

KASSIL, G.N.

KASSIL, G.N., prof.

Voluntary and involuntary delusions. Zdorov'e 4 no.1:4-5 Ja '58.
(HEALTH EDUCATION) (MIRA 11:2)

GASHCHENKOV, N.I., IRGER, I.M., KASSIL', G.N., KAMENETSKAYA, B.O.
ORDYNETS, G.V.

Principles of pathogenic therapy in cerebrocranial injuries;
neurohormonal reactions in acute cerebrocranial injuries [with
summary in French]. Zhur.nevr. i psikh. 58 no.10:1204-1209 '58
(MIRA 11:11)

1. Klinika nervnykh bolezney (zav. - prof. N.I. Grashchenkov)
TSentral'nogo instituta usovershenstvovaniya vrachey i neyrokhirurgicheskoye
otdeleniye (zav. - doktor med.nauk I.M. Irger) bol'nitsy
imeni S.P. Botkina).

(BRAIN, wds & inj.
adrenocortical reactions (Rus))
(ADRENAL CORTEX HORMONES, physiol.
in brain inj. (Rus))

GRASHCHENKOV, N.I.; KASSIL', G.N.

Neuro-humoral and neuro-hormonal correlates in certain forms of neural pathology. Zhur. nevr. i psikh 58 no.12:1446-1454 '58. (MIRA 12:1)

1. laboratoriya klinicheskoy neyrofiziologii AN SSSR na baze kliniki nervnykh bolezney I Moskovskogo ordena Lenina meditsinskogo instituta (zav. - prof. N.I. Grashchenkov), Moskva.

(NERVOUS SYSTEM, dis.

neuro-humoral & neuro-hormonal correlates (Rus))

(ENDOCRINE GLANDS, physiol.

neuro-endocrine & neuro-humoral correlates in MS dis. (Rus))

KASSIL', Grigoriy Naumovich; BOYEVA, Ye.M.; VEYN, A.M.

[Treatment by acupuncture (chen-chiu)] Lechenie igloukalyvaniem;
chzhen'-tsiuterapiia. Moskva, Znanie, 1959. 30 p. (Vsesoiuznoe
obshchestvo po rasprostraneniuiu politicheskikh i nauchnykh znanii.
Ser.8: Biologiya i meditsina, no.17). (MIRA 13:6)
(ACUPUNCTURE)

ORDINETS, G. V., SOLOV'YEVA, A. D., GURSKIY, Yu. N.

"Functional State of the Suprarenal Cortex in Lesions of the Diencephalic Area."

Theses of the Proceedings of the Annual Scientific Sessions 23-26 March 1959
(All-Union Institute of Experimental Endocrinology)

From the Laboratory of Clinical Neurophysiology of the Academy of Sciences USSR
at the Clinic of Nervous Diseases (Head--Professor N. I. Grashchenkov, active member
of the Academy of Medical Sciences USSR) of the First Moscow Order of Lening Medical
Institute

GRASHCHENKO, N.I. (Moskva); IRGER, I.M. (Moskva); KASSIL', G.N. (Moskva);
GIL'MAN, I.M. (Moskva); KAMENETSKAYA, B.I. (Moskva)

Vascular factor in acute craniocerebral trauma. Trudy Gos. nauch.-
issl. psikhonevr. inst. no.20:333-342 '59. (MIRA 14:1)
(~~BRAIN~~-WOUNDS AND INJURIES)

KASSIL', G.N., prof.; VAYSEEL'D, I.L. (Moskva)

Histamine metabolism in certain types of neural diseases. Pat.
fiziol. i eksp. terap. 3 no.3:16-22 My-Je '59. (MIRA 12:7)

1. Iz laboratorii klinicheskoy neyrofiziologii AN SSSR na baze
kliniki nervnykh bolezney I Moskovskogo ordena Lenina meditsinskogo
instituta (zav. - chlen-korrespondent AN SSSR prof. N.I. Grashchenkov).
(HISTAMINE, metabolism,
in various dis. (Rus))

KASSIL', G.N., prof.; MATLINA, E.A.; SOKOLINSKAYA, R.A. (Moskva)

Adrenaline-like substances and biological activity of the blood in certain forms of diseases of the nervous system [with summary in English]. Probl.endok. i gorm. 5 no.1:70-79 Ja-F '59.

(MIRA 12:3)

1. Iz laboratorii klinicheskoy neyrofiziologii AN SSSR na baze kliniki nervnykh bolezney I Moskovskogo ordena Lenina meditsinskogo instituta (zav. - prof. N.I. Grashchenkov).

(SYMPATHOMINETICS, in blood,

in NS dis. (Rus))

(NERVOUS SYSTEM, diseases

blood sympathomineics & biol. activity (Rus))

KASSIL', G.N.; RAPOPORT, S.Ya.; ROSIN, Ya.A.

Lina Solomonovna Shtern; 80th anniversary of her birth. Fiziol.zhur.
45 no.2:216-219 P '59. (MIRA 12:3)
(BIOGRAPHIES,
Shtern, Lina S (Rus))

KASSIL', G.N.; MATLINA, E.A.; SOKOLINSKAYA, R.A.

Dynamic studies on adrenalielike substances and on the biological activity of the blood in certain forms of diencephalic pathology. Biul.eksp.biol.i med. 48 no.12:31-36 D '59. (MIRA 13:5)

1. Gruppya chlena-korrespondenta AN SSSR N.I. Grashchenkova pri Otdelenii biologicheskikh nauk AN SSSR na baze kliniki nervnykh bolezney I Moskovskogo meditsinskogo instituta. Predstavlena deystvitel'nyy chlenom AMN SSSR N.I. Grashchenkovym.
(SYMPATHOMIMETICS physiol.)
(DIENCEPHALON physiol.)

GRASHCHENKOV, N.I.; IRGER, I.M.; KASSIL', G.N.; VEYN, A.M.; KAMENETSKAYA, B.I.

Basis for pathogenic therapy of cerebrocranial injuries. Report no.1.
Functional state of the hemato-encephalic barrier in acute closed cerebro-
cranial injuries. Zhur. nevr. i psikh 59 no.3:351-356 '59. (MIRA 12:4)

1. Klinika nervnykh bolezney (zaveduyushchiy - prof. N.I. Grashchenkov)
TSentral'nogo instituta usovershenstvovaniya vrachey i neyrokhirurgiche-
skoye otdeleniye (zav. - doktor med. nauk I.M. Irger) bol'nitsy imeni
S. P. Botkina, Moskva.

(BRAIN, wds. & inj.
hemato-encephalic barrier (Rus))
(HEMATO-ENCEPHALIC BARRIER, in var. dis.
brain inj. (Rus))

GRASHCHENKOV, N.I.; KASSIL', G.N.; USOVA, M.K.; VEYN, A.M.; IL'INA, N.A.;
KAMENETSKAYA, B.I.; MEL'NIKOVA, Ye.M.

