG REF: 004/ OTH REF: 001/

ATD PRESS: 4132

BC

Card 2/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

L 38552-66 EWT(m)/EWP(k)/T/EWP(w)/EWP(t)/ETI IJP(c) GD/JD/HW
ACC NR: AT6012393 SOURCE CODE: UR/0000/65/000/000/0212/0220

AUTHORS: Kolachev, B. A.; Livanov, V. A.; Gusel'nikov, N. Ya.; Bukhanova, A. A.

ORG: none

TITLE: On certain general principles of the occurrence of hydrogen brittleness in alloys VT3-1 and VT15

SOURCE: Soveshchaniye po metallokhimii, metallovedeniyu i primeneniyu titana i yego splavov, 6th. Novyye issledovaniya titanovykh splavov (New research on titanium alloys); trudy soveshchaniya. Moscow, Izd-vo Nauka, 1965, 212-220

TOPIC TAGS: PHASE COMPOSITION crack propagation, titanium containing alloy, alloy, martensite alloy, material deformation, hydrogen embrittlement / VT3-1 martensite alloy, VT15 alloy

ABSTRACT: A review is made of certain principles of hydrogen brittleness in alloys VT3-1 and VT15. The brittleness of (α + β)-titanium alloy VT3-1 is more intense at temperatures below room temperature and at low rates of deformation. β-titanium alloys at lower-than-room temperatures also tend toward hydrogen brittleness. The temperature of the occurrence of hydrogen brittleness decreases with increasing hydrogen content. Hydrogen brittleness of alloy VT15 occurs only at low rates of deformation in a narrow temperature interval from -30 to 10C. The brittleness of (α + β)-titanium alloys depends upon processes occurring in the β-phase during

Card 1/2

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

I. 38552-66

ACC NR: AT6012393

3

plastic deformation. Since the β-phase content in alloy VT3-1 is, after isothermal annealing, similar to that in alloy VT15, the hydrogen brittleness in each develops in the same pattern under identical conditions of mechanical testing. The dislocation theory satisfactorily describes the brittleness phenomenon. The dislocations transport hydrogen to the edges of the grain, thus causing segregations of hydrogen leading to formation and propagation of cracks. The microscopic nature of crack formation and how hydrogen segregation serves to prevent plastic deformation at the tip of cracks are discussed. Orig. art. has: 8 figures.

SUB CODE: 11/ SUBM DATE: 02Dec65/ ORIG REF: 008/ OTH REF: 010

Card 2/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

ACC NR: AT6036418 SOURCE CODE: UR/2536/66/000/066/0096/0102

AUTHOR: Kolachev, B. A. (Candidate of technical sciences); Livanov, V. A. (Doctor of technical sciences, Professor); Bukhanova, A. A. (Candidate of technical sciences); Gusel'nikov, N. Ya. (Engineer)

ORG: none

TITLE: On the abrupt decrease in the plasticity of titanium at high temperatures

SOURCE: Moscow. Aviatsionnyy tekhnologicheskiy institut. Trudy, no. 66, 1966. Struktura i svoystva aviatsionnykh staley i splavov (Structure and properties of aircraft steels and alloys), 96-102

TOPIC TAGS: titanium, hydrogen, plasticity, brittleness, strain

ABSTRACT: According to a previous hypothesis by the first three of the authors (B. A. Kolachev et al. Issledovaniye titana i yego splavov, Izd-vo AN SSSR, 1963) the reason for the hydrogen brittleness of a number of metals is that the hydrogen-atom atmospheres forming at the dislocations are entrained by the latter in the presence of low straining rates, so that the hydrogen concentration at the grain boundaries or at other obstacles at which the disloca-

Card 1/3 UDC: 669.017:669.295

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

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ACC NR: AT6036418

tions pile up becomes sufficient for a sharp acceleration of the development and propagation of cracks leading to fracture of the metal. Now the authors show that the hydrogen brittleness developing in the presence of low straining rates manifests itself within a temperature range (300-550°C) which corresponds to a specific value (10^{-5}-10^{-6} cm^2/sec) of the diffusion coefficient of hydrogen. In this connection, the authors investigate the effect of hydrogen on the mechanical properties of regular (0.002% H_2) and vacuum-annealed (0.02 and 0.05% H_2) rods of technically pure Ti subjected to tensile strength tests at normal (4 mm/min) and low (0.4 mm/ /min) straining rates. Findings: the minimum elongation per unit length for Ti in the presence of normal straining rate was recorded at 500°C (Fig. 1) while in the presence of the below-nor normal straining rate (0.4 mm/min) the mechanical properties of the Ti with 0.002% H_2 increase up to a point with increasing temperature whereas those of the Ti with 0.0% H_2 steadily decrease with increasing temperature. These experiments were organized on the assumption that the sharp decrease in the plasticity of Ti at high temperatures is due to hydrogen alone. The experiments revelaed, however, that this sharp decrease in plasticity within the temperature range of 300-550°C also occurs in technically pure Ti (0.002% H_2) -- not as distinctly as in the Ti containing 0.05% H_2 but still distinctly enough. This sharp decrease is apparently due to the presence of O_2 and N_2 and resembles similar phenomena discovered

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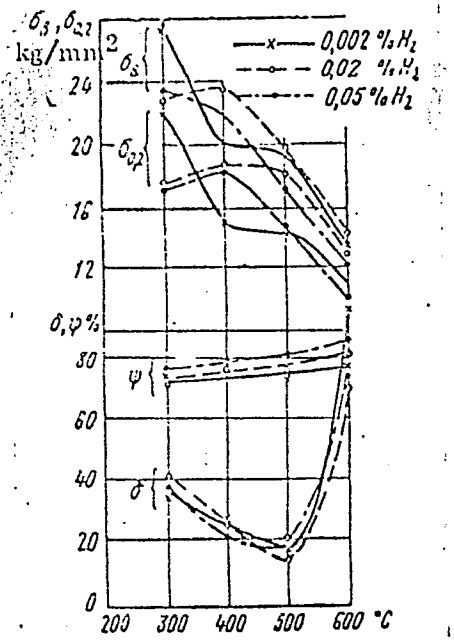

Fig. 1. Effect of temperature on mechanical properties of Ti containing various proportions of H_2 in the presence of a low straining rate.

in Nb, V and other metals. In the presence of hydrogen (0.05% H_2) the decrease in elongation at 400-500°C at low straining rates is compounded by the hydrogen brittleness due to the transport of hydrogen toward the grain boundaries. The effect of hydrogen on the properties of titanium within this temperature range is similar to the effect of strain aging. Orig. art. has: 5 figures.

