

KONYUKHOVA, V.M.; RUBINA, P.M.

Reserves for increase of labor productivity in communications and means of using them. Vest. svyazi 20 no.5:29-31 My '60.
(MIRA 13:12)

1. Nachal'nik Planovo-finansovogo upravleniya Ministerstva svyazi SSSR (for Knyukhova). 2. Nachal'nik otдела planirovaniya Planovo-finansovogo upravleniya Ministerstva svyazi SSSR (for Rubina)
(Telecommunication)

KONYUKHOVA, V.M.

"Economics of telecommunication" by A.A. Vishnevskii and others.
Reviewed by V.M. Koniukhova. Vest. svyazi 21 no.8:27-28 Ag '61.
(MIRA 14:9)

1. Nachal'nik Planovo-finansovogo upravleniya Ministerstva
svyazi SSSR.

(Telecommunication) (Vishnevskii, A.A.)
(Podgorodetskiy, I.A.) (Sergeychuk, K.Ya.)
(Soloveychik, L.M.) (Tochil'nikov, G.M.)

KONYUKHOVA, V.M.

Change in the procedure in planning the exploitation and development of communication means. Vest. svyazi 23 no.6: 17-19 Je '63. (MIRA 16:8)

1. Nachal'nik Planovo-finansovogo upravleniya Ministerstva svyazi SSSR.

SOLDATKINA, L.A., dotsent; KONYUKHOVA, Ye.A., inzh.

Experimental study of the voltage quality of a municipal power distribution network. Izv. vys. ucheb. zav.; energ. 7 no.8:8-14 Ag '64.
(MIRA 17:12)

1. Moskovskiy ordena Lenina energeticheskiy institut. Predstavlena kafedroy elektricheskikh sistem.

KONTYUROVA, Ye.A., Inzh.

Effect of voltage quality on the insulation life of asynchronous
motors. Prom. energ. 20 no.6:9-13 Je 1965.

(MIRA 18:6)

KONYUKHOVICH, A. A.

Cand Biolog Sci

Dissertation: "Game Economy of the Trans-Carpathian Region, its Development and Reconstruction." 22/5/50

Moscow Fur Inst

SO Vecheryaya Moskva
Sum 71

KONYUKHOVSKIY, V.N., kand. istor. nauk, dotsent, polkovnik; GNEDOVETS, P.P., polkovnik zapasa, red.; MEDCHIKOVA, A.N., tekhn. red.

[Territorial system of military organization] Territorial'naiia sistema voennogo stroitel'stva; iz opyta organizatorskoi deiatel'nosti partii po territorial'nomu stroitel'stvu Vooruzhenykh Sil. Moskva, Voen. izd-vo M-va obrony SSSR, 1961. 86 p.
(MIRA 14:10)

(Russia--Army--Organization)

KONIUKOV, B. V.

Transplantation (Physiology)

Effect of transplants of cornea of adult Amphilya upon the skin of tadpoles. Dokl.
AN SSSR 84 No. 4 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952. UNCLASSIFIED.

Kolkhoz "Pamiat' Il'icha"; opyt ekonomicheskogo issledovaniia
The kolkhoz "Pamiat' Il'icha"; economic study, Moskva, Gos. izd-vo sel'khoz.
lit-ry, 1952. 222 p. (54-22469)

S469.F9K557

1. Pamiat' Il'icha (Kolkhoz)

USSR/Physics - Gas-discharge plasma

FD-978

Card 1/1 Pub. 146 - 2/20

Author : Konyukov, M. V., and Terletskiy, Ya. P.

Title : Electro-accoustic waves in gas-discharge plasma

Periodical : Zhur. eksp. i teor. fiz., 27, No 5 (11), 542-548, Nov 1954

Abstract : On the basis of the system of hydrodynamic equations for electron and ion gases and equations of electrodynamics the authors solve the problem of the propagation of electro-accoustic waves in plasma. They show that when the friction is taken into account the neutral gas and creation of particles in consequence of ionization in a cylindrically symmetric discharge can realize two types of running waves, along the axis of the discharge tube; namely, electronic and ionic. The electronic waves turn out to be rapidly damped, and the ionic waves are both damped and amplified. Acknowledge the consultation and advice of A. A. Zaytsev. Twelve references, 7 USSR (e.g. Yu. L. Klimontovich, *ibid.*, 21, 1951; A. A. Logunov, *ibid.*, 20, 1950; M. F. Shirokov, DAN SSSR, 89, 1953; G. V. Spivak and Ye. L. Stolyarova, *Vestn. MGU*, 5, 1952).

Institution : Moscow State University

Submitted : December 28, 1953

KOMYUKHOV, N.V.

One method of integrating a differential equation with variable coefficients. Trudy KHINTI no.16:264-266 '53 [publ. '54].

(MIRA 12:11)

(Differential equations)

(Calculus, Integral)

KONYUKOV. M. V.

"Hydrodynamic Equations for Media With a High Degree of Rarefaction and Ionization (on the Problem of Longitudinal Waves and Oscillations in Plasma With Glow Discharge)." Cand Phys-Math Sci, Moscow Order of Lenin State U imeni M. V. Lomonosov, 17 Nov 54. (VM, 9 Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (11)

SO: Sum. No. 521, 2 Jun 55

KONYUKOV, M.V.
USSR/Physics - Plasma waves

FD-3264

Card 1/1 Pub. 146-23/44

Author : Konyukov, M. V.; Terletskiy, Ya. P.

Title : Electroacoustic waves in gas-discharge plasma taking account of space recombination

Periodical : Zhur. eksp. i teor. fiz., 29, No 6(12), Dec 1955, 874-876

Abstract : Previously (ibid., 27, 542, 1954) the authors considered electroacoustic waves taking into account the generation of particles; however, they did not pay attention to space recombination, which exists together with recombination at the wall (Krefft, Reger, Rompe, ZS. f. techn. Phys., 14 242, 1933) and which plays an essential role in a number of cases, e. g. in molecular gases. In the present communication the authors clarify the role of space recombination in problems connected with the behavior of electroacoustic waves. They conclude that study of the influence of space recombination upon oscillations of electrons and ions in gas discharge shows that the variation of the damping coefficient during generation of particles through space ionization depends upon the role played by space and surface ionization in the realization of the stationary state. The authors thank A. A. Zaytsev and G. V. Spivak for consultation. Three references.

Institution : Moscow State University

Submitted : July 12, 1955

KONJUKOV, M. V.

4289

4289

LOW FREQUENCY

IN THE TROPICAL

AND SUBTROPICAL

REGIONS

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AUTHOR: KONYUKOV, M. V. PA - 2963
TITLE: On Low Frequency Oscillations in the Plasma of Electronegative Gases. (O nizkochastotnykh kolebaniyakh v plazmakh elektrootritsatl'nykh gazov, Russian)
PERIODICAL: Zhurnal Eksperim. i Teoret. Fiziki, 1957, Vol #32, Nr 3, pp 510-514 (U.S.S.R.)
Received: 6 / 1957 Reviewed: 7 / 1957
ABSTRACT: Slight oscillations of a plasma consisting of electrons and positive and negative ions are examined and dealt with as a mixture of three perfect gases which, by means of a self-consistent field, are in interaction with each other. Creation and annihilation of charged particles are disregarded, so that investigations are concentrated on slow oscillations at not too high pressures. Taking account of negative ions leads, besides the high frequency oscillation of the electrons with ions at rest, also to the occurrence of two low frequency branches of ion oscillations with different dependences of frequency upon the concentration of charged particles. In the case of the first branch the positive and negative ions oscillate in phase opposition, while in the case of the second branch oscillations are cophasal. The second branch furnishes a limiting wave length corresponding to the vanishing frequency, which decreases in the case of increasing density of the charged particles.

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APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000824420017-3

On Low Frequency Oscillations in the Plasma of Electronegative Gases.

As oscillations and waves have up to now been investigated experimentally only for plasmas with electrons and positive ions, there was no possibility of a comparison with the experiment.
(2 Illustrations, 9 Citations from Works Published).

ASSOCIATION: State Pedagogical Institute Tula
PRESENTED BY:
SUBMITTED:
AVAILABLE: Library of Congress

Card 2/2

KONYUKOV, M.V.

56-2-14/47

AUTHOR: Konyukov, M.V.

