ALADYSHKIN, A.S.; KAZARINOV, V.P.; MIKUTSKIY, S.P.

Third Interdepartmental Coordination Conference on Compiling Lithopaleogeographic Maps of Siberia. Geol. i geofiz. no.12:118-120 '62. (MIRA 16:3)

(Siberia--Paleogeography--Maps)

ALADYSHKIN, A.S.; VASIL'KOVSKIY, N.P.; VINKMAN, M.K.; GINTSINGER, A.B.; GURARI, F.G.; KARPINSKIY, R.B.; KRASIL'NIKOV, B.N.; KRASNOV, V.I.; KRIVENKO, A.P.; LUCHITSKIY, I.V.; PAN, F.Ya.; PETROV, P.A.; POSPELOV, G.L.; SENNIKOV, V.M.; CHAIRKIN, V.M.; SHCHEGLOV, A.P.

In memory of Andrei Aleksandrovich Predtechenskii, 1909-1964. Geol. i geofiz. no.4:197-199 '65. (MIRA 18:8)

PUDOVIK, A.N.; ALADZHEVA, I.M.

Polyphosphites. Part 2: Reactions of dialkyl phosphorous chlorides with aromatic dioxy compounds. Zhur.ob.khim. 32 no.6:2005-2010 Je '62. (MIRA 15:6)

(Diphosphites) (Aromatic compounds)

ALADZHALOV, G.K.

SA

B 64
O

621.314.223

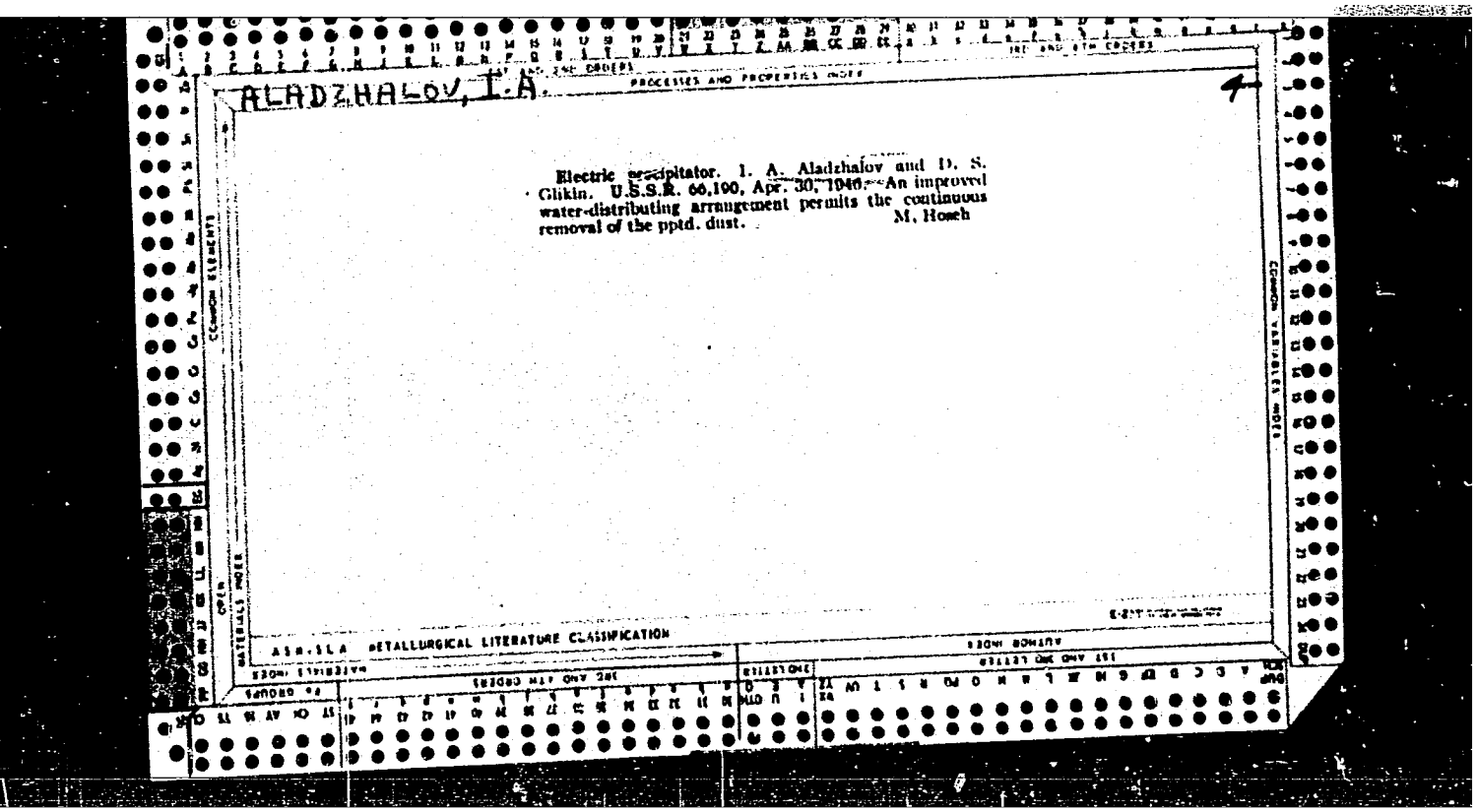
1116. Autotransformers with smooth voltage regulation. A. B. Podolner, G. K. Aladzhalov, S. V. Krestnikov, V. P. Krylov and S. G. Feldman. *Elektrichestvo*, No. 8, 26 30 (*Aug.*, 1951) *In Russian*.

Describes a series of autotransformers constructed in 1948 to give smooth voltage regulation under individual load conditions. Details are given of parts standardized throughout the series for ease in manufacture and the fundamental construction adopted is outlined, [illegible], [illegible] rectangular windings with sliding metal commutating brushes. A schedule is included of data for local and remote regulated 1 ph. and 3 ph. autotransformers from 20 to 260 KVA in output.

[illegible]

A.B. PODOLNER
GK ALADZHALOV
SV KRESTNIKOV
VP KRYLOV
SG FELDMAN

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



GORDON, Grigoriy Mikhaylovich; ALADZHALOV, Ivan Aleksandrovich; PEYSAKHOV, I.L., kandidat tekhnicheskikh nauk, retsenzent; KARCHEVSKIY, V.A., inzhener; retsenzent; MATSKOVSKIY, R.S., inzhener, retsenzent; KARCHEVSKIY, V.A., redaktor; ARKHANGEL'SKAYA, M.S., redaktor; YEFIMOVA, A.P., tekhnicheskiy redakter.

[Gas purification by bag filters in nonferrous metallurgy] Gazeochistka rukavnymi fil'trami v tsvetnoi metallurgii. Moskva, Ges. nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1956. 204 p. (MLRA 9:6)

(Filters and filtration)(Dust--Removal)(Nonferrous metal industries)

SOV/137-58-8-16716

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 69 (USSR)

AUTHOR: Aladzhalov, I.A.

TLE: A Gas-cleaning Flow Sheet for Fluidized-solids Roasting (Skhema pyleulavlivaniya pri obzhige v kipyashchem sloye)

PERIODICAL: Sb. materialov po pyleulavlivaniyu v tsvetn. metallurgii. Moscow, Metallurgizdat, 1957, pp 53-57

ABSTRACT: A description is advanced of the basic equipment for cooling and cleaning of fluidized-solids roasting furnaces in accordance with a flow sheet suggested by Giprotsvetmet (not involving waste-heat boilers): a) Water-jacketed settling coolers; b) first-stage cyclones; c) second-stage cyclones; d) hot-gas fans. The cooling and gas-cleaning equipment for each fluidized-solids furnace is arranged in 2 parallel chains. Each of the parallel chains may be switched off for inspection or repair without stopping the furnace.

1. Furnaces--Cooling 2. Furnaces--Cleaning G.G.

Card 1/1

SOV/137-58-8-16599

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 51 (USSR)

AUTHOR: Aladzhalov, I.A.