Application of acupuncture in certain diseases; clinical physiological
investigations. Zhur.nevr.i psikh. 59 no.10:1159-1166 '59.

(MIRA 13:3)

1. Laboratoriya reflektornoy terapii Instituta psikiatrii (direktor -
prof. D.D. Fedotov) Ministerstva zdravookhraneniya SSSR, Moskva.
(ACUPUNCTURE)

17(4), 17(12)
AUTHORS:

SOV/20-126-2-61/64
Kassil', G. N., Matlina, E. A., Sokolinskaya, R. A.

TITLE: Adrenaline-like Substances and the Biological Activity of Blood in the Case of Cold Essay Under Normal Conditions and Those of Diencephalic Pathology (Adrenalinopodobnyye veshchestva i biologicheskaya aktivnost' krovi pri kholodovoy probe v usloviyakh normy i diencefal'noy patologii)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 2, pp 446-449 (USSR)

ABSTRACT: The state of the vegetative nervous system is to a certain extent characterized by the different forms of the adrenaline-like substances. On the other hand it is impossible to gain by only one determination of the chemical composition and the biological properties of blood a conception concerning the "homeostase" boundaries or the structure of the pathological syndrome as the latter is always a combined expression of pathological processes and compensation phenomena. The main principle of the collective group of the authors is a dynamical investigation of the human organism: of a healthy, a sick, and a recovering one. The authors did not restrict themselves to the determination of a physiological or biochemical final

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Adrenaline-like Substances and the Biological Activity of Blood in the Case of Cold Essay Under Normal Conditions and Those of Diencephalic Pathology

constant but tried to find the adaptation mechanisms of the organism and to separate the primary from the secondary reactions which are so important for the origin, course, and result of a disease. The authors used the method of the adrenaline-like substances and of the biological blood activity before and after the stress in order to characterize the reactivity of the nervous system. In the present paper the results are given which were obtained by cooling down the experimental person's hand. Healthy persons (control) and such affected with different forms of diencephalic pathology (Refs 5, 6) served for this purpose. With practically healthy persons the cold essay lead to an increase in the sympathetic blood activity. It was expressed by an increase of the positive inotropic effect on an isolated frog heart (an average of 40-50%). The acetyl-choline level in blood was reduced by an average of 40%. In most cases the content of reversibly reduced adrenaline-like substances and more rarely of the specificity coefficient (SpC) increased. Thus the primary reaction of healthy persons is in the case of a cold stress the activation of the sympathetic adrenal apparatus. The

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Adrenaline-like Substances and the Biological Activity of Blood in the Case of Cold Essay Under Normal Conditions and Those of Diencephalic Pathology

sick persons can be divided into 4 groups according to the results: Ist group. The reaction does not differ considerably from the normal reaction. Often there occur, however, considerable shifts which surpass the physiological fluctuations of the content of the investigated substances. Mainly persons with functional disturbances of the activity of the regulatory hypothalamus nerves were concerned. The disease is curable in spite of the patients' complaints and shows a favorable course. IInd group. The sympathetic activity (accumulation of "sympathines") increases here, the adrenaline-like substances increase, sometimes also the SpC in the case of a simultaneous increase in acetyl-chinoline. IIIrd. group. The sympathetic blood activity and the acetyl-chinoline decrease are reduced. An additional heat essay is recommended (Ref 4). IVth group. The sympathetic blood activity is reduced. Reduction of the adrenaline-like substances, sometimes reduction of SpC. Acetyl-chinoline increases (Fig 2). This occurs in severe diencephalic pathology and is scarcely curable. The increase in the sympathetic blood activity can depend on the accumulation of the adrenaline-

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Adrenaline-like Substances and the Biological Activity of Blood in the Case of Cold Essay Under Normal Conditions and Those of Diencephalic Pathology

like substances, on the transition of the oxidized forms to reduced ones, but also on the reduction of the "parasympathine" level. The increase in "parasympathine" level is often connected with the reduction of the sympathetic activity. There are 1 figure and 7 Soviet references.

ASSOCIATION: Gruppya chl.-korr. AN SSSR N. I. Grashchenkova pri Otdelenii biologicheskikh nauk Akademii nauk SSSR
(Group of the Corresponding Member AS USSR N. I. Grashchenkov at the Department of Biological Sciences of the Academy of Sciences USSR)

PRESENTED: December 4, 1958, by L. S. Shtern, Academician

SUBMITTED: November 29, 1958

Card 4/4

KASSIL', G. N.; LATASH, L. P. (Moskva)

K voprosu ob uchastii retikulyarnoy formatsii stvola mozga cheloveka v nekotorykh gomeostaticeskikh reaktsiyakh organizma

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

KASSIL', G.N., prof.; VEYN, A.M., kand.med.nauk

Central nervous system. Zdorov'ie 6 no.4:9-11 Ap '60. (MIRA 13:8)
(NERVOUS SYSTEM)

GRASHCHENKOV, N.I.; KASSIL', G.N.; LATASH, L.P.; ORDYNETS, G.V.

Participation of the reticular formation and hypothalamic vegetative nuclei in man adaptive reactions caused by administration of small doses of adrenaline. Zhur. vys. nerv. deiat. 10 no. 1:10-18 Ja-F '60. (MIRA 14:2)

1. N.I. Grashchenkov's Research Group Section of Biological Sciences, U.S.S.R. Academy of Sciences.
(ADRENALINE) (HYPOTHALAMUS) (ADRENOCORTICAL HORMONES)

GRASHCHENKOV, N.I.; KASSIL', G.N.

Clinical and physiological analysis of some forms of diencephalic pathology. Vest. AMN SSSR 15 no. 10:3-18 '60. (MIRA 14:4).

1. Laboratoriya neyro-gumoral'noy regulyatsii Instituta vysshey nervnoy deyatel'nosti AN SSSR i nauchno-issledovatel'skaya gruppa AMN SSSR.

(DIENCEPHALON--DISEASES)

KASSIL', G.N., prof.

Nasal electrophoresis. Sov. med. 24 no. 7:95-103 J1 '60.

(MIRA 13:8)

1. Iz laboratorii neyro-gumoral'noy regulaytsii Instituta vyshey nervnoy deyatel'nosti Akademii nauk SSSR na Baze kliniki nervnykh bolezney (zav. - chlen-korrespondent AN SSSR, prof. N.I. Grashchenkov) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.

(ELECTROPHORESIS) (NOSE)

GRASHCHENKOV, N.I.; IRGER, I.M.; KASSIL', G.N.; GIL'MAN, P.M.; KAMENETSKAYA, B.I.

Principles of pathogenic therapy in cerebrocranial injuries. Report
No.3: Physiological mechanism of certain forms of therapy. Zhur.nevr.
i psikh. 60 no.5:551-555 '60. (MIRA 13:9)

1. Klinika nervnykh bolesney (zav. - prof. N.I. Grashchenko) Tsentral'-
nogo instituta usovershenstvovaniya vrachey i neyrokhirurgicheskoye
otdeleniye (zav. - doktor meditsinskikh nauk I.M. Irger) bol'nitsy
imeni S.P. Botkina, Moskva.