TITLE: A Contribution to the Theory of a Positive Column in a Longitudinal Magnetic Field. (K teorii polozhitel'nogo stolba v prodol'nom magnitnom pole)

PERIODICAL: Zhurnal Eksperim. i Teoret. Fiziki, 1957, Vol. 33, Nr 2(8), pp.408-411 (USSR)

ABSTRACT: The present paper investigated the compression of the positive column of a gas discharge in an external magnetic field with its axis parallel to that of the discharge. Preliminary papers concerned with the same matter are referred to. The author here investigates the modification in the distribution of current density over the cross-section of the discharge caused by longitudinal magnetic fields. The author sets out from the hydrodynamical equations for ideal gases consisting of electrons and ions, which are contained by a neutral gas evenly distributed over the cross-section. The influence of the magnetic field is taken into consideration by adding a force (acting on the moving charged particles from the magnetic field). The system of equations resulting from these equations for the case of radial symmetry and of a magnetic field directed along the z - axis under the assumption of ambipolar stationary diffusion is written down. From this the equation $\frac{1}{r} \frac{\partial}{\partial r} \left(r \frac{\partial N^H}{\partial r} \right) + \frac{Z^H}{D_a} N^H = 0$

Card 1/2 is obtained under the proposition of a quasineutral plasma $N_e \sim N_p - N$

ASSOCIATION: State pedagogical Institute, Tula (Tul'skiy pedagogicheskiy institut)

SUBMITTED: February 6, 1957, after revision March 29, 1957

AVAILABLE: Library of Congress

Card 2/2

KONYUKOV, M.V.

56-4-30/54

AUTHOR: Konyukov, M.V.

TITLE: The Sign of the Space Charge in the Axis of the Positive Column in a Magnetic Longitudinal Field (Znak ob'yemnogo zaryada na osi polozhitel'nogo stolba v prodol'nom magnitnom pole) (letter to the editor)

PERIODICAL: Zhurnal Eksperim. i Teoret. Fiziki, 1957, Vol. 33, Nr 4, pp. 1039 - 1040 (USSR)

ABSTRACT: Under the conditions usually prevailing in the positive discharge column, the transverse field fades when a magnetic longitudinal field is present. The degree of the fading depends on the quantity of the anisotropy T_e/T_p and the atom masses of the gas in which the discharge takes place. For light gases the transverse field does not change its sign, whereas on the occasion of discharge in heavy gases magnetic fields are prevalent in which the sign of the transverse gradient changes to the opposite.

KONYUKOV, M. V.

"The Effect of Processes of Decay of Negative Ions on Their Concentration
in a Positive Column."

paper presented at Second All-Union Conference on Gaseous Electronics, Moscow
2-6 Oct '58.

AUTHOR: Konyukov, M. V.

56-34-4-19/60

TITLE: The Concentration of the Negative Ions in the Plasma of the Positive Column (Kontsentratsiya otritsatel'nykh ionov v plazme polozhitel'nogo stolba)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol. 34, Nr 4, pp. 908 - 911 (USSR)

ABSTRACT: The negative component of the plasma of the positive column in electric negative gases consists of electrons and negative ions. Although the character of the discharge essentially depends on the concentration of the negative ions, in 4 earlier works dealing with the same subject (Refs 1-4) the concentration of the negative ions is not computed nor is their dependence on the kinetics of the charged particles in the column explained. The aim of this work is the investigation of these problems. First a system for the balance of the charged particles is written down for the case of the quasi-neutral ambipolar diffusion on the occasion of superficial recombination of the electrons at the wall. By means of this system of equations the concentration of the negative ions can be com-

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The Concentration of the Negative Ions in the Plasma of
the Positive Column 56-34-4-19/60

puted. Subsequently a solution ansatz for this system of equations is written down. According to this solution the concentration of the ions is higher by 2 orders of magnitude than the concentration of the electrons is on the usual conditions in a positive column. Considerable concentrations of negative ions lead to a strong decrease of the transverse and of the longitudinal gradient, which fact seems little probable to the author. For the determination of the next higher approximations also the volume recombination must be considered. The initially mentioned equation system now is specialized for this particular case. The solution of this system of nonlinear equations for the whole cross section of the column is difficult. Therefore the author restricts to the computation of the concentration of only those negative ions which are near the discharge axis. On the additional assumption of the ambipolar quasineutral diffusion a system of equations is obtained for the determination of the concentration of the negative ions and the distribution near the discharge axis. Also the following two special cases are investigated: a)

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the Positive Column

A volume recombination exists. b) Every occurring electron turns into a negative ion. In the latter case all negative ions disappear because of the volume recombination. The insertion of the volume recombination decreases the relative concentration of the negative ions on the axis. The direct measurement of the concentration of the negative ions is difficult and therefore the found conclusions are verified best at the change of the transversal electric field caused by these negative ions. In the kinetics of the column with negative ions also the discharge of the negative ions must play a role in the collisions. The author will also deal with this problem in future. There are 6 references, 2 of which are Soviet.

ASSOCIATION: Tul'skiy pedagogicheskiy institut (Tula Pedagogic Institute)

SUBMITTED: July 20, 1957 (initially) and December 23, 1957 (after revision)

Card 3/4

The Concentration of the Negative Ions in the Plasma of 56-34-4-19/60
the Positive Column

1. Gases--Ionization
2. Ions--Analysis

Card 4/4

AUTHORS: Konyukov, M.V., Terletskiy, Ya.P. 55-34-4-36/60

TITLE: The Relativistic Problem of the Motion of an Electron in an Axially-Symmetric Magnetic Field Shifted Along the Symmetry Axis
(Relyativistskaya zadacha o dvizhenii elektrona v aksial'no-simmetrichnom magnitnom pole, peremeshchayushchetsya vdol' osi simmetrii)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol. 34, Nr 4, pp. 1003-1005 (USSR)

ABSTRACT: According to a well-known suggestion made by R.Wideröe (Ref 1) only the following 2 varieties of the relativistic problem of an electron were investigated in a variable axially symmetric magnetic field: The motion in a parallel field which is homogeneous in the direction of the symmetry axis, and the motion in a barrel-shaped magnetic field. The present paper investigates a new variety of this problem, in which the magnetic field narrowing in the direction of the symmetry axis (bottle-shaped magnetic field) shifts with variable or constant velocity along this axis. This new variety of the problem may also serve, like the varieties previously dealt with, as a theoretical basis of a new type of

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The Relativistic Problem of the Motion of an
Electron in an Axially-Symmetric Magnetic Field
Shifted Along the Symmetry Axis

56-34-4-36/60

accelerators, viz. of a linear induction accelerator, or, in short, of a linear betatron. First the equations of motion of the electron resulting from a Lagrangian are written down. Next, a solution of the field equations which is possible in quasisteady approximation is given and discussed in short for various special cases. Unlike what is the case with an ordinary betatron a strong field H can be concentrated within a very small range. There are 4 references, 2 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)
Tul'skiy pedagogicheskiy institut (Tula Pedagogical Institute)

SUBMITTED: December 16, 1957

1. Electrons--Motion

Card 2/2

SOV/56-34-6-35/51

AUTHOR:

Konyukov, M. V.

TITLE:

On the Theory of the Positive Column in Electronegative Gases
(K teorii polozhitel'nogo stolba v elektrotritsatel'nykh gazakh)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958,
Vol. 34, Nr 6, pp. 1634-1635 (USSR)

ABSTRACT:

In a positive column with volume production of negative ions and with disappearing of these ions on the wall the relative concentrations of these ions satisfy the condition $\kappa > D_e/2D_p - 1$, where D_e and D_p denote the diffusion coefficients of the electrons and of the positive ions. Only under these conditions the negative ions can move to the wall where they recombine. The wall is a surface sink for the negative ions produced in the volume. Taking into account the decomposition of the negative ion in the collisions with neutral atoms complicates somewhat the problem. This problem, nevertheless, remains linear and may be solved completely. An equation is given for the concentration κ of the negative ions in the column. This equation is cubic with respect to κ

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SOV/56-34-6-35/51

On the Theory of the Positive Column in Electronegative Gases

and has the following solutions.

a) $\kappa < D_e/2D_p - 1$. In this case the column is a volume source of the negative ions and the negative ions produced in the column migrate by diffusion to the wall which acts as a surface sink. b) In the case $\kappa = D_e/2D_p - 1$ the production of negative ions by adhering of the ^eelectrons to the neutral atoms is equal to their vanishing by decomposition. There is no effective production or vanishing of negative ions. Their radial flux is equal to zero and the total quantity of the negative ions in the column is determined only by the processes in the volume. c) In the case $\kappa < D_e/2D_p - 1$ the

number of the vanishing negative ions in the column is higher than the number of the produced ions and the column is a volume sink of the negative ions. Thus, in a positive column, where the vanishing of the negative ions may be described by a linear equation, there are possible small values of κ . In this case, however, a layer near the surface of the wall produces a flow of negative ions which is directed towards the interior of the column. There the ions disappear by decomposition in the collisions with neutral particles. Taking

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On the Theory of the Positive Column in Electronegative Gases

into account the volume recombination of the positive and negative ions one may subdivide two regions in the column: an interior region where the recombination prevails over the production, and an exterior one where the production prevails over the recombination. There are 4 references, 1 of which is Soviet.

ASSOCIATION: Tul'skiy pedagogicheskiy institut (Tula Pedagogical Institute)

SUBMITTED: March 17, 1958

Card 3/3

Kozlov, M.V.