TITLE: The New Enlarged URF Bag Filter (Novyy ukrupnennyy rukavnyy fil'tr tipa URF)

PERIODICAL: Sb. materialov po pyleulavlivaniyu v tsvetn. metallurgii. Moscow, Metallurgizdat, 1957, pp 240-250

ABSTRACT: A description is presented of the design of the URF filter by Giprotsvetmet. The filter area of a single compartment of the URF is 105 m^2 in the main variant (reinforced concrete) and 90 m^2 in a variant employing a steel shell. Filter socks of seamless fabric, with socks 220 mm in diameter and 3800 mm long, are used. The minimum number of compartments in the URF is to be 10, and the maximum 20, with a filtering area of 2100 m^2 (major variant) and 24 with a filtering area of 2160 m^2 (variant with steel shell). The filter fabric in the URF is cleaned by periodic shaking of the socks, air being blown through them at the same time. There are pneumatic controls of the valves and shaking, and electrical controls of the air drives. A technical and economic comparison of the URF with

Card 1/2

SOV/137-58-8-16599

The New Enlarged URF Bag Filter

RFG filters shows the former to enjoy distinct advantages: A metals saving of up to 40%, a reduction in the volume of the building by over 20%, and a 15-30% reduction in service personnel.

G.G.

1. Particulate filters--Design 2. Particulate filters--Performance

Card 2/2

SOV/137-58-8-16600

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 51 (USSR)

AUTHOR: Aladzhalov, I.A.

TITLE: Cooling and Preparing Gases for Cleaning (Okhlazhdeniye gazov i podgotovka ikh pered pyleulavlivaniyem)

PERIODICAL: Sb. materialov po pyleulavlivaniyu v tsvetn. metallurgii. Moscow, Metallurgizdat, 1957, pp 260-262

ABSTRACT: An examination is made of methods of cooling gases (without using the heat) prior to dust separation in bag filters: 1) cooling by mixing hot gases and cold air (suction), 2) cooling in surface-contact heat exchangers (coolers), and 3) cooling by evaporating finely-divided water in the gases. A brief presentation of the merits and shortcomings of these methods is made. When dry electrostatic precipitators are used, the gases are often first cooled and moistened to increase the conductivity of the dust, and this is done by delivering finely-divided water. A more extensive utilization of wet electrostatic precipitators with prior cooling and moistening of the gases to a state of saturation in scrubbers, with delivery of a larger amount of relatively coarsely divided water or return pulp, is proposed. This

Card 1/2

SOV/137-58-8-16600

Cooling and Preparing Gases for Cleaning

type of preparation of the gases is also desirable in cleaning gases in high-speed dust separators.

G.G.

1. Gases--Cooling 2. Gases--Cleaning 3. Heat exchangers--Performance
4. Electrostatic precipitators--Performance

Card 2/2

ALADZHALOV, Yu.A., inzhener.

Evaluating the quality of the geometric construction of triangulation nets. Sbor.st.po geod. no.1:32-39 '51. (Triangulation) (MIRA 9:7)

ALADZHALOV, Yu. A.

"Triangulation Observations of I Class by Means of Three Directions". Sb. statey po geodezii, No. 8, pp 3-26, 1954.

Instead of measuring all combinations of separate angles, measurements of series from three directions are suggested, under the assumption that the observation of a series consisting of i, k, l directions is equivalent to the observation of separate angles ik, il, kl. Such a procedure is possible only if the number of directions from one point is n =3; 7; 9; 13; 15... Comparison of results with conventional computations shows a 25% decrease in work volume. (RZhAstr, No. 1, 1956)

SO: Sum No 884, 9 Apr 1956

ALADZHALOV, Yu.A.

Resection for determining errors in the junction of ground points of control. Geod.i kart. no.2:26-30 Ap '56. (MLRA 9:10)
(Triangulation)

ALADZHALOV, Yu.A., inzhener.

Most advantageous distribution of weights in observations of base line nets. Sbor.st.po geod.no.10:15-22 '55. (MLRA 10:2)
(Weight functions)

ALADZHEVA, Ye.I.

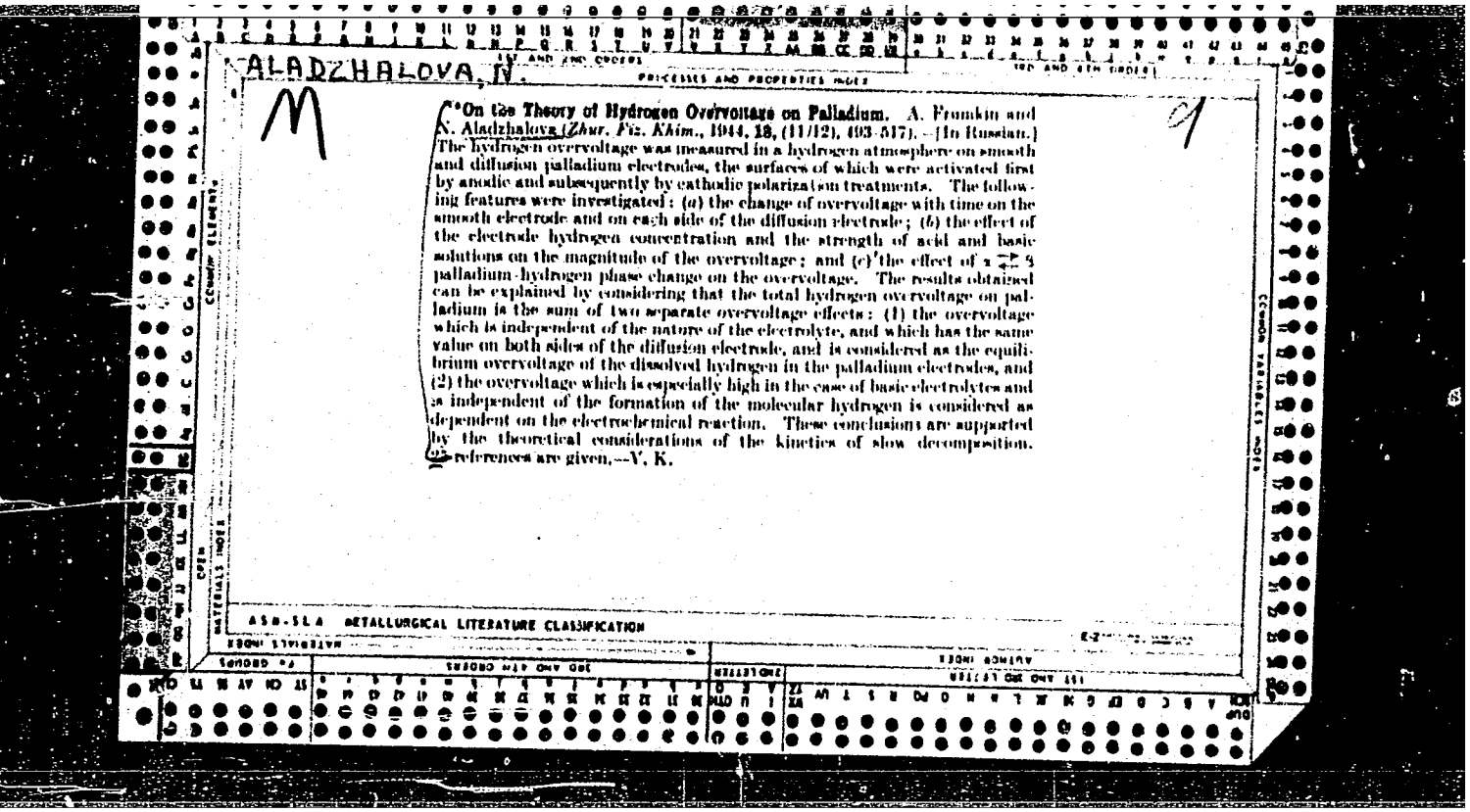
In the eye clinic. Izv. AN Arm. SSR. Biol. nauki 13 no.6:87-91 Je '60. (MIRA 13:8)