(BRAINS--WOUNDS AND INJURIES)
(BLOOD VESSELS--PERMEABILITY)

KASSIL, G. N., VAYSFELD, I. L., MATLINA, E. SH., SOKOLINSKAYA, R. A.,
UGOLEVA, S. V., and SHREYBER, G. L. (USSR)

"Biochemical Mechanism of Physiological and Pathological Reactions
of an Organism on the Introduction of Certain Hormone Preparations."

Report presented at the 5th International Biochemistry Congress,
Moscow, 10-16 Aug 1961

GRASHCHENKOV, N. I. and KASSIL, G. N. (USSR)

"The clinico-physiological analysis of some forms of the diencephalic region"

Report submitted to the 7th Intl. Congress of Neurology, Rome, Italy, 10-15 Sep 61

KOCHERGIN, I.G., prof.; KASSIL', G.N., prof.

Acupuncture. Zdorov'ie 7 no.3:14-15 Mr '61.

(MIRA 14:3)

1. Chlen-korrespondent AMN SSSR (for Kochergin).
(ACUPUNTURE)

KASSIL', G.N.; BOYEVA, Ye.M.; VEYN, A.M.; KAMENETSKAYA, B.I.; MAL'TSINA, V.S.;
MEL'NIKOVA, Ye.M.; FISHMAN, M.N.

Mechanisms of therapeutic effects in acupuncture. Vest.AMN SSSR
16 no.3:37-47 '61. (MIRA 14:7)

1. Iz laboratorii reflektornoy terapii (rukovoditel' - deystvitel'nyy
chlen AMN SSSR N.I.Grashchenkov) Instituta psikhiiatrii (dir. - prof.
D.D.Fedotov) AMN SSSR.

(ACUPUNCTURE)

KASSIL', G.N.

Hemato-encephalic barrier under certain physiological and pathological conditions of the central nervous system. Fiziol.zhur. 47 no.3:301-309 Mr '61. (MIRA 14:5)

1. From the Laboratory of Neurohumoral Regulation, Institute of the Higher Nervous Activity, U.S.S.R. Academy of Sciences, Moscow.
(BRAIN)

KASSIL', G.N.; SOLOV'YEVA, A.D.

Adrenaline test under normal conditions and in certain forms of diencephalic pathology. Zhur.nevr.i psikh. 61 no.2:256-264 '61.
(MIRA 14:6)

1. Laboratoriya neyro-gumoral'noy regulyatsii Instituta vysshey nervnoy deyatel'nosti AN SSSR na baze kliniki nervnykh bolezney (zav. - prof. N.I.Grashchenkov) I Moskovskogo ordena Lenina meditsinskogo instituta.
(ADRENALINE) (DIENCEPHALON--DISEASES)

KASSIL', G.N.

Mechanism of the action of small doses of adrenaline on the human body under normal conditions and in case of certain lesions in the diencephalic region. Dokl. AN SSSR 136 no.2:504-507 '61.

(MIRA 14:1)

1. Institut vysshey nervnoy deyatel'nosti Akademii nauk SSSR.
Predstavlen akademikom V.N. Chernigovskim.

(ADRENALINE) -

(BRAIN--WOUNDS AND INJURIES)

KASSIL', G.N.; SOKOLINSKAYA, R.A.

Phenomenon of acetylcholine fixation by the human blood in vitro.
Dokl. AN SSSR 140 no.4:959-962 0 '61. (MIRA 14:9)

1. Institut vysshey nervnoy deyatel'nosti i neyrofiziologii AN SSSR.
Predstavleno akademikom V.N.Chernigovskim.
(CHOLINE) (BLOOD--ANALYSIS AND CHEMISTRY)

VAYSFELD, I.L.; UGOLNVA, S.V. (Moskva); KASSIL', G.N., prof.

Correlation between adrenaline and histamine in the blood in
adrenaline load under normal conditions and in some forms of
neural pathology. Pat. fiziol. i eksp. terap. 6 no.4:78-79
Jl-Ag '62. (MIRA 17:8)

1. Iz laboratorii neyro-gumoral'noy regulyatsii (zav. - chlen-
korrespondent AN SSSR prof. N.I. Grashchenkov) Instituta vysshey
nervnoy deyatel'nosti (dir. - chlen-korrespondent AMN SSSR prof.
V.S. Rusinov) AN SSSR.

KASSIL', G.N., prof.; LATASH, L.P., kand.med.nauk

Consciousness, wakefulness, sleep. *Zdorov'ie* 8 no.1:9-11
Ja '62. (MIRA 15:3)

(BRAIN--LOCALIZATION OF FUNCTIONS)

KASSIL', Grigoriy Naumovich, prof.; GRASHCHENKOV, N.I., prof., otv.
red.; VEYN, A.M., red.izd-va; KASHINA, P.S., tekhn. red.

[Hemato-encephalic barrier; the anatomy, physiology, methods
of examination, and clinical aspect] Gemato-entsefalicheskii
bar'er; anatomia, fiziologiya, metody issledovaniia, klinika.
Moskva, Izd-vo Akad. nauk SSSR, 1963. 407 p. (MIRA 16:5)

1. Chlen-korrespondent Akademii nauk SSSR, deystvitel'nyy
chlen Akademii meditsinskikh nauk SSSR i Akademii nauk
Belorussskoy SSR (for Grashchenkov).
(Hematoencephalic barrier)

GRASHCHENKOV, N.I., otv. red.; KASSIL', G.N., prof., otv. red.;
SHREYBERG, G.L., red. izd-va; ASTAF'YEVA, G.A., tekhn. red.

[Physiology and pathology of the diencephalic region of the
brain] Fiziologiya i patologiya diencefal'noi oblasti go-
lovnogo mozga. Moskva, Izd-vo AN SSSR, 1963. 506 p. (MIRA 16:10)

1. Akademiya nauk SSSR. Laboratoriya neuro-gumoral'noy reguliyatsii.
2. Chlen-korrespondent AN SSSR (for Grashchenkov).
(DIENCEPHALON)

KASSIL^s, G.N., prof.

Brain barrier. Zdorov'e 9 no.3:9-11 Mr '63.
(BRAIN) (CAPILLARIES--PERMEABILITY)

(MIRA 1615)

KASSIL', G.N.; BOYEVA, Ye.M.; VEYN, A.M.; KAMENETSKAYA, B.I.; MAL'TSINA, V.S.;
~~ME~~NIKOVA, Ye.M.; RAYT, M.L.

Acupuncture is a reflex method of treatment and its specific characteristics. Vop. kur., fizioter. i lech. fiz. kul't. (MIRA 17:9)
28 no.5:415-419 S-0 '63.