Yuryev, V. I., Problems of Magnetohydrodynamics in Cosmic Gas Dynamics, by S. I. Zhurav, Journal of Magnetohydrodynamics and Plasma Physics, 1971, No. 1, pp. 1-10. Abstracts of the Conference on Magnetohydrodynamics, Moscow, 2-10 July 1968, Paper 1379, 139 pp.

The subject of the texts of the 55 conference reports and discussions of reports are presented in the source in abridged form. Previously published reports are indicated there as brief abstracts only. The material published there for the first time (abridged and underlined) are as follows:

"The Role of Magnetohydrodynamics and Plasma Dynamics in Certain Problems of Astrophysics," by V. A. Pavlovskiy, Moscow, pp. 7-11 by L. I. Zhurav, Moscow, pp. 13-14.

"Magnetohydrodynamics and the Study of Variations of Cosmic Rays," by L. I. Zhurav, Moscow, pp. 13-14.

"Cosmic Ray Spectra and Their Role in Cosmic Gas Dynamics," by S. I. Zhurav, Moscow, pp. 13-14.

"The Influence of a Magnetic Field on the Stability of Flow of a Conducting Fluid," by L. I. Zhurav, Moscow, pp. 19-23.

"Some Problems of the Motion of a Magnetized Plasma in a Magnetic Field," by S. I. Zhurav, Moscow, pp. 59-62.

"On Solenoid Steady-State Solutions of a Magnetized Plasma in a Magnetic Field," by S. I. Zhurav, Moscow, pp. 63-65.

"On One Criterion of Applicability of the Equations of Magnetohydrodynamics to a Plasma," by S. I. Zhurav, Moscow, pp. 67-72 (Discussion of the report by N. V. Pavlov, Sov. Jour. Phys., pp. 71-72).

"On the Possibility of Accelerating Charged Particles by Means of Steady Currents in a Magnetized Plasma," by L. I. Zhurav and G. I. Zhurav, Moscow and U.S.S.R., pp. 77-81.

"On the Acceleration of Charged Particles During Potential Impulse Discharges and During the Collision of Magnetic Clouds," by L. I. Zhurav, Moscow, pp. 81-88.

"The Influence of a Longitudinal Magnetic Field on the Temperature of the Electrons in a Plasma," by N. V. Pavlov, Sov. Jour. Phys., pp. 89-92.

"Investigation of Certain Characteristics of a Plasma of Xenon and Argon Filled a Toroidal Shock Wave," by N. V. Pavlov, Moscow, pp. 93-105.

"Generation of Electrodynamic Contractions of an Arc with the Aid of an Electron-Optical Converter," by V. L. Zhurav, K. P. Zhurav, I. I. Amoskin, and O. O. Zhurav, Moscow, pp. 107-115.

"On the Interaction of Weak Perturbations with Discontinuities and the Stability of Shock Waves in Magnetohydrodynamics," by V. N. Kozlovich, Sov. Jour. Phys., pp. 117-125.

"On the Stability of Shock Waves in Magnetohydrodynamics," by S. I. Zhurav, Moscow, pp. 127-131.

"On the Scattering of Gyromagnetic Waves on Turbulent Fluctuations," by A. G. Stenflo and Iu. A. Kopylov, Sov. Jour. Phys., pp. 143-145.

"On the Scattering of Gyromagnetic Waves in a Plasma," by R. Z. Sagdeev, Moscow, pp. 147-149.

"Single Waves in Magnetohydrodynamics," by A. I. Akhmediev, G. Ya. Lyubskiy, and R. V. Polovin, Sov. Jour. Phys., pp. 151-157.

"Two-Dimensional Problems of Magnetohydrodynamics," by G. S. Golitsyn, Moscow, pp. 161-169.

"On Wave-Induced Flows in Magnetohydrodynamics," by A. I. Ivanovskiy, Moscow, pp. 167-171.

"Oscillations of an Infinite Gas Cylinder with its Own Gravitation in a Magnetic Field," by I. K. Ivanovskiy, Moscow, pp. 175-183.

"On Magnetic Boundary Layers and Electric Current Discharges in Moving Media," by V. N. Kozlov, Moscow, pp. 185-190.

KON'YU KOV, MIV

64702

24.3/30
AUTHORS: Granovskiy, V.L., Luk'yano, A.Yu., Spivak, G.V. and Sitovtso, I.G.

TITLE: Report on the Second All-Union Conference on Gas Electronics

PERIODICAL: Radiotekhnika i elektronika, 1959, Vol 4, Nr 8, pp 1559 - 1558 (USSR)

ABSTRACT: The conference was organized by the Acad. USSR, the Ministry of Higher Education and Moscow State University.

A.A. Timofeyev - "Measurement of the Gas Density During the Dynamic Operation of a Discharge" (see p 1506 of the Journal). A.V. Medvedev - "The Nature of a Striated Positive Column".

V.K. Parol' and Yu.M. Kagan - "The Theory of Probes for Arbitrary Pressures".

Yu.M. Kagan et al. - "The Positive Column of a Discharge in a Diffusion Regime".

M.P. Kuznetsov - "The Influence of the Processes of the Ionization of the Negative Ions on Their Concentration in the Column".

M.B. Gaborich and L.I. Pasachnik - "Anomalous Scattering of Plasma Oscillations and Plasma Resonance".

Ye.L. Klementovich - "Energy Lost by Charged Particles for the Excitation of the Oscillations in Plasma (the Langmuir Paradox)".

I.G. Martinkov and I.G. Mikhalevich - "Dependence of the Temperature in the Near-electrode Region of a Pulse Discharge on the Material of the Electrode".

I.M. Kozlov and S.M. Kuznetsov - "Formation of Light Spots on the Anode of a Gas Discharge (see p 1501 of the Journal)".

E.A. Matveyeva - "Distribution of Binary Mixtures of Inert Gases in a d.c. Discharge".

V.G. Stepanov and V.P. Zakharchenko - "Some Phenomena in a Striated Plasma".

V.G. Rishnuy and V.S. Rekal' - "The Possibility of Obtaining Highly Concentrated Plasmas".

G.V. Salnitskaya and E.M. Malykhin - "Some Characteristics of the Discharge in an Ion Pump and in a Magnetic Isolation Vacuum Gauge".

I.P. Kucharskiy and G.I. Nazarenko - "Properties of Discharge with Electron Oscillations in a Magnetic Field".

The paper by L.M. Riberman and B.A. Voklenko considered the approximate methods for determining the concentration of atoms at the radiation levels.

I.I. Sobel'man and L.A. Yarmshchik read a paper on the Non-stationary Theory of the Stark Broadening of the Spectral Lines in Plasma.

M.A. Mazing and S.L. Mandaliyev - "The Broadening and the Shift of Spectral Lines in a Gas-discharge Plasma".

A. Kant (England) - "The Kinetics of Electron Collisions Leading to the Excitation of the Molecular Hydrogen in a Hydrogen Discharge".

I.L. Kolosnikova et al. - "Some Properties of the Arc Discharge in an Anodeless Mode".

A.A. Hill and M.P. Kuznetsov - "Production of High Temperatures by Means of Spark Discharges".

SOV/48-23-8-9/25

24(3)
AUTHOR:

Konyukov, M. V.

TITLE:

The Influence of the Processes of Vanishing of Negative Ions on Their Concentration in a Column

PERIODICAL:

Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 8, pp 971-974 (USSR)

ABSTRACT:

Balance equations (1) of charged particles are used for investigating diffusion discharge by negative ions of positive columns. In the first part of the present paper, a case is discussed in which the coefficient of volume recombination of negative ions and the dissociation coefficient of negative ions are equal to zero. Equation (2) supplies the relative ionic concentration. If only the coefficient of volume recombination is equal to zero, formula (3) is given for determination of the relative ionic concentration. Further, the time of diffusion of electrons as well as of positive and negative ions is investigated. Equation (9) indicates the source strength of the wall. If both coefficients are unequal to zero, the relative ionic concentration may be determined by formula (10). In this case, volume recombination causes the development of

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volume sources. A method introduced by V. L. Granovskiy (Ref 7) is applied to the estimation of negative ionic concentration. The author thanks A. A. Zaytsev for valuable discussions. There are 7 references, 3 of which are Soviet.

ASSOCIATION: Tul'skiy ped. institut (Tula Institute of Pedagogics)

Card 2/2

21(7)

SOV/56-37-3-31/62

AUTHOR:

Konyukov, M. V.

