

ROZHDESTVENSKIY, V.M.; ~~KUCHERENKO, V.D.~~; KIKTENKO, V.S.; AGAFONOV, V.I.

Academician Daniil Kirillovich Zabolotnyi, outstanding scientist and humanitarian. Zhur. mikrobiol. epid. i immun. no.12:17-23 no.12:17-23 D '54. (MLRA 8:2)

(ZABOLOTNYI, DANIIL KIRILLOVICH, 1866-1929)

KUCHERENKO, V D  
USSR/Medicine - Immunology

FD-2614

Card 1/1      Pub. 148 - 25/25

Author        : Kucherenko, V. D.

Title         : ~~USSR/Medicine - Immunology~~  
              : The problem of nerve receptivity during immunogenesis

Periodical    : Zhur. mikro. epid. i immun., 4, 111-114, Apr 1955

Abstract      : It was observed that there was an uneven response on the part of the neuroreceptive apparatuses of various organs and systems in an organism when antigens were introduced into them. It was found that the most effective method of tetanus immunization was intramuscular administration. The use of an anesthetic helped reveal the part played by the nervous system in the immunobiological reorganization of an organism. A supplementary stimulus, i.e. the introduction of a physiological salt solution, increased and accelerated the immunobiological reorganization of the organisms of animals. The results of the experiments are presented on two charts. No references are cited.

Institution    : Laboratory of the Pathophysiology of Infection and Immunity (Head-Prof. A. Ya. Alymov), Institute of General Pathology and Experimental Therapy, Academy of Medical Sciences USSR (Director - A. D. Speranskiy)

Submitted     : April 30, 1954

USSR/Medicine - Neurophysiology, Immunology

FD-3367

Card 1/1 Pub. 148-23/24

Author : Aymov, A. Ya. and Kucherenko, V. D.

Title : Nervous reception and its importance in immunogenesis

Periodical : Zhur. mikro. epid. i immun. 10, 97-103, Oct 1955

Abstract : The effect of the central nervous system on the development of immunity is discussed in connection with I. P. Pavlov's theory of nervism. The author cites the works of various Soviet authors in this field to support his argument that the central nervous system plays an important role in the development of immunity. Six Soviet references are cited.

Institution : --

Submitted : May 12, 1955

KIATENKO, V.S., ASHUROVA, I.Kh., KUCHERENKO, V.D.

Simplified method for setting up the agglutinin adsorption test.  
Voen.-med.zhur. no.12:46-47 D'55 (MIRA 12:1)  
(AGGLUTINATION)

KUCHERENKO, V.D.

Relationship between serum titer and the method of injecting  
dysenteric antigens. Lab.delo 2 no.6:12-14 N-D '56. (MLRA 9:12)  
(SERUM) (ANTIGENS AND ANTIBODIES)

KIETENKO, V.S., polkovnik med.sluzhby, doktor med.nauk, ASHUROVA, I.Kh.  
KUCHERENKO, V.D. mayor med.sluzhby, kand.med.nauk, KASHANOVA, N.I.  
podpolkovnik med.sluzhby, kand.med.nauk

Method for taking air samples in making bacteriological analyses.  
Voen-.medzhur. no.11:45-49 N°56 (MIRA 12:1)  
(AIR---BACTERIOLOGY)

112. New Air-Sampling Apparatus Evaluated

"The Problem of Methods of Collecting Samples of Air for Bacteriological Analyses," by V. S. Kiktenko, I. Kh. Ashurova, V. D. Kucherenko, and N. I. Kashanova, Voyenno-Meditsinskiy Zhurnal, No 11, Nov 56, pp 50-54

The article discusses insufficiencies inherent in the construction of air-sampling devices currently in use, particularly the S. S. Rechmenskiy apparatus. It is considered that the greatest possibilities for collecting bacteria, viruses, rickettsiae, and toxins are afforded by devices which operate on the basis of air filtration through liquid or dry (soluble or insoluble) filters.

A new apparatus, illustrated in Figure 1 [Photo No 270559], for collecting air samples for bacteriological analysis is described. Briefly, the apparatus consists of a U-shaped glass tube 25 cm long with a diameter of 1.5 cm, connected by a short rubber tube to an inverted 250 ml bottle 14 cm deep and 6.5 cm in diameter. The bottle has a spigot at the bottom with an opening of 1.5 cm. The assembled apparatus makes it possible to connect vessels of varying diameter and volume. The tube and part of the bottle are filled with glass leads; 40 ml of physiological solution of bouillon (peptone water) is poured into the apparatus. A rubber tube 30-40 cm long is attached to the tube at the bottom of the bottle, and air is filtered

through the liquid by an aspirator attached to the opening of this tube. Inclusion of the beads in the system provides greater surface for aerosol adsorption, thus accelerating the process considerably.

Experiments with the above-described apparatus showed that the use of bouillon or peptone water increased the collecting capacity of the apparatus. After filtration of the air, the fluid was poured into a glass container and investigated by usual methods depending on the situation. It is noted that any test can be performed with 30 ml of liquid, including biological tests on animals.

The article mentions that an ordinary pump [Photo No 270560] can be used for aspiration of the air (in addition to aspiration by mouth). If the test is carried out in an infected atmosphere, the apparatus can be connected to the inhalation valve of a gas mask. Volume of air aspirated is calculated according to the usual method, described in the text. On completion of the experiments, the accuracy of the calculations was verified by special tests in which a gasometer was used.



The authors discuss preliminary experiments in which the collecting capacities of the Pasteur flask, the Koch method, and the apparatuses of Krotov, Rechmenskiy, and D'yakanov were comparatively evaluated. They state that performance identical with that of the proposed apparatus can be obtained only by the use of the last mentioned device. It was established in these tests that the apparatus proposed collects two-three times more saprophytic microflora than the D'yakanov apparatus. Testing of the remaining devices was limited to trapping specific microflora in the air; intestinal bacilli, dispersed in an aerosol chamber by means of a special atomizer, was used as an experimental subject. The method used in these experiments, the results of which are presented in a table, is described in detail. The capacity of the new apparatus to collect intestinal bacilli was shown to be 2.8 times higher than that of the D'yakanov apparatus. The rate of aspiration of air by the new apparatus is almost ten times greater (480 liters per hour) than that of the D'yakanov apparatus (50 liters per hour). Despite this fact (the collecting capacity of an apparatus supposedly being inversely proportional to the rate of aspiration), the collecting capacity of the new apparatus is higher than that of the D'yakanov system.

It is concluded on the basis of statistical calculations that there exists complete correlation between the experimental data collected in testing the apparatuses, the coefficient of correlation being + 0.97. The authors consider that the higher coefficient obtained in the experiments described correctly reflects the great efficiency of the proposed apparatus. This apparatus is recommended for collecting air samples for bacteriological investigations in hospitals and field bacteriological laboratories. (U)

ALYNOV, A.Ya., prof.; KUCHIKHINIKO, V.D. (Moskva)

Pirogov's views on the nature, epidemiology, and prophylaxis  
of some infectious diseases. Vrach.delo no.12:1325-1327  
D '56. (MIRA 12:10)

1. Chlen-korrespondent AMI SSSR (for Alynov).  
(PIROGOV, NIKOLAI IVANOVICH, 1810-1881)

KUCHERENKO, V.D.; ALYMOV, A.Ya.

Effect of nonspecific stimulations on immunogenesis. Trudy  
Inst. norm. i pat. fiziol. AMN SSSR no.1:146-150 '58

(MIRA 16:12)

1. Iz laboratorii infektsionnoy patologii (zav. - chlen-kor-  
respondent AMN SSSR prof. A.Ya. Alymov) otdela patologii  
(zav. - akademik A.D.Speranskiy) Instituta normal'noy i  
patologicheskoy fiziologii AMN SSSR.

KIKHERKO, V.S., KUCHERENKO, V.D.

Possibility of the propagation of pathogenic microorganisms in the  
external environment. Zhur.mikrobiol.epid. i immun. 29 no.5:133-136  
My '58 (MIRA 11:6)

(COMMUNICABLE DISEASES, transmission,  
through environmental microorganisms, review (Rus))

SKVORTSOV, Vitaliy Vasil'yevich, KIKTENKO, Vasily Sil'vestrovich;  
KUCHERENKO, Vasily Dorofiyevich; ROZHDESTVENSKIY, V.M.,  
red.; SENCHILO, K.K., tekhn. red.