1. Iz laboratorii reflektornoy terapii AMN SSSR.

BOYEVA, Ye.M., kand. med. nauk; GRASHCHENKOV, N.I., prof.; KAMENETSKAYA, B.I., kand. med. nauk; KASSIL', G.N., prof.; MEL'NIKOVA, Ye.M. FISHMAN, M.N., kand. biolog. nauk (Moskva)

Dysfunction of the hypothalamic region of the brain in the acute stage of closed craniocerebral injuries. Klin. med. 41 no.9:113-119 S'63 (MIRA 17:3)

1. Iz laboratorii klinicheskoy neyrofiziologii (zav. - deystvitel'nyy chlen AMN SSSR prof. N.I. Grashchenko) AMN SSSR i laboratorii ney-gumoral'noy regulatsii (zav. - deystvitel'nyy chlen AMN SSSR prof. N.I. Grashchenko) AN SSSR.

KASSIL', G.N. (Moskva)

Catechol amines and their role in the regulation of body functions.
Zhur. nevr. i psikh. 63 no.8:1255-1258 '63.

(MIRA 17:10)

U

KASSIL', G.N.; LATASH, L.P.; RUTMAN, E.M.

Mechanism of the action of cholinergic substances introduced into the brain ventricles. Dokl. AN SSSR 149 no.2:464-467 Mr '63. (MIRA 16:3)

1. Laboratoriya neyrogumoral'noy regulyatsii AN SSSR. Predstavleno akademikom V.N.Chernigovskim. (PARASYMPATHOMIMETICS) (ELECTROENCEPHALOGRAPHY)

GRASHCHENKOV, N.I., prof., akademik, otv. red.; BANSCHNIKOV, V.M.,
zasl. deyatel' nauki, prof., red.; KASSIL', G.N., prof.,
red.; KOVANOV, V.V., prof., red.; MEN'SHIKOV, V.V., kand.
med. nauk, red.; SHREYBERG, G.L., ved. red.

[Adrenaline and noradrenaline; reports] Adrenalin i norad-
renalin; doklady. Moskva, Izd-vo "Nauka," 1964. 310 p.
(MIRA 17:6)

1. Nauchnaya konferentsiya "Katekholaminy i ikh rol' v re-
gulyatsii funktsiy organizma (biokhimiya, fiziologiya,
klinika)" Moscow, 1962. 2. Chlen-korrespondent AN SSSR i
Akademiya nauk Belorusskoy SSSR (for Grashchenkov). 3. Dey-
stvitel'nyy chlen AMN SSSR (for Kovanov). 4. Laboratoriya
neyro-gumoral'noy regulyatsii AN SSSR (for Kassil').

GRASHCHENKOV, N.I.; KASSIL', G.M.; VAYSFEL'D, I.L.; VEYN, A.M.; MATIINA, E.Sh.;
RAYT, M.L.; SOKOLINSKAYA, R.A.; SHREYBERG, G.L.

Analysis of neural, humoral and hormonal changes in some forms
of vigilance disorders. Vest. AMN SSSR 19 no.6:54-62 '64.

(MIRA 18:4)

1. Laboratoriya nervnykh i gumoral'nykh regulyatsiy AN SSSR.

KASSIL', G.N., prof. (Moskva)

Hormone of danger. Priroda 53 no.4:77-79 '64.

(MIRA 17:4)

KASSID', G.N.; SOKOLINSKAYA, R.A.

Mechanism of acetylcholine binding with human blood in vitro.
Biul. eksp. biol. i med. 57 no.4:38-42 Ap '63.

(MIRA 18:3)

1. Laboratoriya neyro-gumoral'noy regulyatsii (zav. - chlen-korrespondent AN SSSR N.I. Grashchenkov) AN SSSR. Submitted April 2, 1963.

KASSIL', G.N.; GEKHT, B.M.; SOLOV'YEVA, A.D.; UGOLEVA, S.V.

Insulin test in the clinical aspects of diencephalic pathology.
Zhur. nevr. i psikh. 64 no.9:1327-1333 '64. (MIRA 17:12)

1. Laboratoriya neyro-gumoral'noy regulyatsii AN SSSR i
laboratoriya klinicheskoy neyrofiziologii (zaveduyushchiy - prof.
N.I. Grashchenkov) AMN SSSR, Moskva.

KASSIL', G.N.; GRIGOR'YEV, M.Yu.; SIREYBERG, G.L.; VAYSFEL'D, I.L.;
RAYT, M.L.; SHAGAL, D.I.

Humoral mechanisms of reactions caused by the introduction
of carbocholine into cerebrospinal fluid. Dokl. AN SSSR
156 no. 4:964-967 Je '64. (MIRA 17:6)

1. Predstavleno akademikom V.N.Chernigovskim.

KASSIL', G.N.; MATLINA, E.Sh.

Excretion of catechol amines (adrenaline, noradrenaline, dopamine
and dopa) with human urine. Dokl. AN SSSR 156 no. 5:1236-1238
Je-'64. (MIRA 17:6)

1. Predstavleno akademikom V.N.Chernigovskim.

KASSIL', G.N.; GRASHCHENKOV, N.I.; MATLINA, E.Sh.; BOYEVA, Ya.M.

Sympatheticoadrenal system in an acute craniocerebral injury.

Dokl. AN SSSR 158 no.6:1455-1458 O '64.

(MIRA 17:12)

1. Laboratoriya po izucheniyu nervnykh i gumoral'nykh regulatsiy
AN SSSR. 2. Chlen-korrespondent AN SSSR (for Grashchenkov).

KASSIL', Grigoriy Naumovich; GRASHCHENKOV, N.I., otv. red.

[Pain and anesthesia] Bol' i obezbolivanie. 2. izd., ispr.
i dop. Moskva, Nauka, 1965. 316 p. (MIRA 18:5)

VAYSFEL'D, I.L.; GRASHCHENKOV, N.I.; KASSIL', G.N.

Histamine and its inactivating systems in acute craniocerebral
trauma. Dokl. AN SSSR 164 no.2:462-465 S '65. (MIRA 18:9)

1. Laboratoriya po izucheniyu nervnykh i gumorai'nykh regulyatsiy
AN SSSR. 2. Chlen-korrespondent AN SSSR (for Grashchenkov).

KASSIL', Lev

Normal children. Rab. 1 sial. 37 no. 3:22 Mr '61. (MIRA 14:3)
(Aesthetics) (Children's clothing)

DM 1012, V.G.
KASSIL', G.N., professor; KASSIL', V.G.

The liver. Zdorov'e 3 no.2:9-11 P '57.
(LIVER)

(MLRA 10:3)

KASSIL', V.G. vrach

Herpes. Zdorov'ie 4 no.10:31 0 '58
(HERPES SIMPLEX)

(MIRA 11:11)

KASSIL' Y.G. vrach.