TITLE:

Nonlinear Langmuir Oscillations of Electrons in a Plasma

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959,
Vol 37, Nr 3(9), pp 799-801 (USSR)

ABSTRACT:

Langmuir and Tonks (Ref 1) already investigated the electron motion in a plasma, in which case the perturbations causing oscillations were assumed to be small. As, however, this is practically not the case, the author in the present paper investigates the electron oscillations for arbitrary perturbations. If the positive ions of the plasma are considered to be at rest, and if electron temperature is equal to zero, the behavior of the plasma may be described in hydrodynamic approximation by the equation system

$$\frac{\partial n}{\partial t} + \frac{\partial}{\partial x} (nv) = 0, \quad \frac{\partial v}{\partial t} + v \frac{\partial v}{\partial x} = -\frac{e}{m} \frac{\partial \varphi}{\partial x}, \quad \partial^2 \varphi / \partial x^2 = 4\pi e(n - n_0),$$

$\text{curl } \vec{H} = 0$. e , m , v , and n denote charge, mass, hydrodynamic velocity, and concentration of the electrons, φ the potential of the selfconsistent field, n_0 the concentration of the

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positive ions. The mathematical difficulties presented by the

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Nonlinear Langmuir Oscillations of Electrons in a Plasma

solution of this system are avoided by a transformation and by the use of the Lagrangian equation of motion. It holds that

$$n \frac{d^2 n}{dt^2} - 2 \left(\frac{dn}{dt} \right)^2 + \frac{4\pi e^2}{m} n^2 (n - n_0) = 0, \quad \frac{d^2 v}{dt^2} + \frac{4\pi e^2 n_0}{m} v = 0, \text{ and}$$

with the new variables $y = \ln(1 + v)$, $v = (n - n_0)/n_0$ one obtains $d^2 y/dt^2 - (dy/dt)^2 + \omega_0^2 (e^y - 1) = 0$. The exact solution of this equation is $v = b \sin(\omega_0 t + \varphi) / [1 - b \sin(\omega_0 t + \varphi)]$; b and φ

are constants of integration. Solved with respect to n ,

$n = n_0 / [1 - b \sin(\omega_0 t + \varphi)]$ results. With $dx/dt = v$, $x - x_0$ is $a(x_0) [1 - \sin(\omega_0 t + \varphi_1)]$. $a(x_0)$ denotes the function, which

determines the oscillation amplitude distribution, φ_1 the

primary phase. If at $t = 0$ the velocity of the points is equal to zero, it holds that $n = n_0 / [1 - b \cos \omega_0 t]$, $x - x_0 =$

$= a(x_0) [1 - \cos \omega_0 t]$. The determination of $b(x_0)$ and $a(x_0)$ from

the primary distribution $n(x_0)$ is carried out by means of

Card 2/3

SOV/56-37-3-31/62

Nonlinear Langmuir Oscillations of Electrons in a Plasma

$n(x_0, t) = dn(x_0)/dx_0$, where $dn(x_0)$ is the number of electrons which, at the time $t = 0$ are in the element of volume dx_0 .

$b = \frac{n(x_0) - n_0}{n(x_0)}$ and $a = \frac{1}{n_0} \int_0^{x_0} n(x_0) dx_0 - x_0$ results. These equa-

tions give the solution of the problem of Langmuir nonlinear oscillations in Lagrangian form for arbitrary primary density distributions. The results are briefly discussed. In conclusion, the author thanks Professor Ya. P. Terletskiy for his advice. There are 4 references, 2 of which are Soviet.

ASSOCIATION: Tul'skiy pedagogicheskiy institut (Tula Pedagogical Institute)

SUBMITTED: April 15, 1959

Card 3/3

82836

S/048/60/024/008/013/017
B012/B067

X

24.6100

AUTHOR:

Konyukov, M. V.

TITLE:

On the Indirect Estimation of the Cross Section of Adhesion of Electrons

PERIODICAL:

²¹
Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960,
Vol. 24, No. 8, pp. 989-991

TEXT: The equation for the electron energy balance is written down in the form of formula (1). This formula does not contain the energy portion γ_i consumed in the losses in the collision with the cross section Q_i and the energy losses κ_i of the electron occurring in each collision. If the distribution function is known and the dependence of the drift velocity U_d of the electrons and of the electrical longitudinal field E_z on the electron temperature T_e is obtained from the experiment, formula (1) forms a Fredholm integral equation of first order. It determines the cross section of the i -th process as a function of electron velocity. The adhesion of the electrons is investigated as one of the processes

~~Card 4/3~~

Tula Pedagogical Inst.

S/194/62/000/007/115/160
D271/D308

AUTHORS: Pekar, Yu.A., and Konyukov, M.V.
TITLE: Some special features of the positive column of tube discharge
PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 7, 1962, abstract 7zh368 (Nauchn. tr. Tul'sk, gorn. in-ta, 1961, collection 3, 106 - 110)

TEXT: Boundary conditions, usually applied in developing the theory of the positive column of tube discharge, do not produce the correct dependence of eigenvalues of the boundary problem on discharge parameters. In the positive column of axially symmetrical discharge between two co-axial cylinders there is a maximal concentration of charged particles; the position of the maximum depends on the magnitude of eigenvalues. Connection between the latter and the discharge parameters makes it possible to choose the required boundary condition. Solution of the balance equation of charged particles, for station state under conditions of quasi-neutral ambipolar diffusion, is sought in the form of linear combination of
Card 1/2

Some special features of the ...

S/194/62/000/007/115/160
D271/D308

Bessel functions of zero order, 1st and 2nd type. The Shchottki condition provides the relation between maximal concentration and the radii of limiting cylinders. With the Van de Groot boundary condition, the eigenvalues depend on discharge parameters and can be found by measuring potential difference between walls, electron temperature and position of the maximum. The possibility of utilizing tube discharge for the purposes of studying the relation between volume and surface losses is indicated. [Abstracter's note: Complete translation.]

Card 2/2

KONYUKOV, M.V. (Moscow)

"On the steady gas flow out of stars".

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 Jan - 5 Feb 64.

43700-65 EWT(d)/EWT(1)/EEC(k)-2/EPF(n)-2/ENG(m)/EEC-4/EPA(w)-2 Pn-4/Pz-6/Po-4/
EPI-7/Pi-4/P1-4 IJP(c) Wn/AT/GS/IS-4
ACCESSION NO: AT5009753 UR/0000/64/004/000/0051/0062

AUTHOR: Konyukov, M. V.

1-1
D+1

The behavior of waves within layers

...vveshchaniya po teoreticheskoy i prikladnoy magnitnoy gidrodinamike. 3d,
...Moprosy magnitnoy gidrodinamiki i teoreticheskoy i prikladnoy gidrodinamiki;
Sbornik vveshchaniya, v. 4, Riga. Izd-vo AN LatSSR, 1964, 51-60

ISPIE TAGS: inhomogeneous magnetoactive plasma, inhomogeneous plasma wave,
plasma wave propagation, electromagnetic wave propagation

ABSTRACT: The considerable mathematical difficulties appearing during the study
of waves within a nonuniform magnetoactive plasma are caused by the influence of
the nonuniformities on the shape of the individual modes as well as by the inter-
action between the modes. To simplify the process of solution, the majority of
researchers have studied the propagation of electromagnetic waves without con-
sidering the perturbations due to the propagation of plasma waves (see, e.g.,
Bremner, Propagation of electromagnetic waves, Handbuch der Physik, 1958, 16,
423). However, one can also formulate the inverse problem in which one studies

Card 1/2

L 43709-65

ACCESSION NR: AT5009753

the propagation of the plasma waves without taking into account the effects due to the presence of electromagnetic waves. The author shows that this sharply reduces mathematical difficulties and that for certain specially chosen inhomogeneities of the magnetoactive plasma one can find solutions either by way of quadratures or by introducing known special functions (the Riccati equation). The general behavior of the plasma waves is derived in the quasi-hydrodynamic approximation. The magnetic field is at right angles to the direction of propagation of the phase wave, and all the plasma parameters vary only in the direction of propagation. Complete calculations are given for the behavior of plasma waves in layers having inhomogeneities which can be viewed as perturbations of a uniform plasma background. Orig. art. has: 42 formulas.

ASSOCIATION: None

SUBMITTED: 11Aug64

ENCL: 00

SUB CODE: ME

NO REF SOV: 003

OTHER: 002

llc
Card

KONYUKOV, P.M.; EFROS, B.Ye.

Use of reinforced viscose and nylon staple fibers in a mixture with cotton for the manufacture of high-number yarns for knit goods. Izv. vys. ucheb. zav.; tekhn. tekst. prom. no.1:66-71 '64. (MIRA 17:5)

1. Moskovskiy tekstil'nyy institut.

1. KONYUKOV, P. M.
2. USSR (600)
4. Cotton Gins and Ginning
7. Extracting dust from machine-and hand-harvested cotton, Tekst. prom., 12, No. 11, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

FOR HAND, P. 17.

KONKUKOV, Pavel Mikhaylovich; SMELOVA, Nina Alekseyevna; EFROS, Boris
Iefimovich; ASTASHEV, A.G., retsenzent; KOPELEVICH, Ye.I., red.;
SREZEMOVA, T.V., tekhn.red.