[Viability and detection of pathogenic microbes in an external  
medium] Vyzhivaemost' i indikatsiia patogennykh mikrobov vo  
vneshnei srede. Moskva, Medgiz, 1960. 348 p. (MIRA 16:1)  
(BACTERIA, PATHOGENIC)

ABELEV, G.I., kand. med. nauk; BUIRINSKAYA, A.G., kand. med. nauk;  
GEL'TSER, R.R., prof.; GOLINEVICH, Ye.M., prof.; ZHDANOV, V.M.,  
prof.; ZDRODOVSKIY, P.F., prof.; KALINA, G.P., prof.; KAULEN,  
D.R., kand. med. nauk; KIKTENKO, V.S., prof.; KRYLOVA, O.P.,  
kand. med. nauk; KUCHERENKO, V.D., kand. med. nauk; LOMAKIN,  
M.S., kand. med. nauk; MOSING, G.S., doktor med. nauk; PERSHINA,  
Z.G., kand. sel'khoz. nauk; PEKHOV, A.P., doktor biol. nauk;  
PESHKOV, M.A., prof.; TIKHONENKO, T.I., kand. med. nauk;  
TOVARNITSKIY, V.I., prof.; SHEN, R.M., prof.; ETINGOF, R.N.,  
kand. med. nauk; KALININA, G.P., prof., nauchnyy red. toma;  
ZHUKOV-VEREZHNIKOV, N.N., prof., otv. red.; VYGODCHIKOV, G.V.,  
prof., zamest. otv. red.; TIMAKOV, V.D., prof., zam. otv. red.  
BAROYAN, O.A., prof., red.; KALINA, G.P., red.; PETROVA, N.K.,  
tekhn. red.

[Multivolume manual on the microbiology, clinic, and epidemiology  
of infectious diseases]Mnogotomnoe rukovodstvo po mikrobiologii  
klinike i epidemiologii infektsionnykh boleznei. Moskva, Medgiz,  
Vol.2. [General microbiology]Obshchaya mikrobiologiya. Red. V.M.  
Zhdanov. 1962. 535 p. (MIRA 16:1)

(Continued on next card)

DMITRIYEV, I.A.; KUCHERENKO, V.D.

Some problems in the study of the demand for drugs. *Aut.*  
delo 12 no.4:14-18 JI-Ag '63. (MIRA 17:2)



KUCHERENKO, Vasilii Dorofeyovich; NITYAYEVA, Yu.P., red.

[Detection of pathogenic microbes in the external environment] Indikatsiia patogemykh mikrobov vo vneshnei srede. Moskva, Izd-vo Mosk. univ., 1964. 139 p. (MIRA 17:5)

UCHYUKOV, B.I.; ROZHDASTVENSKIY, V.M.; RUDNEV, G.P.; ADAPONOV, V.I.;  
KULAGIN, S.M.; KOCHERENKO, V.D.; KETSNIKO, V.S.

Andrei Iakovlevich Alynov, d.1965; obituary. Zhur. mikrobiol.,  
epid. i immun. 42 no.8:156-157 Ag '65. (MIRA 18:9)

S/148/62/000/008/009/009  
E193/E383

AUTHORS: Grebenik, V.M., Tylkin, M.A., Kucherenko, V.F. and  
Chernevich, Ye.M.

TITLE: Analysis of the fracture surfaces of parts of metal-  
working equipment

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,  
Chernaya metallurgiya, no. 8, 1962, 175 - 182

TEXT: A proper understanding of factors affecting the  
resistance of working parts to fracture is of the utmost  
importance to both the designer and user of metal-working  
equipment. In practice, the most frequent type of fracture is  
that associated with fatigue and a great deal of useful inform-  
ation regarding the mechanism and the precise cause of failure  
can be obtained by examination of the fracture surface and co-  
relating the results with other known pertinent data. To  
demonstrate the usefulness of this investigational method the  
present authors applied it to establish the cause of fracture of  
six components. By correlating the service conditions of each  
part with its material, heat-treatment, mechanical properties,  
Card 1/3

S/148/62/000/008/009/009  
E193/E383

Analysis of the fracture ....

macro- and microstructure and the patterns of the fracture  
surfaces, they arrived at the following conclusions: 1) the  
fracture of the jaw of the universal coupling of the upper roll  
journal of a 750 stand was caused by a single overloading due  
to accidentally folded strip passing through the rolls, the low  
impact strength of the steel being a contributory factor;  
2) the fracture in the second groove of the upper roll of a  
blooming mill was caused by stress concentration contributing  
to the formation of the first fatigue crack, which initiated  
ductile fracture of the component; 3) the fracture of the  
middle roll of a 3-high stand 550 was attributed to the fact  
that the roll had not been preheated when it was reconditioned  
by the building-up process. This set up internal stresses,  
leading to the formation of a circumferential crack and later  
to brittle fracture; 4) the fracture of the main shaft of the  
flywheel of a 500 mm stand was caused by a large number of  
short-duration overloads; 5) alternating loads caused the  
fracture of a shaft in the reducing gear of a wire-drawing  
machine; 6) alternating loads of a magnitude approaching the  
Card 2/3

Analysis of the fracture ....

S/148/62/000/008/009/009  
E193/E383

fatigue limit of the material caused fatigue fracture of the pulley of a blast-furnace charging-skip hoist. The examples quoted demonstrated the need for rigorous control of all the factors which might contribute to the formation of fatigue cracks (quality of the materials, design, heat and mechanical treatment, service loads, corrosive media). It was concluded that all working parts should be periodically inspected and if fatigue cracks were detected they should be removed. Detailed investigation of each failure should be carried out and the results used to take measures to prevent recurrence of the failure. There are 6 figures and 1 table.

ASSOCIATIONS: Dneprodzerzhinskiy metallurgicheskiy zavod-vtuz  
(Dneprodzerzhinsk Metallurgical Works - Vtuz)  
Metallurgicheskiy zavod im. F.E. Dzerzhinskogo  
(Metallurgical Works im. F.E. Dzerzhinskiy) ✓

SUBMITTED: March 27, 1961

Card 3/3

GREBENIK, V.M.; TYIKIN, M.A.; KUCHERENKO, V.F.; GHERELVICH, Ye.M.

Analysis of the broakage of metallurgical equipment parts. Izv.  
vys. ucheb. zav.; chern. met. 5 no.8:175-182 '68. (MIRA 15:9)

1. Dneprodzerzhinskiy metallurgicheskiy zavod-vtuz i  
Metallurgicheskiy zavod im. F. E. Dzerzhinskogo.

TYLKIN, M. A., kand. tekhn. nauk; GREBENIK, V. M., kand. tekhn. nauk;  
KUCHERENKO, V. F., inzh.; ALPEYEV, V. G., inzh.;  
NIKITSKAYA, V. A., inzh.

Heat treatment of crane wheels. Mashinostroeni<sup>3</sup> no.5:57-60  
S-0 '62. (MIRA 16:1)

1. Dneprodzerzhinskiy metallurgicheskiy zavod-vtuz im. M. I.  
Arsenicheva (for Tylkin, Grebenik, Kucherenko). 2. Metallur-  
gicheskiy zavod im. Dzerzhinskogo (for Alpeyev, Nikitskaya).

(Steel—Heat treatment)  
(Cranes, derricks, etc.)

GREBENIK, V.M.; KUCHERENKO, V.F.

Experimental verification of conditions in summing-up damages.  
Izv. vys. ucheb. zav.; Chern. met. 6 no.12:212-220 '63.  
(MIRA 17:1)

1. Dnepropetrovskiy metallurgicheskiy institut.

GREBENIK, V. M.; KUCHERENKO, V. F.

Experimental investigation of the effect of alternating overloads on fatigue strength and durability with and without stress concentrations. Report No. 1. Izv. vys. ucheb. zav.; chern. met. 7 no.6:199-206 '64. (MIRA 17:7)

1. Dnepropetrovskiy metallurgicheskiy institut i Dneprodzerzhinskiy metallurgicheskiy zavod-vtuz.



- KUCHEROV, V.F., doktor khim. nauk, sotrudnik, red.; RUDENKO, V.A., sotrudnik, red.; ANDREYEV, V.M., sotrudnik, red.; ONISHCHENKO, A.S., sotrudnik, red.; SEGAL, G.M., sotrudnik, red.; SATAROVA, M.V., red.; GRIBOVA, M.P., tekhn. red.

[Stereochemistry of cyclohexane derivatives; collection of articles]  
Stereokhimiia proizvodnykh tsikloheksana; sbornik statei. Moskva,  
Izd-vo inostr. lit-ry, 1958. 329 p. [Translated from the English  
and French]. (MIRA 11:11)

1. Institut organicheskoy khimii im. N.D.Zelinskiy AN SSSR (for  
Kucherov, Rudenko, Andreyev, Onishchenko, Segal).  
(Cyclohexane)  
(Stereochemistry)

MISTRYUKOV, E.A.; KUCHEROV, V.F.