Tears. Zdorov'e 4 no.9:24-25 8 '58
(LAGRIMAL ORGANS)

(MIRA 11:10)

17 (1)

AUTHORS:

Kassil', V. G., Ugolev, A. M.,
Chernigovskiy, V. N., Corresponding
Member AS USSR

SOV/20-126-3-65/69

TITLE:

Gastric Reception and Control of Food Behaviour in Dogs
(Retseptsiya zheludka i regulyatsiya pishchevogo povedeniya
u sobak)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 3, pp 692 - 695
(USSR)

ABSTRACT:

The statement that an excess or lack of different substances in the inner part of the organism is able to influence specifically such a complicated behaviour reaction as the food selection is based upon the hitherto collected facts. The investigation of the mechanisms which secure such influences is in this connection very necessary. The osmoreception and possibly the reception of other blood components is caused by the carotid nodules (karotidnyye klubochki) according to several present observations. It is, however, as well possible that a chemical analysis of the substances introduced into the organism occurs already earlier in the bowel before they are absorbed by the blood (Refs 1, 3-5). The authors tried to explain in

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Gastric Reception and Control of Food Behaviour
in Dogs

SOV/20-126-3-65/69

this connection the possibility of specifically reflex influences of the intestine interoceptors of higher animals on their food behaviour. Approximately 250 experiments were carried out with 8 dogs which had gastric fistulas. A soundproof chamber or an isolated room served this purpose. 15 ml solution with an equal quantity of milk, however, with different sodium chloride concentrations were offered to the dogs in 4-8 containers. A cover was removed from the food containers before each experiment so that the dog could choose the milk-salt solutions. The taken solutions flowed out again through the gastric fistula which was opened during this interval. The stomach was rinsed with warm water after each experiment. First a salt concentration was detected above which the dogs refused the solutions. Only dogs were chosen in the case of which this maximum concentration remained constantly on the same level. NaCl, glucose, et al. were introduced into the stomach by the fistula. Already after the first experiments it became obvious that the food reaction changes after the introduction of 300 - 500 ml hypertonic NaCl solution (3-5%). In 2 - 3 cases the dogs refused the most concentrated NaCl solutions in milk (Fig

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Gastric Reception and Control of Food Behaviour
in Dogs

SOV/20-126-3-65/69

1). Sometimes the reaction was so distinctly marked that the dogs drank pure milk. The selection reaction was changed in almost all experiments in which a NaCl solution of 5 or 3% had been introduced into the stomach by the fistula. The reaction occurred after only 3-5 minutes, sometimes 15-20 minutes and more. The above mentioned reaction could be stopped neither by filling the stomach with 300-500 ml water nor by expansion by means of an introduced balloon. The change in the reaction vanished, however, after repeated experiments with water filling or expansion by means of a balloon. The mentioned phenomena are of reflex nature. Figure 2 shows that the introduction of 300-500 ml glucose- or saccharose solution does not influence the selection of milk-salt solutions. The change in the selection is realized under the participation of afferent systems of the nervus vagus, although also other centripetal ways play a certain rôle (in line with reference 2). There are 2 figures and 5 references, 3 of which are Soviet.

SUBMITTED: March 5, 1959
Card 3/3

KASSIL', V. G., Cand Med Sci -- (diss) "Reflex effect in stomach receptors on feeding behavior in dogs." Moscow, 1960. 19 pp; (Academy of Medical Sciences USSR); 250 copies; price not given; (KL, 18-60, 156)

UGOLEV, A.M.; KASSIL', V.G. (Moskva)

Physiology of appetite, Usp.scvr.biol. 51 no.3:352-368 My-Je '61.
(MIRA 14:6)

(APPETITE)

CHERNICHOVSKIY, V.N., ARKIND, M.V., KASSIL, V.G., UGOLEV, A.M.

"Interception and alimentary behaviour of the animal."

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

ARKIND, M.V.; KASSIL' V.G.; UGOLEV, A.M.

Regulation of the water and salt apperites. Trudy Inst. norm. i
pat. fiziol. AMN SSSR 6:146-149 '62 (MIRA 17:1)

1. Laboratoriya obshchey fiziologii (zav. - akademik V.N.
Chernigovskiy) Instituta normal'noy i patologicheskoy fiziolo-
gii AMN SSSR.

KASSIL', V.G.

Drinking stimulus and the rate of water passage from the stomach
to the intestine. Dokl. AN SSSR 159 no.5:1194-1196 D '64
(MIRA 18:1)

1. Institut fiziologii im. I.P. Pavlova AN SSSR. Predstavleno
akademikom V.N. Chernigovskim.

KASSIL', V.G.

Significance of gastric receptors for a differentiated alimentary behavior. Nauch.soob. Inst.fiziol. AN SSSR no.3:59-63 '65.
(MIRA 18:5)

1. Laboratoriya obshchey fiziologii (zav. - V.N.Chernigovskiy)
i laboratoriya fiziologii pitaniya (zav. A.M.Ugolev) Instituta
fiziologii imeni Pavlova AN SSSR.

KASSIL', V.L.

Management of patients following tracheostomy for reanimation.
Vest. khir. no.10:129-134 '64. (MIRA 19:1)

1. Iz tsentra reanimatsii Moskovskoy klinicheskoy ordena Lenina bol'nitsy imeni Botkina (glavnyy vrach - dotsent Yu.G. Antonov, glavnyy khirurg - prof. B.S. Rozanov) i laboratorii eksperimental'noy fiziologii po ozhivleniyu organizma (zav. - prof. V.A. Negovskiy) AMN SSSR.

SHABANOV, A.N., professor (Moskva, Novoslobodskaya, d.57-65, kv.10);
KASSIL', V.L.

Tracheostomy as a method of control in acute respiratory insufficiency. Vest.khir. no.5:122-128 '61. (MIRA 15:1)

1. Iz protivoshokovogo tsentra otdeleniya neotlozhnoy khirurgii
(zav. - T.P. Bel'skaya) Moskovskoy klinicheskoy ordena Lenina
bol'nitsy im. S.P. Botkina (gl. vrach - prof. A.N. Shabanov).
(TRACHEA--SURGERY) (RESPIRATION)

KASSIL', V. I.

Control of insufficiency of external respiration in shock and terminal states. Ortop., travm. i protez. no.12:17-22 '61.
(MIRA 15:2)

1. Iz TSentra po lecheniyu shoka i terminal'nykh sostoyaniy Moskovskoy klinicheskoy bol'nitsy im. S. P. Botkina (glavnyy vrach - prof. A. N. Shabanov, nauchnyy konsul'tant - prof. D. K. Yazykov) i laboratorii eksperimental'noy fiziologii (zav. - prof. V. A. Negovskiy) AMN SSSR.

(SHOCK) (RESPIRATORY ORGANS—DISEASES)

RABINOVICH, B.N.; KASSIL', V.L.

Case of revival from a state of clinical death using heart
massage. Khirurgia no.9:130 '62. (MIRA 15:10)

1. Iz urologicheskoy kliniki (zav. - prof. A.P.Frumkin) i Tsentra
po lecheniyu shoka i terminal'nykh sostoyaniy (rukovoditeli -
professora V.A.Negovskiy i B.S.Rozanov) Moskovskoy klinicheskoy
ordena Lenina bol'nitsy imeni S.P.Botkina (glavnyy vrach -
dotsent Yu.G.Antonov).