1. Glaznaya klinika L'vovskogo gosudarstvennogo meditsinskogo instituta.
(EYE—DISEASES AND DEFECTS) (CORTISONE)

ALADZHEVA, Ye.I., ordinator

Cortisone in some diseases of the eye. Oft. zhur. 15 no. 6:340-342 '60. (MIRA 13:10)

1. Iz glaznoy kliniki (zav. - zasluzhennyy deyatel' nauki prof. A.M. Rodigina) L'vovskogo meditsinskogo instituta.
(EYE—DISEASES AND DEFECTS) (CORTISONE)



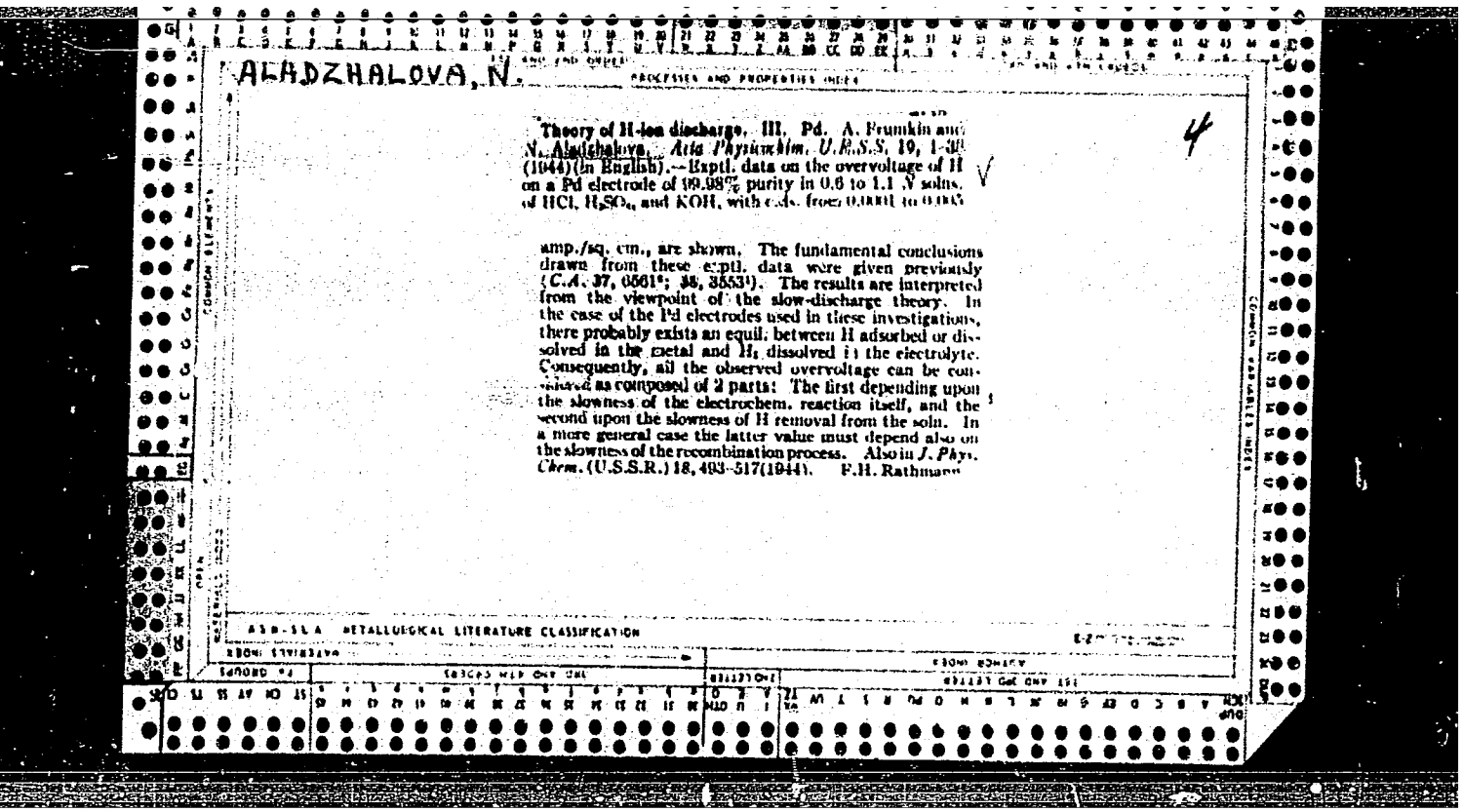
ALADZHALOVA, N.

PROCESSES AND PROPERTIES INDEX

M

On the Theory of Hydrogen Overvoltage on Palladium. A. Frumkin and N. Aladzhalova (*Zhur. Fiz. Khim.*, 1944, **18**, (11/12), 493-517).—[In Russian.] The hydrogen overvoltage was measured in a hydrogen atmosphere on smooth and diffusion palladium electrodes, the surfaces of which were activated first by anodic and subsequently by cathodic polarization treatments. The following features were investigated: (*a*) the change of overvoltage with time on the smooth electrode and on each side of the diffusion electrode; (*b*) the effect of the electrode hydrogen concentration and the strength of acid and basic solutions on the magnitude of the overvoltage; and (*c*) the effect of a $\alpha \rightleftarrows \beta$ palladium-hydrogen phase change on the overvoltage. The results obtained can be explained by considering that the total hydrogen overvoltage on palladium is the sum of two separate overvoltage effects: (1) the overvoltage which is independent of the nature of the electrolyte, and which has the same value on both sides of the diffusion electrode, and is considered as the equilibrium overvoltage of the dissolved hydrogen in the palladium electrodes, and (2) the overvoltage which is especially high in the case of basic electrolytes and is independent of the formation of the molecular hydrogen is considered as dependent on the electrochemical reaction. These conclusions are supported by the theoretical considerations of the kinetics of slow decomposition. 25 references are given.—V. K.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



ALADZHALOVA, N.

4

Theory of H-ion discharge. III. Pd. A. Frumkin and N. Aladzhalova. *Acta Physicochim. U.R.S.S.* 19, 1-30 (1944)(In English).—Exptl. data on the overvoltage of H on a Pd electrode of 99.98% purity in 0.6 to 1.1 *N* solns. of HCl, H_2SO_4 and KOH, with c.d.s. from 0.1 to 0.8 amp./sq. cm., are shown. The fundamental conclusions drawn from these exptl. data were given previously (*C.A.* 37, 6561[6]; 38, 3553[1]). The results are interpreted from the viewpoint of the slow-discharge theory. In the case of the Pd electrodes used in these investigations, there probably exists an equil. between H adsorbed or dissolved in the metal and H_2 dissolved in the electrolyte. Consequently, all the observed overvoltage can be considered as composed of 2 parts: The first depending upon the slowness of the electrochem. reaction itself, and the second upon the slowness of H removal from the soln. In a more general case the latter value must depend also on the slowness of the recombination process. Also in *J. Phys. Chem.* (U.S.S.R.) 18, 493–517(1944). P.H. Rathmann

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

ALADZHALOVA, N.A.

Electrical characteristics of the skeletal musculature under different functional conditions. Trudy fiziol. inst. 4:221-234 '49. (MLRA 9:5)

(MUSCLE) (ELECTROPHYSIOLOGY)

ALADZHALOVA, N. A.