Effect of the nitrogen function of 4-ketodecahydroquinoline  
on the relative stability of cis- and trans-isomers. Izv.  
AN SSSR. Otd.khim.nauk no.7:1343-1344 J1 '61. (MIRA 14:7)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.  
(Quinoline) (Isomers)

KUCHEROV, V.F.; IVANOVA, L.N.; SEVERINA, T.A.

Synthesis of some monoketones of the cis-hydrindan series.  
Izv. AN SSSR. Otd.khim.nauk no.7:1348-1350 J1 '61. (MIRA 14:7)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.  
(Indanone)

СИБИРЬ, Влад., Поволж. обл. раб. докум.: 11/11/54, 11/11/54.

Результаты работы в случае повторения изменений в условиях и  
условиях для суммирования. Изв. выс. школы, раб.;  
восточн. н.с. 11:47-54. 163.

(11/11/54)

1. Успешно завершено исследование института в области  
дерзко-металлического производства.

ACCESSION NR: AP4014386

S/0145/63/000/011/0047/0054

AUTHORS: Grebenik, V. M. (Candidate of technical sciences, docent); Kucherenko, V. E. (Engineer)

TITLE: Fatigue strength under repeated load change and conditions for summation of failures

SOURCE: IVUZ. Mashinostroyeniye, no. 11, 1964, 47-54

TOPIC TAGS: fatigue strength, repeated load change, notch, flexural test, initial stress

ABSTRACT: Three types of steel 15 specimens were fatigue-tested under repeated load change conditions. The three types were: unnotched, smooth-notched, and sharp-notched. Pure flexural tests under rotating conditions were accomplished on the MUI-6000 machine. These tests were conducted at two stress levels, under mechanical softening  $\sigma_{\text{initial}} > \sigma_{\text{final}}$  and hardening conditions,  $\sigma_{\text{final}} >$

$\sigma_{\text{initial}}$ . Two loading cycles up to failure were used for all three specimens,  $N_1 = 5 \times 10^5$  and  $N_2 = 0.7 \times 10^5$ , and the base numbers of cycles  $N_0$  for each specimen

Card 1/3

ACCESSION NR: AP4014386

were:  $N_{01} = 10^6$ ,  $N_{02} = 1.1 \times 10^6$ , and  $N_{03} = 1.2 \times 10^6$ . To establish an equivalence criterion for all three specimens, the initial stress and final stress cycles were identical in number. The results were tabulated and plotted on graphs. At low values of  $\lambda$  - number of loading periods (reversal), the rule

$$\sum n_i/N_i = a = 1 \text{ where } a = \lambda \sum n_i/N_i$$

fails ( $n_i$  - total number of load cycles,  $N_i$  - number of load cycles up to failure). However, upon increasing  $\lambda$  the value of  $\sum n_i/N_i$  does tend to unity. Furthermore, for the notched specimens the strengthening effect was higher, and it increased with the sharpness of the notch. Finally, in the softening region, where  $\sum n/N = 1$ , the number of reversals was lower in the unnotched than in the notched specimens. The opposite was true in the hardening region. Orig. art. has: 5 figures, 3 tables, and 1 formula.

ASSOCIATION: Dnepropetrovskiy metallurgicheskii institut (Dnepropetrovsk Metallurgy Institute); Dneprodzerzhinskii metallurgicheskii zavod-vtuz (Dneprodzerzhinsk Metallurgical Works and Institute of Technology)

Card 2/3

ACCESSION NR: AP4014386

SUBMITTED: 24Oct62

ENCL: 00

SUB CODE: MM

NO REF SOV: 010

OTHER: 000

Card

3/3

GREBENIK, V.M.; IVANCHENKO, F.K.; TYLKIN, M.A.; KUCHERENKO, V.F.

Strength and causes for the rupture of a drive shaft for the  
mechanism of a propelled car on a floor-type charging machine.  
Izv. vys. ucheb. zav.; Chern. met. 8 no.1:169-175 '65  
(MIRA 18:1)

1. Ineprodzerzhinskiy metallurgicheskiy zavod-vtuz.



FM

ABSTRACT:  $\sigma_{0.2}$  of specimens (9.43 mm in diameter,  $\sigma_{0.2}$  of 0.1 or 0.9 mm, under both strengthening conditions with a single one-step increase difference ( $\Delta\sigma_{0.2}$ ).

L 6567-85  
ACCESSION NR: AP4044121

increases at equal values of  $G_{in}$  -

KOROTKOV, G.I.; KUCHERENKO, V.G.; ZAKHAROV, A.Ye.; OVSYANNIKOVA, T.M.;  
PANKOV, M.I.

Removal of riser heads. Metallurg 8 no.7:23 J1 '63. (MIRA 16:8)

1. Zhdanovskiy metallurgicheskiy zavod im. Il'icha.  
(Steel ingots)

ZHIGULA, A.V.; KOPOTKOV, G.I.; KURABAYEV, V.S.; GLUSHCHENKO, A.S.;  
POLTORAK, P.A.

Semiautomatic cutting of thick sheet. Metallurg; 10 no.6:32  
Je '65. (MIRA 18:6)

1. Zaved im. Il'icha i Partskiy sovet narodnogo khozyaystva.

AVDEYEV, G.I.; CHECHIK, B.E.; KUCHERENKO, V.I.

Use of precipitin reaction in gel for the study of antigens in the spleen of patients who have died from leukemia. Probl. gemat. i perel. krovi 8. no.1:10-16 Ja '63. (MIRA 16:5)

1. Iz laboratorii virusologii (zav.-prof. V.V. Gorodilova) i eksperimental'noy terapii opukholey (zav.-doktor med. nauk V.M. Bergol'ts) Gosudarstvennogo onkologicheskogo instituta imeni P.A. Gertsena (direktor-prof. A.N. Novikov).  
(LEUKEMIA) (SPLEEN) (ANTIGENS AND ANTIBODIES—ANALYSIS)

KUCHERENKO, V. I.

Kucherenko, V. I.

"The problem of the ancolytic properties of normal and anti-tumor sera."  
Acad Med Sci USSR. Inst of Epidemiology and Microbiology Incl Honorary  
Academician N. F. Gamaleya. Moscow, 1956. (Dissertation for the Degree  
of Candidate in Medical Sciences).

Knizhnaya letopis'  
No. 21, 1956. Moscow.

KUCHERENKO, V.I.

Comparative study of the antigenic properties of human tissues in myeloma and in health. Probl. gemat. i perel. krovi 9 no.11:3-12 (MIRA 18:4)  
N 162.

1. laboratoriya eksperimental'noy terapii opukholey (nav. - doktor med. nauk V.M.Bergol'ts) Gosudarstvennogo nauchno-issledovatel'skogo onkologicheskogo instituta imeni Gertsena (dir. - prof. A.N. Kovikov), Moskva.

KOLOTIY, A.A.; KUCHERENKO, V.L.

Losses of tin and lead during dissolution in the systems of  
fused salts  $\text{SnCl}_2 - (\text{KCl})$  and  $\text{PbCl}_2 - (\text{KCl} - \text{NaCl})$ .  
Ukr. khim. zhur. <sup>2</sup> 30 no.1:57-59 '64. (MIRA 17:6)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.



OKSEN', I.Z.; KUCHARENKO, V.M.

Controlling complete roof caving by mechanized removal of  
timbering in a steep seam. Ugol.' 40 no.1:8-10 Ja '65.

(MIRA 18:4)

1. Glavnyy inzh. shakhty No.5 im. Lenina trest Gorlovskugol'  
(for Oksen'). 2. Donetskii nauchno-issledovatel'skiy ugol'nyy  
institut (for Kucharenko).

BOYENKO, I. P., KRYZHEVSKIY, V. M., ZHURAVIN, I. M.

A Simplified Production of Reaction of Agglutinin Adsorption.

VOYENNO-MEDITSINSKIY JOURNAL (MILITARY MEDICAL JOURNAL), No 12, 1955. p.46

SYTSKO, P.A.; TITOV, S.A.; KOSTITSKIY, I.V.; KUCHERENKO, V.S.; MATVIYENKO, B.M.

Beginning made by the Orsha track workers. Put' i put. khos. no.9:  
5-8 S '58. (MIRA 11:9)

1. Nachal'nik otdeleniya dorogi st. Orsha (for Sytsko).
  2. Nachal'nik distantsei puti st. Orsha (for Titov).
  3. Nachal'nik vagonnogo uchastka st. Orsha (for Kostitskiy).
  4. Nachal'nik parovoznogo depo st. Orsha (for Kucherenko).
  5. Nachal'nik energeticheskogo otdela st. Orsha (for Matviyenko).
- (Orsha--Railroads--Track)

Кучеренко, Я. М.