SUB CODE: 11 / SUBM DATE: none
ORIG REF: 003/ OTH REF: 002

Card 3/3

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

ACC NR: AP7002867 SOURCE CODE: UR/0149/66/000/006/0142/0145

AUTHOR: Kolachev, B.A.; Livanov, V.A.; Bukhanova, A.A.; Gusel'nikov, N. Ya.; Lyasotskaya, V.S.

ORG: Department of Metal Science and Technology of Thermal Processing of Metals, Moscow Aviation Technology Institute (Moskovskiy aviatsionnyy tekhnologicheskiy institut, Kafedra metallovedeniya i tekhnologii termicheskoy obrabotki metallov)

TITLE: Effect of hydrogen on the structure and properties of variously heat-treated VT3-1 alloy

SOURCE: IVUZ. Tsvetnaya metallurgiya, no. 6, 1966, 142-145

TOPIC TAGS: hydrogen embrittlement, ductility, deformation rate, titanium alloy, ~~hydrogen embrittlement, titanium alloy,~~ alloy strength, ~~alloy brittleness,~~ alloy structure/VT3-1 alloy, ~~alloy ductility~~

ABSTRACT: Hydrogen-induced embrittlement of VT3-1 and other α + β titanium alloys depends not only on the hydrogen content, but to a considerable extent on the content of other impurities, heat treatment, grain size and the type and conditions of deformation. To determine the effect of the various factors, several series of specimens of modified (with increased Al, Fe and Si content) VT3-1 [U.S. Ti 155A] titanium alloy with a hydrogen content of up to 0.1 wt.% were annealed at 800C and slowly cooled, or annealed at 840 or 970C, quenched, aged at 550C for 0.5—3 hr and then

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ACC NR: AP7002867

subjected to tension tests at a deformation rate of 0.4—4.0 mm/min. In the alloy annealed and slowly cooled, a hydrogen content of up to 0.1% had no significant effect on the ductility of the alloy at a deformation rate as low as 0.4 mm/min, while in the as-quenched alloy deformed at the same rate, a substantial decrease in the reduction of area occurred at a hydrogen content of 0.003% H_2. However, at a strain rate of 4 mm/min, no noticeable change in the reduction of area was observed in as-quenched alloys containing up to 0.05% H_2. The brittleness of as-quenched alloy increased with increasing annealing temperature, since this decreased the amount of residual α-phase and increased the amount of the α-phase. An especially strong effect of hydrogen was observed in aged VT3-1 alloy. Short (0.5 hr) aging at 550C significantly increased the tensile and yield strengths of the alloy containing 0.03 and 0.05% hydrogen and sharply decreased the elongation and reduction of area. The alloy strength decreased and ductility increased with increasing aging time from 0.5 to 3 hr, but changed only slightly with still longer aging.

[WA-88]
[MS]

SUB CODE: 11, 13/ SUBM DATE: 27Apr65/ ORIG REF: 005/ OTH REF: 001
ATD PRESS: 5114

Card 2/2

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

L 11118-63 EWT(1)/BDS AFFTC/ASD

ACCESSION NR: AP3003699 S/0048/63/027/007/0932/0936

AUTHOR: Berkovskiy, A. G.; Gusel'nikov, V. G.; Shapovalov, F. Ye. 53

TITLE: Photomultipliers with toroidal emitters [XIII yezhegodnoye soveshchaniye po yadernoy spektroskopii (XIII Annual Conference on Nuclear Spectroscopy), held in Kiev from 25 January to 2 February 1963]

SOURCE: AN SSSR. Izv. Seriya fizicheskaya, v. 27, no. 7, 1963, 932-936

TOPIC TAGS: multiplier, secondary emission, toroidal emitter

ABSTRACT: A series of photomultipliers utilizing a toroidal multiplying system with 14 amplification stages has been developed. The multiplying system contains no accelerating grids, which results (at a stage voltage of 250 v) in a maximum secondary-electron transit-time spread of 0.95 nanosec from external to internal emitter and 0.81 nanosec from internal to external. Photomultipliers with three sizes of cathode, 50, 100, and 150 mm in diameter, were constructed; the cathodes were made of an Sb-Cs alloy and the emitters of an Al-Mg-Si alloy. Experiments showed that the plate sensitivity of the instruments with 50-mm cathodes is greater than that of the other two types; the gain of the former is approximately 10^9, while that of the latter is approximately 10^8. Toroidal

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L 11118-63

ACCESSION NR: AP3003699

multiplying systems are said to have the following advantages over other systems: 1) larger area of the input aperture of the diaphragm, which facilitates photoelectron collection on the first emitter; 2) larger working emitter surface than other types of devices of the same size; 3) absence of sharp edges, which at higher power-supply voltages lead to the occurrence of an autoelectronic component of the dark current; and 4) positioning of all the bracketing insulators, which are one possible cause of unstable photomultiplier operation, on the outside of the transit space. Orig. art. has: 5 figures and 2 tables.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 02Aug63 ENCL: 00

SUB CODE: GE,SD NO REF SOV: 003 OTHER: 001

Card 2/2

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

L 32002-65 EWT(1)/EEC(b)-2/EWA(h) Pab

ACCESSION NR: AP5005966 S/0048/65/029/002/0331/0333

AUTHOR: Berkovskiy, A.G.; Gusel'nikov, V.G.; Dukor, S.G.