[Atlas of cotton spinning machinery] Atlas mashin khlopkopriadil'nogo
proisvodstva. Moskva, Gos. nauchno-tekhn.isd-vo lit-ry po legkoi
promyshl., 1957. 340 p. (MIRA 11:3)
(Cotton spinning)

BALYASOV, P.D.; BUDNIKOV, V.I., prof.; VANCHIKOV, A.N.; VLADIMIROV,
B.M.; KISELEV, A.K.; KONYUKOV, P.M.; RAKOV, A.P., prof.;
SMELOVA, N.A.; EFROS, B.Ye.; ZOTIKOV, V.Ye., retsenzent;
BELITSIN, N.M., retsenzent; KOSTIN, B.V., retsenzent;
TERYUSHNOV, A.V., prof., red.; SOKOLOVA, V.Ye., red.;
BATYREVA, G.G., tekhn. red.

[Cotton spinning] Priadenie khlopka. [By] P.D.Baliasov i
dr. Moskva, Rostekhizdat. Pt.1. 1962. 433 p.
(MIRA 16:9)

(Cotton spinning)

BALYASOV, P.D.; BUDNIKOV, V.I., prof.; VANCHIKOV, A.N.; VLADIMIROV,
B.M.; KISELEV, A.K.; KONYUKOV, P.M.; RAKOV, A.P.; SMELOVA,
N.A.; EFROS, B.Ye.; ZOTIKOV, V.Ye., retsenzent; BELITSIN, N.M.,
retsenzent; KOSTIN, B.V., retsenzent; TERYUSHNOV, A.V., prof.,
red.; SOKOLOVA, V.Ye., red.; BATYREVA, G.G., tekhn. red.

[Cotton spinning] Priadenie khlopka. [By] P.D. Baliasov i dr.
Pod red. V.I. Budnikova, A.P. Rakova, A.V. Teriushnova. Moskva,
Rostekhnizdat. Pt. 2. 1963. 395 p. (MIRA 16:6)
(Cotton spinning)

KOBYLAKOV, A.I., dotsent, kand.tekhn.nauk; KONYUKOV, P.M., dotsent, kand.
tekhn.nauk; EFROS, B.Ye., dotsent, kand.tekhn.nauk

Production of fine yarns from a blend of staple nylon fibers
with cotton. Tekst.prom. 24 no.1:11-15 Ja '64. (MIRA 17:3)

1. Moskovskiy tekstil'nyy institut.

KONYUKOV, P.M., kand. tekhn. nauk, dotsent; EFROS, B.Ye., kand. tekhn.
nauk, dotsent; KOBLYAKOV, A.I., kand. tekhn. nauk

Characteristics of yarn and knit goods manufactured from
a cotton and lavsan blend. Tekst. prom. 25 no.4:10-14 Ap '65.

1. Moskovskiy tekstil'nyy institut.

Konyukov V.I.

NOVIKOV, M.V.; KONYUKOV, V.I.; USPENSKIY, N.M., redaktor; ANDRIANOV, B.I.,
tekhnicheskij redaktor

[Flame throwers and incendiary weapons] Ognemetno-zazhigatel'noe
oruzhie. Moskva, Izd-vo DCSAAF, 1957. 86 p. (MLRA 10:9)
(Flame throwers) (Projectiles, Incendiary)

KONYUKOV, V., inzhener-podpolkovnik; OKTYABR'SKIY, R., inzhener-kapitan

Laying out shelters for troops. Voen. vest. 41 no.7:93-96 J1
'61. (MIRA 15:1)

(Air raid shelters)

KONYUKOV, V.K.; KULEVSKIY, L.A.; PROKHOROV, A.M.

Ruby-operated laser with a generation length of ~ 10 msec.
Zhur. eksp. i teor. fiz. 45 no.4:857-862 0 '63. (MIRA 16:11)

1. Fizicheskiy institut imeni P.N.Lebedeva AN SSSR.

S/137/62/000/006/024/163
A006/A101

AUTHORS: Chipanin, I. V., Ivanova, M. T., Naumova, A. A., Konyukova, A. T.

TITLE: Flotation of fine-grained sands of the West-Siberian titanium-zircon deposit

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 6, 1962, 9, abstract 6G63
("Sb. nauchn. tr. Irkutskiy n.i. in-t redk. met.", 1961, no. 9, 94 - 99)

TEXT: The sands of the West-Siberian deposit are fine-grained with a diverse mineralogical complex. The basic sand mass (about 90%) is of -0.25 mm size; it contains up to 24% class -0.074 mm. Collective flotation can be recommended for initial concentration, assuring the production of a higher-quality concentrate with greater extraction degree of valuable components than the gravitation methods. Successful flotation requires thorough desliming of the sands with preliminary drying of the material. The concentration system provides disintegration, screening, and double hydrocyclonization according to class -0.02 mm with subsequent collective flotation of deslimed sands. Oleic acid, oxidized ✓

Card 1/2

KCNYUS, A. A.

K teorii srednikh velichin. Tashkent, trudy SR.-AZ. un-ta, ser. matem. (5), 24 (1940),
1-10.

SO: Mathematics in the USSR, 1917-1947

Edited by Kurosh, A.G.,

Markusevich, A.I.,

Rashevskiy, P.K.

Moscow-Leningrad, 1948

KONYUS, A.A.

One problem of V.I. Romanovskii. Trudy Inst. mat. i mekh. AN
Uz. SSR no. 10 pt. 1: 81-85 '52. (MLBA 8:9)
(Mathematical statistics)

KONYUS, A. A.

6510. Konyus, A.A. Kratkiye Svedeniya Po Teorii Veroyatnostey. M., Svyaz'izdat, 1954. 80 S. S Graf. 22 Sm. (M-vo svyazi Ss Sr. Tekhn. upr. Lektsii po Tekhnike Svyazi). 3.000 Ekz. 2R. 5K - Bibliogr. s 77-78 (29 Nazv.) - (55-2339 P 519.2 & (016.3)

SO: Knizhnaya Letopis' No. 6, 1955

KONYUS, A. A.

"Consumer Price Indexes and Demand Functions."

paper submitted at 31st International Statistical Institute, Brussels, 2-8 Sep '58.

Ko r u s s , A . A .

- 2) A. A. Zykov - The Differential Equations of Expanded Reproduction - Optimal Planning and Economic Indicators
 - 3) E. V. Zhuravskiy - Mathematical Analysis of Economic Indicators
 - 4) A. A. Zhuravskiy - Mathematical Analysis of Economic Indicators
 - 5) B. I. Zubov - Mathematical Analysis of Rates and Proportions in the National Economy (Primarily in Determining the Economic Efficiency of Capital Investment)
 - 6) B. I. Zubov, S. P. Kozlov - Price Relationships in Expanded Reproduction
 - 7) L. N. Zhukov and V. S. Zubov - Statistical (and) and Dynamic Models of a Socialist National Economic Balance in Physical Terms
- g. Reading Session - 15 December 1959, 1500 hours
- II. The Theory of Linear Programming
- 1) G. S. Mizukhin - Review of Methods for the Solution of Linear Programming Problems
 - 2) A. I. Kurya - Algorithmic Solutions of Transport Problems Through Approximation by Means of Hypothetically Optimal Plans
 - 3) D. P. Chernik - The Algebra of Linear Programming
 - 4) V. V. Kishalovskiy - Recommendation for a Method of Re-computing Ratios of Total Type Coefficients under Conditions of Changing Technology.
 - 5) B. Chetverikov - Practical Interpretation of Kantorovich's Conditions for Finding Optimal Plans
 - 6) Shter and Zharov - Linear Programming Methods and Material Supply
- g. Reading Session - 16 December 1959, 1000 hours
- III. Economic Models and Dynamic Programming
- 1) V. V. Kishalovskiy - Mathematical Models of the National Economy in Economic Equilibrium and a Certain Error
 - 2) B. B. Kishalovskiy - Mathematical Models of Determining the Economic Efficiency of Capital Investment
 - 3) V. V. Kishalovskiy - Comments on Economic Models and Mathematical Models of the National Economy
 - 4) V. V. Kishalovskiy - Problems in the Application of Dynamic Programming in Economic Research Models
 - 5) L. G. Gurev - Simple-Problem Economic Models and the Analysis of Certain Economic Indicators
 - 6) V. I. Kuznetsov - The Dynamic Programming Method and Its Use in Problems
 - 7) B. I. Opatov - The Technology (Economics) Index as a Model for the Application of Mathematical Methods in Long-Term Economic Planning
- g. Reading Session - 16 December 1959, 1500 hours
- II. The Transportation Problem
- 1) B. I. Volovoy - Finding the Most Suitable Assignment of Various Types of Fact Assets to Uses
 - 2) A. M. Poyarkov - Mathematical Methods in Economic Research on the Optimal Spatial Distribution of Projects
 - 3) S. P. Kravtseva - The Application of Linear Programming to Air Transport Economics

Report submitted at the Soviet Conference on Problems in the Application of Mathematical Methods in Economic Research, Leningrad, 15-21 January 1960.