КУЧЕРЕНКО, Я. М.

Antitoxic hepatic function in cancer of the internal organs. Vrach.  
delo no.9:913-915 S '57. (MIRA 10:9)

1. Kafedra gosital'noy terapii (sov. - prof. F.F. Piyas [deceased])  
Vinit'skogo meditsinskogo instituta  
(VISCERA--CANCER) (LIVER)

ПРИМЕНЕНИЕ, Ye. I., Cand. Med. Sci.-- (M.D.) "On the complex study of the  
antitoxic function of the liver in cancer of the internal organs."  
Dnepropetrovsk, 1958. 12 pp (Min. of Health USSR. Dnepropetrovsk State  
Med Inst), 200 copies (11,24-28,12)

KUCHERENKO, Ye.M.; VOITYUK, V.M.

Candidamycosis of the internal organs. Vrach.delo no.7:741-743 J1 '59.  
(MIRA 12:12)

1. Kafedra gospital'noy terapii (zav. - prof. N.N. Kolotova) Vinnit-  
skogo meditsinskogo instituta.

(MONILIASIS)

(ANTIBIOTICS)

KOLOTOVA, N.N.; KUCHERENKO, Ye.M.; CHUBERKIS, T.P.

Indications and contraindications for Rauwolfia serpentina therapy  
in hypertension. Sov.med. 23 no.10:112-115 O '59. (MIRA 13:2)

1. Iz kafedry gosspital'noy terapii (zaveduyushchiy - doktor med.nauk  
N.N. Kolotova) Vinnitskogo meditsinskogo instituta (direktor - dotsent  
S.I. Korkhov).

(RAUWOLFIA therapy)

KUCHERENKO, Ye.M., kand.med.nauk (Vinnitsa, ul.L.Tolstogo, d.28); KUCHERENKO,  
A.Ye., kand.med.nauk (Vinnitsa, ul.L.Tolstogo, d.28)

Surgeon's policy in gastric tetany. Nov. khir. arkh. no.2:38-43  
Mr-Apr '60. (MIRA 14:11)

1. Kafedra gosptal'noy terapii (zav. - prof. N.N.Kolotova)  
Vinnitskogo meditsinskogo instituta i khirurgicheskoye otdeleniye  
1-y gorodskoy bol'nitsy.

(TETANY)



CHUBERKIS, T.P.; KUCHERENKO, Ye.M., kand.med.nauk

Forms of leucosis resembling tumors. Vrach.delo no.10:21-23 0 '60.  
(MIRA 13:11)

1. Kafedra gospital'noy terapii (zav. - prof. N.N.Kolotova)  
Vinnitskogo meditsinskogo instituta.  
(LEUKEMIA)

KUCHERENKO, Ye.M., kand.med.nauk

Clinical significance of the liver function test with sodium salicylate. Vrach. delo no.2123-48 F '61. (MIRA 14:3)

1. Kafedra gospital'noy terapii (zav. - prof. N.N.Kolotova) Vinnitskogo meditsinskogo instituta.  
(LIVER) (SODIUM SALICYLATE)

KUCHERENKO, Ya.M. (Vinnitsa)

Antitoxic function of the liver in patients with leukosis. Probl.  
gemat.i perel.krovi 6 no.441-42 Ap '61. (MIRA 14:6)  
(LEUKEMIA) (LIVER)

KUCHERENKO, Ye.M., kand.med.nauk

Carbohydrate function of the liver. Vrach. delo no.8:30-34  
Ag '61. (MIRA 15:3)

1. Kafedra gospital'noy terapii (zav. -- prof. N.N. Kolotova)  
Vinnitskogo meditsinskogo instituta.  
(CARBOHYDRATE METABOLISM)  
(LIVER)

GRINHPUN, O.Ya.; KUCHELENKO, A.Ye., kand.med.nauk (Vinnitsa, ul.Tolstogo, d.28); KUCHELENKO, Yo.M.

Speed of transmittal of a pulse wave along the arteries of the lower extremities in endarteritis obliterans. Nov. khir. arkh. no.9:54-57 S '61. (MIRA 14:10)

1. Khirurgicheskoye otdeleniye (zav. - kand.med.nauk A.Ye.Kucherenko)  
2-y gorodskoy klinicheskoy bol'nitsy g. Vinnitsy.  
(ARTERIES—DISEASES) (PULSE)

CHUBERKIS, T.P.; KUCHENENKO, Ye.M., kand.med.nauk; GRINSHPUN, O.Ya.

Changes in the ballistocardiogram in cancer of the internal organs.  
Vrach. delo no.12:134 D '61. (MLA 15:1)

1. Kafedra gospital'noy terapii (zaveduyushchiy - prof. N.N.Kolotow)  
Vinnitskogo meditsinskogo instituta.  
(BALLISTOCARDIOGRAPHY) (CANCER)

KUCHENKO, Ye.M., kand.med.nauk

Changes in the myocardium in chronic tonsillitis. Zhur, ush. nos.  
i gorl. bol. 21 no.4:63-68 J1-Ag '61. (MIRA 15:1)

1. Iz kafedry gospital'noy terapii (zav. - prof. N.N.Kolotova)  
Vinnitskogo meditsinskogo instituta.  
(HEART\_\_MUSCLE) (TONSILS\_\_DISEASES)

KOLOTOVA, N.N.; KUCHERENKO, Ye.M.; CHUBBARIKIS, T.P.

Possibility of a leukemogenic effect of industrial poisons. Trudy Kiev. nauch.-issl. inst. perel. krovi i neotlozh. khir. 3:243-247 '61.

(MIRA 17:10)

1. Kafedra gosital'noy terapii Vinnitskogo gosudarstvennogo meditsinskogo instituta.



GRINSHPUN, O. Ya.; KUCHERENKO, A. Ye., kand. med. nauk; KUCHERENKO, Ye. M.,  
kand. med. nauk; STUKALENKO, N. A. (Vinnitsa)

Pathogenesis of varicose veins of the lower extremities. Khirurgiia  
no.2:55-59 '62. (MIRA 15:12)

(VARIX)

~~Клинический, функциональный, электрокардиографический~~

"Ballistocardiographic Examinations of Case of Neurocirculatory Dystonia"

Voenno Meditsinskiy Zhurnal, No. 4, 1962

GRINSHPUN, O.Ya., podpolkovnik meditsinskoy sluzhby (Vinnitsa);  
KUCHERENKO, Ye.M., kand.med.nauk (Vinnitsa)

Use of pneumoelectro-oscillography in the diagnosis of the  
stages of hypertension. Vrach.delo no.12:119-120 D '62.  
(MIRA 15:12)

(OSCILLOGRAPHY)(HYPERTENSION)

KUCHERENKO, Ye. M., kand. med. nauk

Liver function in leukemia. Terap. 34 no.1:67-76 '62.  
(MIRA 15:7)

1. Iz kafedry gospital'noy terapii (zav. - prof. N. N. Kolotova)  
Vinnitskogo meditsinskogo instituta.

(LEUKEMIA) (LIVER)

KUCHEBENKO, Ye.M., kand. med. nauk (Vinnitsa, ul. L. Tolstogo, d.21);  
KADOSHCHUK, T.A.

Comprehensive study of the antitoxic function of the liver in  
stomach cancer and complicated peptic ulcers. Klin. khir. no.10:  
20-25 '62. (MIRA 16:7)

1. Kafedra gosital'noy khirurgii (zav.- prof. M.V. Danielenko)  
i kafedra gosital'noy terapii (zav.- dotsent Yu.N. Golovtsev)  
Vinnitskogo meditsinskogo instituta.  
(LIVER) (STOMACH--CANCER) (PEPTIC ULCER)

KUCHERENKO, A.Ye., kand. med. nauk; KUCHERENKO, Ye.M., kand. med. nauk

Surgical interventions on organs in the abdominal cavity  
in patients with rheumatic fever. Sov. Med. 26 no.9:30-35  
S '62. (MIRA 17:4)

1. Iz kliniki gospital'noy khirurgii (zav. - doktor med. nauk  
M.V. Danilenko) i kliniki gospital'noy terapii (zav. - prof.  
N.N. Kolotova) Vinnitskogo meditsinskogo instituta (dir. - dotsent  
S.I. Korkhov).