15
B

TITLE: Characteristics of photomultipliers with toroidal type dynodes and 50 mm cathode diameter [Report, 14th Annual Conference on Nuclear Spectroscopy held in Tbilisi, 14-22 Feb 1964]

25

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.29, no.2, 1965, 331-333

TOPIC TAGS: photomultiplier characteristic, rise time

ABSTRACT: A series of photomultipliers, employing a toroidal-type multiplier system is being prepared and the tubes will be issued in three types: FEU-30, FEU-63, and FEU-65, with cathode diameters of 5, 10, and 15 cm, respectively. The design, advantages and static characteristics of these tubes have been discussed elsewhere (A.G.Berkovskiy, V.G.Gusel'nikov, and F.Ye.Shapovalov, Izv.AN SSSR, Ser.fiz.27, 932, 1963). The dynamic characteristics of the FEU-30 are discussed in the present paper. The tested tubes were supplied from an adjustable voltage divider and the electrode potentials were adjusted for maximum output pulse amplitude. This same adjustment also provided the shortest rise time. The last three dynode pairs were

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ACCESSION NR: AP5005966

shunted with capacitors and 47 ohm resistors were employed in the anode and last dynode leads to suppress parasitics. The full working area of the photocathode was illuminated by flashes from a spark source. Under these conditions 1.5 amp pulses with a 2.5 nanosec rise time and 7 nanosec duration were obtained in a 75-ohm load resistor. The maximum pulse amplitude for linear operation was 1.2 amp. When tested without capacitors shunting the last dynodes, the tubes showed a complete absence of parasitic oscillations, even without suppressor resistors, but the maximum pulse amplitude was only 150 mamp. The FEU-30 has a somewhat longer rise time and pulse duration than the FEU-36, but it has the advantages of a larger photocathode, higher gain (up to 10^9), greater pulse amplitude, and better signal-to-noise ratio; and it is less critical in regard to adjustment. The photocathode sensitivities of 147 sample FEU-30 photomultiplier tubes ranged from 40 to 140 μamp/lm; the distribution was sharply peaked at 55 μamp/lm. Orig. art. has: 4 figures. [02]

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: OP, EC

NO REF SOV: 003 OTHER: 000 ATD PRESS: 3199

Card 2/2

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

L 44197-66 FSS-2/EWT(1)/EWA(d)/T/EED(b)-3/EWA(h)/EWA(c) IJP(c)

ACC NR: AP5027034 SOURCE CODE: UR/0120/65/000/005/0201/0204

AUTHOR: Berkovskiy, A. G.; Gusel'nikov, V. G.; Onuchin, A. P.

ORG: Moscow Electric Lamp Plant (Moskovskiy elektrolampovyy zavod)

TITLE: Photomultiplier with toroidal emitters (FEU-30)

SOURCE: Pribory i tekhnika eksperimenta, no. 5, 1965, 201-204

TOPIC TAGS: photomultiplier, photomultiplier tube, photoelectric detection system

ABSTRACT: A new photomultiplier tube, designated the FEU-30, is described. The principal feature is the bucket-shaped toroidal dynode and associated reflecting screen used in the multiplier stages (see Fig. 1). This configuration has several

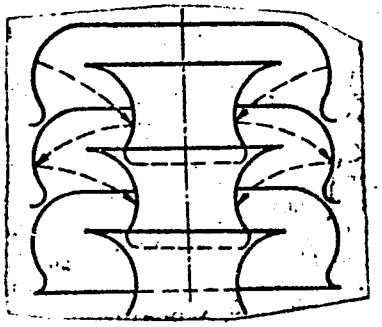

Fig. 1. Multiplier stages

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L 4419-66

ACC NR: AP5027034

advantages over conventional dynode designs, including maximum emitting surface per volume, large input aperture to the first stage, and absence of edge scatter in the electron beam. The 14 dynode elements are mounted and spaced by glass supports in an envelope 67 mm in diameter and 180 mm long. The dynodes are constructed of an Al-Mg alloy; the photocathode is Cs-Sb. The FEU-30 responds to the 3500—6000 Å region and at an operating voltage of 3—3.5 kv attains a multiplication factor of 10^9. Some circuit details and a calibrating technique are included in the discussion. Orig. art. has: 3 figures and 1 table. [SH]

SUB CODE: EC/ SUBM DATE: 14Jul64/ ORIG REF: 001/ OTH REF: 000/ ATD PRESS: 4125

Card 2/2

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

ACC NR: AP6013512 UR/0120/66/[illegible]/0123/0128

AUTHOR: Berkovskiy, A.G.; Gusel'nikov, V.G.; Pankratov, V.M.

ORG: Moscow Electric Lamp Works (Moskovskiy elektrolampovyy zavod)

TITLE: Photoelectric multipliers with large diameter cathodes and a toroidal multiplication system

SOURCE: Pribory i tekhnika eksperimenta, no. 2, 1966, 123-128

TOPIC TAGS: photomultiplier, toroidal multiplier photomultiplier, photomultiplier design/FEU-65 photomultiplier, FEU-63 photomultiplier

ABSTRACT: Design features and performance characteristics of improved photomultipliers are discussed. These photomultipliers, with large cathode diameters and toroidal shape multiplication systems are represented by the recently introduced production models FEU-63 (cathode dia. 100 mm) and FEU-65 (cathode diameter 150 mm). Design approach, constructional details, characteristics and results of tests are presented. The toroidally shaped multiplication system comprises emitters, potential shaping surfaces etc, generated by rotation of suitable profiles around the enclosure axis. With the electrostatic system of focusing used, this approach has the advantages of 1) large working surface, 2) absence of sharp corners and edges generating dark autoelectronic currents; 3) absence of electron dissipation 4) absence of structural members in the electron path 5) rigidity and 6) a large area of the diaphragm entrance. During the design stage, the emitter and screen profiles were modeled in an eletrolytic analog bath and on electronic trajectograph. The cathode integral sensitivity is around 40 - 55 μa/lu. The maximum dark currents at an anode sensitivity of 1000 a/lm

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are 50 - 100 μa. Uncertainties in thru-flight time were under 1 nsec. The time resolution for two tested FEU-65's was 3 nsec. The very good performance of these photomultipliers permits their use in certain nuclear physics research projects. They have a high time resolving power (several nanoseconds), a high amplification factor (arcund 10^8), and a wide range of output signal linearity (up to 1 a). Orig. art. has 6 figures and 1 table.

SUB CODE: 09 / SUBM DATE: 12Mar65 / ORIG REF: 005 / OTH REF: 002

Card 2/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, V.I.

Certain peculiarities of conditioned reflex activities in fish. Fiziol. zh. SSSR 38 no. 5:612-618 Sept-Oct 1952. (CIML 23:3)

1. Institute of Physiology imeni I. P. Pavlov, Academy of Sciences USSR, Leningrad.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, V.I.

Electrophysiological characteristics of some sections of the cerebrum in a turtle. Zhur.vys.nerv.deiat. 6 no.6:898-904 N-D '56. (MIRA 10:2)

1. Kafedra fiziologii vysshey nervnoy deyatel'nosti Moskovskogo gosudarstvennogo universiteta.
(ELECTROENCEPHALOGRAPHY
funct. of olfactory analysor in orientation reflex)
(REFLEX, CONDITIONAL
eff. of olfactory analysor on EEG in orientation reflex)

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, V.I.