(2)

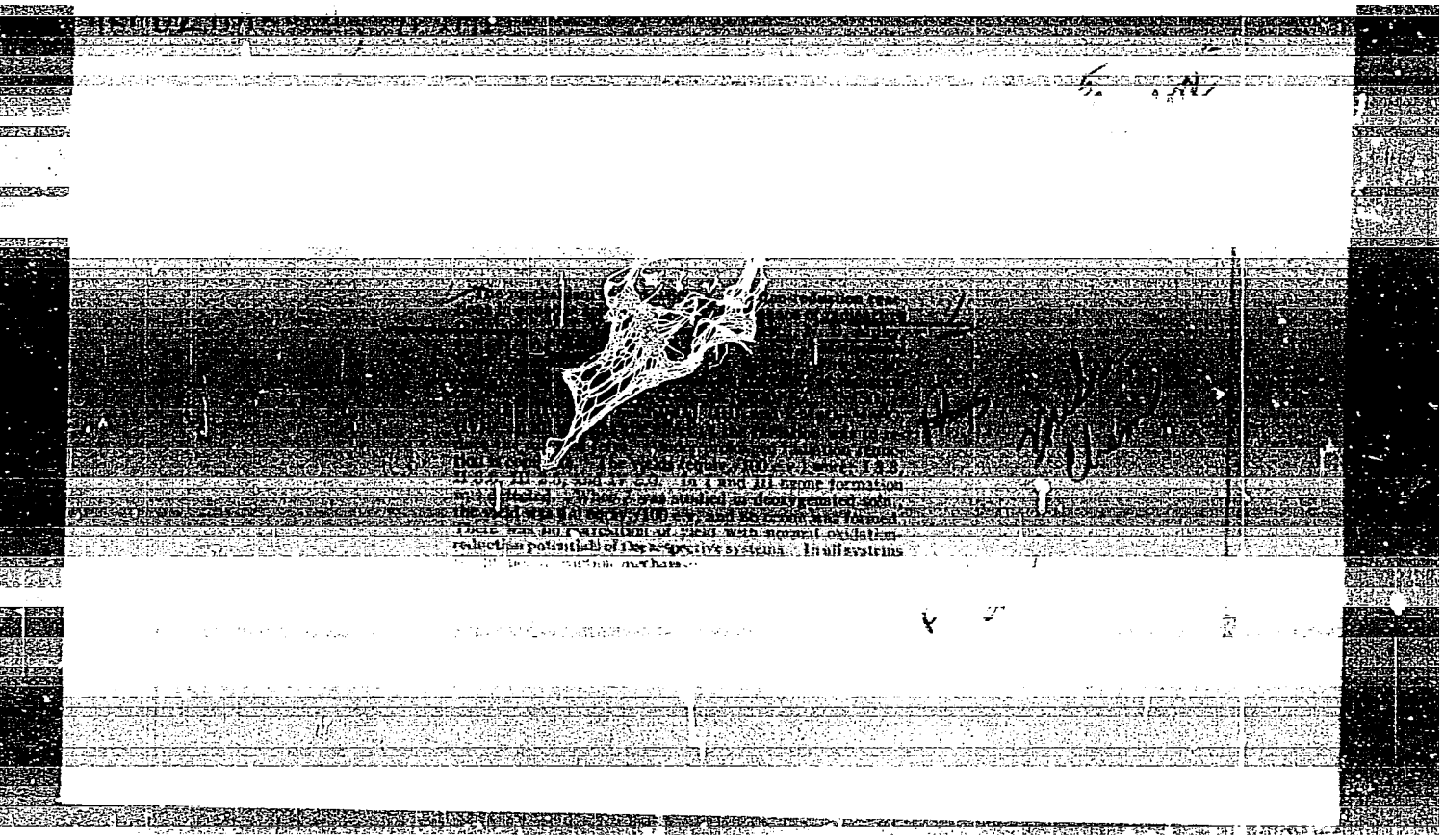
Differences in alteration of the electrical properties of smooth muscle in rapid and in tonic contraction. N. A. Aladzhalova and S. N. Mertsalova. *Doklady Akad. Nauk S.S.S.R.* 94, 213–16(1954); cf. *ibid.* 73, 73(1950).—An oscillographic study of the resistance and capacitance of the intact and excised *Anadonta* muscle specimens at 10 kc. and at 200 kc. applied a.c. under the conditions of tonic contraction under reflex action as well as under the condition of spontaneous contraction, showed that in tonic contraction resistance rises at both low and high frequencies of applied a.c.; in spontaneous contractions, which had the characteristics of phase contraction, the resistance drops at low-frequency a.c. and is unaltered at high frequency. Thus the tone of the muscle may be defined as a consequence of a decrease of the concn. of free ions in the substrate, an alteration of the colloidal matter leading to binding of the ions. In phase contraction notable shifts take place in the surfaces of the micelles with relaxation of the electrostatic forces connected with the functional protein complex of actomyosin. The results of resistance detns. are given graphically.

G. M. Kosolapoff

ALADZHALOVA, N.A.

Electric constants of the cerebral cortex. Dokl.AN SSSR 94 no.6:1053-1056 F '54. (MLRA 7:2)

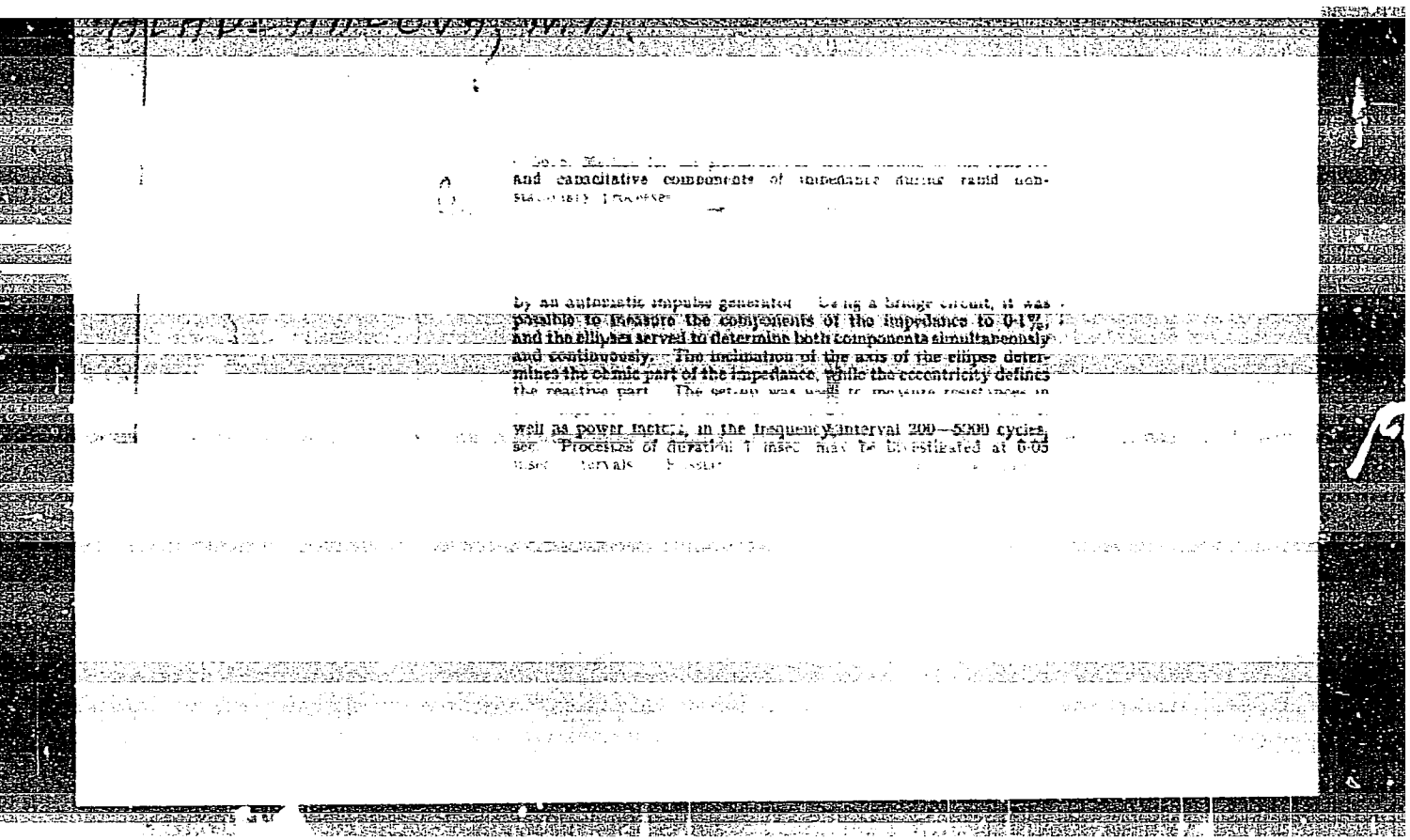
1. Institut biologicheskoy fiziki Akademii nauk SSSR.
(Cerebral cortex) (Electrophysiology)



ALADZHALOVA, N.A.