*[Faint, illegible text, possibly bleed-through from the reverse side of the page]*

GRINCHPUN, O.Ya., SHATYREK, L.M., ... A.Ye., KUCHERENKO, Ye.M.  
(Vinnitsa)

Results of treatment of atherosclerosis (sclerotic  
form) with radon baths at the Danilovka Health Resort. Vop.  
kur., fizioter. i lech. fiz. kult. 1964, no. 4, 304-309. 11-67 '63.  
(MIR 17:9)



Category : USSR/Electrons - Electronic Optics

H-3

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 1668

Author : Gabovich, M.D., Kucherenko, Ye.T.

Title : Penetrating Plasma and Its Connection with the Primary Focusing of an Ion Beam

Orig Pub : Zh. tekhn. fiziki, 1956, 26, No 5, 996-1003

Abstract : The penetrating plasma produced by discharge in hydrogen is investigated. It is established that this plasma is related to the characteristics of the ion-optical system. A diagram of the ion source used in the investigation is given. The pressure of the hydrogen in the source was approximately  $4 \times 10^{-4}$  mm mercury, and the maximum ion current drawn from the source was approximately 2.5 ma at a gas flow of approximately  $7 \text{ cm}^3/\text{hr}$  and a power consumption of approximately 250 watts. To carry out the investigations, two movable probes were inserted in the source. The spatial distribution of the particle concentration, of the space potential, and of the electron temperature was determined. The voltage-current characteristics observed in the extraction of the ion beam from the source are ascribed to the changes in the localization of the penetrating plasma. It is stated, on the basis of the data obtained that the assumption encountered in the literature that the extracted ion current is limited by space charge, is not experimentally confirmed.

Card : 1/1

"APPROVED FOR RELEASE: 03/13/2001

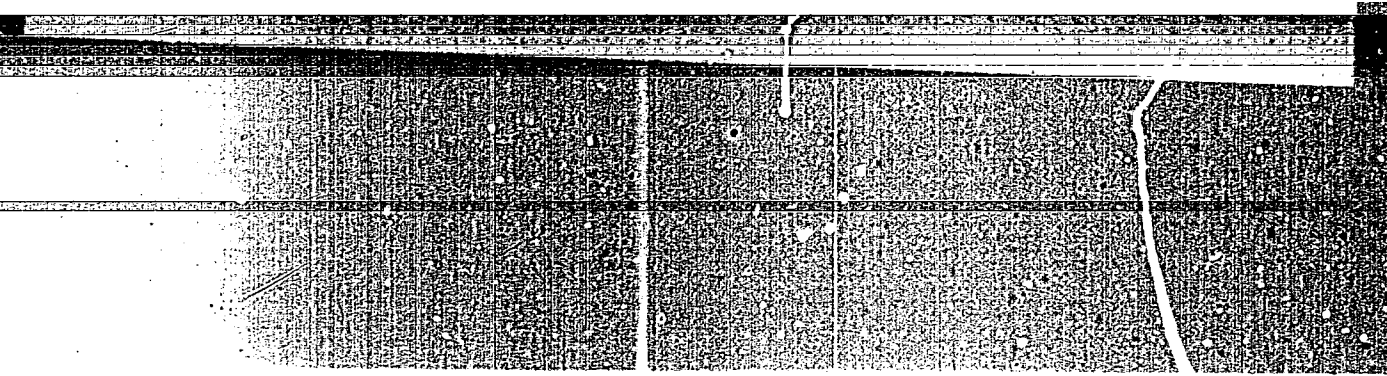
CIA-RDP86-00513R000827030009-2

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000827030009-2"

**"APPROVED FOR RELEASE: 03/13/2001**

**CIA-RDP86-00513R000827030009-2**



**APPROVED FOR RELEASE: 03/13/2001**

**CIA-RDP86-00513R000827030009-2"**

*Investigation of the penetrating plasma*

**AUTHOR:** GABOVICH, M.D., KUCHERENKOV, B.T. PA - 2126

**TITLE:** Investigation of the penetrating plasma on the occasion of a discharge in mercury vapors (Isslyedovaniye pronikayushchey plazmy pri razryade v rtutnykh parakh. Russian).

**PERIODICAL:** Zhurnal Tekhn. Fiz., 1957, Vol 27, Nr 2, pp 299 - 308 (U.S.S.R.)  
Received: 3 / 1957 Reviewed: 4 / 1957

**ABSTRACT:** On the occasion of the forming of an ion bundle the source of which is a discharge plasma there is a transition domain in which transition from the chaotic motion of ions to a directioned motion takes place. It was the task of this paper to investigate this transition domain, attention being confined solely to the discharge in mercury vapors. At first the device is described with the aid of which experiments were carried out. An illustration of this device is attached. Preliminary experiments, which were carried out with the help of another device, showed that when shifting the probe from the domain in which the discharge occurs into the domain to be investigated, the characteristics of the probe retain their normal aspect. These characteristics are shown in form of a diagram. A further diagram shows the axial distribution of the characteristics of the plasmas obtained if the negative potential is lacking. An approximated equation for this distribution is given. The following diagrams show an analogous distribution of characteristics for the discharge current of  $90 \text{ A/cm}^2$

Card 1/3

PA - 2126

Investigation of the penetrating plasma on the occasion of a discharge in mercury vapors.

and the spatial distribution of the characteristics of the penetrating plasma for a discharge current of 20 A/cm<sup>2</sup> and 90 A/cm<sup>2</sup>. Furthermore, the influence exercised by the field on the configuration and extent of the penetrating plasmas was investigated. Experiments were carried out while at the same time the electric and magnetic fields exercised their influence. It was found that the temperature of the electron gas in the penetrating plasma diminishes considerably with a growing distance from the output opening. The gradient of the potential within the domain of the penetrating plasma is considerably higher (by several volts per cm) than in the discharge itself and it is directioned in such a manner that the ions are accelerated. The chaotic wall-flow of the ions emerging through the outlet opening is subjected to the influence of a highly accelerated field and is transformed into a flow with a predominant direction. From an equation derived it may be seen that the minimum amount of the potential within range of the outlet opening corresponds to the amount of the energy which the ions have in the transition zone near the negative probe. As long as the boundary of the penetrating plasma does not advance into the depth of the discharge, the entire ion flux passing through the opening is

Card 2/3

Investigation of the penetrating plasma on the occasion of a discharge in mercury vapors. PA - 2126

determined only by the amount of the wall flux of the ions and is independent of the amount of the negative potential.

ASSOCIATION: Physical Institute of the Academy of Science of the U.S.S.R., Kiev  
PRESENTED BY:  
SUBMITTED: 6.1956  
AVAILABLE: Library of Congress.

Card 3/3

00246  
S/194/62/000/006/174/232  
D201/D308

AUTHOR: Kucherenko, Ye.T.

TITLE: The performance of a two-electrode extraction system with a magnetic proton source

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 6, 1962, 48, abstract 6Zh313 (Visnyk Kyjivs'k un-tu, 1958, no. 1, ser. fiz. ta khimiyi, no. 1, 117-121)

TEXT: The focussing properties of a Pearce electrode system of a gas discharge proton source of the magnetic source type with electron oscillations were analyzed (RZh Fiz, 1957, no. 1, 1668). In the system the ions are extracted from plasma outside the outlet aperture. The re-distribution of ion current between the extraction electrode, auxiliary electrode and the Faraday cylinder was investigated as a function of the increasing voltage. At 10 kV and discharge current 1.6 A there was practically no ion current at the first electrode, at the second electrode it was 0.35 mA and at the Faraday cylinder 1.4 mA. This proves that the plasma boundary at the above accelerating voltage, does not as yet coincide with the  
Card 1/2

APPROVED FOR RELEASE

S/194/62/000/006/174/232  
D201/D308

The performance of a two-electrode ... plane of the outlet aperture of the source, but is already approaching the beginning of formation of a cylindrical ion beam. The total ion current at the electrodes was independent of voltage within the limits 1 - 10 kV. Replacement of the Pearce extracting electrode by one with an apex angle of about 90° resulted in poorer focussing. [Abstracter's note: Complete translation.]

24.2500

65726  
SOV/139-59-2-25/30

AUTHORS: Kucherenko, Ye.T., Dem'yanenko, V.P. and Tal'nova, G.N.