Microelectrode method for taking electroencephalograms in small laboratory animals in long-term experiments. Zhur.vys.nerv.deiat. 7 no.4:626-628 Jl-Ag '57. (MIRA 10:12)

1. Kafedra fiziologii vysshey nervnoy deyatel'nosti Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.
(ELECTROENCEPHALOGRAPHY,
in small laboratory animals in chronic conditions with micro-electrodes (Rus))

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, V, I. Cand Biol Sci -- (diss) "Comparative physiological study of the bioelectric reactions of certain sections of the brain of fish, tortoises and pigeons." Mos, 1958. 15 pp (Mos Order of Lenin and Order of Labor Red Banner State Univ im M. V. Lomonosov. Biol Soil Faculty), 110 copies (KL, 13-58, 94)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

VORONIN, L.G., GUSEL'NIKOV, V.I.

Materials on bioelectric reactions in the brain of cyprinoid fishes, turtles, and pigeons. Nauch.dokl.vys.shkoly; biol.nauki no.1:64-71 '58 (MIRA 11:8)

1. Predstavlena kafedroy fiziologii vysshey nervnoy deyatel'nosti Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.
(ELECTROENCEPHALOGRAPHY)
(CARP)
(TURTLES)
(PIGEONS)

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

1877. REPRESENTATION OF THE OPTICAL ANALYSOR IN THE CEREBRAL HEMISPHERES OF A PIGEON (Russian text) - Guselnikov V. I. Dept. of Physiol. of the Higher Nerv. Activity, Moscow Univ. - ZH. VYSSH. NERV. DEYAT. 1958, 8/4 (611-616) Graphs 3

Bioelectrical responses of the cerebral hemispheres of a pigeon were studied during the action of single and rhythmical light stimuli in a chronic experiment with implanted electrodes. A stroboscope with a neon lamp was used for optical stimulation. It was found that in response to single flashes of light, evoked potentials appear only in the frontoparietal part of the hemispheres. The evoked response proceeds in 2 phases with a latency of about 20 msec. In cases of rhythmical optical stimulation in the same part of the brain there appears a reaction of rhythm recruitment (from 4 to 30 and higher per sec.). A rhythmical acoustic stimulation causes a recruitment of rhythm in the occipital part of pigeon's hemispheres. The conclusion is drawn that in the pigeon's hemispheres the optical and acoustic zones are functionally delimited and that the frontoparietal part of the large hemispheres is the cerebral end of the optical analysor.

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EXCERPTA MEDICA Sec 2 Vol 12/5 Physiology May 59

1911. ELECTRICAL RESPONSES OF CEREBELLUM TO THE EFFECTS OF VARIOUS STIMULI IN LOWER VERTEBRATES (Russian text) - Guselnikov V.I. and Ivanova V.I. Dept. of Physiol. of Higher Nerv. Activity, Moscow Univ. - FIZIOL. ZH. IM. SECH. 1958, 44/2 (118-125) Illus. 4

Records of cerebellar electrical activity were obtained from implanted electrodes in fish (carp), turtles and pigeons under conditions of chronic experimentation. Discharges of 2 ranges of frequencies - 30 to 60 c.p.s. and 3 to 8 c.p.s. - prevailed in cerebellar electrical activity of fish, turtles and pigeons. Connections between cerebellum and analysor systems were revealed by characteristic responses to photic or auditory stimuli in fish, to photic, tactile and olfactory stimuli in turtles, and to photic, auditory and vestibulary stimuli in pigeons. These responses appear as isolated slow waves or as series of slow waves. In pigeons the electrical responses of the cerebellum were of a localized nature, discharges being recorded over its central area.

Simonson - Minneapolis, Minn.

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, V.I.; POLYANSKIY, V.B.

Functional interrelationships of some brain divisions in pigeons. Nauch.dokl.vys.shkoly; biol.nauki no.2:60-66 '59. (MIRA 12:6)

1. Rekomendovana kafedroy fiziologii vysshey nervnoy deyatel'nosti Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.

(BRAIN)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, V.I.

Comparative physiological study of certain regularities of variation in primary reactions. Nauch. dokl. vys. shkoly; biol. nauki no.4:59-63 '59. (MIRA 12:12)

1.Rekomendovana kafedroy fiziologii vysshey nervnoy deyatel'-nosti Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.

(ELECTROPHYSIOLOGY) (BRAIN)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

VORONIN, L.G.; GUSEL'NIKOV, V.I.

Some comparative physiological data on bioelectrical reactions of the brain. Zhur.vys.nerv.deiat. 9 no.3:398-408 My-Je '59. (MIRA 12:9)

1. Chair of Higher Nervous Activity, Moscow University, and Laboratory of Comparative Physiology, Institute of Higher Nervous Activity, U.S.S.R. Academy of Sciences, Moscow.
(BRAIN - physiology)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, V.I.; DROZHENNIKOV, V.A.

Reflection of the orientation and conditioned reflex activity in oscillations of the bioelectric potentials of the greater hemispheres of the brain in pigeons. Zhur. vys. nerv. deiat. 9 no.6:931-938 N-D '59. (MIRA 13:9)

1. Chair of Physiology of Higher Nervous Activity, Moscow University.
(BRAIN) (ORIENTATION) (CONDITIONED RESPONSE)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, V. I.; VOROBIN, L. G.; TOLMASSKAYA, F. [illegible]; GUSEL'NIKOV, K. G.
(Moskva)

Ob izmeneniyakh funktsional'nogo sostoyaniya nespetsificheskikh i spetsificheskikh sistem pod vliyaniyem aminazina

report submitted for the First Moscow Conference on Reticular Formation, Moscow, 22-26 March 1960.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, V.I.

Influence of the respiratory center on the cerebral hemispheres in animals of different evolutionary levels. Nauch. dokl. vys. shkoly; biol. nauki no.3:69-74 '60. (MIRA 13:8)

1. Rekomendovana kafedroy fiziologii vysshey nervnoy deyatel'-nosti Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.
(RESPIRATION) (BRAIN) (ELECTROPHYSIOLOGY)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOVA, K.G.; GUSEL'NIKOV, V.I.