Physico-chemical studies of changes in the cortex of the brain under various conditions on living animals. N. A. Aladzhalova. *Trudy Inst. Biol. Fiz., Akad. Nauk S.S.S.R.* 1, 14–29(1955).—A method of simultaneous measurements of resistance and capacity of the rapidly changing processes in the brain's cortex was used for the studies on living animals. For that, two small Ag electrodes were put below or on the surface of dura matr. In 5–6 days the effects of the operation completely subsided and the animals could be used for the expts. taking 5–10 days or even longer. The normal resting animals gave smooth curves showing only some variations in the values of both resistance and capacity (for each animal). The influence of (1) stimulants (caffeine, camphor, corasol, and strychnine and (2) depressants (monobromcamphor, NaBr) and narcotic ($MgSO_4$) followed by $CaCl_2$ were observed. Both (1) and (2) produced drop in resistance and simultaneous with that increase in capacity. Numerically the effects of these drugs differed, and the curves had a different shape. The effect of $MgSO_4$ consisted of the simultaneous increase of resistance and the decrease of capacity.

A. V. Tolstoukhov



and capacitative components of impedance during rapid non-

by an automatic impulse generator. Being a bridge circuit, it was possible to measure the components of the impedance to 0·1%, and the ellipses served to determine both components simultaneously and continuously. The inclination of the axis of the ellipse determines the ohmic part of the impedance, while the eccentricity defines the reactive part. The setup was used to measure resistances in

well as power factor, in the frequency interval 200—5000 cycles per second. Processes of duration 1 msec. may be investigated at 0·05 msec. intervals.

MIKHALOVA, N.A.

Lynamics of early ionic shifts in the cerebral cortex brought about by local X-ray irradiation of the abdominal region and the head. Biofizika 1 no.1:49-56 '56. (MLRA 9:12)

1. Institut biologicheskoy fiziki Akademii nauk SSSR, Moskva.
(X RAYS--PHYSIOLOGICAL EFFECT)
(CEREBRAL CORTEX) (ELECTROPHYSIOLOGY)

ALADZHALOVA, N.A.

Superslow rhythmical changes in the electrical potential of the brain.
Biofizika 1 no.2:127-136 '56. (MIRA 9:9)

1.Institut biologicheskoy fiziki Akademii nauk SSSR, Moskva.
(ELECTROENCEPHALOGRAPHY)

USSR / General Biology. Physical and Chemical Biology. B-1

Abs Jour : Ref Zhur - Biol., No 11, 1958, 47472

Author : Aladzhalova, N. A.
Inst : Not given
Title : Physicochemical Processes in the Claw Muscle of Crabs During Slow Contraction and Inhibition.

Orig Pub : Biofizika, 1, No 6, 525-533 (1956)

Abstract : Ionic processes reflected in a change in impedance during the slow contraction and the inhibition of the claw muscle of crabs are described. A characteristic property of this muscle is the enervation of the exciting and of the inhibiting nerves and the ability to carry out both rapid contractions, characteristic of striated muscles, and slow contractions, characteristic of smooth muscles. Slow contractions of the claw muscle of crabs are accompanied by an increase in the ohmic resistance of the muscle of 2-6% and

Card 1/3

USSR / General Biology. Physical and Chemical Biology. B-1

Abs Jour : Ref Zhur - Biol., No 11, 1958, No 47472

Abstract : by a 1-1.5% increase in capacitance. Similar changes are observed to accompany the blocked tone of the smooth muscles invertebrates and the tone-like contraction of striated muscles in vertebrates. However, during the rapid contraction of the latter type of muscles the electric parameters change in the opposite direction. The inhibition of the relaxing muscle, either by the excitation of the inhibitor nerve or the application of a central block, is accompanied by a decrease in resistance and by a 0.8-1% increase in capacitance. The increase in the resistance indicates the capture of the ions, while the small change in capacitance points to an insignificant change in the polarized layers. Depolarization during slow contraction does not take place by discharging the membrane as its ionic permeability increases by the result of ...

Card 2/3

1

USSR/Human - Animal Physiology - The Nervous System. B-5

A. A. ZHALOVA, N.A.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 18567

Author : N.A. Aladzhalova

Inst :

Title : The Change in the Ultra-Slow Rhythmic ... itions in the ... Ionizing Potential of the Brain Under the Influ... Radiation.

Orig Pub : Biofizika, 1956, 1, No 7, 642-652

Abstract : In rabbits the steady potential of th... (shunted through inserted electrodes 4 mm in ... can undergo ... to 8 per ... fluctuations with a frequ...

SMIRNOV, G.D.; ALADZHALOVA, N.A.

Electrical activity and impedance of the cerebral cortex. Dokl. AN SSSR 106 no.3:573-576 Ja '56. (MLRA 9:6)

1.Institut morfologii zhivotnykh imeni A.N.Severtsova i Institut biologicheskoy fiziki Akademii nauk SSSR.
(Cerebral cortex)

AIADZHALOVA, N. A.

"Infra-Slow Rhythmic Oscillations of the Steady Potential of the Cerebral Cortex," Nature (London), 179, No.4567, 11 May 57.

Inst. of Biophysics, AS USSR, Moscow

T

Country : USSR
Category: Human and Animal Physiology. Nervous System. Cerebral Cortex.

Abs Jour: RZhBiol., No 19, 1958, 89207

Author : Aladzhalova, N.A.; Koshtoyants, O. Kh.
Inst :
Title : Investigation with the Aid of the Microelectrode Technique of the Quasi-Constant Potential and its Ultraslow Fluctuations at Different Levels of the Cerebral Cortex.

Orig Pub: Biofizika, 1957, 2, No 3, 327-335

Abstract: Following insertion of a non-polarizing micro-electrode (8-12 μ) into the cortex of the hemispheres of a rabbit an augmentation was noted of the constant negative potential (in relation to the surface of the

Card : 1/2

ALADZHALOVA, N.A.

AUTHOR ALADZHALOVA, N.A. and MASLOV, N.M. 20-2-58/62

TITLE The Region of Anomalous dielectric Losses for Skeletal and Smooth Muscles.
(Oblast' anomal'nykh dielektricheskikh poter' skeletnoy i gladkoy myshts.- Russian)

PERIODICAL Doklady Akademii nauk 1957, Vol 115, Nr 2, pp 407-410 (USSR)

ABSTRACT The Debye theory explains some characteristics of polar molecules by means of the study of the dependence of the dielectric losses of the solution on the frequency of the exterior electric field within the disperion range of the dielectric constant, Although this theory explains only qualitatively the processes of structure formation in highly polimeric systems, the authors are of the opinion that the use of this method will make it possible to explain some characteristics of the structure of muscular tissue in vivo. The smooth and the skeletal muscles differ from each other with respect to their functional activity, their histological structure, their biochemical indices, and their physical properties. The characteristics of the formation of molecular complexes in both types of mscles have been investigated only insufficiently. Apparently in a highly polymeric system like that of the muscle several spheres of abnormal dielectric

CARD 1/3

The Region of Anomalous dielectric Losses for Skeletal and Smooth Muscles.