TITLE: The Effect of Ion Bombardment on the Electron Emission of an Oxide-Coated Cathode

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, 1959, Nr 2, pp 160-168 (USSR)

ABSTRACT: An experimental study has been made of the effect of ion bombardment on the emission of a well activated oxide-coated cathode. The effect of the ion energy (in the range 100 to 600 ev) and the magnitude of the ion current (in the range 1 to  $15 \times 10^{-6}$  amp/cm<sup>2</sup>) on the rate of decrease of the emission of an oxide-coated cathode working at a reduced temperature has been studied. The experiments were carried out using the tube shown in Fig 1. The construction of this instrument is similar to that described by Ptushinskiy (Ref 12). In Fig 1, 1 is the anode, 3 are tungsten cathodes and 2 are reflectors. The ion source 1-3 was filled with a chemically pure argon at a pressure of about  $2 \times 10^{-4}$  mm Hg. The ionization was carried out by the method described by Ardenne and Heil in Ref 13. The cathode under investigation 10 was placed immediately behind the ion

Card 1/3

65726

SOV/139-59-2-25/30

The Effect of Ion Bombardment on the Electron Emission of an Oxide-Coated Cathode

extracting system 4-6. The electrode 8 was used to measure the change in the emission of the cathode. Special precautions were taken to remove other gases etc before the tube was filled with argon. It was found that for argon ions of up to 600 ev and ion current densities up to  $15 \mu$  amp/cm<sup>2</sup> noticeable fall in the emission is observed only at reduced cathode temperatures. At reduced temperature, the reduction in the emission depends strongly on the temperature, the ion energy and the ion current density. The following empirical relationships have been found

$$\alpha = \alpha_0 e^{\frac{Q}{KT}}$$

and

$$I = I_0 e^{-a(V_p - b)I_p t} \quad (T = 990^\circ K)$$

where  $\alpha = \left[ \frac{d(\lg I / I_0)}{dt} \right]_{t=0}$ ; I is the current at a

Card 2/3

given time t;  $I_0$  is the initial current ( $t=0$ );  $V_p$  is the



65726

SOV/139-59-2-25/30

The Effect of Ion Bombardment on the Electron Emission of an  
Oxide-Coated Cathode

ion energy;  $I_p$  is the ion current and  $a, b, Q$  are constants.  
The corresponding graphs are shown in Fig 6, 8 and 9.  
There are 9 figures and 18 references, 6 of which are  
Soviet, 7 English, 1 German and 4 Japanese.

ASSOCIATION: Kiyevskiy gosuniversitet imeni T.G. Shevchenko  
(Kiyev State University imeni T.G. Shevchenko)

SUBMITTED: July 1, 1958

Card 3/3

AUTHORS: Kucherenko, Ye.T. and Fedorus, A.G. SOV/109-4-8-1/35  
 TITLE: Energy Distribution of the Ions Obtained From a High-frequency Source

PERIODICAL: Radiotekhnika i elektronika, 1959, Vol 4, Nr 8, pp 1233 - 1237 (USSR)

ABSTRACT: The experiments described were carried out by means of a specially constructed device having a high evacuation velocity. The device is illustrated in Figure 1. The ion source was in the form of the quartz chamber 1 which was fixed to the metal flange 2. The discharge chamber was furnished with an "extractor" system 3 whose dimensions were chosen, in such a way that, for a minimum gas loss of 2 - 2.5 cm<sup>3</sup>/h, it was possible to obtain a sufficiently intensive ion beam when the potential difference between the channel and the upper electrode was comparatively small. The energy analyser was in the form of a cylindrical condenser (Ref 9) having a resolving power  $U/\Delta U > 100$ . By employing this method with a discharge voltage of 3 kV, a sharp energy peak having a width of 25 - 30 eV was observed on the energy-

Card1/3

Energy Distribution of the Ions Obtained From a High-frequency Source SOV/109-4-8-1/35  
 distribution curve. This is illustrated in Figure 2. The curve of Figure 2 was taken at a pressure  $p = 4 \times 10^{-2}$  mm Hg (the gas being air) and a discharge current of 1.5 mA. A typical ion energy distribution curve for a discharge effected at 60 Mc/s is shown in Figure 3. The gas was hydrogen at a pressure of  $2 \times 10^{-2}$  mm Hg, the discharge was excited by means of a capacitance and the ion-"extraction" voltage was 1 920 V. The curve has a maximum which embraces about 80% of all the ions and the width of the maximum is about 50 V. It was found that a similar distribution curve is obtained when the discharge is excited by means of an inductance. The results are illustrated in Figure 4. Curve 1 in the figure was taken when the ion-"extracting" device. The results are illustrated in Figure 4. Curve 1 in the figure was taken when the discharge was excited by means of external electrodes, the gas being hydrogen, at a pressure of  $10^{-2}$  mm Hg; Curve 2 was taken at the same pressure but

Card2/3

SOV/109-4-8-1/35  
Energy Distribution of the Ions Obtained From a High-frequency Source

the discharge was excited inductively; Curve 3 was measured in a discharge at a pressure  $1.5 \times 10^{-2}$  mm Hg, the excitation being effected by means of internal electrodes.

The authors make acknowledgment to Professor N.D. Morgulis for discussions and his interest in this work. There are 4 figures and 12 references, 7 of which are English, 2 German and 3 Soviet.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T.G. Shevchenko, Kafedra elektroniki (Kiyev State University im. T.G. Shevchenko, Chair of Electronics) ✓

SUBMITTED: March 5, 1959

Card3/3

SOV/109-4-8-4/35

AUTHORS: Kucherenko, Ye.T. and Nazarenko, O.K.

TITLE: Properties of a Discharge with Electron Oscillations in a Magnetic Field

PERIODICAL: Radiotekhnika i elektronika, 1959, Vol 4, Nr 8, pp 1253 - 1256 (USSR)

ABSTRACT: The effect investigated in this work was observed earlier by one of the authors (Refs 1 and 2). The experimental tube employed is illustrated in Figure 1. This consists of a cylindrical anode A, a heated cathode K and two reflectors R<sub>1</sub> and R<sub>2</sub>; a known longitudinal field is applied to the system. Two different types of discharge can be produced in the system. The first operating regime occurs at pressures  $p < 2 \times 10^{-3}$  mm Hg and is dependent on the form of the cathode; this is referred to as the "difficult regime". The cathodes in the tube were made of tungsten and were in the form of a long cylindrical helix, a short helix, a flat helix or a flat oxide cathode. The characteristics:

Card1/4

SOV/109-4-8-4/35

## Properties of a Discharge with Electron Oscillations in a Magnetic Field

of a difficult discharge in which the cathode was in the form of a cylindrical helix (length 20 mm, diameter 5 mm, spacing 2 mm) are illustrated in Figure 2a. This shows a change of the discharge current  $I_a$ , the ion current  $I_t$  extracted from the system by means of the Pierce device, and the discharge voltage  $U_a$  as a function of the magnitude of the magnetic field  $H$ . Figure 2b shows similar curves for a discharge with a flat helix oriented perpendicularly to the direction of the field. The discharge voltage  $U_a$  as a function of the magnetic field  $H$  is illustrated in Figure 3; the curve was taken with a flat helix, having a diameter of 10 mm, in hydrogen. As the gas pressure is increased, the supply-source voltage being constant, the ion current increases considerably in the region of the peaks (Figure 4a). A further increase in the pressure, above  $2 \times 10^{-3}$  mm Hg, for hydrogen, results in a very

Card2/4

SOV/109-4-8-4/35  
Properties of a Discharge with Electron Oscillations in a Magnetic Field

intense discharge, which is characterised by a low voltage drop; this is illustrated in Figure 4b. A similar critical pressure is also observed in argon, the pressure being about  $5 \times 10^{-4}$  mm Hg. The discharge above the critical pressure is referred to as the "arc discharge". From Figures 5, it is seen that the increase in the supply voltage, in the case of an arc discharge, leads to an increase of the discharge and ion currents and to the broadening of the "existence" limits of the discharge (towards higher magnetic fields). The authors make acknowledgment to Professor N.D. Morgulis for discussion and his interest in this work. There are 5 figures and 6 references, of which 1 is French, 1 German and 4 Soviet. ✓

Card 3/4

Properties of a Discharge with Electron Oscillations in a Magnetic Field

SOV/109-4-8-4/35

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im.  
T.G. Shevchenko (Kiyev State University imeni  
T.G. Shevchenko)

SUBMITTED: March 5, 1959 ✓

Card 4/4

Kuznetsov, I. I.