Method for the determination of the site of implanted electrodes. Zhur. vys. nerv. deiat 10 no. 4:637-638 Jl-Ag '60. (MIRA 14:2)

1. Laboratory of Comparative Physiology, Institute of the Higher Nervous Activity, Nervous Activity, Moscow University.
(ELECTROPHYSIOLOGY) (BRAIN)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, V.I.

Some mechanisms of generalized reactions in the electrogram of the cortex in reptiles. Fiziol. zhur. 46 no. 5:537-543 My '60. (MIRA 13:12)

1. From the Chair of Physiology of Higher Nervous Activity, State University, Moscow.
(CEREBRAL CORTEX) (REPTILES) (ELECTROPHYSIOLOGY)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, V.I.; KOROLEVA, L.V.

Relationships between bioelectric reactions of the cerebral hemispheres and the reticular formation of the medulla oblongata in pigeons. Nauch. dokl. vys. shkoly; biol. nauki no. 1:69-76 '61. (MIRA 14:2)

1. Rekomendovana kafedroy fiziologii vysshey nervnoy deyatel'-nosti Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.

(ELECTROENCEPHALOGRAPHY)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, V.I.; ONUFRIYEVA, M.I.

Bioelectric reactions of the fish brain to light stimuli. Nauch. dokl. vys. shkoly; biol. nauki no.3:80-85 '61. (MIRA 14:7)

1. Rekomendovana kafedroy fiziologii vysshey nervnoy deyatel'nosti Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.
(LIGHT--PHYSIOLOGICAL EFFECT)
(NERVOUS SYSTEM--FISHES) (ELECTROENCEPHALOGRAPHY)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

VORONIN, L.G.; TOLMASSKAYA, E.S.; GUSEL'NIKOVA, K.G.; GUSEL'NIKOV, V.I.

Electrophysiological studies on the mechanism of action of aminazine. Zhur.nevr.i psikh. 61 no.2:208-217 '61. (MIRA 14:6)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut psikhiatrii (dir. - prof. V.M.Banshchikov) Ministerstva zdravookhraneniya i kafedra vysshey nervnoy deyatel'nosti (zav. - prof. L.G.Voronin) Moskovskogo gosudarstvennogo universiteta imeni M.V.Lomonosova.
(CHLORPROMAZINE) (ELECTROENCEPHALOGRAPHY)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, V.I.; POLYANSKIY, V.B.

Reaction of rhythmic transformation in different sections of a pigeon is brain in response to a doubled rhythmic light stimulus. Nauch. dokl. vys. shkoly; biol. nauki no.1:83-87 '62. (MIRA 15:3)

1. Rekomendovana kafedroy fiziologii vysshey nervnoy deyatel'nosti Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.

(BRAIN)
(ELECTROPHYSIOLOGY)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, V.I.; SUPIN, A.Ya.

Some mechanisms of the reaction of "rhythm establishment." Fiziol. zhur. 48 no.4:398-405 Ap '62. (MIRA 15:6)

1. From the Department of Physiology of Higher Nervous Activity, M.V. Lomonosov University, Moscow.
(CEREBRAL CORTEX)
(ELECTROENCEPHALOGRAPHY)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

VORONIN, L.G.; GUSEL'NIKOV, V.I.

Phylogeny of internal mechanisms of analytical and synthetic activity of the brain. Zhur.vys.nerv.deiat. 13 no.2:193-206 Mr-Ap'63. (MIRA 16:9)

1. Chair of Physiology of Higher Nervous Activity, Moscow University.
(PHYSIOLOGY, COMPARATIVE) (BRAIN)
(NERVOUS SYSTEM—VERTEBRATES)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, V.I.; DO KONG KHUN'; ILI'CHEV, V.D.

Representation of visual, auditory and somatosensory analyzers in the telencephalon of the pigeon. Nauch.dokl. vys. shkoly; biol. nauki no.4:54-61 '63 (MIRA 16:11)

1. Rekomendovana kafedroy fiziologii vysshey nervnoy deyatel'nosti Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, V.I.; SUPIN, A.Ya.

Representation of the visual and auditory analyzers in the forebrain hemispheres of a lizard. Fiziol. zhur. 49 no.8: 919-927 Ag '63. (MIRA 17:2)

1. From the Department of Physiology of Higher Nervous Activity, Lomonosov University, Moscow.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, V.I.; KHOLODOV, Yu.A.

Role of the cerebellum in the conditioned reflex activity of fishes. Naush. dokl. vys. shkoly; biol. nauki no.4:49-55 '64. (MIRA 17:12)

1. Rekomendovana kafedroy fiziologii vysshey nervnoy deyatel'nosti Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

VORONIN, L.G.; GUSEL'NIKOVA, K.G.; GUSEL'NIKOV, V.I.

Some data on the relationship between slow and impulse activity of the paleocortex in the lizard. Zhur. vys. nerv. deiat. 14 no.2: 326-336 Mr-Ap '64. (MIRA 17:6)

1. Chair of Physiology of Higher Nervous Activity, Moscow University.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, V.I.; SUPIN, A.Ya.

Representation of somatic sensory and olfactory receptors in the forebrain hemispheres of the lizard (Agama caucasica). Fiziol. zhur. 50 no.2:129-137 F '64. (MIRA 18:2)

1. Kafedra fiziologii vysshey nervnoy deyatel'nosti Moskovskogo gosudarstvennogo universiteta imeni M.V. Lomonosova.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

SUPIN, A.Ya.; GUSEL'NIKOV, V.I.

Demonstration of the visual, acoustic and somato-sensory analyzers in the hemispheres of the anterior brain of frogs (Rana temporaria). Fiziol.zhur. 50 no.4:426-434 Ap '64. (MIRA 18:4)

1. Kafedra fiziologii vysshey nervnoy deyatel'nosti Moskovskogo gosudarstvennogo universiteta imeni Lomonosova.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, Vladimir Ivanovich; SUPIN, A.Ya., red.