(HEART FAILURE) (RESUSCITATION)

KORSHUNOV, Ivan Ivanovich; KASSIN, P.S., red.; SAYTANIDI, L.D.,
tekhn.red.

[He who doesn't work, doesn't eat] Kto ne rabotaet, tot ne est.
Moskva, Izd-vo M-va sel'.khoz.RSFSR, 1960. 63 p. (MIRA 14:2)

(Agricultural laborers)

KASSIN, P.S., red.; SAYTANIDI, L.D., tekhn. red.

[Put the resources of the land in the service of our country]
Bogatstva zemli - na sluzhbu Rodine; materialy. Moskva, Izd-
vo M-va sel'.khoz. RSFSR, 1962. 131 p. (MIRA 15:2)

1. Soveshchaniye rabotnikov sel'skogo khozyaystva Dal'nego
Vostoka i Iakutskoi ASSR, Khabarovsk, 1961.
(Soviet Far East--Agriculture) (Yakutia--Agriculture)

KASSIN, Ye.

Let's talk about your snapshots. Sov.foto 22 no.10:40-42 0
'62. (MIRA 15:11)

1. Fotokorrespondent TASS.
(Photography)

KASSINSKY, I.

(Moscow)

"Modern Problems of Clinical Picture and Pathomorphology of Erythremia."

Report submitted for the Eight International Congress of Hematology, Tokyo, Japan,
4-10 Sep 60.

KAZ'MIN, G.S.; KASSIROV, G.M.; KREYNDEL', Yu.Ye.; LAPTEVA, T.I.

Some aspects of constructing accelerator tubes for high
currents. Izv. TPI 122:108-115 '62. (MIRA 17:9)

KALYATSKIY, I.I.; KASSIROV, G.M.

Breakdown of a high vacuum by short voltage pulses. Izv. vys.
ucheb. zav.; fiz. no.4:78-81 '63. (MIRA 16:9)

1. Tomskiy politekhnicheskii institut imeni S.M.Kirova.
(Breakdown, Electric)

ACCESSION NR: AP4013427

S/0057/64/034/002/0348/0351

AUTHOR: Kalyatskiy, I.I.; Kassirov, G.M.

TITLE: Investigation of the effect of electrode material on pulse breakdown of a high-vacuum gap

SOURCE: Zhurnal tekhn.fiz., v.34, no.2, 1964, 348-351

TOPIC TAGS: breakdown, pulse breakdown, high-vacuum breakdown, electrode material, graphite electrode, lead electrode, copper electrode, aluminum electrode, steel electrode, aluminum steel electrode

ABSTRACT: The breakdown of a 1 mm high vacuum gap between a 20 mm diameter hemispherical cathode and a plane anode was investigated with voltage pulses having rise times from 0.2 to 4 microsec. A pressure less than 2×10^{-5} mm Hg was maintained in the gap, and electrodes of graphite, lead, copper, aluminum and steel were investigated. The pulses were produced by discharge of a 100 kV capacitor, and the rise times were controlled by an R-C circuit. The potential across the gap was measured and the breakdown was observed with an oscilloscope. The breakdowns occurred during the rise of the pulse, and the earlier, the steeper the pulse. Breakdown

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ACCESSION NR: AP4013427

times of 0.1 microsec were achieved with all the electrode materials. The 0.1 microsec "pulse coefficient", i.e., the ratio of the breakdown potential at 0.1 microsec delay to the static breakdown potential, ranged from 1.93 for copper to 2.9 for graphite electrodes. Except for the steel electrodes, which did not follow this rule, the pulse coefficient increased with decreasing Young's modulus of the electrode material. The curves of breakdown potential versus delay time were convex to the time axis, except for steel electrodes. The steel electrode curve was slightly concave. Breakdown between aluminum and steel electrodes was investigated, each material serving in turn as anode. The breakdown potential for very short delay times was approximately that characteristic of the anode material, and the shape of the delay time curves was reminiscent of that obtained when both electrodes were of the cathode material. It is considered difficult to reconcile the observed short delay times with Cranberg's hypothesis concerning vacuum breakdown (L.Cranberg, J. Appl.Phys.23,518,1952) because of the long time required for a material particle to traverse the gap. "In conclusion, the authors express their gratitude to engineer B.M.Koval'chuk for participating in the preliminary experiments." Orig.art.has: 3 figures and 1 table.

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Card

ACCESSION NR: AP4013427

ASSOCIATION: Tomskiy politekhnicheskiy institut im. S.M.Kirova (Tomsk Polytechnic Institute)

SUBMITTED: 12Dec62

DATE ACQ: 26Feb64

ENCL: 00

SUB CODE: PH

NR REF SOV: 005

OTHER: 001

Card 3/3

S/0057/64/034/003/0484/0487

ACCESSION NR: AP4020577

AUTHOR: Kassirov, G.M.; Koval'chuk, B.M.

TITLE: Investigation of delay times for the electric breakdown in vacuum gaps

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.3, 1964, 484-487

TOPIC TAGS: breakdown, electric breakdown, vacuum breakdown, vacuum gap, breakdown delay time

ABSTRACT: The breakdown of positive sphere (12 mm diameter) to plane electrode gaps in vacuum was investigated. The electrodes were of copper and were carefully cleaned and polished. The gap length was varied from 0.1 to 1.0 mm. The vacuum chamber was of metal; the gaps were thus presumably in darkness. The residual gas pressure was between 10^{-5} and 2×10^{-5} mm Hg. No cold trap was employed to remove the pump oil vapor. The voltage pulses were produced by discharging a capacitor bank through a pressure gap into a 75 ohm cable. A voltage doubler (not described) was employed at the open end of the cable. The rise time of the pulse is said to have been 4 or 5 nanosec. The oscillograms reproduced show, however, that the pulse rose in two stages: the voltage rose in 4 or 5 nanosec to half its final value and re-

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ACCESSION NR: AP4020577

mained nearly constant at this value for 10 or 12 nanosec, after which it again rose in another 4 or 5 nanosec to its final value. The delay times were measured from the instant the voltage pulse reached its full value to the time at which the gap potential had dropped by 10%. The delay times were measured at overvoltage coefficients (ratio of pulse voltage to static breakdown potential) up to 1.7. They ranged from about 32 nanosec for the 1 mm gap at an overvoltage coefficient of 1.1 to about 6 nanosec for all gaps at an overvoltage coefficient of 1.7. The relation between overvoltage and delay time was approximately linear. The relation between delay time and gap length at fixed overvoltage coefficient was nonlinear: the delay time increased much more rapidly with gap length for gap lengths near 0.4 mm than for either longer or shorter gaps. This behavior is discussed very briefly in terms of the role of cathode field emission in the breakdown mechanism. "In conclusion, the authors express their gratitude to Assistant Professor I. I. Kalyatekiy for his constant interest in the work." Orig.art.has: 4 figures.