losses have to be expected. Such a loss was found by the authors in the low frequency diaspason (frequencies 1.10^2-$5,10^4$ hz). This is a maximum. Its development is connected with the fact that a certain dipole-system has such a high degree of free rotation that this system is in a position to orientate itself according to the change of direction of the outer field. This degree of free motion not only depends on the magnitude and charge of the polar members and their connections with the polymeric chain but, to a great extent, also in the interaction of the polymeric unit with the low-molecular components surrounding it; the frequency which has the optimum of losses is inversely proportional to the relaxation period. The energy losses of the outer field for this rotation form a certain part of these total losses and are determined as tangent of the angle of losses (tg δ). This value completes the phase shift between the voltage and the current in the condenser up to 90°. For its measurement a frog muscle was placed between electrode plates in a plexiglas cuvette with Ringer's solution. The angle of losses was calculated by means of the formula $tg\delta = \frac{1}{2 \pi fRC}$, where f is the frequency of the exterior field. The analysis of the frequency dependence of the tgδ of the muscle offers reason for the assumption that the

maximum of the losses in the case of lower frequencies reflects, first of all, the magnitude and the character of the intermolecular compounds of non-chemical origin. Apparently the experiments point in the direction of a more compact packing of the highly polymeric complexes in a skeletal muscle compared with that of a smooth muscle. Earlier it was proved that in the former a much higher ion concentration develops at the phase boundaries between the macro-molecular complexes and the medium than is the case with smooth muscles. This is probably connected with a higher electric charge of the colloidal salts of skeletal muscles. On this depends also the presence of "rigid" connections between the macro-molecules of a skeletal muscle.

(With 4 Illustrations and 5 Slavic References)

ASSOCIATION: Institute of Biophysics of the USSR Academy of Sciences. (Institut biologicheskoy fiziki Akademii nauk SSSR - Russian)

PRESENTED BY: Engel'gardt V.A., member of the Academy, April 16, 1957
SUBMITTED: 5.4.57
AVAILABLE: Library of Congress.

ALADZHALOVA, N.A.

Effect of pharmacological agents on ultraslow oscillation of cortical potentials in comparison with electrocorticographic data. (MIRA 11:12)
Fiziol.zhur. 44 no.9:793-800 S '58

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(CEREBRAL CORTEX, eff. of drugs on,
eff. of various agents on ultra-slow oscillation
of cortical potentials (Rus))

3033. INFRASLOW RHYTHMIC OSCILLATION OF THE POTENTIAL IN NUCLEI OF THE HYPOTHALAMUS AND THALAMUS (Russian text) - Aladzhalova N. A. and Koltsova A. V. Inst. of Biol. Phys., USSR Acad. of Scis. Moscow - BYULL. EKSPER. BIOL. I MED. 1958, 46/10 (3-8) Graphs 3

Infraslow oscillations (8 cycles per min., 0.5-1 mv.) formerly revealed in the rabbit's cerebral cortex were also registered in the premammillary hypothalamus. This infraslow rhythm was absent in the thalamic nuclei of intact animals, but could be revealed after acting upon the brain metabolism by strychnine or atropine. Electric stimulation of hypothalamic dorsal-medial and ventral-medial nuclei increases the amplitude and the regularity of the infraslow rhythm in the sensomotor cerebral cortex and the hypothalamus proper. After strychnine injection the intensification of the infraslow fluctuations appears in the hypothalamus 10-30 min. earlier than in the cerebral cortex. Prolonged stimulation of hypothalamus may cause generalized infraslow oscillations, synchronic in different parts of the brain. Creating a definite gradient of electric field in the cerebral cortex, the infraslow potential affects the excitability of neurons, reflecting the association between the neuroendocrine function and the electrical activity of the brain. Infraslow oscillations are one of the links in integrative brain activity. (II, 3*)

ALADZHALOVA, N.A.

21(4); 17(0) PHASE I BOOK EXPLOITATION SOV/2808

International Conference on the Peaceful Uses of Atomic Energy. 2d, Geneva, 1958

Doklady sovetskikh uchenykh; radiobiologiya i radiatsionnaya meditsina (Reports of Soviet Scientists; Radiobiology and Radiation Medicine) Moscow, Izd-vo Glav. upr. po ispol'zovaniyu atomnoy energii pri Sovete Ministrov SSSR, 1959. 429 p. 8,000 copies printed. (Series: Vtoraya Mezhdunarodnaya konferentsiya po mirnomu ispol'zovaniyu atomnoy energii. Trudy, tom 5)

General Ed.: A.V. Lebedinskiy, Corresponding Member, USSR Academy of Medical Sciences; Ed.: Z.S. Shirokova; Tech. Ed.: Ye.I. Mazel'.

PURPOSE: This book is intended for physicians, scientists, and engineers as well as for professors and students at vtuzes where radiobiology and radiation medicine are taught.

COVERAGE: This is Volume 5 of a 6-volume set of reports delivered by Soviet scientists at the Second International Conference on the Peaceful Uses of Atomic Energy, held on September 1-13, 1958, in Geneva. Volume 5 contains 32 reports edited by Candidates of Medical Sciences S.V. Levinskiy and V.V. Sedov. The reports cover problems of the biological effects of ionizing radiation, future consequences of radiation in small doses, genetic effects of radiation, treatment of radiation sickness, uses of radioactive isotopes in medical and biological research, uses of atomic energy for diagnostic and therapeutic purposes, soil absorption of uranium fission products, their intake by plants, and their storage in plants and foodstuffs. References accompany each report.

Reports of Soviet Scientists (Cont.) SOV/2808

Card 3/7

ALADZHALOVA, N. A., Doc Biol Sci -- (diss) "Slow electrical processes in the brain." Moscow, 1960. 29 pp; (Academy of Medical Sciences USSR); 250 copies; price not given; list of author's works on pp 27-29 (23 entries); (KL, 19-60, 131)

ALADZHALOVA, N.A.

BP-

PHASE I BOOK EXPLOITATION SOV/5294

Akademiya nauk SSSR. Institut biologicheskoy fiziki.

Issledovaniye rannikh reaktsiy organizma na radiatsionnoye vozdeystviye (Study of Early Reactions of the Organism to Radiation Effects) Moscow, Izd-vo AN SSSR, 1960. 220 p. Errata slip inserted. 3,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut biologicheskoy fiziki.

Resp. Ed.: G.M. Frank, Corresponding Member, Academy of Sciences USSR; Ed. of Publishing House: P.V. Garian; Tech. Eds.:V. Volkova and Ye.Y. Kakunl.

PURPOSE: This book is intended for radiobiologists.

COVERAGE: This is a collection of nine articles by different authors on the effects of radiation on life processes. The following are discussed: the relationship between reflector mechanisms and disturbances in hemodynamics; the marked diminution or total absence of hemodynamic reactions under soft irradiation upon preliminary treatment of the skin with novocain; reflector-induced changes in the central nervous system and the almost instantaneous advent of fine physicochemical reactions following irradiation; changes in the stability of the erythrocyte level during the first several hours after irradiation; blood albumin changes after irradiation, occurring earlier than believed heretofore by scientists; and new and important data on tissue breathing and disturbances in the physicochemical properties of erythrocytes. N.N. Livshits, Doctor of Biological Sciences, is mentioned. Each article is accompanied by references.

AVAILABLE: Library of Congress

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(5)

S/075/60/015/02/04/004
B005/B006

AUTHORS: Trusov, G. N., Aladzhalova, N. A.