[Electrophysiological study of analyzer systems in the phylogeny of vertebrates] Elektrofiziologicheskoe issledovanie analizatornykh sistem v filogeneze pozvonochnykh. Moskva, Izd-vo Mosk. univ., 1965. 266 p. (MIRA 18:6)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

ACC NR: AM6004765 Monograph UR/

Gusel'nikov, Vladimir Ivanovich

Electrophysiological studies of analyzer systems in the phylogeny of vertebrates (Elektrofiziologicheskoye issledovaniye analizatornykh sistem v filogeneze pozvonochnykh) [Moscow], Izd-vo Mosk. univ., 1965. 266 p. illus., biblio. 1,300 copies printed

TOPIC TAGS: cerebral cortex, midbrain, cerebellum, neuron, animal physiology, morphology, histology

PURPOSE AND COVERAGE: The book summarizes the material accumulated in the literature and in the author's laboratory on the functional organization of analyzer systems in various vertebrates, from data obtained by means of the electrophysiological method. It is pointed out in the introduction that most factual material published in this field is not interpreted from the point of view of its connection with general problems in the evolutional physiology and morphology of the brain, a point of view employed in the present book. The book covers part of the research carried out by the author since 1955 in the Department of Physiology of the Upper Nervous Activity at the Moscow State University, headed by Professor L. G. Voronin, to whom the author is grateful for cooperation. Author is also grateful to his assistants and graduate students, with particular thanks to A. YA. Supina for help with the experimental work and with editing the manuscript.

TABLE OF CONTENTS [abridged]:

Card 1/3 UDC: 591.185.08 + 596.08

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

ACC NR: AM6004766

Structural and functional organization of the visual center--tectum opticum--of the midbrain of vertebrates - - 28
Ch. I. Main morphological and morpho-physiological data on the structural organization of tectum opticum of the midbrain of vertebrates - - 28
Ch. II. Main electrophysiological data on the functional organization of tectum opticum of the midbrain in several vertebrates - - 55
On the representation and organization of analyzer systems at the cerebellum level in several vertebrates - - 84
Ch. I. Some basic data on the morphology and histoanatomy of pre-mammalian vertebrates - - 84
Ch. II. Electrophysiological investigation of the representation of various analyzers in the cerebellum of fishes - - 89
Ch. III. Representation of different analyzers in the cerebellum of amphibians - - 102
Ch. IV. Representation of analyzers in the cerebellum of reptiles - - 106
Ch. V. Some data on the representation of different analyzers in the cerebellum of birds - - 109
Electrophysiological investigations of the representation and organization of analyzer systems of the level of the endbrain in [illegible] vertebrates - - 117
Ch. I. Investigation of representation of different analyzers in the endbrain of fishes - - 117
Ch. II. Investigation of the representation of various receptors in the endbrain

Card 2/3

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

ACC NR: AM6004766

of amphibians - - 127
Ch. III. Investigation of the representation and organization of analyzer systems at the level of the endbrain of reptiles - - 143
Ch. IV. Investigation of representation and organization of analyzer systems at the level of the endbrain of birds - - 189
Conclusion - - 215
Literature - - 241

SUB CODE: 06/ SUBM DATE: 25May65/ ORIG REF: 185/ OTH REF: 339

Card 3/3

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, V.N.

Some characteristics of fluorite distribution in western Transbaikalia. Izv.vys.ucheb.zav.; geol. i razv. 4 no.11:82-94 N '61. (MIRA 15:2)

1. Moskovskiy geologorazvedochnyy institut imeni S.Ordzhonikidze. (Transbaikalia--Fluorite)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, V.N.

Some genetic features of fluorite mineralization in western Transbaikalia. Izv.vys.ucheb.zav.; geol.i razv. no.2:28-31 F '62. (MIRA 15:3)

1. Moskovskiy geologorazvedochnyy institut imeni Ordzhonikidze. (Transbaikalia--Fluorite)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

S/048/62/026/011/006/021
B125/B102

AUTHORS: Gusel'nikov, V. S., and Khokhlova, A. N.

TITLE: Study of the emission properties of the many-alkaline photocathodes sensitized with oxygen

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 11, 1962, 1382 - 1385

TEXT: A method has been developed for increasing the sensitivity of photocathodes to between 200 and 240 μa/lumen by impregnation with cesium followed by treatment with oxygen. The sensitizing shifts the sensitivity maximum from 400 - 420 mμ to 480 - 520 mμ. The red limit of the photoeffect is shifted only slightly. At 850 - 900 mμ the sensitivity amounts to 1% of the maximum sensitivity. At the beginning of the sensitizing process the resistivity of the photoelectrically active layer decreases, after which it remains constant for a certain time and then increases. At the same time the sensitivity of the photocathode increases rapidly. The final value of ϱ is 3 - 6·10^5 ohm·cm for a highly sensitive photocathode. A method has been worked out for determining the internal resistance of the active layer of the photocathode as a fraction of its total resistance.

Card 1/2

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The resistance between the contacts and the layer is some dozens of kilohms at most, whereas the resistance of the layer itself is some hundreds of kilohms. The resistance of the active layer is purely ohmic. This was proved by the photoconductivity measurements made whilst moving a light probe from the positive to the negative electrode, and by measuring the inertia of the conduction current in the case of intermittent illumination. Further proofs of the intrinsic nature of photoconductivity are that the amperage of the external photoemission is independent of the voltage on the layer, and that the amperage of the photoconduction is independent of the anode voltage. The increase and decrease of the external emission and of the inner photoeffect are rigidly proportional. The limiting wavelength of the effective sensitivity of the internal photoeffect is 1.4μ. The minimum energy of the transition of an electron to the filled band is ~0.2 ev. This value is probably due to the existence of impurity levels. The dark current ($6 \cdot 10^{-15}$ to $3 \cdot 10^{-16}$ a cm^{-2}) does not depend directly on the integral sensitivity. The fatigue of the sensitized many-alkaline photocathodes increases with the wave length. The sensitizing is not due to the reduction of the work function resulting from changes in the surface coating. The photocathodes may perhaps be improved by investigations into the processes of oxygen-sensitizing. There are 3 figures.

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KIRIN, I.S.; GUSEV, Yu.K.; MOSEVICH, A.N.; KUZNETSOV, N.P.; GUSEL'NIKOV, V.S.

Separation of XeO_3 and HIO_3 on zirconium phosphate. Radiokhimiia 7 no.6:736-738 '65. (MIRA 19:1)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, Ye.P.

Classification of habitat factors. Biul. MOIP. Otd. biol. 60 no.5: 127-133 S-O '55. (MLRA 9:4)
(BOTANY--ECOLOGY)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

MAYKOV, B.K.; MELKHINA, V.P.; Prinimali uchastiye: VASIL'YEV, A.S.; KATSENELENBAUM, M.S.; KOMAROVA, A.A.; ZHIGULINA, L.A.; TERNOVSKAYA, L.N.; YUSHKO, Ya.K.; CHUMAK, K.I.; GUSEL'NIKOVA, E.L.; KETOVA, O.N.