ASSOCIATION: Tomskiy politehnicheskii institut im.S.M.Kirova (Tomsk Polytech.Inst.)

SUBMITTED: 03May63

DATE ACQ: 31Mar64

ENCL: 00

SUB CODE: PH

NR REF SOV: 003

OTHER: 002

Card 2/2

ACCESSION NR: AP4042937

S/0057/64/034/008/1471/1475

AUTHOR: Kalyatskiy, I.I.; Kassirov, G.M.

TITLE: Investigation of pulse flashover of several solid dielectrics in vacuo

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.8, 1964, 1471-1475

TOPIC TAGS: insulating material, flashover, sparkover, dielectric, particle accelerator

ABSTRACT: In order to obtain data that might be useful in the design of accelerators and other high-vacuum high-voltage equipment, the authors measured the vacuum pulse flashover (sparkover) potentials of teflon, a vinyl plastic, an epoxy resin, and an acrylic resin for pulse durations from 0.1 to 3 microsec. The apparatus is described elsewhere (I.I.Kalyatskiy and G.M.Kassirov, Izv.VUZov, Fizika No.4, 1963). The flashover always occurred during the rise of the pulse. The only information given concerning pulse shape is a single oscillogram; in this case flashover occurred while the pulse was still rising at about half its initial rate. The specimens were 1.5 cm diameter cylinders from 0.5 to 2 cm long. The surfaces were worked with fine emery paper, polished, washed with benzene and alcohol, and the specimens were placed

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ACCESSION NR: AP4042937

in the discharge chamber between 4.5 cm diameter aluminum electrodes. The specimens were subjected to a cleansing discharge, and the flashover potentials were measured both with increasing and with decreasing pulse duration. The flashover potential increased with the length of the specimen, but not quite proportionately. Pulse factors (ratio of pulse to steady spark potential) of 2 to 5 were obtained with 0.1 microsec pulses. At 1.5 microsec the pulse factors, except for teflon, were less than 1.65. These pulse factors are close to those obtained for ceramic materials under similar conditions by M.Kofoed (Power Apparatus and Systems No.6,999,1960). Although for most of the materials the pulse factor decreased monotonically with increasing pulse duration, for Plexiglas the pulse factor reached a minimum of 1.33 at about 1.5 microsec and increased to approximately 2 at 3 microsec. The authors suggest that some of the other materials may have similar minima at longer pulse durations, beyond the range of their measurements. Measurements were made with polished aluminum, ground aluminum, and graphite electrodes; no differences were found. Reducing the cathode diameter to 1.5 cm increased the flashover potential for short pulses by a factor 2; reducing the anode diameter had very little effect. Specimens with carefully polished surfaces flashed over at a 30 to 40% lower potential than those whose surfaces had been worked with fine emery. Orig.art.has: 6 figures.

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ACCESSION NR: AP4042937

ASSOCIATION: Tomskiy politekhnicheskij institut im. S.M.Kirova (Tomsk Polytechnic Institute)

SUBMITTED: 09Jul63

SUB CODE: EE, NP

NR REF SOV: 002

ENCL: 00

OTHER: 003

9/0057/64/034/008/1476/1481

ACCESSION NR: AP4042938

AUTHOR: Kassirov, G.M.; Mesyats, G.A.

TITLE: On the breakdown mechanism of short vacuum gaps

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.8, 1964, 1476-1481

TOPIC TAGS: spark ignition, electric breakdown, vacuum breakdown

ABSTRACT: The experimental work of G.M.Kassirov and B.M.Koval'chuk (ZhTF 34, No.3, 1964) on the pulse breakdown of 0.1 to 1 mm vacuum gaps has been continued. New experimental results are reported, and the earlier results are reviewed. The salient experimental facts adduced are the following: 1) There is a delay of 5 to 30 nanosec between application of the pulse and initiation of the breakdown. This delay time increases nonlinearly with increasing gap length and decreases with increasing overvoltage. 2) After initiation of the breakdown, the gap potential falls approximately linearly to zero over a decay period of 3 to 40 nanosec. The decay period increases with increasing gap length, and it also increases with increasing overvoltage. 3) The linear decay of the gap voltage is interrupted in the case of the longest gaps by fluctuations which, in the case of the longest gaps, assume an almost os-

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ACCESSION NR: AP4042938

oscillatory character with periods from 5 to 10 nanosec. The work of A.Maitland (J. Appl.Phys.32,2399,1961; Brit.J.Appl.Phys.13,122,1962) on pitting of vacuum gap electrodes is reviewed briefly. An attempt is made to provide theoretical explanations for the experimental results described above with the aid of concepts derived from Maitland's findings. To explain the delay time, the authors assume that Maitland's electron beam issuing from a "micropoint" on the cathode has reached its critical intensity by the time the pulse has risen to its maximum, and they calculate the time required for the beam to vaporize a portion of the anode and eject a puff of anode metal vapor. This time they regard as the delay time. For gaps of 0.3 mm and less the calculated delay times are of the same order of magnitude as the observed, and they behave similarly with varying overvoltage. For longer gaps the observed delay times are much longer than the calculated. The authors suggest that in these cases the electron beam does not reach its critical intensity at once, and that the time required for the development of the beam must be included in the calculation. The explanation of the transition to the arc discharge (decay time) is more involved. The suggestion of M. and A.Goldmann (Compt.rend.Acad.Sci.255,23,2654,1961) that the transition occurs when metal vapor traverses the gap as a result of its explosive ejection from the anode is untenable, for the process is too slow. Ions, on the other hand, traverse the gap in a time much shorter than the observed decay times. The

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ACCESSION NR: AP4042938

authors suggest that when Maitland's electron beam ejects a puff of anode metal vapor, some ions are formed and a narrow conducting channel results. It is assumed that this channel somehow stimulates the development of other electron beams in its vicinity. The process then continues as a chain reaction and thus accounts for the fluctuations of the electrode potential during the decay period. When the overvoltage is increased, the electron beams become narrower and produce smaller electrode pits and fewer conductive channels. More channels are then required to lower the gap potential by a given amount, and their production requires more time. Orig. art.has: 10 formulas, 3 figures, and 1 table.