RAZGOVOROV, Aleksandr Vasil'yevich; KONYUS, A.A., otv. red.; KAZ'MINA, R.A.,
red.; SLUTSKIN, A.A., tekhn. red.

[Selection method and its use in communication enterprises] Vybo-
rochnyi metod i ego primeneniye v predpriyatiyakh svyazi. Moskva,
Gos.izd-vo lit-ry po voprosam svyazi i radio, 1961. 49 p.
(MIRA 14:12)

(Telecommunication--Accounting)

KISEL', Aleksandr Andreyevich, prof., zasl.deyatel' nauki [deceased]; KISEL', V.A., sostavitel'-red.; BELIAYEVA, Ye.D., red.; BUBNOVA, M.M., red.; VLASOVA, A.N., red.; GANYUSHINA, Ye.Kh., red.; GROMBAKH, S.M., red.; KONYUS, B.M., red.; KUDRYAVTSEVA, A.I., red.; MAYZEL', I.Ye., red.; MARKUZOV, V.D., red.; MOSEKOVSKIY, Sh.D., red.; PELEVINA, M.P., red.; POKHITONOVA, M.P., red.; SAVVATIMSKAYA, N.P., red.; FRIDMAN, R.A., red.; SHIRVINDT, B.G., red.; EDEL'MAN, Z.I., red.; GAVERLAND, M.I., tekhn.red.

[Selected works. Jubilee edition on the 100th anniversary of his birth, 1859-1959] Isbrannye trudy. Iubileinoe izdanie k 100-letiu so dnia rozhdeniia, 1859-1959 gg. Moskva, Gos.izd-vo med.lit-ry, 1960. 427 p. (MIRA 13:10)

(PEDIATRICS)

KONYUS, E.M., doktor meditsinskikh nauk; LEBEDEVVA, V.P., redaktor;
SPERANSKIY, G.N., redaktor

[Course of the development of Soviet maternal and infant protection, 1917-1940; from materials of organizational and scientific congresses] Puti razvitiia sovetskoi okhrany materinstva i mladenchestva (1917-1940). Po materialam organizatsionnykh i nauchnykh s"ezdov. Pod red. V.P.Lebedevoi i G.N.Speranskogo. Moskva, Tsentral'nyi institut usovershenstvovaniia vrachei, 1954. 402 p.
(MLRA 7:8)

(Maternal and infant welfare-- History)

ZABLUDOVSKIY, P.Ye.; KONYUS, E.M., doktor med.nauk, red.; ZINOV'YEV,
I.A., kand.med.nauk, red.; KONSTANTINOV, G.P., tekhn.red.

[History of Russian medicine; materials for the course on the
history of medicine in medical institutes and in institutes for
advanced training of physicians] Istoriiia otechestvennoi
meditsiny; materialy k knsu istorii meditsiny v meditsinskikh
institutakh i institutakh usovershenstvovaniia vrachei. Moskva,
TSentr.in-t usovershenstvovaniia vrachei. Pt.1. [Period up to
1917] Period do 1917 goda. 1960. 398 p.

(MIRA 14:2)

(MEDICINE)

KONYUS, Esfir' Mircnovna, doktor med. nauk; STAROSTENKOVA, M.M., red.;
SAVCHENKO, Ye.V., tekhn. red.

[Our children should have health and joy] Nashim detiam - zdorov'e
i radost'. Moskva, Izd-vo "Znanie," 1961. 29 p. (Vsesoiuznoe ob-
shchestvo po rasprostraneniu politicheskikh i nauchnykh znani.
Ser.8, Biologiya i meditsina, no.21) (MIRA 14:11)
(CHILDREN---CARE AND HYGIENE)

KOBYUSHAYA, YU. P.

Jan 1947

USSR/Engineering
Efficiency, Industrial

"Technical Text--In the Service of the New Stalin
Five-Year Plan," Yu. P. Kobayushaya, Chief, MashGiz
Publishing House, 4 pp

"Vest Mashinostroy" No 1

Lists some of the technical texts and articles that
appeared during the past year. Texts cover such
fields as: electrification of the people's economy,
increase of production, mechanization of complex
operations, etc.

50730

CHUDAKOV, Ye.A., akademik, glavnyy redaktor; AKOPOV, S.A., redaktor; ARTOBO-
LEVSKIY, I.I., redaktor; ACHERKAN, N.S., redaktor; BEZPROZVANNYY, I.M.,
redaktor; GUDTSOV, N.T., redaktor; DIKUSHIN, V.I., redaktor; YEFREMOV,
A.I., redaktor; ZAPOROZHETS, V.K., redaktor; ZIMIN, A.I., redaktor; KA-
ZAKOV, N.S., redaktor; KIRPICHEV, M.V., redaktor; KOVAN, V.M., redaktor; KA-
KONNENHAYA, Ye.P., redaktor; LIPGART, A.A., redaktor; MALYSHEV, V.A., re-
daktor; MARTENS, L.K., redaktor; MARIYENBAKH, L.M., redaktor; NIKOLAYEV,
G.A., redaktor; ODING, I.A., redaktor; PATON, Ye.O., redaktor; RAMZIN,
L.K., redaktor; RUBTSOV, N.N., redaktor; SAVERIN, M.A., redaktor; SEMEN-
CHENKO, I.I., redaktor; SREBENIN, S.V., redaktor; SHAMBI, N.A., redaktor;
SHELEST, A.N., redaktor; SHUKHVAL'TER, L.Ya., zamestitel' glavnogo re-
daktora, redaktor; YAKOVLEV, A.S., redaktor.

[Machine construction encyclopedic handbook] Mashinostroenie; entsiklope-
dicheskiy spravochnik. Part 1. [Engineering calculations in machine
construction] Inzhenernye raschety v mashinostroenii. Moskva, Gos. nauch-
no-tekhn. izd-vo mashinostroit. lit-ry, Vol. 1. no.1. 1947. 548 p.

(Mechanical engineering)

(MLRA 8:1)

KONYUSHAYA, Yu. P. inshener.

For high ideals in scientific and technical literature. Vest.mash.
27 no.11:73-76 N '47. (MLRA 9:4)
(Technology)

KOBYUSHAYA, Yuliya Pavlovna, insh., kand.istorich.nauk; GLYAZER, L.,
red.; ULANOVA, L., tekhn.red.

[Technological progress and the creation of a material and
technical base for communism] Tekhnicheskii progress i
sozdanie material'no-proizvodstvennoi bazy kommunizma. Moskva,
Izd-vo sotsial'no-ekon.lit-ry, 1959. 203 p. (MIRA 13:3)
(Russia--Economic policy)

KONYUSHAYA, Yuliya Pavlovna, kand.istor.nauk; KAPLUNOV, A.S., red.;
ATROSHCHENKO, L.Ye., tekhn.red.

[Lenin plan for full electrification of the nation is the plan
for the creation of a material and technical basis of communism]
Leninski plan sploshnoi elektrifikatsii strany - plan sozdaniia
material'no-tekhnicheskoi bazy kommunizma. Moskva, Izd-vo "Znanie,"
1960. 46 p. (Vsesoiuznoe obshchestvo po rasprostraneniuiu politi-
cheskikh i nauchnykh znani. Ser.1, Istorii, no.6)

(Electrification)

(HIRA 13:3)

KONYUSHAYA, Yu.P.

Use technological information in promoting over-all mechanization
and automation. Mekh.i avtom.proizv. 15 no.10:56-59 0 '61.
(MIRA 14:10)

1. Glavnyy inzh. Tsentral'nogo byuro tekhnicheskoy informatsii
Goskomiteta Soveta Ministrov SSSR po avtomatizatsii i
mashinostroyeniyu.

(Technology--Information services)

KONYUSHAYA, Yu.P.

Patent information should serve technical development.
Mekh. i avtom. proizvod. 18 no.1:44-47 Ja '64.

(MIRA 17:8)

1. Zamestitel' direktora po nauchnoy rabote Tsentral'nogo
nauchno-issledovatel'skogo instituta patentnoy informatsii
i tekhniko-ekonomicheskikh issledovaniy Gosudarstvennogo
komiteta po delam izobreteniy i otkrytiy SSSR.

KONYUSHAYA, Yu.P.

Defend the priority and national interests in the field of
inventions and discoveries in the U.S.S.R. Stroi. i dor.
mash. 10 no.9:37-38 S '65. (MIRA 18:10)

1. Zamestitel' nauchal'nika otdela Gosudarstvennogo Komiteta po
delam izobreteniy i otkrytiy SSSR.

NEPEDOV, A.A.; BOBROV, V.V.; SHAFRAN, I.N.; CHUVACHKO, A.M.; IVANIN, V.P.;
KONYUSHENKO, A.S.