24.2/26  
 44703  
 Grossenly, V.I., Lukyanov, S.I., Spivak, G.Y. and  
 Litvinov, I.G.  
 Report on the Second All-Union Conference on Gas  
 Electronics  
 PERIODICAL, Radiotekhnika i elektronika, 1971, Vol 1, No 8,  
 pp 1339 - 1358 (USSR)

ABSTRACT: The conference was organized by the Acad. USSR, the  
 Ministry of Higher Education and Moscow State University.  
 A. A. Litvinov, "Measurement of the Gas Density During  
 the Dynamic Operation of a Discharge" (see p 1306 of  
 the journal); A. V. Nedospasov - "The Nature of a Stricted  
 Positive Column";  
 V. I. Patal' and Yu. M. Kagan - "The Theory of Probes for  
 Arbitrary Pressures";  
 N. E. Kagan et al. - "The Positive Column of a Discharge  
 in a Diffusion Regime";  
 M. V. Kozubova - "Influence of the Processes of the  
 Annihilation of the Negative Ions on Their Concentration  
 in the Column";  
 B. I. Shcherbak and L. I. Pustobukh - "Stochastic Scattering,  
 Diffusion and Plasma Instabilities in a Gas Discharge";  
 The Kinetics of the "Spark" Lost by Charged Particles for  
 the Excitation of the Oscillations in Plasma (the Langmuir  
 paradox) and "The Theory of Non-linear Plasma Oscillations";  
 I. G. Martynov and I. G. Makhovskiy - "Dependence of  
 the Temperature in the Near-electrode Region of a Pulse  
 Discharge on the Material of the Electrode";  
 V. A. Fucina and B. N. Klyarfeld - "Formation of Light  
 Spots on the Anode of a Gas Discharge (see p 1301 of  
 the journal);  
 B. A. Matveyev - "Distribution of Binary Mixtures of Inert  
 Gases in a d.c. Discharge";  
 V. G. Skoblyev and V. I. Kabanov - "Some Phenomena  
 in a Gas Discharge";  
 V. G. Skoblyev and V. I. Kabanov - "The Possibility of  
 Obtaining Highly Concentrated Plasmas";  
 G. V. Salpaitshaya and E. K. Kuznetsov - "Some Character-  
 istics of the Discharge in an Ion Pump and in a Magnetic  
 Isolation Vacuum Gauge";  
 I. I. Kuznetsov and O. E. Nalimova - "Properties of  
 a Discharge with Electron Oscillations in a Magnetic  
 Field" (see p 1355 of the journal);  
 The paper by L. M. Silberman and B. A. Vakhonko considered  
 the approximate methods for determining the concentration  
 of atoms at the radiation levels;  
 I. I. Kabanov and L. A. Vakhonko read a paper on  
 "A Non-stationary Theory of the Stark Broadening of the  
 Spectral Lines in Plasmas";  
 M. V. Kozubova and L. I. Pustobukh - "The Broadening  
 and the Shift of Spectral Lines in Gas-discharge Plasmas";  
 I. I. Kabanov - "The Kinetics of Electron Collisions  
 Leading to the Excitation of the Molecular Hydrogen in  
 a Negative Discharge";  
 V. I. Kabanov et al. - "Some Properties of the Arc  
 Discharge in an Atmosphere of Inert Gases";  
 A. A. Mah and M. M. Kaganov - "Production of High  
 Temperatures by Means of Spark Discharges";



7.3120 (1003, 1138, 1331)  
26, 231 ✓

33687  
S/058/61/006/012/076/083  
A058/A101

AUTHORS: Kucherenko, E. T., Dem'yanenko, V. P.

TITLE: Effect of ion bombardment on electron emission of oxide cathodes

PERIODICAL: Referativnyy zhurnal, Fizika, no. 12, 1961, 406. abstract 12Zh18  
(Visnyk Kyivs'k. un-tu, 1960, no. 3. ser. fiz. ta khimiy: no. 1  
106 - 107, Ukr., Russ. summary)

TEXT: The effect of bombardment by argon ions with energies ranging from 100 to 800 ev on the electron emission of oxide cathodes with temperatures ranging from 725 to 1,070°K was investigated experimentally. It was found that in the initial moment the rate of electron-emission diminution is a linear function of ion-current density and ion energy and an exponential function of inverse temperature for constant values of ion-current density and ion energy. It was also found that the work function of oxide cathodes as determined by the Richardson method increases under the action of ion bombardment by a factor of 2 while cathode emission decreases by a factor of 7 - 8.

[Abstracter's note: Complete translation]

D. Vinogradov

Card 1/1

X

83269

S/109/60/005/009/016/026  
E140/E455

26.2253

AUTHORS:

Kucherenko, Ye. T., Dem'yanenko, V. P. and  
Tal'nova, G. N.

TITLE:

Effects of Ion Bombardment on the Electron Emission  
from Oxide and Boride Cathodes

PERIODICAL: Radiotekhnika i elektronika, 1960, Vol. 5, No. 9, pp. 1493-1499

TEXT: In continuation of work published in Ref. 1, factory-produced plane cathodes 3 mm dia were tested. The electrical circuit indicated the cathode emissivity at very low temperatures both oscillographically and by a pointer instrument. The cathode was activated either by the usual method or by ion bombardment as described in Ref. 1. In studying the effects of ion bombardment on well-activated cathodes operated at very low temperature, it was found that the equilibrium emission is dependent on the ion beam parameters. Hence, the interaction of the ion with the cathode surface can hardly be attributed to simple disruption of the active layer; other elementary phenomena must be assumed to be also present. The authors consider the most probable processes to be dissociation of the oxide at the surface; connected with oxygen

Card 1/3

PROVER

83269

S/109/60/005/009/016/026  
E140/E455

Effects of Ion Bombardment on the Electron Emission from Oxide and Boride Cathodes

evolution. This is partially confirmed by an exceedingly great increase of work function although the emissivity only decreases by a factor of 8. Further, if reactivation is neglected the logarithmic decrease of emission with time should be linear. However, in Fig. 2 it is seen that this is not the case, although the initial rate of decrease agrees with the theoretical, neglecting reactivation. The studies of LaB<sub>6</sub> cathodes contradicted Lafferty's results (Ref. 3) in that the effects of mercury ion bombardment were found to be reversible. Analysis of the present experimental material shows that LaB<sub>6</sub> cathodes at working temperatures are insensitive to bombardment by neon, argon and mercury ions in a range of energy up to 10 kV for argon, 3 V for neon and 2 kV for mercury, with beam currents 100 A/cm<sup>2</sup>, 40 A/cm<sup>2</sup> and 25 A/cm<sup>2</sup> respectively. Changes in emissivity caused by ion bombardment at low temperature were reversible and it is assumed that they are connected with chemical changes in the surface state of the cathode. Acknowledgments are made to

Card 2/3

KUCHERENKO, Ye. T. [Kucherenko, IE, T.]

The problem of electric propulsion of spaceships (ionic rockets).  
Des. such. fiz. no.6:65-80 '62. (MIRA 16:1)

(Spaceships)

S/185/62/007/005/013/013  
D407/D301

**AUTHORS:** Kucherenko, Ye.T., and Kroshev, I.M.  
**TITLE:** Investigating energy spectrum of the canal rays of  
anomalous glow-discharge

**PERIODICAL:** Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 5, 1962,  
566 - 569

**ABSTRACT:** The presence of fine-structure in the energy spectrum of canal rays was observed by Ye.T. Kucherenko and G.A. Fedorus (Ref. 2: Radiotekhnika i elektronika, 4, 1233, 1959). In the present work, the fine-structure is further investigated, with the purpose of determining a quantitative relationship between the fine-structure and certain parameters of anomalous glow-discharge. The energy-spectrum of the canal rays was investigated by the cylindrical-capacitor method. The electrical measuring-circuit is shown in a figure. The discharge-chamber was of glass with a tantalum cathode and a mobile nickel-anode. In developing the experimental procedure, the first measurements were conducted with the discharge in an air atmosphere. Analogous measurements were conducted in argon, and in a krypton-  
Card 1/2

S/185/62/007/005/013/013  
D407/D301

Investigating energy spectrum of ...  
xenon mixture. The dependence of the collector current on the ion energy is plotted. A study of the dependence of the magnitude of the energy-distribution peak on the conditions of anomalous glow-discharge, showed that the determining parameter is the discharge current  $I_d$ . The relative magnitude of the peak increases sharply with  $I_d$ ; the converse is also true. On the other hand, the cathode voltage  $U_c$  has no appreciable effect on the relative magnitude of the peak. The presence of a pronounced peak in the energy distribution of canal rays, is an indication of the probability of ion passage through the entire cathode space without considerable energy-losses through collisions. The presence of fast ions in the spectrum of canal rays of anomalous glow-discharge, is an established fact. This is related to the increase in the magnitude of the peak (with increasing  $I_d$ ). There are 4 figures and 6 references: 3 Soviet-bloc and 3 non-Soviet-bloc, (including 1 translation).  
**ASSOCIATION:** Kyivsk'yy derzhuniversitytet im. T.H. Shevchenko (Kyiv State University im. T.H. Shevchenko)  
**SUBMITTED:** January 30, 1962  
Card 2/2

KUCHERENKO, Ye.T.; AKHTYRSKAYA, Ye.V.; DEM'YANENKO, V.P.