ASSOCIATION: Tomskiy politekhnicheskii institut im.S.M.Kirova (Tomsk Polytechnic Institute)

SUBMITTED: 06Aug63

ENCL: 00

SUB CODE: EM

NR REF SOV: 010

OTHER:009

3/3

L 22274-66 EWT(1)

ACC NR: AR6005191 SOURCE CODE: UR/0058/65/000/009/G018/G018

AUTHOR: Kassirov, G. M. 33

TITLE: On the pulsed electric strength of vacuum gaps B

SOURCE: Ref. zh. Fizika, Abs. 9G149

REF. SOURCE: Sb. Proboy dielektrikov i poluprovodnikov., M.-L., Energiya, 1964, 91-93

TOPIC TAGS: dielectric breakdown, vacuum, spark gap

TRANSLATION: Results are described of experiments on the ^{21,} breakdown of vacuum gaps up to 1 mm under the influence of voltage pulses of duration 0.1 -- 3.0 μ sec. It is shown that the prior conditioning of the gap, namely the number of pulses and the size of the current in each pulse, exerts an appreciable influence. To obtain a relatively stable value of the breakdown voltage, the gap must be broken down beforehand some 200 -- 300 times. Measurements of the volt-second characteristics of a preconditioned gap between a hemisphere

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L 22274-56

ACC NR: AR6005191

and a plane show that the polarity of the hemisphere plays an important role. If it is positive, the breakdown voltage of the gap is 10 -- 15% higher in the entire range of discharge-time variation than in the case of a negative polarity. Experiments have confirmed the previously observed appreciable influence of the distance between electrodes on the shape of the volt-second characteristic: at a distance of 0.3 mm no discharge delay appears, and at a larger distance (0.7 mm) a decrease in the voltage duration increases the breakdown voltage.

SUB CODE: 20

Card

2/2 1st

L 28495-66 ENT(1)

SOURCE CODE: UR/0275/65/000/010/A024/A025

ACC NR: AR6004648

46
B

AUTHOR: Kassirov, G. M.

TITLE: Impulse electric strength of vacuum gaps

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 10A177

REF SOURCE: Sb. Probov dielektrikov i poluprovodnikov. M.-L., Energiya, 1964, 91-93

TOPIC TAGS: electric current, ²electric breakdown, electrovacuum, electric polarization, electric discharge

ABSTRACT: The results are described of an experimental study of breakdown of vacuum gaps up to 1-mm long with 0.1--3.0-microsec impulses. An essential effect of training (number of impulses and their currents) is shown. Relatively stable breakdown-voltage values were obtained only after the gap had been broken 200--300 times. A heavier-current training results in a lower breakdown voltage; hence, the heavy current training was selected. A volt-second characteristic of a trained gap between a hemisphere and a plane was measured; the effect of hemisphere polarity was observed: with a positive polarity, the breakdown voltage was by 10--15% higher than with a negative polarity. The experiments corroborated some earlier data on the effect of the interelectrode distance upon the volt-second characteristic shape: with a 0.3-mm gap, no discharge lag was observed; with longer gaps (0.7 mm), higher breakdown voltage corresponded to shorter time of voltage application. Five figures. Bibliography of 4 titles. H. B. [Translation of abstract]

UDC: 537.525

Card 1/1 ^{cc} SUB CODE: 09

ACC NR: AP6033426

SOURCE CODE: UR/0057/55/036/010/1883/1885

AUTHOR: Kassirov, G.M.

ORG: none

TITL: Effect of electrode material on the breakdown time of a vacuum gap

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 10, 1966, 1883-1885

TOPIC TAGS: spark gap, vacuum, electric discharge, electrode, steel, copper, graphite, aluminum, lead

ABSTRACT: The author has employed high voltage square pulses and apparatus and techniques described elsewhere by himself and B.M.Koval'chuk (ZhTF, 34, 484, 1964) to measure the delay times in the breakdown of vacuum gaps with electrodes of steel, copper, aluminum, graphite, and lead. The potentials giving equal delay times for 0.5 mm gaps with electrodes of graphite, aluminum, copper and steel increased in the order in which the electrode materials are named. This finding is in agreement with the results of N.B.Rozanova and V.L.Granovskiy (ZhTF, 26, 490, 1956). When the delay times were plotted against the overvoltage, the curves for the different electrode materials fell into three groups: for steel, copper, and graphite, the delay time at an overvoltage of 1.2 was 18-20 nanosec; for aluminum the delay time at the same overvoltage was about 8 nanosec; and for lead the delay time was less than 5 nanosec and could not be measured. The following semiempirical equation for the

UDC: 537.521.7

Card 1/2

ACC NR: AP6033426

delay time t in terms of properties of the electrode material, based on the theory of A. Maitland (J. Appl. Phys., 32, 11, 2399, 1961), is presented: $t = (\pi C k s T^2 d^{6/5}) / (L k^2 v^3)$. In this equation, C is the heat capacity, k is the heat conductivity, s is the specific gravity, and T is the melting point of the electrode material, d is the gap length, v is the pulse breakdown potential, and K is a constant whose value is $6.8 \times 10^5 \text{ erg/V}^{1.5} \text{ cm}^{1.4} \text{ sec}$. Abstracter's note: The author does not say what L represents. This formula is shown to be in very rough agreement with the experimental data. It is concluded that thermal processes at the anode play an important role in the process of vacuum gap breakdown. Orig.art. has: 1 formula, 2 figures, and 2 tables.

SUB CODE: 20

SUBM DATE: 23Sep65

ORIG REF: 003

OTH REF: 001

Card 2/2

KASSIROV, L.N.; KANTYSHOV, I.Ye., nauchnyy rukovoditel', doktor ekon. nauk.

[Economic accountability on state farms; author's abstract of a dissertation offered for the degree of candidate of the economic sciences] Khozraschet v sovkhozakh; avtoreferat dissertatsii na soiskaniye uchenoi stepeni kandidata ekonomicheskikh nauk. Nauchnyi rukovoditel' I.E. Kantyshev. Moskva, Akad. nauk SSSR, 1957. 19 p.
(State farms--Accounting) (MIRA 11:8)

KASSIROV, Leonid Nikolayevich, kand.ekonom.nauk, nauchnyy sotrudnik;
~~FRANSHONENKO, I.I.~~, red.; ZUBRILINA, Z.P., tekhn.red.

[Business accounting on state farms] Khoziaistvennyi raschet
v sovkhozakh. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1959. 124 p.
(MIRA 12:9)

1. Institut ekonomiki Akademii nauk SSSR (for Kassirov).
(State farms--Accounting)

KASSIROV, L.

Costs, prices and business accounting on collective farms.
Vop. ekon. no.3:74-81 Mr '60. (MIRA 13:2)
(Collective farms--Finance)

SUVOROVA, Lidiya Il'inichna; KASSIROV, Leonid Nikolayevich; VART-BARONYAN, V.,
red.; KLEPACH, N., red.; SHELENSKAYA, M., tekhn. red.

[Knowledge and know-how; collection of articles on the economics of
socialist agriculture] Znat' i umet': sbornik statei po ekonomike
sotsialisticheskogo sel'skogo khoziaistva. Moskva, Izd-vo TsK VLKSM
"Molodaia gvardia" 1961. 189 p. (MIRA 14:12)
(Agriculture--Economic aspects)

KASSIROV, L.

Problems of working capital of collective farms. Vop. ekon. no.1:
26-36 Ja '61. (MIRA 13:12)
(Collective farms--Finance)

KASSIROV, L.

"Utilizing the law of value in collective farm production" by
V.G. Venzher. Reviewed by L. Kassirov. Vop. ekon. no.7:127-
133 J1 '61. (MIRA 14:7)
(Collective farms) (Value)

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