Investigating the regularities of butt shrinkage during the rolling
of high shapes. Izv.vys.ucheb.zav.; Chern.met. 8 no.8:39-93 '65.
(MIRA 18:6)

1. Dneprodzerzhinskii metallurgicheskii zavod-vbuz.

KONYUSHENKO, A. T.

1122
A. T. Konyushenko
Moskovskiy trubnyy zavod
Moskovskiy institut stali i splavov

0000

of LHM

1. Moskovskiy trubnyy zavod (for Konyushenko, Golovkin, Kononova).
2. Moskovskiy institut stali i splavov (for Shevakin).

Konyushenko, A.T.

SOV/133-59-9-17/31

AUTHORS: Klyamkin, N.L., Candidate of Technical Sciences,
~~Manegin, Yu.V., Konyushenko, A.T.,~~ Golovkin, R.V.
and Protópopov, N.N., engineers

TITLE: Mastering of the Production of Tubes by Atomic Hydrogen
Welding

PERIODICAL: Stal', 1959, Nr 9, pp 821-827 (USSR)

ABSTRACT: In view of some difficulties in piercing tube billets from some alloy steels and a high consumption of metal in subsequent rolling, the production of tubes from such steels by atomic hydrogen welding of strip should be more economical. After investigations of the process by TsNIChM and the Moscow Tube Works on an industrial plant for the automatic atomic hydrogen welding of tubes was developed. Conditions of stability of welding arc on the diameter of electrodes and their holders supplying hydrogen - table 1; the dependence of electric parameters of the arc on the rate of the supply of hydrogen and the distance between the centres of electrodes - Fig 3 and 4 respectively. The installation for the production of alloy tube consists of a modified tube forming stand of the type 10 - 60, six arcs automatic welding head with a control panel, welding transformers and a system of power,

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S/125/60/000/010/011/015
A:61/A133

AUTHORS: Konyushenko, A.T., Golovkin, R.V., Tseytlin, Kh.A., Strunkin, V.A.

TITLE: Resistance of Welded Titanium Pipes in Hydrochloric Acid Saturated with Chlorine

PERIODICAL: Avtomaticheskaya svarka, 1960, No. 10, pp.67-71

TEXT: The fabrication of titanium tubes by pressing is connected with high metal waste and tool consumption. In view of this fact and of the growing demand of the chemical industry in titanium pipes, the Moskovskiy trubnyy zavod (Moscow Tube Plant) has carried out tests in 1958 to fabricate these tubes by welding, and a technology has been developed for the welding of tubes of 12, 16, 25, 38 and 76 mm in diameter and 1.2 mm wall from BT1 (VT1) titanium. High-grade argon was used for shielding in the way described in a work that will soon be published (Ref.1) and which concerns the welding of tantalum. It is known from another work (Ref.2) that titanium is resistant to HCl solutions being continually saturated with chlorine, but no information could be found in literature (Ref.3-6) on the behaviour of titanium
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Resistance of Welded Titanium Pipes in Hydrochloric Acid Saturated with Chlorine J

welds. VT1 titanium tubes of 25 mm diameter and 1.5 mm wall were welded with 160 amp, 12 volt current and 0.6 m/min welding speed, using 4 mm diameter electrodes and a 12 mm diameter nozzle, while the argon consumption was 9 liter/min on the arc and 6 liter/min in the blast. The test specimens were rings cut from the tubes and placed into glass test tubes on glass hooks. Chlorine was blown continually through the test solution (water solution). A test lasted 200 hours. The resistance of the metal was measured by the loss of weight, mechanical properties and microstructure. A corrosion rate of only 0.01 mm per year was found in a 5% HCl solution at 90°C, and 0.1 mm per year in a 20% solution at 60°C. The resistance in fumes was several times higher. The corrosion rate remained practically constant. The microstructure of all specimens was: cast metal of coarse-acicular shape in the weld zone, and fine spherical grain shape with twins in base metal (Fig.2,3). The test results prove the applicability of welded VT1 titanium equipment or tubes in HCl being continually saturated with chlorine; a 5% HCl concentration is permissible for work in temperature not higher than 90°C, and a 20%
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concentration at temperature of not higher than 60°C. The free chlorine content must be about 0.2 g in 100 cm³. There are 3 figures and 6 references: 4 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATION: Moskovskiy trubnyy zavod (Moscow Tube Plant), (A.T. Konyushenko and R.V. Golovkin); NIOPik im. Voroshilova (NIOPandK im. Voroshilov) (Kh.A. Tseytlin, V.A. Strunkin)

SUBMITTED: March, 14, 1960

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E091/E255

12.5100

AUTHORS: Konyushenko, A. T., Golovkin, R. V., Konstantinov, V. I.,
and Polyakov, Ya. M.

TITLE: Manufacture of Tantalum Tubes

PERIODICAL: Tsvetnyye metally, 1960, ³³Nr 1, pp 60-67 (USSR)

ABSTRACT: The authors have developed a new and efficient technique for fabricating metal tubes, among them tantalum tubes. The process consists in butt-welding strip and forming it into tubes; these are welded by argon arc in an existing reconstructed automatic electric welding tube mill and subsequently passed through rolling mills (Fig 1). The dimensions of the original strip are determined by the size of the tube required and the possibility of its manufacture in a given plant. The application of clamps and directing instruments in rolling prevents scrap due to strip coming out in a crescent-shaped form. Cutting of the strip edges is carried out with disc shears. Pieces of strip were butt-welded by argon arc welding in the modernized automatic machine "ADS-1000-2" by constant direct current (experiments on the welding of tantalum strip with alternating current have not given

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satisfactory results). Tungsten rods (VT-15) containing 1.5% thorium oxide were used as electrodes. Saturation of tantalum with nitrogen and oxygen increases the hardness and brittleness of the metal. To prevent this effect the welding zone (the pool of molten metal and the joint both sides of the strip along a length of 50 to 70 mm) was protected by inert gas (argon containing 0.23% nitrogen and 0.05% oxygen) (see Table 1). The strip can be annealed either before butt-welding or after welding and cleaning of the joint. Annealing was carried out by soaking for 1.1/2 hours in an electric vacuum furnace of the TsEP-273 type, at a temperature of 1200°C with a residual pressure of 10^{-4} mm Hg. The weight of the charge was 30 to 40 kg. Prior to being charged into the furnace the strip was thoroughly washed with acetone. The annealed strip had a UTS (σ_b) of 51 kg/mm², a percentage elongation (δ) of 24.8% and a Rockwell hardness (HRB) of 75; the above mechanical properties show that although not fully annealed, the strip was annealed sufficiently to be formed into tube billets (Table 2). In the continuous forming of the tantalum strip the shaping

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Manufacture of Tantalum Tubes

rolls used were graduated and had groove profiles as shown in Fig 2. Argon was applied to the internal surface of the joint through the end of a hollow rod which was fixed between the fifth and sixth shaping stands. Argon was also applied to the external surface of the joint, by a supplementary nozzle (Fig 3). The best results in the welding of tantalum tubes were obtained when the welding procedures indicated in Table 3 were applied. Table 4 shows the test results on welded tube specimens at various annealing temperatures. In Table 5 the best rolling method for tantalum tubes is given. Tubes of niobium, tantalum, cobalt and their alloys have been fabricated by the new technique. There are 3 figures, 5 tables and 3 Soviet references.

ASSOCIATIONS: Moskovskiy trubnyy zavod (Moscow Tube Works (first two authors)) Moskovskiy elektrolampovyy zavod (Moscow Electric Lamp Works (last two authors))

Card 3/3

KONYUSHENKO, A.T.; GOLOVKIN, R.V.; GOL'BERG, V.Ya.; ORLOV, Ye.D.

Radio-frequency welding of straight-seam tubes on the 6-32
machine. Metallurg. 8 no.10:24-26 0 '63. (MIRA 16:12)

1. Moskovskiy trubnyy zavod.

ACCESSION NR: AP4009281

S/0125/64/000/001/0021/0024

AUTHOR: Konyushenko, A. T.; Golovkin, R. V.; Kononova, V. I.;
Shevakin, Yu. F.

TITLE: Investigating resistance welding of tubing at 300 cps

SOURCE: Avtomaticheskaya svarka, no. 1, 1964, 21-24

TOPIC TAGS: welding, resistance welding, tube welding, 300 cps resistance
welding, tube resistance welding

ABSTRACT: An investigation of the possibility of manufacturing welded 8-16-mm
tubing equal in strength to seamless tubing is reported. At 100, 200, and 300
cps, tubing (146 batches) was experimentally welded at a rate of 30-87 m/min. It
was found that the ultimate strength of the tubing welded at 300 cps was
50 kg/mm², and that almost all the specimens broke outside the weld. Specimens
28x0.8-mm welded at 60-70 m/min rate withstood pressures up to 250 atm. A

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ACCESSION NR: AP4009281

frequency of 300 cps is recommended for small- and medium-diameter tubing with 1-3-mm thick walls. The 70-80-m/min rate permits increasing the productivity of the "6-32" tube-welding machine by 20-25%. The inside flash proved to be solid, easy-contoured, 0.3-0.4-mm or less high. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: Moskovskiy trubnyy zavod (Moscow Pipe Works); Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys)

SUBMITTED: 28May63

DATE ACQ: 07Feb64

ENCL: 00

SUB CODE: ML

NO REF SOV: 003

OTHER: 000

Card 2/2

VESELOVSKIY, A.; ZAKHAROV, S.; KONYUSHENKO, I.A., red.; BLAZHENKOVA, G.I.,
tekhn. red.