Effect of the ion bombardment of inert gases and hydrogen on  
the electron emission of pressed cathodes. Radiotekh.i elektron.  
8 no.2:279-287 P '63. (MIRA 16:2)

1. Kiyevskiy gosudarstvennyy universitet im. T.G.Shevchenko.  
(Cathodes) (Thermionic emission)

KUCHERENKO, Ye.T.; POPOVICH, A.S.

Apparatus for controlled pulsed admission of gas. Prib. i tekhn.  
eksp. 8 no.5:165-166 S-0 '63. (MIRA 16:12)

1. Kiyevskiy gosudarstvennyy universitet.

KUCHERENKO, Ye.T.; IGNATKO, V.P.

One form of an impeded discharge in a magnetic field. Radiotekh.  
i elektron. 9 no.1:177-179 Ja '64. (MIRA 17:3)

1. Kiyevskiy gosudarstvennyy universitet im. Shevchenko.

SECRET

CONFIDENTIAL



"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000827030009-2

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000827030009-2"

ACCESSION NR: AP5010108

UR/0109/65/010/004/0121/0140

34  
B

Ya. T. Yavorekiy I. A.

ABSTRACT: A new method of continuous monitoring of the emission of a  
... the large conditions is proposed. Evaluation of  
... of the cathode-bombarding ion beam is substantiated. Results of ...  
... hydrogen

ACCESSION NR: AP5010108

ASSOCIATION: none

SUBMITTED: 02Jan64

ENCL: 00

SUB CODE: EC

L 4553-66 EWT(1)/ETC/EPF(n)-2/EWO(m)/EPA(w)-2 IJP(c) AT  
ACCESSION NR: AP5020688 4/1/65 UR/0185/65/010/008/0838/0843

AUTHORS: Kucherenko, Ye. T.; Sayenko, V. A. 4/1/65

TITLE: Low-frequency oscillations in the plasma of a reflex discharge  
2/11/65

SOURCE: Ukrayins'kyy fizychny zhurnal, v. 10, no. 8, 1965, 838-843

TOPIC TAGS: plasma oscillation, discharge plasma, ionized plasma

ABSTRACT: Coherent oscillations with a frequency of  $10^6$  cps, appearing in a reflex discharge with a hot cathode at pressures  $p < 10^{-3}$  mm Hg, are investigated for two types of discharge gap, one with a moving reflector. The frequency of the investigated oscillations did not depend on the probe potential, the discharge current and pressure, but depended strongly on the length of the discharge gap, the type of gas, the electron temperature, and the magnetic field intensity. The observed dependence of the frequency and amplitude of the oscillations on the magnetic field is related to the static features of the dis-

Card 1/3

L 4553-66

ACCESSION NR: AP5020688

charge. In discharges with electron oscillations at low pressures there exists a series of values of the magnetic field for which non-uniformly distributed densities of fast electrons emitted from the cathode are set up along the axis of the discharge. A series of maxima and the doubling of the oscillation frequency on going from the first to the second amplitude maximum indicates that at a magnetic field intensity  $H = H_n$  conditions are most favorable for exciting oscillations of the  $n$ -th harmonic. This leads to an amplitude and frequency dependence of the oscillations on  $H$ . The explicit dependence of the frequency on the magnetic field which for small  $n$  is given by the same straight line independent of the size of the discharge gap is confirmed experimentally. The slope of this line, however, differs from the calculated slope, since the assumption was made in deriving it that the fast electrons are emitted from the cathode perpendicular to its surface and parallel to  $H$ . This assumption is incorrect for the toroidal cathode investigated. The slope for a plane cathode coincides with the calculated value. Orig. art. has: 3 formulas and 4 figures.

Card 2/3

L 4553-66

ACCESSION NR: AP5020688

ASSOCIATION: Kyivsk'ky derzhuniversytet im. T. H. Shevchenka  
[Kievskiy gosudarstvennyy universitet im. T. G. Shevchenko] (Kiev  
State University) 3

SUBMITTED: 16Sep64 <sup>44,55</sup>

ENCL: 00

SUB CODE: ME

NR REF SOV: 008

OTHER: 005

Card

3/3 *CS*

KLJUBENKO, Ye. I.; BAIKOV, V. A.; AND TROKATA, N. I.

Nature of a reflector discharge in a magnetic field. Radiotekhnika i elektronika, 10 no. 10:1873-1879, 1965. (MIRA 18:10)

1. Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko.

ACC NR 12-86 FWT(1) AT  
AP5026914

SOURCE CODE: UR/0109/65/010/010/1916/1918

AUTHOR: Kucherenko, Ye. T.; Sayenko, V. A.

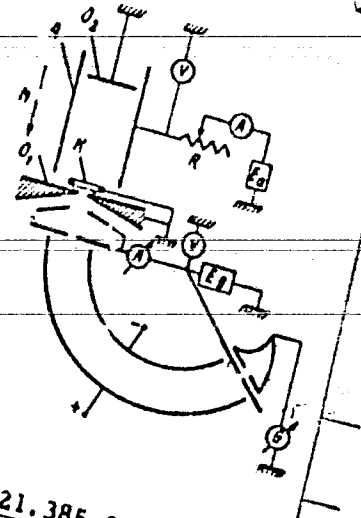
ORG: none

TITLE: Investigation of the energy spectrum of ions from a magnetic source

SOURCE: Radiotekhnika i elektronika, v. 10, no. 10, 1965, 1916-1918

TOPIC TAGS: ion source, magnetic ion source

ABSTRACT: An investigation (completed in 1962) of the energy spectrum of the ions delivered by a constrained-discharge magnetic source is reported. The ions were extracted by cathode K which was represented by a tungsten spiral with an average diameter of 10 mm. Reflectors O<sub>1</sub>, O<sub>2</sub>, and anode A were made from tantalum. Exit aperture diameter was 3 mm; anode diameter, 30 mm; discharge-chamber length, 35 mm. A cylindrical symmetrically-fed capacitor was used for analyzing energies. With a pressure of 10<sup>-3</sup> torr in the source, a pressure of (2-3) x 10<sup>-5</sup> torr was maintained in the analyzer chamber. A plot of ion current vs. magnetic field strength shows several pronounced peaks within



40  
B

UDC: 537.562 621.385.00

Card 2/2 20



KUCHEPENKO, Yu. G.

Iu. G. KUCHEPENKO, author of Skin Homotransplantation on Denervated Area.  
(Full translation available in /M.)

SO: Medichnii Zhurnal Akademii Nauk UPSR M: 283-285; 1945, UNCLASSIFIED.

Iu. G. KUCHEPENKO, author of "The formation of antibodies during homo- and hetero-transplantation of the skin" Full translation available in /I.

SO: Medichnii Zhurnal, 5:1, 1935, 295-296 (French summary). This French summary is the same as the Ukrainian note on pages 294-5. UNCLASSIFIED

KUCHERENKO, Z. A.

KUCHERENKO, Z. A. (Candidate of Veterinary Sciences, Ukrainian Institute of Experimental Veterinary Medicine.) Resistance of the fowl plague toward decomposition in summer.

So: Veterinariya; 24; 9; September 1947; Uncl.  
TABCON

PA 63/49T100

KUCHERENKO, Z. A.

USSR/Medicine - Viruses, Avian Pseudo- Mar 49  
Plague  
Medicine - Therapeutics

"Resistance of the Virus of Avian Pseudo-Plague,"  
Z. A. Kucherenko, Cand Vet Sci, Ukrainian Inst of  
Experimental Vet Sci, 2 pp

"Veterinariya" No 3

Virus of avian pseudo-plague in chicken-blood smears  
is destroyed after 48-hour exposure to sunlight and  
after 72-hour exposure in chicken droppings. Dif-  
fused light destroys the virus in blood smears and  
in chicken droppings after 12 days. In the shell

63/49T100

USSR/Medicine - Viruses, Avian Pseudo- Mar 49  
Plague (Contd)

of artificially infected eggs, the virus remains  
inactive during the incubation period under normal  
temperatures. The virus in the egg can be destroyed  
by formaldehyde fumes in one day, by 0.5% solution  
of caustic soda in 20 minutes, and by chlorinated  
water in 10 minutes.

63/49T100

KUCHEREPA, M.N., inzh.

Transportation of sections with diameters of 529 and 1020  
mm. over the Amu Darya River and desert sand. Stroi. truboprov.  
7 no.7:19-20 JI '62. (MIRA 15:7)

1. Stroitel'noye upravleniye No.2 tresta Nefteprovodmontazh,  
Tashkent.

(Pipe—Transportation)  
(Gas, Natural—Pipelines)