TITLE: On the Determination of Tritium

PERIODICAL: Zhurnal analiticheskoy khimii, 1960, Vol. 15, No. 2, pp. 238-239

TEXT: The authors of the present paper designed a unit for determining tritium in the form of water vapor. A scheme of the unit is given in a figure and described. Metallic counters with internal filling of type СБМ-7 (SBM-7)[28] were applied. Isopentane under a pressure of 16-18 mm torr was used as filling agent. Since isopentane dissolves vacuum grease, a special cock (depicted in a figure) was designed for introducing the isopentane. A butyl phthalate manometer, which is also shown graphically, was used for measuring low water vapor pressures. Since part of the water vapor condenses on the walls of the counter, the number of counts changes noticeably in the course of time (Fig. 5). Since the degree of condensation is strongly dependent on the temperature, the counter must

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be kept at constant temperature, to enable condensation to be taken into account. In the unit designed by the authors, the counter was heated to 30°C by applying a current with an amperage of 30 a. The temperature was easily kept constant by means of a ЛАТР (LATR). For measurement, first the sample and then the isopentane were introduced into the counter. The activity of the isopentane-water-vapor mixture was measured after 25 min. After standardizing all operations involved in the tritium determination, the relative measuring accuracy was 7%. The characteristic of the counter is considerably impaired by the presence of small quantities of air. After discharge, the characteristic of the counter can be re-established by heating to 250 - 300°C under continuous evacuation. There are 5 figures and 2 non-Soviet references.

SUBMITTED: June 30, 1958

TRUSOV, G.N.; ALADZHALOVA, N.A.

Palladium cathode. Separation and exchange of hydrogen isotopes
Zhur. fiz. khim. 34 no. 11:2521-2529 N '60. (MIRA 14:1)

1. Fiziko-khimicheskiy institut im. L.Ya. Karpova.
(Electrodes, Palladium) (Hydrogen—Isotopes)
(Isotope separation)

ALADZHALOVA, N.A.; KOSHTOYANTS, O.Kh.

Ultraslow rhythmic oscillations of potential in isolated cerebral cortex strips. Fiziol.zhur. 46 no.1:1-8 Ja '60. (MIRA 13:5)

1. From the U.S.S.R. Academy of Sciences Institue of Biological Physics, Moscow.
(CEREBRAL CORTEX physiol.)

5.4600 5.2400(H)

5(4)

SOV/20-130-2-36/69

AUTHORS: Trusov, G. N., Aladzhalova, N. A.

TITLE: Exchange of Hydrogen Isotopes 19 on Palladium

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 2, pp 370 - 373 (USSR)

ABSTRACT: The investigation was carried out by the authors with a view of obtaining experimental data permitting a comparison between the true rate of the hydrogen exchange on palladium with such exchange rates as have been calculated by extrapolation of the overvoltage and ionization curve on to the overvoltage corresponding to equilibrium. The experimental apparatus shown in figure 1 is described: An electrolytic polyethylene cell consisting of three parts with two clamped-in palladium membranes. One of the palladium cathodes was constantly saturated with hydrogen by cathodic polarization of its rear side. The following reactions were investigated: 1) $Pd(H)_n + D_2^{\circ}O \longrightarrow Pd(H)_{n-1}D^{\circ} + HDO$. In this case, solutions of KOD and D_2SO_4 were used, and the separated hydro-

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gen was analyzed by means of a mass spectrometer. 2) $Pd(H)_{n-1}T^{\circ}+H_2O \longrightarrow Pd(H)_n+T^{\circ}HO$. Here the hydrogen adsorbed on Pd was marked by means of potash lye enriched in tritium (0.2 Curie/cm^3) and the activity of the solution, into which T goes over, was measured by means of Geiger-Müller counters. The experimental results obtained are shown in tables 1 and 2 as well as in figure 2. On all electrodes investigated the rate of isotope exchange was two to three times higher than the rate extrapolated from the overvoltage curve. The following explanation of these results is suggested: The water molecule (or the hydroxonium ion) is adsorbed on the hydrogen-saturated palladium in such a manner that a H-atom is located immediately on the metal surface. This H-atom is separated and replaced by a H-atom of the adsorption layer. A chemical exchange reaction thus occurs, which is independent of the potential jump between metal and solution. The exchange rate depends on the capability of the surface of adsorbing water molecules. The authors then mention an oral interpretation of their experimental results given by A. N. Frumkin by means of electrochemical

ALADZHALOVA, N. A.

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S/020/60/133/03/10/013
B004/B056 82275

AUTHORS: Lazorenko-Manevich, R. M., Aladzhalova, N. A., Veselovskiy, V. I.

TITLE: Electrochemical and Photoelectrochemical Processes on p- and n-Type Germanium in the Region of Cathodic Polarization

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 3, pp. 620 - 623

TEXT: The authors investigated the action of illumination on the separation of hydrogen on germanium. The experiments were carried out with samples of p-type Ge (resistivity: 0.5 - 21.0 ohm.cm) and n-type Ge (1.1 and 22.9 ohm.cm) in 1N KOH and 1N H_2SO_4. The electrode surface was etched with CP-4 (SR-4) or a mixture of HNO_3 + HF. All experiments were carried out in a hydrogen atmosphere. Illumination was carried out by means of a 300 w lamp through a 10 cm thick water layer. The light intensity on the electrode surface was about 10^{-1} cal/cm^2.sec. Fig. 1

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shows the typical steady curves (1 - 4) after 10 - 15 h of cathodic polarization and curve 5 for not previously polarized p-type germanium. The inflection of the polarization curves of p-type germanium at high amperages is explained by the inhibition of electron diffusion, which does not occur with n-type Ge, because the latter has a high electron concentration in the conduction band. Fig. 2 a shows the change with time in the overvoltage η after switching on 10 ma/cm^2. The occurring maximum of η depends on the pretreatment of the electrode. In germanium coated with a thick oxide layer (1000 - 2000 Å), no maximum of η occurs. The drop of the η-curve after the maximum is explained by an increase in the rate of the generation of electrons on the germanium surface, which is caused by the absorption of hydrogen. During illumination of p-type Ge a rapid drop of η occurs due to a photoeffect. Besides, it was observed that in the presence of hydrogen this drop occurred already in the region of diffusion inhibition, which is explained by photodesorption of H. Fig. 3 shows the potential course in germanium, $\varphi(t)$, without an external current source during illumination and in the dark. In the case of p-type Ge the

Electrochemical and Photoelectrochemical Processes on p- and n-Type Germanium in the Region of Cathodic Polarization

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photoeffect vanishes after a short cathodic polarization, and in n-type Ge it is intensified. Short anodic polarization no longer reduces the potential to the initial value. The authors draw the conclusion that the adsorption of hydrogen on the germanium surface increases its negative charge due to the formation of acceptor levels in the forbidden band. Molecular hydrogen does not produce this effect. The illumination of polarized p-type Ge influences the rate of gas separation in an alkaline solution (Fig. 4). Photodesorption occurs: Under the action of light the adsorbed hydrogen dissolves in the electrolyte. There are therefore two steady states: a dark state and a light state, where the latter differs from the former by the lower probability of gas-bubble formation and the higher content of dissolved hydrogen in the electrolyte. There are 4 figures and 11 references: 4 Soviet, 5 American, 1 British, and 1 German.

ASSOCIATION: Fiziko-khimicheskby institut im. L. Ya. Karpova (Physico-chemical Institute im L. Ya. Karpov)

PRESENTED: March 10, 1960, by A. N. Frumkin, Academician

SUBMITTED: March 1, 1960

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TRUSOV, G.N.; ALADZHALOVA, N.A.; VESELOVSKIY, V.I.

Separation of hydrogen isotopes on a palladium cathode. Dokl.AN SSSR 138 no.6:1385-1388 Je '61. (MIRA 14:6)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova. Predstavleno akademikom A.N.Frumkinym.
(Hydrogen--Isotopes)

ALADZHALOVA, Nina Aleksandrovna; LATASH, L.P., red.izd-va; MAKAGONOVA, I.A., tekhn. red.

[Slow electric processes in the brain] Medlennye elektricheskie protsessy v golovnom mozge. Moskva, Izd-vo Akad. nauk SSSR, 1962. 239 p. (MIRA 15:5)

(ELECTROPHYSIOLOGY) (BRAIN)

[illegible] ZHAIOVA, [illegible]

"Some [illegible] the slow monitoring system of the brain."