[Models of naval vessels] Modeli voennykh korablei. Moskva,
Izd-vo DOSAAF, 1958. 28 p. (MIRA 12:2)
(Warships--Models)

DOLBIN, Terentiy Vasil'yevich; KONYUSHENKO, I.A., red.; MYASNENKO,
A.M., red.; KARYAKINA, M.S., tekhn.red.

[Bacteriological weapons and defense measures against them]
Bakteriologicheskoe oruzhie i меры zashchity ot nego.
Moskva, Izd-vo DOSAAF, 1959. 12 p. (MIRA 12:8)
(Bacteriological warfare)

BAGAYEV, Leonid Kuz'mich; ZAONEGIN, Vladimir Nikolayevich; SUROVIKIN,
Vladislav Dmitriyevich; KONYUSHENKO, I.A., red.; KARYAKINA,
M.S., tekhn.red.

[Oxygen diving equipment; visual aids for training in shallow
diving] Kislородnyi vodolaznyi skafandr; nagliadnoe uchebnoe
posobie dlia obucheniia legkovodolaznomu delu. Moskva, Izd-vo
DOSAAF, 1959. 24 p. (MIRA 12:11)
(Diving, Submarine--Equipment and supplies)

KONYUSHENKO, I., kand. voyennykh nauk, podpolkovnik; SAZHIN, N., gvardii
podpolkovnik; TSATSORIN, N., podpolkovnik

The tank company on the offensive; points on the organization
and application of tactical instruction. Voen. vest. 39 no.6:35-44
Je '59. (MIRA 12:9)

(Tank warfare)

MATLIN, Semen L'vovich; BORNOVOLOKOV, E.P., red.; KONYUSHENKO, I.A.,
red.; BLAZHENKOVA, G.I., tekhn.red.

[Radio circuits; an aid for radio clubs] Radiokhemy; posobie
dlia radiokrushkov. Moskva, Izd-vo DOSAAF, 1960. 79 p.

(MIRA 13:7)

(Radio circuits)

STOLYAROV, Yuriy Stepanovich; KONYUSHENKO, I.A., red.; MUKHINA, Ye.S.,
tekhn. red.

[Automation and remote control in the work of young technologists]
Avtomatika i telemekhanika v tvorchestve iunyh tekhnikov. Moskva,
Izd-vo DOSAAF, 1962. 105 p. (MIRA 16:1)
(Automation) (Remote control)

AGATOV, Aleksandr Andreyevich; KONYUSHENKO, I.A., red.; MUKHINA, Ye.S.,
tekhn. red.

[Light fuels and their mixtures for sports motor vehicles]Leg-
kie topliva i ikh smesi dlia sportivnykh dvigatelei. Moskva,
DOSAAF, 1962. 67 p. (MIRA 16:2)
(Motor fuels--Antiknock and antiknock mixtures)

VESELOVSKIY, Aleksandr Ivanovich; KATIN, Lev Nikolayevich;
KONYUSHENKO, I.A., red.; BELICHENKO, N.I., red.; SORKIN,
M.Z., tekhn. red.

[Radio-controlled ship models] Radiupravliaemaia model'
korablia. Moskva, Izd-vo DOSAAF, 1963. 80 p.
(MIRA 16:10)

(Ship models--Radio control)

SERYAKOV, Ivan Maksimovich; KONYUSHENKO, I.A., red.; BEL'CHENKO,
N.I., red.; YURTAJKINA, N.N., tekhn. red.

[Laws of streets and roads] Zakony ulits i dorog. Izd.2.,
perer. i dop. Moskva, Izd-vo DOSAAF, 1963. 83 p.
(MIRA 16:10)

(Traffic regulations)

POEEZHIMOV, Ivan Fedorovich; KONYUSHENKO, I.A., red.; ROMANOV, P.I.,
red.; SORKIN, M.Z., tekhn. red.

[What the draftee must know about service regulations]
Chto nuzhno znat' prizyvniku o voinskikh ustavakh. Moskva,
Izd-vo DOSAAF, 1963. 83 p. (MIRA 16:7)
(Russia--Armed forces--Regulations)

KONTUSHENKO, N.Ye., insh.

Universal multiple-cutter boring heads. Isobr. 1 rats.
no.8:25 Ag '58. (MIRA 11:9)
(Drilling and boring machinery)

STARCHEVA, V.M.; KONYUSHENKO, P.I.

New developments in the processing of poultry. Khar.prom.
no.3:29-30 JI-S '62. (MIRA 15:8)
(Ukraine--Poultry plants)

Konyushenko, S.P.
KONYUSHENKO, S.P.

Efficient design of sandblast nozzles. Stan. 1 instr. 28
no.12:21-23 D '57. (MIRA 10:12)
(Metal cleaning) (Sandblast)

KONYUSHENKO, Stepan Panteleymonovich; SHUL'MAN, Ye.F., inzh., red.; FOMICHEV,
A.G., red. izd-va; GVIRTS, V.L., tekhn. red.

[Vibratny bins] Vibrobunkery. Leningrad, 1961. 23 p. (Leningradskii
Dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriya:
Pribory i elementy avtomatiki, no.3) (MIRA 14:7)
(Feed mechanisms)

PLIYEV, Issa Aleksandrovich, dvazhdy geroy Sovetskogo Soyuz
general KONYUSHENKO, M.D., red.

[Across the Gobi and the Hsingan] Cherez Gobi i Khingan.
Moskva, Voenizdat, 1965. 155 p. (MIRA 18:11)

S/194/61/000/011/052/070
D271/D302

AUTHORS: Molotkov, V.I. and Konyushev, A.I.

TITLE: A filament voltage stabilizer with a magnetic amplifier for electron tubes

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 11, 1961, 23, abstract 11 E149 (Nauchno-tekhn. inform. byul. Leningr. politekhn. in-t, 1960, no. 9, 65-72)

TEXT: In an a.c. voltage stabilizer with a closed control loop, a magnetic amplifier, controlled by an electronic amplifier, is used as the regulating element. The sensor - a diode with tungsten filament 4U6C (4Ts6S) is connected to the output terminals of the system and reacts to the variations of the voltage. Theoretical analysis of the output voltage stability takes into account the parameters of the amplifier, the sensor and the regulating element; the analysis is based on the theory of ideal magnetic amplifier which

Card 1/2

FRIDLAND, M.O., zasluzhennyy deyatel' nauki, prof.; KONYUSHEVSKIY, L.N.

Differentiation of intra- and extra-articular fractures of the upper end of the femur. Ortop., travm. i protez. no. 2:24-28 '62. (MIRA 15:3)

1. Iz travmatologicheskogo otdeleniya (zav. - prof. M.O. Fridland) Moskovskoy gorodskoy klinicheskoy bol'nitsy No.6 (glavnyy vrach - N.S. Shevyakov).

(FEMUR—FRACTURE)

KONYUSHEVSKIY, M.V.; SEVAST'YANOV, V.T.

Lagging workers became outstanding ones. Put' i put.khoz.
4 no.4:10 Ap '60. (MIRA 13:7)

1. Nachal'nik distantcii puti, stantsiya Yelgava, Latviyskoy dorogi (for Konyushevskiy). 2. Zamestitel' nachal'nika distantcii puti, stantsiya Yelgava, Latviyskoy dorogi (for Sevast'yanov).
(Latvia--Railroads--Employees)

BARCH, I.Z., inzh.; KUTOV, E.N., inzh. Prinsipialni uchastiye: KADOCHNIKOVA, G.N., mladshiy nauchnyy sotr.; SAPOZHNIKOVA, G.F., starshiy laborant; BLOKHA, L.A., starshiy laborant; KONYUSHEVSKIY, Ye.I., red.; DONSKOY, Ya.Ye., red.; SHEVCHENKO, M.G., tekhn. red.

[Construction cranes] Stroitel'nye krany; spravochnoe posobie. Pod red. E.I. Konyushevskogo. Khar'kov, Khar'kovskoe knizhnoe izd-vo, 1961. 409 p. (MIRA 15:1)

1. Kharkov. Yuzhnyy nauchno-issledovatel'skiy institut promyshlennogo stroitel'stva. 2. Chlen-korrespondent Akademii stroitel'stva i arkhitektury USSR (for Konyushevskiy). (Cranes, derricks, etc.)