Hygienic characteristics of air pollution in Gubakha and its effect on health of the population. Uch. zap. Mosk. nauch.-issl. inst. san. i gig. no.6:21-25 '60. (MIRA 14:11)
(NIZHNYAYA GUBAKHA--AIR--POLLUTION)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

VORONIN, L.G.; GUSEL'NIKOVA, K.G.; GUSEL'NIKOV, V.I.

Some data on the relationship between slow and impulse activity of the paleocortex in the lizard. Zhur. vys. nerv. deiat. 14 no.2: 326-336 Mr-Ap '64. (MIRA 17:6)

1. Chair of Physiology of Higher Nervous Activity, Moscow University.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOV, V. I. (Moskva)

Sravnitel'no-fiziologicheskiye dannyye o voskhodyashchem aktiviruyushchem vliyanii retikulyarnoy formatsii

report submitted for the First Moscow Conference on Reticular Formation, Moscow, 22-26 March 1960.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOVA, K. G.: Master Biol Sci (diss) -- "The use of electroencephalography to study certain mechanisms of auditory epileptiform attack in rats". Moscow, 1958. Moscow Order of Lenin and Order of Labor Red Banner State U im M. V. Lomonosov, Soil Biology Faculty), 130 copies (KL, No 4, 1959, 124)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOVA, K.G.; KRUSHINSKAYA, N.L.

Changes in the bioelectric activity of some parts of the cerebellum and the motor area of the crebral cortex during epileptiform seizures produced by sound stimuli. Nauch. dokl. vys. shkoly; biol. nauki no.2:78-82 '58. (MIRA 11:10)

1. Predstavlena kafedroy fiziologii vysshey nervnoy deyatel'nosti Moskovskogo gosudarstvennogo universiteta imeni M.V. Lomonosova.
(BRAIN) (ELECTROPHYSIOLOGY) (CONVULSIONS)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOVA, K.G.

Some data on the mechanism of audiogenic epileptiform seizures in rats. Nauch.dokl.vys.shkoly; biol.nauki no.1:69-73 '59. (MIRA 12:5)

1. Rekomendovana kafedroy fiziologii vysshey nervnoy deyatel'-nosti Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.

(SOUND--PHYSIOLOGICAL EFFECT) (CONVULSIONS)

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOVA, K.G.

Electrophysiological characteristics of medulla oblongata in white rats during audiogenic epileptiform seizures. Nauch.dokl. vys.shkoly; biol.nauki no.3:101-106 '59. (MIRA 12:10)

1. Rekomendovana kafedroy fiziologii vysshey nervnoy deyatel'-nosti Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.
(MEDULLA OBLONGATA) (ELECTROPHYSIOLOGY)
(SOUND--PHYSIOLOGICAL EFFECT)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOVA, K.G.; GUSEL'NIKOV, V.I.

Method for the determination of the site of implanted electrodes. Zhur. vys. nerv. deiat 10 no. 4:637-638 Jl-Ag '60. (MIRA 14:2)

1. Laboratory of Comparative Physiology, Institute of the Higher Nervous Activity, Nervous Activity, Moscow University.
(ELECTROPHYSIOLOGY) (BRAIN)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOVA, K. G.; GUSEL'NIKOV, V. I.; VORONIN, L. G.; TOLMACHEVSKAYA, E. S.
(Moskva)

Ob izmeneniyakh funktsional'nogo sostoyaniya nespetsificheskikh i spetsificheskikh sistem pod vliyaniyem aminazina

report submitted for the First Moscow Conference on Reticular Formation, Moscow, 22-26 March 1960.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

RUDASHEVSKIY, S.Ye.; BRAYNINA, E.G.; GUSEL'NIKOVA, K.G.; STEPUSHKINA, T.A.

Physiological rest and stimulation of spinal centers. Vest.LGU 15 no.21:137-149 '60. (MIRA 14:4)
(Spinal cord) (Electrophysiology)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

VORONIN, L.G.; GUSEL'NIKOVA, K.G.; IONDANIS, K.A.; BETELEVA, T.G.; LINKOVA, N.V.; POLYANSKIY, V.B.

Effect of electric stimulation of the reticular formation on conditioned reflex activity. Trudy Inst. vys. nerv. deiat. Ser. fiziol. 6:195-202 '61. (MIRA 14:12)

1. Iz Laboratorii sravnitel'noy fiziologii vysshey nervnoy deyatel'nosti, zav. - L.G.Voronin.
(CONDITIONED RESPONSE)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

VORONIN, L.G.; TOLMASSKAYA, E.S.; GUSEL'NIKOVA, K.G.; GUSEL'NIKOV, V.I.

Electrophysiological studies on the mechanism of action of aminazine. Zhur.nevr.i psikh. 61 no.2:208-217 '61. (MIRA 14:6)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut psikhiatrii (dir. - prof. V.M.Banshchikov) Ministerstva zdravookhraneniya i kafedra vysshey nervnoy deyatel'nosti (zav. - prof. L.G.Voronin) Moskovskogo gosudarstvennogo universiteta imeni M.V.Lomonosova.
(CHLORPROMAZINE) (ELECTROENCEPHALOGRAPHY)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

TROITSKAYA, A.D., prof.; GUSEL'NIKOVA, M.I., kand.biol.nauk; RAZNATOVSKIY, I.M. ordinator

Role of Sheremet'evskii-Bogdanov's dermatophagic ticks in skin pathology [with summary in English]. Vest.derm. i ven. 32 no.1:19-24 Ja-F '58. (MIRA 11:4)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zav.-prof. A.D. Troitskaya) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (dir.-prof. A.Ya.Ivanov)

(SKIN DISEASES, etiol. & pathogen.
ticks, microscopic (Rus)
(TICKS
microscopic ticks causing skin dis. (Rus)

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8

GUSEL'NIKOVA, M.I.