Report submitted, but not presented at the 22nd International Congress of Physiological Sciences, Leiden, the Netherlands 10-17 Sep 1962

ALADZHALOVA, N.A.; KOL'TSOVA, A.V.

Hourly fluctuations of the electric activity in brain structures.
Dokl. AN SSSR 142 no.1:241-244 Ja '62. (MIRA 14:12)

1. Institut biofiziki AN SSSR. Predstavleno akademikom V.N. Chernigovskim.

(BRAIN)
(ELECTROPHYSIOLOGY)

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S/020/62/147/002/021/021
B144/B101

27.1140

AUTHORS: Aladzhalova, N. A., Koshtoyants, O. Kh.

TITLE: Electric activity of an isolated layer of apical dendrites of the brain cortex

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 147, no. 2, 1962, 505 - 508

TEXT: A strip of dendrites 4.6 mm^2 in area and 150-200 μ thick was isolated from the cell body layer of the cerebral cortex of rabbits paralyzed with diplacin, the blood circulation through the pia mater being preserved. Its electric activity on stimulation with acute-angled pulses of 2 msec, 3 - 25 cps, and 20 v, was analyzed by applying spring-loaded point electrodes. When the axo-dendrite strip is at rest, it does not exhibit any spontaneous electric activity, since no stimuli arrive. The response to individual stimuli is recorded in the form of an initial peak lasting 0.3 - 0.8 msec which reflects the axon salvo, a sharp second negative peak of 0.5 - 0.8 msec indicating the membrane potential of the dendrite, and of a slow negative wave of 5 - 10 msec representing the postsynaptic potential. This as well as the membrane potential decreases when the

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stimulus intensifies. With a certain stimulus intensity the slow wave becomes positive. Spontaneous activity of varying low frequencies (2 - 14 cps) can be induced by stimulation with 15 cps current for 5 - 10 sec, but appears only 40 - 120 sec after cessation of the stimuli. A similar effect of longer duration including also discharges of 30 - 40 cps was obtained in the isolated cortex. The hyperslow potential oscillations (1.5 - 8 per min; 0.5 - 2 mv) observed in the axo-dendrite strip were inhibited by electric stimulation. Hence, the layer of apical dendrites has an autonomous activity, and the absence of high-frequency oscillations in this layer supports the hypothesis of E. D. Adrian (J. Physiol., 86, 127 (1936)) that the high-frequency components of the EEG reflect the activity of cells. The nature of the latent period must still be cleared up; it may be due to an increase in sensitivity owing to slight depolarization, which supports the circulation of subliminal stimuli and results finally in the manifestation of the activity. There are 3 figures.

ASSOCIATION: Institut biologicheskoy fiziki Akademii nauk SSSR (Institute of Biological Physics of the Academy of Sciences USSR)

S/020/62/147/002/021/021
B144/B101

Electric activity of ...

PRESENTED: May 7, 1962, by V. N. Chernigovskiy, Academician

SUBMITTED: April 29, 1962

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ALADZHALOVA, N.A.; KOL'TSOVA, A.V.

Hourly fluctuations in the electric activity of brain structures in connection with the coagulation of hypothalamus and hypophysial bonds. Biul. eksp. biol. i med. 55 no.2:7-12 F'63. (MIRA 16:6)

1. Predstavlena akademikom V.N.Chernigovskim.
(ELECTROENCEPHALOGRAPHY) (HYPOTHALAMUS)
(PITUITARY BODY) (PERIODICITY)

ALADZHALOVA, N. A.

"Studies on electroencephalography."

report presented at the 3rd Intl Cong on Cybernetic Medicine, Naples, 21-24 Mar 64.

L 52150-65 EE/JXT(BF)

ACCESSION NR: AT5014725 UR/0000/65/000/000/0172/0178

AUTHOR: Aladzhalova, N. A.

TITLE: Some cerebral mechanisms participating in impressions

SOURCE: Operativnyye i postoyannyye zapominayushchiye ustroystva (Rapid and nonvolatile storage); sbornik statey. Leningrad, Izd-vo Energiya, 1965, 172-178

TOPIC TAGS: brain track multiplicity, brain optimum minimum link, brain probabilistic function, shortterm human memory, longterm live memory, brain model

ABSTRACT: The most widely accepted brain models of the past, based on pulse circulations between nerve cells rigidly connected by nerve conductors, are on the way out. They are being replaced by dynamic models with unstable connection between elements, i. e., opera- ... mechanisms. In the present report, the author studies tentatively: 1)

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L 51580-65

ACCESSION NR: AT5014725

ASSOCIATION: None

SUBMITTED: 10Jan65 ENCL: 00 SUB CODE: 1S, DP

NO REF SOV: 005 OTHER: 004

Bionics

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L 34903-65 EWT(m)/EPF(c)/EWG(m)/EPR/T/EWP(t)/EWP(b) Pr-4/Ps-4 IJP(c)
RWH/JD/JG

ACCESSION NR: AP5004362 S/0076/65/039/001/0218/0222

AUTHOR: Mazitov, Yu. A.; Fedotov, N. A.; Aladzhalova, N. A.

TITLE: Ionization of oxygen at a "three phase boundary" in alkaline solutions. III. Selection of a catalyst for gas-diffusion electrodes.

TOPIC TAGS: oxygen electrode, electrochemistry

ABSTRACT: Ionization of O_2 on Ru, Rt, Ag and Ag (modified (10%) alloy electrodes in a broad temperature interval. The experimental conditions simulate closely the conditions which prevail in the gas pores of the diffusion electrode. The electrodes were partially immersed in the electrolyte in order to simulate existing conditions for a porous water-alkali electrode. Then the effect of temperature on the current was studied and the temperature was found at which ionization for a given material begins to be limited by the rate at which oxygen is delivered into the reaction zone. It was found that the O_2 ionization process is slowed down at low temperatures depending on the activity of the metal. This is apparently caused by the accumulation of hydrogen peroxide in the reaction zone. Maximum ionization efficiency was observed in

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ACCESSION NR AP5004362

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the film and in the meniscus is determined by the rate of diffusion of O_2 molecules through the electrolyte film. The second factor which determines the saturation current is the width of the reaction zone which depends on the stationary concentration of hydrogen peroxide in this zone. Orig. art. has: 4 figures.

ASSOCIATION: Fiziko-khimicheskiy institut im. [illegible] (Physical Institute of Physical Chemistry)

SUBMITTED: 24Feb64 ENCL: 00 SUB CODE: GC

NO REF SOV: 005 OTHER: 005

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ALADZHALOVA, N.A.; KOL'TSOVA, A.V.

Wandering bursts of electric potentials in brain structures.
Fiziol. zhur. 50 no.8:981-989 Ag '64. (MIRA 18:12)

1. Institut biofiziki AN SSSR, Moskva.

ALADZHALOVA, N.A.

Premises for studying slow control system of the brain.
Biofizika 10 no.6:1076-1082 '65. (MIRA 19:1)

1. Institut biologicheskoy fiziki AN SSSR, Moskva. Submitted October 22, 1964.

ALADZHALOVA, N.A.

Concept of the role of dendrites in the mechanism of signal discrimination. Zhur. vys. nerv. deiat. 15 no.6:1088-1097 N-D '65. (MIRA 19:1)

1. Institut biologicheskoy fiziki AN SSSR. Submitted April 20, 1965.

MAZITOV, Yu.A.; FEDOTOV, N.A.; ALADZHALOVA, N.A.

Ionization of oxygen on a "three-phase boundary" in alkaline solutions. Part 2. Zhur. fiz. khim. 39 no. 1:218-222 Ja '65
(MIRA 19:1)

1. Fiziko-khimicheskiy institut imeni L. Ya. Karpova, Moskva.
Submitted February 24, 1964.