Bactericidal effect of rays from the BUF lamp on staphylococci in cultures and on the human skin. Trudy LSGMI 52:87-94 '60. (MIRA 14:8)

(ULTRAVIOLET RAYS—PHYSIOLOGICAL EFFECT)
(STAPHYLOCOCCUS) (SKIN)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617530001-8"

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L 43857-65 EWT(1)/EWT(m)/T/EWP(t)/EEC(b)-2/EWP(b)/EWA(c) Pad/Pi-4
IJP(c) JD/HW/GG
ACCESSION NR: AP4048768 S/0126/64/018/004/0530/0534

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26
B

AUTHOR: Kandaurova, G. S.; Shur, Ya. S.; Gusei'nikova, N. I.

TITLE: Some characteristics of the domain structure of cobalt crystals

21

SOURCE: Fizika metallov i metallovedeniye, v. 18, no. 4, 1964, 530-534

TOPIC TAGS: domain structure, cobalt single crystal, powder pattern, lamellar domain structure

27 18

ABSTRACT: The domain structure of magnetized crystals is usually deduced from the structure of the surface. In order to be able to judge about the domain structure of the bulk of the crystal, the authors in continuation of the previous work (FMM, 16, 2, 310 (1963)), have studied the powder patterns formed on different faces of the same single crystal of cobalt. After magnetization of the crystal in a field normal to the hexagonal axis, a simple lamellar domain structure is formed. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: Ural'skiy gosuniversitet im. A. M. Gor'kogo (Urals State Univer-

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ACCESSION NR: AP4048768

sity); Institut fiziki metallov AN SSSR (Institute of the Physics of Metals, AN SSSR)

SUBMITTED: 20Nov63 ENCL: 00 SUB CODE: MM, SS

NR REF SOV: 002 OTHER: 000

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DAVYDOV, A.; KUNYAVSKIY, M.; MALEVICH, L.; PROSHLYAKOV, V.P. Prinimali uchastiye: SHAPPO, A.F.; CHERVYAKOV, P.Ya.; ORLYANCHIK, M.F., starshiy inzh.; REVUTSKIY, F.A., starshiy pochvoved; GUSEL'NIKOVA, O.I., inzh.; GORN, Ye.R., tekhnik; MORKOVINA, T.N., tekhnik. BONDARENKO, M., red.; BAKHTIYAROV, A., tekhn.red.

[General plan for organizing the territory of the Golodnaya Steppe] General'naia skhema organizatsii territorii Golodnoi stepi. Tashkent, Gos.izd-vo Uzbekskoi SSR, 1958. 189 p. (MIRA 14:3)

(Golodnaya Steppe--Agriculture)

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GUSEL'NIKOVA, Ye.I.

"Rapid Methods of Determination of the Sensitivity of Bacteria to Penicillin," Zhur. Mikrob, Epidem, i Immunobiol, No. 11, p 23, 1948.

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GUSEL'NIKOVA, Ye.P. (Alma-Ata)

Helianthus lenticularis as a weed. Zashch. rast. ot vred. i bol. 6 no.12:39-40 D '61. (MIRA 16:5)

1. Starshiy agronom Kazakhskoy karantinnoy laboratorii.

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PA 30T52

GUSEL'SHCHIKOV, M.

USSR/Metals Jan 1946
Riveting
Steel, Soft

"The Influence of Riveting on the Durability of Boiler Steel," M. Gusel'shchikov, Senior Scientific Collaborator, TSNIIMF, 1½ pp

"Morskoy Flot" No 1

Research shows that under the influence of riveting in soft carbon steel the time resistance, the yield point, the hardness, and the specific volume are increased and the relative expansion, the constriction of the cross section, the toughness, and corrosive resistance is lowered.

[redacted] 30T52

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GUSEL'SHCHIKOV, M. K.

Elektricheskaia i gazovaia svarka v sudostroenii i sudoremonte. Moskva, Morskoi transport, 1948. 242, (4) p. illus.
Bibliography: 1 p. at end.

Electric and gas welding in shipbuilding and ship repair.
DIC: TS227.G9

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

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GUSEL'SHCHIKOV, M.K., professor; GLIKMAN, L.A., redaktor; Flaum, M.Ya., tekhnicheskiy redaktor.

[Effect of mechanical and thermal factors on the strength of marine boilers] Vliianie mekhanicheskikh i termicheskikh vozdeistvii na prochnost' sudovykh kotlov. Moskva, Izd-vo "Morskoi transport," 1952. 55 p. [Microfilm] (MLRA 7:10)

(Steam boilders, Marine)

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GUSEL'SHCHIKOV, M.K., professor; GETMAN, M.G., redaktor; NAVROTSKIY, D.I., redaktor; FIRSOV, M.Ye., redaktor.

[Electric and gas welding in shipbuilding and ship repair] Elektricheskaia i gazovaia svarka v sudostroenii i sudoremonte. 2 izd., dop. i perer. Leningrad, Izd-vo Ministerstva morskogo i rechnogo flota SSSR, 1953. 397 p. (MLRA 7:7)

(Electric welding) (Oxyacetylene welding and cutting)
(Shipbuilding)

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Gusel'shchikov, M.K.

MT

Testing fire-resistant coatings for fire-breaks and decks of ships. M. Gusel'shchikov and I. Barkov. *Morskoi i Rechnoi Flot* 1953, No. 7, 16-17; *Referat. Zhur., Khim.* 1954, No. 49312.—Of the tested materials, Al_2O_3 cement and calcined vermiculite were most fire resistant. A combination of these two gave good results. These materials can also be used as heat insulators to reduce heat losses in steam and Diesel installations. M. Hosch...

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GUSEL'SHCHIKOV, M., professor.

Steam boilers made from metal of lowered resilience. Mor.i rech. flot 14 no.1:19-20 Ja '54. (MLRA 7:1)

(Steam boilers, Marine)

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(Boilers, Marine)

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GUSEL'SHCHIKOV, M.K., professor; KOCHERGIN, K.A., retsenzent; NAVROTSKIY, D.I., redaktor; SANDLER, N.V., redaktor izdatel'stva; PETERSON, M.M., tekhnicheskiy redaktor

[Electric and gas welding in shipbuilding and ship repairing] Elektricheskaia i gazovaia svarka v sudostroenii i sudoremonte. Izd. 3-e, dop. i perer. Leningrad, Izd-vo "Morskoi transport," 1956. 422 p. (MLRA 9:8)

(Electric welding) (Gas welding and cutting)
(Shipbuilding)

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GUSEL'SHCHIKOV, M.

Improving arc welding of pins. (Electric welding) Mor. flot 18 no.8:21 Ag '58. (MIRA 11:9)

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